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Role of Organizational Agility in Knowledge Management Orientation and Organizational Performance: A Systematic Literature Review

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Abstract

Today's business organizations need to improve an ability of managing organizational knowledge for attaining organizational goals and objectives while capturing the competitive advantage and enhance the performance. Although Knowledge Management Orientation (KMO) is recognized as a vital element in an organizational performance, relationship between KMO and Organizational Performance (OP) is fragmented and ambiguous due to various conceptualizations and definitions. The purpose of this paper was to develop a conceptual model that explain the fragmented results in between Knowledge Management Orientation (KMO) and OP. A systematic literature review was carried out to identify the research gaps and limitations of the literature. The study suggested a new model KMO-Organizational Agility (OA)-OP to uncover the fragmented literature between KMO and OP. Future researchers may consider the OA as a mediating variable to uncover the nexus between KMO and OP. This study highlighted the necessity of promoting OA in business organizations to improve the OP while put together the KMO.

Keywords-: Knowledge Management Orientation, Organizational Agility, Organizational Performance, Systematic Literature Review

1. INTRODUCTION

Knowledge Management (KM) has been started to evolve as an emerging discipline and become popular among scholars and practitioners since several decades ago (Farooq, 2018; Shamim et al., 2019). There is no consensus among scholars regarding the KM as a phenomenon which attached

to a distinct field. Some researchers have identified the KM is associated with Information Management (Abuaddous et al., 2018; Dave et al., 2018; Kebede, 2010) while some others argue that KM is a dimension of Strategic Management (Dayan et al., 2017; Zia, 2020). Although, a vast number of researchers and

practitioners have taken steps to introduce and follow KM and its related theories into their studies, the relatedness of KM into a specific field remains unclear. However, it has been failed to observe the actual significance of KM about any of respective fields (Farooq, 2018; Kebede, 2010). This severity of interest was resulted, KM has been viewed as a significant strategic asset of an organization which determines the competitive advantage (Shamim et al., 2019a, 2019b; Zia, 2020; Paswan & Wittmann, 2009), organizational growth and performance (Reyes et al., 2015; Wang & Wang, 2012; Wang & Lin, 2012; Yashou & Jian, 2011).

With the advent of new mechanisms, different concepts have derived to assess the KM capabilities in an organization. As such, Knowledge Management Orientation (KMO) identified as a key metric to understand the KM behavior of an organization (Zia, 2020; Hussein et al., 2018; Wang et al., 2009; Wang, C.L., 2008). KMO is a reliable and valid measure to identify the KM oriented behaviors of firms (Wang & Lin, 2013). It examines the effect of KM on creating organizational capabilities and improving organizational performance. The knowledge based view theory provides the basic understanding about the KMO of an organization (Lin, 2015; Wang et al., 2008; Farooq & Vij, 2020; Hussein et al., 2019).

The KBV theory argues the knowledge as a strategic asset that influence to competitive advantage and the growth of the business.

Business performance indicated how far a business is managing well or what degree of success is achieved by delivering quality products and service to their customers while maximizing the stakeholders' wealth (Perera & Perera, 2020). Assessing the firm performance has been becoming an important strategic management practice by organizations. Many scholars and practitioners have considered measuring firm performance as a one of the prime objectives as it directly influences on performance improvements (Javed, 2020; Williams, 2018).

Effective introduction and implementation of KMO becomes an imperative strategic issue in achieving organizational success (Farooq & Vij, 2018; Liu et al., 2014; Jasimuddin & Zhang 2008; Mills & Smith 2011). KMO reflects the firm's relative propensity to organizational memory, share the knowledge, assimilate the knowledge, and be receptive to new knowledge (Lin, 2015). KMO enables to explore, develop, and leverage the knowledge resources of an organization to acquire a significant level of business growth and success (Liu et al., 2014; Zheng et al., 2010). Many

literatures asserted that KMO drives organizations to attain organizational goals and objectives and enhance the performance (Liao & Wu 2010; Zia, 2020; Hussein et al., 2018; Wang et al., 2009; Wang, C.L., 2008; Reyes et al., 2015).

However, it is still unclear the influence of KMO on organizational performance (Chuang 2004; Miranda et al. 2011; Atthawej et al., 2020; Hussein et al., 2019; Liu et al., 2014). There are no conclusive findings and many contradictory arguments available on the KMO-OP relationship in the literature (Farooq & Vij, 2020; Tayyebirad & Alroaia, 2020; Hussein et al., 2018; Hussein, 2018; Saqib et al., 2017; Heisig, 2016; Alrubaiee et al., 2015; Nawab et al., 2015; Aliyu & Mahmood, 2015; Ashok et al., 2016; Nawaz et al., 2014; Massingham & Massingham, 2014; Zack et al., 2009; Darroch, 2005). Even though, many scholars have recognized the significance of KMO through the direct effect of KMO-OP, some have argued that a direct relationship could not be recognized between KMO and OP (Farooq & Vij, 2020; Hussein et al., 2019; Darroch 2005; Lee 2001; Liao & Wu 2010). Further, scholars have pronounced that no performance improvement is associated with KM oriented mechanisms in business organizations (Atthawej et al., 2020; Farooq & Vij, 2020;

Hussein et al., 2019; Dzenopoljac et al., 2018; Heisig, 2016; Ashok et al., 2016; Liu et al., 2014; Liao & Wu 2010; Bogner & Bansal, 2007; Kulkarni et al., 2007; Darroch 2005; Lee 2001). Additionally, Farooq & Vij have observed no direct effect from KMO on OP in 2020. Thus, literature on behavioral perspective of knowledge management is pronounced that KMO and OP combination is remained unclear and inconclusive. Further, scholars opined that the association between KMO and OP may result from the effect of some other factors. Especially, as literature highlighted, organizational factors like dynamic capabilities of an organization may influence on the KMO and performance relationship (Zia, 2020; Chung et al. 2012; Garrido-Moreno & Padilla-Meléndez, 2011; Farooq & Vij; 2019). Underlying the empirical gap exist in the literature, scholars have commended for more empirical studies to explore the underlying mechanism in the relationship between KMO and the organizational performance (Zia, 2020; du Plessis 2007; Wang & Wang 2012).

The dynamic capability theory postulates the firm's ability to adapt in dynamic market conditions as the critical source of superior performance (Liu et al. 2012). Dynamic capability affirmed the firm's ability to

recognize, integrate, develop, envisage, and reconfigure internal and external capabilities to deal with environmental dynamics (Pavlou & El Sawy, 2011). Literature argues that KMO as a fundamental capability of an organization may influence on the dynamic capability and enhance the organizational performance (Cepeda & Vera 2007; Haas & Hansen 2005; Sher & Lee, 2004). KMO as a vital capability, provide an intellectual basis for organizations to respond for the internal and external contingencies (Ambrosini & Bowman, 2009).

Organizational Agility (OA) refers to the ability of an organization to respond and adjust itself for the sudden market changes and rapid innovative behaviors in the market (Navaro et al., 2015; Lu & Ramamurthy 2011; Sambamurthy et al. 2003).

Based on the significant relationship between OA and OP, the study expects to develop the missing interplay between KMO and OP through the interaction of OA. Owing an agile organization is a prerequisite and substantial to perform better in the turbulent economic environment. Therefore, this study suggests Organizational Agility (OA) as one of the key abilities of an organization to explore the KMO-OP relationship. OA refer to the ability of an organization to respond and adjust itself for the

sudden market changes and rapid innovative behaviors in the market (Navaro et al., 2015; Lu & Ramamurthy 2011; Sambamurthy et al. 2003). OA is a fundamental requirement for firms to face for the change in main production factors to achieve goals and objectives of the organization, shareholders, employees, and other stakeholders (Kurniawan et al., 2020; Navaro et al., 2015; Shahrahi, 2012). Thus, organizational agility necessitates firms to quickly manage their knowledge resources to respond to the dynamic environmental conditions of the business (Theyel & Hofmann, 2020; Navaro et al., 2015). OA recognized as a direct source of superior organizational performance (Kurniawan et al., 2020; Liu et al., 2012; Overby et al., 2006).

Literature articulated that organizational memory, knowledge sharing practices, new knowledge absorption and assimilation are determined the effective and efficient OA (Chung et al., 2012; du Plessis, 2005). Although an extensive literature promoting KMO and its direct link to OP exists, few studies identify variables that mediate this relationship and, more specifically, no previous research which investigates the potential mediating effect of OA on this relationship. The lack of extensive study examining the effect of OA on the relationship between KMO, and OP motivates this study.

The objective of this study was to supplements the applicability of OA to promote KMO-OP relationship. Thus, the study develops a link between KMO and OA, and considers the effect on organizational performance. The theoretical conceptualization of the study is grounded on the knowledge-based view theory which mainly discusses and determines the competitive advantage and organizational performance.

Outcomes of this study facilitate to understand efficient and effective utilization of knowledge resources during the dynamic and uncertain environments resulting in improved OP. Furthermore, this study highlights the necessity of formulating new policies to improve the organizational ability to work under uncertain and dynamic environment as essential strategic intervention to seek better and improved performance outcomes. Thereby, entrepreneurs and policymakers can re-assess, and re-design their strategic plans in accordance with the outcome of this study. The study emphasis that performance improvement could not be possible merely developing knowledge related strategies, it should be incorporated with organizational ability to work in an agile environment. If the policymakers and entrepreneurs can ensure that KMO ability of an organizational is correctly addressed the agile environmental conditions, the

study conclude that performance improvement is apparent.

2. METHODS

The systematic literature review approach proposed by Hanafizadeh et al. (2014) was applied to identify the relevant literature for the study. A systematic review creates a platform for the process of identify, evaluate, and interpret all existing research findings which is relevant to the subjected field of study, the research questions, or the rising interest of phenomenon (Kitchenham & Charters, 2007). It was used the studies explored from the databases including Scopus, Science Direct, Emerald, IEE, Willey Online Library, and Taylor & Francis. The study was based on the studies related to KMO, organizational performance, knowledge-based view, dynamic capability, and organizational agility. Furthermore, the publication year, fully English transcript, and full-text availability were considered as inclusion- criteria and the studies which do not exist in full text, and the doctoral & master level academic works were excluded.

Research papers published during the 2010-2022 were considered to recognize the contemporary issues and challenges in KMO related studies as this period is recognized as the period where KMO studies have gradually increased. As

Hussein et al. (2016), KMO has tremendously become popular as a field of study among scholars during following decade.

The main keywords used in the automatic search stage was KMO, OP, and OA were also used as keywords in the automatic search stage. Through the automatic stage, it was able to identify 108 studies initially. By removing the duplicated studies, 94 research papers were evaluated with the inclusion and exclusion criteria. Abstract, methodology and conclusion of each study was examined. Accordingly, another 37 studies were eliminated from the selected study database as they do not provide insights for the review. Examining the references of selected studies were able to identify several missing studies. Another 12 studies were identified as result of the manual search. Number of 07 studies were removed as they do not compatible with the quality assessment criteria of the study. Thus, a total of 62 studies were considered as primary studies for the purpose of this study. Based on the literature review, researchers were able to develop a conceptual model to address the gaps identified in the literature. The figure 1 illustrates the conceptual framework developed for the purpose of this study.

3. PROPOSED CONCEPTUAL MODEL AND STUDY PREPOSITIONS

Refer: Figure 1: Proposed Conceptual Framework

3.1. Mediating role of Organizational Agility

Chung et al. (2019) pointed out that the knowledge creation process promotes not only the creativity of the organization but also the competitive advantage improving the organizational agility. OA refers the ability of an organization to perceive opportunities for innovations and grasp the competitive market opportunities through accumulation of mandatory assets, knowledge, and relationships in a contingent and volatile environment (Sambamurthy et al., 2003). As Chung et al. elaborate; knowledge creation process enhances the OA. For the contemporary organizations work in a volatile and hypercompetitive environment, organizational agility, or the capability of sensitivity for environmental fluctuations and respond to those volatilities appropriately with rapid and intensified approaches becomes an increasing critical factor for the survival (Chung et al., 2019; Sambamurthy et al., 2003). Further, Sambamurthy and his group explains that knowledge creation process is understood the consequences of increasing organizational agility. Through the greater knowledge reach and richness creates a platform for OA (Chung et al., 2019; Sambamurthy et al., 2003). Organizational

agility plays as a complementary ability of the firm that facilitates to integrate resources, functions and knowledge in a rapid changing environment rather just applying the knowledge (Navarro et al., 2015). The level of knowledge gained, and its richness determine the ability for OA as practical or substantive knowledge assets permit organizations to come across quick decisions (Chung et al., 2019) with higher level of certainty nevertheless highly changing and volatile environment. Involving organizational members to exchange their ideas with others inspire to take innovative decisions and perspectives which enhance the organizational performance (Sambamurthy et al., 2003). Owing an agile organization is a prerequisite and substantial to perform better in the turbulent economic environment. The knowledge resources gained and stored by the organization can re-use or re-apply to enhance the decision-making process and provide innovative solutions for the sudden changes in the marketplace (Chung et al., 2019). Knowledge creation and management processes let firms to mobilize their intellectual resources at its maximum in the presence of agile competition (Chung et al., 2019). A mechanism which develops to grasp more tacit and implicit knowledge resources from internal and external sources may quickly translate opportunities

into valuable and marketable products and services (Nonaka et al., 1994). An advanced knowledge integration and coordination approach supports to quickly respond for the significant changes and critical occurrences in the marketplace (Sambamurthy et al., 2003). This directs organizations to quickly move from one temporary advantage to another with fast moving environmental conditions (Nonaka et al., 1994). A knowledge management system that focuses both internal and external knowledge resources enrich the firm's ability to detect more accurate and relevant information regarding the market opportunities and customers demand changes etc. KM oriented behavior of organizations promotes the coordination and integration among functional subunits (Chung et al., 2019) with greater knowledge generation. This enhances the organizational agility with rapid responding to the changes while accurately detecting the related changes and opportunities innovatively and sustainably. Furthermore, a continuous generation of new knowledge from authenticated knowledge generation or creation mechanism ensures to build a solid knowledge repository for creating short-mid-long-term advantages (Chung et al., 2019). OA, in turn, stimulates the firm performance through addressing unexpected market changes and issues with appropriate and

innovative solutions (Sambamurthy et al., 2007). The ability to recognize and respond to issues and problems quickly provide an organization a higher degree of certainty. Agile organizations can better transform organizational knowledge resources to solve unexpected market changes and opportunities with solid and innovative solutions which leads to enhance organizational performance (Sambamurthy et al., 2007). Business intelligence shows a direct and positive relationship with OA (Doddy Ridwandono et al., 2019). Li et al. (2020) examined significance of e-commerce as a vibrant window of opportunity increases the organizational agility in agricultural firms. This study illustrates a mechanism that explain the impact of KMO on firm performance. Specifically, study proposes the KMO which include different arrays of knowledge sources and applications promote the organizational agility, which results in superior firm performance. When organizations align with more KMO practices stimulates OA more and promote OP in a greater extent. Thus, it assumes that OA plays a critical role in the relationship between KMO and OP.

P₁: Organizational agility (OA) mediates the relationship between KMO and OP.

3.2. Organizational Memory, Organizational Agility, and Organizational Performance

Organizational Memory (OM) refers to a mechanism to capture, store and distribute knowledge resources gained from previous experience which can be used for decision making (Wang et al., 2008). As Farooq (2018) uttered, OM is a type of knowledge codification strategy that explicit knowledge of an organization is being stored and memorized. Under the OM, organizations acquire knowledge and store in different type of databases and documents and consider for decision making purposes (Farooq, 2018). Further, the OM can be identified as a process of acquisition, store, distribution, and retrieval of knowledge and information by organizations. Scholars have argued the importance of the knowledge resources available for re-use for the effective business performance (Farooq, 2018; Chirumalla & Parida, 2016). Memory of the organization creates avenues for organizational innovations. Existing knowledge resources help employees to think innovatively and produce new products and services. Moreover, managers can introduce new managerial techniques, ideas and methods using organizational memory (Yazhou & Jian, 2013). The knowledge codified in knowledge repositories can leverage the decision-making

process and stimulate for the competitive advantage (Watson and Hewett, 2006). Organizations who manage knowledge repositories accelerate the effective decision-making behavior addressing competitive dynamics innovatively and enhance the performance of organizations (Farooq, 2016; Farooq, 2018). Thus, organizations belong to a robust OM can enhance the agility of the organization and lead to business performance.

P₂. Organizational memory is positively related to OA which leads to organizational performance.

3.3. Knowledge Sharing, Organizational Agility, and Organizational Performance

Knowledge sharing refers to the tendency of an organization to enable, encourage and reward for knowledge exchanges in view of capturing implicit and explicit knowledge acquired by employees (Farooq, 2018; Vij & Farooq, 2016). Lin (2015) explained, knowledge sharing is the belief of exchanging knowledge, views, insights, experience, and skills captured by employees with others. Knowledge sharing is playing a critical role as an important determinant of KMO (Farooq, 2017; Wang et al., 2008). Sharing knowledge among knowledge workers of the firm facilitates to

address unexpected changes in the marketplace with innovative solutions (Farooq, 2018; Lin, 2015). Upon the survey results conducted based on cross-sectional industries in Taiwan was found that KS has a significant effect on strengthening innovative capability of knowledge intensive organizations (Liao et al., 2016). When the organizational knowledge sharing is strengthened, innovative capability of the organization will be strengthened and improve the performance (Tsai, 2002). The integration of both implicit and explicit knowledge of an organization allows firms to adapt in response to changes in the market (Wang et al., 2008; 2009). Knowledge sharing is an important predictor of organizational performance (Farooq, 2018; Vij & Farooq, 2016). Organization can develop innovative solutions for the rapid changes in the marketplace through quick access to the knowledge resources of innovation (Yazhou & Jian, 2013). Additionally, they uttered that KS is the way of accessing quickly to the knowledge needed in rapid changing and dynamic environments. Thus, the study proposes that the knowledge spirals which integrate both implicit and explicit knowledge of an organization stimuli the ability to respond sudden market changes and solve market issues with innovative solutions and lead to

enhance organizational performance.

P₃: Knowledge sharing is positively related to OA which leads to organizational performance.

3.4. Knowledge Absorption, Organizational Agility, and Organizational Performance

Knowledge absorption is the ability of an organization to identify new knowledge, integrate or assimilate, and implementing in the business activities (Wang et al., 2008). The ability to recognize new knowledge, bringing them into the organization and applying the knowledge with existing business practices are the functions of knowledge absorption. The knowledge does not generate only from internal sources but also absorption from the external sources and engagements (Hussein et al., 2018). Knowledge absorption is twofold; knowledge exploration and knowledge exploitation. New knowledge exploration focuses to identification and acquisition of new knowledge while new knowledge exploitation refers to utilization of existing knowledge (Cohen & Levinthal, 1990). Knowledge absorption is a key determinant of the dynamic capability such as market orientation of an organization and lead to enhance firm performance (Hussein et al; 2018; Yao et al., 2013; Yazhou & Jian, 2013). The

study conducted by Hussein et al. in 2019 pointed out that there is a significant relationship between knowledge absorption and innovation, where Innovation is considered as a dynamic capability of the organization. The higher knowledge absorbed determine the higher level of innovative solutions will be (Hussein et al., 2019). KA ability of an organization forecast the strength of the organizational innovative capability in turbulence markets (Cohen and Levinthal, 1990). A study conducted based on 29 Chinese manufacturing firms discovered that firm's capability in dynamic situations is driven by the synergy of investment and absorption capacity of knowledge of the organization (Liu and white (1997). Further, Zahra and George (2002) pointed out that only the firms who have the real absorptive capability in knowledge can get the competitive advantage at the marketplace through innovations and product developments. Knowledge absorption is regarded as an absorptive capacity (Cohen & Levinthal, 1990) of an organization, and it related to enhance the dynamic capabilities of the firm (Hussein et al., 2019). Absorbed Knowledge through exploration and exploitation (Cohen & Levinthal, 1990) can be utilized to enhance dynamic capabilities like innovation, market orientation etc. (Hussein et al., 2019). Thus, the study proposes there should be a

combination between knowledge absorption as an absorptive capacity of the organization with the organizational agility which is a dynamic capability of the organization. The knowledge absorption may increase the agile processes of the organization and may lead to enhance the organizational performance.

P4: Knowledge absorption is positively related to OA which leads to organizational performance.

3.5. Knowledge Receptivity, Organizational Agility, and Organizational Performance

Knowledge receptivity refers to the ability of an organization to encourage individual's ideas and assess them on a fair and effective basis regularly and incorporate those ideas into the business practice (Tabar & Nemati, 2013). Knowledge receptivity as defined by Wang et al (2008) is the comfort of an organization to generate knowledge internal sources. Organizational ability to focus on new knowledge from internal sources and incorporating such knowledge into the business activities is regarded as the knowledge receptivity. This is simply called as internalizing of new knowledge within the organization. As Hussein et al. (2019) defined, knowledge receptivity is the willingness of the firm to respect of individual's knowledge ownership through

anticipating employee contribution in decision making and being rewarded. Some studies revealed that knowledge receptivity is the critical dimension of KMO (Hussein et al., 2017; 2018). Further, knowledge receptivity as an important dimension of KMO, found to have a strong effect on organizational performance (Hussein et al., 2016; Yazhou & Jian, 2013). Organizational innovation as a dynamic capability increases as the effect of knowledge receptivity (Han et al., 2008; Hussein et al., 2019). More receptivity to new knowledge ensures more ability in creative and innovative solutions for business changes. Market orientation mediates the relationship between KMO and firm performance (Hussein et al., 2018). Market orientation is regarded as a dynamic capability of an organization where agility is also plays a critical role in the organization as a dynamic capability. MO explains the indirect effect of KMO on business performance. Dynamic capability developments like organizational agility are strongly required to be empowered by the knowledge based oriented behaviors (Kurniawan et al., 2020) like knowledge receptivity which drive to market change and the competitive advantage (Wilden et al., 2018). When the organization follows an open-door policy for individuals to welcome their ideas may progressively

affect to augment the dynamic capabilities of the firm (Hussein et al., 2019; Tabar & Nemati, 2013). Thus, the study proposes that knowledge receptivity can influence to increase organizational agility which leads to organizational performance.

P₅: Knowledge receptivity is positively related to OA which leads to organizational performance.

3.6. Knowledge Re-use, Organizational Agility, and Organizational Performance

Effective KM development processes of an organization should promote the knowledge reuse in decision making to improve innovative capabilities (Yang, 2010; Yusr et al., 2017) in an agile environment. Organizational fluency on knowledge reuse (absorptive capacity) develops the dynamic capability of the organization (Gonzalez & Martine, 2017; Teece et al., 1997; Volberda et al., 2010). Absorptive capacity of an organization facilitates to gain more dynamic capabilities of the firm (Hussein et al., 2019). Knowledge reuse as a dynamic capability of the organization may proactively effect on the aspiration of pursuing new opportunities (Gonzalez & Martine, 2017) and develop novel and innovative mechanisms to commercialize them. Knowledge must be used to develop new

knowledge through integration, innovation and reuse for decision making (Ganzaroli et al., 2017; Gonzalez & Martine, 2017; Gonzalez et al., 2014). The ability of knowledge reuse or re-experience can support to create new knowledge or replace the existing knowledge as a dynamic capability of the organization (Nielsen, 2006; Volberda et al., 2010; Pinho et al., 2012). With the view of dynamic capabilities, Teece et al. (1997) mentioned that firm's ability to integrate, develop, and reuse knowledge powers may quickly respond to the organizational changes (García-Fernández, 2015; Gonzalez & Martine, 2017; Teece et al., 1997). The importance of knowledge reuse does not only mean exploiting skills and experience what the organization is already mastered but supporting to the competitive strategy to create new knowledge using prior knowledge obtained (Gonzalez & Martine, 2017). This knowledge reusing ability of an organization lead to enhance the dynamic capability of the organization (Zollo & Winter, 2002; Volberda et al., 2010) and lead to improve the performance (Cheng & Leong, 2017). Knowledge management processes which facilitate to reuse the organizational knowledge is treated as a strategic asset that generate the competitive advantage (Gonzalez & Martine, 2017; Raudeliūnienė, 2016; Ganzaroli et al., 2016). The better use of knowledge possesses in the

organization repeatedly, reduce the complexity in the innovation process and strive to adapt in critical changes (Krstić & Petrović, 2012). Therefore, the study assumes that knowledge reuse as a capability of KMO effects to improve the organizational agility.

P6: Knowledge re-use is positively related to OA which leads to organizational performance.

4. DISCUSSION AND CONCLUSION

The study focuses to identify a new approach and assess KMO-OP combination in a holistic view. As Wang et al. (2008), KMO is an ability to manage organizational memory, knowledge sharing, knowledge absorption, and knowledge receptivity. KM related literature motivated to develop a holistic model to assess the effect of KMO as various conceptualizations and measurements available in the literature are fragmented.

In this study, KMO considers using multiple dimensions including organizational memory, knowledge sharing, knowledge absorption, knowledge receptivity, and knowledge reuse as a strategic approach to assess the strategic fit of the organizational knowledge management behavior to gain the competitive advantage and enhance the firm performance.

The effect of KMO on the organizational performance is extensively examined in the literature (Farooq, 2018; Lin, 2015; Wang et al., 2008; 2012; 2009). However, the systematic review of the KMO highlighted that the relationship between KMO and organizational performance is fragmented and no consensus among study findings (Jayampathi et al., 2020; Jayampathi et al., 2021). Therefore, the current study coupled the knowledge based view theory with the dynamic capability theory to assess the relationship between KMO-OP. Thus, the study focuses on the organizational agility as a dynamic capability of the firm which is an ability of the organization to quickly respond for the changing business environments creatively and innovatively. The study hypothesized a mediating effect of organizational agility on the association between KMO and OP. Managing the organizational knowledge towards better performance may support to enrich the organizational agility as a dynamic capability which extends more benefits to the organization.

Consideration of KMO and the organizational agility has a logical reasoning. If the KMO behavior of the organization is poor, it will be a danger to develop individuals with superior knowledge to develop creative and innovative

solutions for quick market changes. Maintaining good knowledge repository, sharing culture, absorptive capacity of knowledge, assimilation of the knowledge and knowledge reuse may strengthen organizational knowledge workers and may support to develop productive decisions and generate new knowledge. The study based on the OA will be given prominent study contribution to the academia. OA cannot be separated from the use of knowledge and environmental factors. Integration of all these KMO dimensions together with organizational agility may create a superfluous competency to sustain the competitive advantage and improve the firm performance.

The study backs to the knowledge based view theory of the firm by evaluating organizational memory, knowledge sharing, knowledge absorption, knowledge receptivity, and knowledge reuse as important strategic assets to gain superior firm performance. Further, the study rationalized the propositions emerged from the study to operationalize the KMO model.

5. MANAGERIAL IMPLICATIONS

A transparent KMO taxonomy may provide an organization the ability to adapt in quick market changes and uncertainties by responding innovatively. Thus,

management of an organization needs to understand the strategic relevance of KMO to boost the organizational agility. As such, managers can develop a program to extract required knowledge with employees and use them creatively and innovatively. Creating a learning culture including sharing experience, learning by doing approaches, and provide some fringe benefits to improve knowledge capabilities of employees should be accelerated. Hosting for new knowledge creation, storing, application, and reuse will be given extraordinary advantages for the company to achieve organizational performance and the competitive advantage in uncertain market conditions. It's vital to let knowledge workers to perform their jobs in a free and an open mind. This will automatically tend employees to being creative and innovative, and continuously deal with sudden changes and unexpected situations in the market with good faith.

The study provides insights for managers to develop strategies to incorporate organizational creativity introducing knowledge management orientation practices. Business organizations can individually and mutually reinforce the knowledge management oriented behaviors to attain superior goals and objectives efficiently and effectively in the short and long run. Moreover, the study attempts

to highlight the importance of organizational agility as a crucial factor fostering organizational creativity and adaptability. Managers those who intend to develop new strategies to cope with organizations dynamics must understand the effect of agility as a major success factor in the future of their businesses.

KMO is considered as a strategic tool to assess the KM behavior of an organization. The dearth of established measurement to measure the KMO effective might be obstructing to strategic gain in superior organizational performance. First, the study identified that generating and sharing the knowledge are not only important to generate sufficient knowledge based culture in the organization. Knowledge as a strategic asset of the organization should be available for the purpose of reuse. In the long-run, knowledge reuse brings superfluous benefits to the organization to cope with the competitive advantage. The study suggests a new taxonomy to explain the KMO capability in a new array based on its characteristics.

Management of companies must understand the outcomes generated from the study and develop new mechanisms to frame out the organizational policies to create a knowledge management oriented behavior in their organizations. Managers should

provide employees with relevant learning facilities to enhance their knowledge capabilities. Availability of required facilities to store knowledge and other required data is a responsibility of organizational leaders. Management of companies always must welcome their subordinates or lower level employee's valuable ideas and reward them regularly. Following an open door policy would inspire knowledge workers and motivate towards their jobs. It's a great responsibility of managers to facilitate to create a learning culture to upgrade the existing knowledge repositories and use them repeatedly. Using secondary data sources (reuse of knowledge) which are already available in the organization will limit unnecessary investments on knowledge creation. Advantages of knowledge reuse will entertain in the long-run of the company rather short term benefits.

6. LIMITATIONS AND FUTURE RESEARCH

The present study is about the conceptualization of new research model that can be followed by an organization to achieve better results in managing their knowledge resources. Yet, the model proposed by the study has not empirically tested and still in the conceptualization stage. Therefore, it is difficult to come into a conclusion about the study propositions. Future studies may

require operationalizing the conceptualized model following a suitable and sophisticated scale development procedure. Confirmatory and exploratory factor analysis can apply to empirically validate the model and the propositions presented in the study. Future works may test the construct validity, convergent validity, discriminant validity, and composite reliability to validate the hypothetical model further. Although the study proposes the mediating role of organizational agility in the relationship between KMO-OP, it is completely based on prior research obligations and assumptions. An empirical study must be conducted to validate and

strengthen the arguments carried out from the study. Future models can be further studied to explain the real combination between KMO and OP by identifying antecedents poorly observed in the existing models, if any. Research works in future can consider some other moderating and mediating variables to understand the KMO-OP relationship better. Future studies may use size of the firm, human factors, organizational climate, leadership style, organizational learning, and entrepreneurial inclination etc. to understand whether KMO effect on business performance through direct or indirect effects of these variables.

APPENDIX

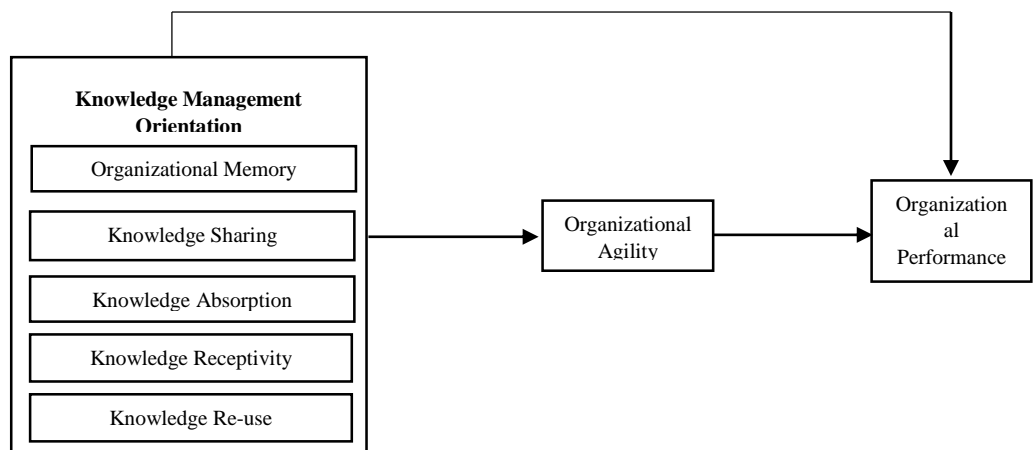


Figure 1: Proposed Conceptual Framework

Source: Literature Review (2010 -2020)

Table 1. Propositions and supportive literature

Proposition	Supportive sources
P1: Organizational agility (OA) mediates the relationship between KMO and OP.	Li et al., 2020; Chung et al., 2019; Doddy Ridwandono et al., 2019; Navarro et al., 2015; Sambamurthy et al., 2007; Sambamurthy et al., 2003; Nonaka et al., 1994
P2: Organizational memory is positively related to OA which leads to organizational performance.	Farooq, 2018; 2016; Chirumalla & Parida, 2016; Yazhou & Jian, 2013; Wang et al., 2008; Watson & Hewett, 2006
P3: Knowledge sharing is positively related to OA which leads to organizational performance.	Farooq, 2018; Farooq, 2017; Vij & Farooq, 2016; Lin, 2015; Liao et al., 2016; Yazhou & Jian, 2013; Wang et al., 2008; Tsai, 2002
P4: Knowledge absorption is positively related to OA which leads to organizational performance.	Hussein et al., 2018; Yao et al., 2013; Yazhou & Jian, 2013; Wang et al., 2008; Zahra & George, 2002; Liu & White, 1997; Cohen & Levinthal, 1990;
P5: Knowledge receptivity is positively related to OA which leads to organizational performance.	Hueesin et al., 2019; 2017; 2018; 2016; Tabar & Nemati, 2013; Yazhou & Jian, 2013; Han et al., 2008; Wang et al., 2008; Kurniawan et al., 2020
P6: Knowledge re-use is positively related to OA which leads to organizational performance.	Hussein et al., 2019; Gonzalez & Martine, 2017; Yusr et al., 2017; Gonzalez & Martine, 2017; Raudeliūnienė, 2016; Ganzaroli et al., 2016; García-Fernández, 2015; Pinho et al., 2012; Volberda et al., 2010; Yang, 2010; Volberda et al., 2010; Nielsen, 2006; Teece et al., 1997;

REFERENCES

Abuaddous, H.Y., Blaquees, J., & Sokkar, A.M.A. (2018). The Impact of Knowledge Management on Organizational Performance, *International Journal of Advanced*

Computer Science and Applications, 9 (4), 204-208.

Ambrosini, V., and Bowman, C. (2009). What are dynamic capabilities and are they a useful construct in strategic management?,

- International Journal of Management Reviews* 11(1), 29-49.
- Atthawej, T., Ueasangkomsate, P., & Sudharatana, Y. (2020). A Literature Review and Future Research on Knowledge Management Orientation in Organizations, Joint International Conference on Digital Arts, Media and Technology, Victoria University, 87-90.
- Becerra-Fernandez, I. & Sabherwal, R. (2001). Organizational knowledge management: a contingency perspective, *Journal of Management Information Systems*, 18(1), 23-55.
- Cegarra-Navarro, J. G., Soto-Acosta, P. & Wensley, A. K. (2016). Structured knowledge processes and firm performance: The role of organizational agility, *Journal of Business Research*, 69(5), 1544-1549.
- Cegarra-Navarro, J. G., Soto-Acosta, P., & Wensley, A. K. (2016). Structured knowledge processes and firm performance: The role of organizational agility. *Journal of Business Research*, 69(5), 1544-1549.
- Cepeda, G., and Vera, D. (2007). Dynamic capabilities and operational capabilities: A knowledge management perspective. *Journal of Business Research*, 60(5), 426-437.
- Cheng, L., & Leong, S. (2017). Knowledge management ecological approach: a cross-discipline case study. *Journal of Knowledge Management*, 21(4), 839-856.
- Chirumalla, K. and Parida, A. (2016). Understanding knowledge reuse process: a case study in a production maintenance organization, *IUP Journal of Computer Sciences*, 10(1), 25-42.
- Chuang, S.H. (2004). A resource-based perspective on knowledge management capability and competitive advantage: an empirical investigation, *Expert Systems with Applications*, 27(3), 459-465.
- Chung, T.T., Liang, T.P., Peng, C.H., Chen, D.N. & Sharma, P.N. (2019). Knowledge Creation and Organizational Performance: Moderating and Mediating Processes from an Organizational Agility Perspective," *AIS Transactions on Human-*

- Computer Interaction*, 11(2), 79-106.
- Chung, T.T., Liang, T.P., Peng, C.H., and Chen, D.N. (2012). Knowledge Creation and Financial Firm Performance: Mediating Processes from an Organizational Agility Perspective. System Science 45th Hawaii International Conference, 3622-3631.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152.
- Darroch, J. (2005). Knowledge management, innovation and firm performance. *Journal of Knowledge Management*, 9(3), 101-115.
- Dave, M., Singh, K., Kumar, A. and Kumar, S. (2019), "Knowledge management measures: an empirical investigation of Indian cement industry", *Benchmarking: An International Journal*, 26(3), 734-752.
- Dayan, R., Heising, P. & Matos, F. (2017), " Knowledge management as a factor for the formulation and implementation of organization strategy ", *Journal of Knowledge Management*, 21(2), 308-329.
- Du Plessis, M. (2005). Drivers of knowledge management in the corporate environment. *International Journal of Information Management*, 25(3), 193-202.
- Du Plessis, M. (2007). The role of knowledge management in innovation. *Journal of Knowledge Management*, 11(4), 20-29.
- Dyer, J.D., Cho, D.S. & Chu, W. (1998). Strategic supplier segmentation: the next 'best practice' in supply chain management", *California Management Review*, 40(2), 57-77.
- Farooq R. & Vij, S. (2018). Linking Entrepreneurial Orientation and Business Performance: Mediating Role of Knowledge Management Orientation, *Pacific Business Review International*, 10(8), 174-183.
- Farooq, R. & Vij, S. (2020). The Relationship between Entrepreneurial Orientation and Knowledge Management Orientation. *IUP Journal of Knowledge Management*, 18(3), 23-38.

- Farooq, R. (2017). Knowledge management strategies: evidence from the past, *International Journal of Applied Business and Economic Research*, 15(9), 413-420.
- Farooq, R. (2018). A conceptual model of knowledge sharing, *International Journal of Innovation Science*, 10(2), 238-260.
- Ganzaroli, A., De Noni, I., Orsi, L., & Belussi, F. (2016). The combined effect of technological relatedness and knowledge utilization on explorative and exploitative invention performance post-M&A. *European Journal of Innovation Management*, 19(2), 167-188.
- García-Fernández, M. (2015). How to measure knowledge management: dimensions and model. *VINE Journal of Information and Knowledge Management Systems*, 45(1), 107–125.
- Garrido-Moreno, A., & Padilla-Meléndez, A. (2011). Analyzing the impact of knowledge management on CRM success: The mediating effects of organizational factors. *International Journal of Information Management*, 31(5), 437-444.
- Gonzalez, R. V. D., Martins, M. F., & Toledo, J. C. (2014). Mapping the organizational factors that support knowledge management in the Brazilian automotive industry, *Journal of Knowledge Management*, 18(1), 611-630.
- Gonzalez, R.V.D. & Martins, M.F. (2017). Knowledge Management Process: a theoretical-conceptual research, *Journal of Management Production*, 24(2), 248-265.
- Haas, M. R., & Hansen, M. T. (2005). When using knowledge can hurt performance: The value of organizational capabilities in a management consulting company, *Strategic Management Journal*, 26(1), 1-24.
- Han, X., Kwortnik, R. J. Jr, & Wang, C. (2008). Service loyalty: An integrative model and examination across service contexts, *Journal of Service Research*, 11(1), 22–42.
- Hanafizadeh, P., Keating, B. W., & Khedmatgozar, H. R. (2014). A systematic review of Internet banking adoption, *Telematics and*

- Informatics*, 31(3), 492–510.
- Hussein, A. S., Rahayu, M., Prabandari, S. P., & Rosita, N. H. (2017). Revisiting the dimensions of knowledge management orientation behavior in Indonesia creative industry, *International Research Journal of Business Studies*, 9(2), 63-73.
- Hussein, A.S. (2018). The Importance of Knowledge Management Orientation Behaviour and Innovation on Business Performance: A Lesson from Indonesia Creative Economy Sector, *Asia-Pacific Management and Business Application*, 7(2), 95-108.
- Hussein, A.S., Rosita, H.H. & Ayuni, R.F. (2019). Knowledge Management Orientation Behaviour and Innovation: A Lesson from Indonesia Creative Economy Sector, *International Journal of Sociotechnology and Knowledge Development*, 11 (1), 183-199.
- Igbinovia, M.O. & Ikenwe, I.J. (2017). Knowledge Management: Processes and Systems, *Journal of Information and Knowledge Management*, 8(3), 26-38.
- Jasimuddin, S. M., and Zhang, Z. (2008). The symbiosis mechanism for effective knowledge transfer, *Journal of the Operational Research Society*, 60(5), 706-716.
- Javed, M., Rashid, M. A., Hussain, G., & Ali, H. Y. (2020). The effects of corporate social responsibility on corporate reputation and firm financial performance: Moderating role of responsible leadership, *Corporate Social Responsibility and Environmental Management*, 27(3), 1395-1409.
- Jayampathi, E. K., De Alwis, A. C. & Razi, M. J. M. (2020). An Overview of Knowledge Management Orientation Literature and Future Directions, Proceedings of the 11th International Conference on Business and Information, Faculty of Commerce and Management Studies, University of Kelaniya, Sri Lanka, 132.
- Kakabadse, N. K., Kakabadse, A., & Kouzmin, A. (2003). Reviewing the Knowledge management: Towards taxonomy, *Journal of Knowledge Management*, 7(4), 75-91.

- Kebede, G. (2010). Knowledge management: an information science perspective, *International Journal of Information Management*, 30(5), 416-424.
- Kitchenham, B., & Charters, S. (2007). Guidelines for performing systematic literature reviews in software engineering, Technical report, Keele University and University of Durham, 5 (2), 1051.
- Krstić, B. & Bojan Petrović, B. (2012). The role of knowledge management in increasing enterprise's innovativeness, *Economics and Organization*, 9(1), 93-110.
- Kurniawan, R., Budiastuti, D., Hamsal, M. and Kosasih, W. (2020). The impact of balanced agile project management on firm performance: the mediating role of market orientation and strategic agility, *Review of International Business and Strategy*, 30(4), 457-490.
- Lee, J.N. (2001). The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success, *Information & Management*, 38(5), 323-335.
- Li, L., Lin, J., Turel, O., Liu, P. & Luo, X. R. (2020). The impact of e-commerce capabilities on agricultural firms' performance gains: the mediating role of organizational agility", *Industrial Management & Data Systems*, 120(7), 1265-1286.
- Li, M. & Ye, L.R. (1999). Information technology and firm performance: linking with environmental, strategic and managerial contexts, *Information & Management*, 35(1), 43-51.
- Liao, S.H. & Wu, C.C. (2010). System perspective of knowledge management, organizational learning, and organizational innovation. *Expert Systems with Applications*, 37(2), 1096-1103.
- Lin, H. F. (2015). Linking knowledge management orientation to balanced scorecard outcomes. *Journal of Knowledge Management*, 19(6), 1224-1249.
- Liu, H., Ke, W., Wei, K. K. & Hua, Z. (2012). The impact of IT capabilities on firm performance: The

- mediating roles of absorptive capacity and supply chain agility. *Decision Support Systems*, 54(3), 1452-1462.
- Liu, H., Song, D., Huang, Q. & Cai, Z. (2014). Knowledge management capability and firm performance: the mediating role of organizational agility, *Pacific Asia Conference on Information Systems*, 165.
- Lu, Y. & Ramamurthy, K. (2011). Understanding the Link between Information Technology Capability and Organizational Agility: An Empirical Examination, *MIS Quarterly*, 35(4), 931-954.
- Mills, A. M. & Smith, T. A. (2011). Knowledge management and organizational performance: a decomposed view, *Journal of Knowledge Management*, 15(1), 156-171.
- Miranda, S. M., Lee, J.N., & Lee, J.H. (2011). Stocks and flows underlying organizations' knowledge management capability: Synergistic versus contingent complementarities over time, *Information & Management*, 48(8), 382-392.
- Nielsen, A. P. (2006). Understanding dynamic capabilities through knowledge management, *Journal of Knowledge Management*, 10(4), 59–71.
- Nonaka, I., Byosiere, P., Borucki, C. C. & Konno, N. (1994). Organizational knowledge creation theory: A first comprehensive test, *International Business Review*, 3(4), 337-351.
- Overby, E., Bharadwaj, A. & Sambamurthy, V. (2006). Enterprise agility and the enabling role of information technology, *European Journal of Information Systems*, 15(2), 120-131.
- Paswan, A.K. and Wittmann, C.M. (2009). Knowledge management and franchise systems, *Industrial Marketing Management*, 38(2), 173-180.
- Pavlou, P. A., & El Sawy, O. A. (2011). Understanding the Elusive Black Box of Dynamic Capabilities. *Decision Sciences*, 42(1), 239-273.
- Perera, M. H. D. N. & Perera, M. P. S. R. (2020). Relationship between the antecedents of ICT Adoption and the Business Performance of SMEs in the Colombo District, Sri

- Lanka, *Sri Lankan Journal of Entrepreneurshi.*, 2(1), 1-17.
- Pinho, I., Rego, A., & Cunha, M. P. (2012). Improving knowledge management processes: a hybrid positive approach, *Journal of Knowledge Management*, 16(2), 215-242.
- Raudeliūnienė, J.; Meidutė-Kavaliauskienė, I. & Vileikis, K. (2016). Evaluation of factors determining the efficiency of knowledge sharing process, *Journal of the Knowledge Economy*, 7(4), 842-857.
- Reyes, P. M., Worthington, W. J. & Collins, J. D. (2015). Knowledge Management Enterprise and RFID Systems: Adoption to Supply Chain Performance. *Management Research Review*, 38(1), 44–66.
- Sambamurthy, V., Bharadwaj, A., & Grover, V. (2003). Shaping agility through digital options: Reconceptualizing the role of information technology in contemporary firms, *MIS Quarterly*, 27(2), 237-263.
- Sambamurthy, V., Wei, K.-K., Lim, K., & Lee, D. (2007). IT-enabled organizational agility and firms' sustainable competitive advantage. In Proceedings of the International Conference on Information Systems. 91.
- Shahrabi, B. (2012). The role of organizational learning and agility in change management in state enterprises: A customer-oriented approach, *International Research Journal of Applied and Basic Sciences*, 3(12), 2540–2547.
- Shamim, S., Cang, S. and Yu, H. (2019a). Impact of knowledge-oriented leadership on knowledge management behaviour through employee work attitudes, *The International Journal of Human Resource Management*, 30(16), 1-31.
- Shamim, S., Cang, S. and Yu, H. (2019b). Supervisory orientation, employee goal orientation, and knowledge management among front line hotel employees, *International Journal of Hospitality Management*, 62, 21-32.
- Shamim, S., Zeng, J., Shariq, S.M. and Khan, Z. (2019c). Role of big data management in enhancing big data decision-making capability and quality among Chinese firms: a dynamic

- capabilities view, *Journal of Knowledge Information & Management*, 14(4), 1-19. 56(6) 103135.
- Sher, P. J., and Lee, V. C. (2004). Information technology as a facilitator for enhancing dynamic capabilities through knowledge management, *Information & Management*, 41(8), 933-945.
- Tabar, H.N. & Nemati, B. (2013). Surveying and Investigation the Effect of Knowledge Management Orientation on Organizational Performance (Case Study: ERISH KHODRO Company), *Asian Journal of Social and Economic Sciences*, 2(3), 46-52.
- Teece, D. J., Pisano, A. & Shuen, A. (1997). Dynamic capabilities and strategic management, *Strategic Management Journal*, 18(7), 509-533.
- Theyel, G. & Hofmann, K.H. (2021). Manufacturing location decisions and organizational agility, *Multinational Business Review*, 29 (2), 166-188.
- Vij, S. & Farooq, R. (2016). Moderating effect of firm size on the relationship between IT orientation and business performance, *IUP*
- Volberda, H. W., Foss, N. J. & Lyles, M. A. (2010). Absorbing the concept of absorptive capacity: how to realize its potential in the organization field, *Organization Science*, 21(4), 931-951.
- Wang Y., & Lin, J. (2012). An Empirical Study of the Impact of Knowledge Management Orientation on Organizational Performance, *Journal of Convergence Information Technology (JCIT)*, 7(17).
- Wang, C. L., Hult, G. T. M., Ketchen, D. J., Jr. & Ahmed, P. K. (2009). Knowledge management orientation, market orientation, and firm performance: an integration and empirical examination, *Journal of Strategic Marketing*, 17(2), 147-170.
- Wang, C.L. (2008). Entrepreneurial Orientation, Learning Orientation, and Firm Performance, *Entrepreneurship: Theory and Practice*, 32 (4) 635-657.
- Wang, C.L., Ahmed, P.K. and Rafiq, M. (2008). Knowledge management

- orientation: construct development and empirical validation, *European Journal of Information Systems*, 17 (3), 219-235.
- Wang, Y., & Lin, J. (2013). An empirical research on knowledge management orientation and organizational performance: The mediating role of organizational innovation, *African Journal of Business Management*, 7, 604–612.
- Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance, *Expert Systems with Applications*, 39(10), 8899-8908.
- Wee, J. C. N. & Chua, A. Y. K. (2013). The peculiarities of knowledge management processes in SMEs: the case of Singapore, *Journal of Knowledge Management*, 17(6), 958–972.
- Wilden, R., Gudergan, S. & Lings, I. (2018). The interplay and growth implications of dynamic capabilities and market orientation, *Industrial Marketing Management*, 83, 21-30.
- Williams, R.I. (2018). Measuring family business performance: research trends and suggestions, *Journal of Family Business Management*, 8(2), 146-168.
- Yang, J. (2010). The knowledge management strategy and its effect on firm performance: a contingency analysis, *International Journal of Production Economics*, 125(2), 215-223.
- Yao, Z., Yang, Z., Fisher, G. J., Ma, C. & Fang, E. E. (2013). Knowledge complementarity, knowledge absorption effectiveness, and new product performance: The exploration of international joint ventures in China, *International Business Review*, 22(1), 216-227.
- Yazhou, W. & Jian, L. (2013). An empirical research on knowledge management orientation and organizational performance: the mediating role of organizational innovation, *African Journal of Business Management*, 7(8), 604-61.
- Yusr, M. M., Mokhtar, S. S. M., Othman, A. R. & Sulaiman, Y. (2017). Does interaction between TQM practices and knowledge management processes enhance the innovation performance?, *International Journal of*

- Quality & Reliability Management*, 34(7), 955–974.
- Zheng, W., Yang, B. & McLean, G. N. (2010). Linking organizational culture, structure, strategy, and organizational effectiveness: Mediating role of knowledge management, *Journal of Business Research*, 63(7), 763-771.
- Zia, N.U. (2020). Knowledge-oriented leadership, knowledge management behaviour and innovation performance in project-based SMEs. The moderating role of goal orientations, *Journal of Knowledge Management*, 24 (8), 1819-1839.
- Zollo, M. & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities, *Organization Science*, 13(3), 339-351.

**Impact of Macroeconomic Variables on Stock Market Performance:
Evidence from Sri Lanka**

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Abstract

The aim of the paper is to explore the influence of macroeconomic variables on stock market performance in Sri Lanka. The proxy for the stock market performance is all share price index (ASPI) whereas Gross domestic product (GDP), inflation rate, interest rate, exchange rate and money supply are considered as macroeconomic variables. The population of the study consists of all companies listed in Colombo Stock Exchange. The data was gathered from the secondary sources and the annual time series data was employed from 1995 to 2019. The techniques of Pearson's correlation and multiple regressions were employed for the data analysis and hypothesis testing. Furthermore, Variance inflation factor (VIF) for Multicollinearity, Augmented Dicky-Fuller (ADF) test and Breusch-Pagan-Godfrey test were used. The findings demonstrate that GDP and money supply positively influence the stock market performance. Interest rate and exchange rate negatively influence the stock market performance while inflation rate has failed to prove the significant impact on stock market performance. The study will support to investors, academics and researchers in the fields of economics and finance in understanding how macroeconomic variables affect the stock market performance. It also provides insight into society and researchers since it integrates a number of macroeconomic variables and their interaction with the stock market.

Keywords-: Gross domestic product, Exchange rate, Interest rate, Money supply, Stock market performance

1. INTRODUCTION

Share markets play a vital role on economic development and promote the prospects of the nation. An efficiently functioning share market is one of the prominent facets for the long-term development of the country. The researchers widely consider the association amid macroeconomic variables and stock

market performance (SMP) in developed nations as well as developing nations (Lee et al, 2017). Share market is crucial in the international economy as the emerging economy is affected by the growth of the industries. Because of that the movement of the share market is concerned by the government, industry and Central bank of the country. New securities

are issued to the public for the first time in the primary market while previously issued stocks are traded in the secondary market. Meanwhile, in over-the-counter market, the stock trading is performed directly between two parties without the oversight of an exchange.

CSE is the only stock market in Sri Lanka and operates for establishing a regulated environment in which individual and institutional investors may work together. According to Mishkin and Eakins (2011) common stocks of an institution are traded in a share market. SMP refers to the yields that the shareholders receive on their investment. The return may be in the form of profits through the trading activities or dividends provided by the organization to its investors from time to time. The strengths and weaknesses of the country are demonstrated by macroeconomic variables. Alan and Rashid (2014) explore that GDP, inflation (INF) rate, money supply (MS), interest rate (IR), exchange rate (ER), foreign direct investment (FDI), industrial production index and unemployment rate are most essential macroeconomic variables. Academician, regulators, scholars, stockholders, and government are more interested to analyse the effects of macroeconomic variables on share market. Stock market which is a prominent indicator of an economy reflects the level of economic well-being in nations (Menike, 2006).

Share market plays an energetic role in an emerging economy. Therefore, more researchers and policy makers have paid their attention on studies related to stock markets. The extant studies have shown the influence of macroeconomic variables on SMP in different angles (Khravish et al., 2010). Few researchers implied that some macroeconomic variables have positive impact on SMP. Although some researchers like Pal and Mittal (2011), Menike (2006) and Gunasekarage et al. (2002) represent contradictory idea which was some macroeconomic variables and SMP has significant negative relationship. But, few studies have not shown any association between some macroeconomic factors and share market variables (Ali, 2011 and Bhattacharya & Mukherjee, 2002). These contradictory ideas make confuse the policymaker's mind.

Although most of the studies have been conducted on investigating the association between macroeconomic variables and SMP in developed nations such as Japan, United States and Turkey (Patro, Wald & Wu, 2014, Chen et al., 2021), there is a dearth of the studies in developing nations. Hence, it is inspired to study on the stock market trend of Sri Lanka as there are very limited sources or studies that have been conducted on it.

Sri Lankan market performance fluctuated substantially in recent years. The market performance of CSE in 2018 shows a sharp contrast to the positive performance recorded in 2017 as market capitalization

decreased by 17.85%. There is a fluctuation and downward trend in the stock market performance due to the lack of consistency in economic policies and political instability of the government. In Sri Lanka, prominent macroeconomic variables have shown substantial fluctuations over time. Based on the research problem, the research question is identified: “How far do the macroeconomic variables influence on the SMP?”

Few studies were conducted on analysing the impacts of macroeconomic variables on the SMP in Sri Lankan context (Gunasekarage, Pisedtasalasai & Power, 2004; Menike, 2006; Wickremasinghe, 2011; Shafana, 2014; Amarasinghe, 2015, Francis et al., 2021). So there is a dearth of the study on macroeconomic variables and SMP in emerging markets. The Colombo Stock Exchange is chosen because it operates the only share market in Sri Lanka. The purpose of the research is to investigate the influence of macroeconomic variables on SMP for the period of 1995 to 2019.

From the previous literature, it appears that there is no common consensus on the influence of macroeconomic variables on SMP. Therefore, the present study provides the contributions to the extant literature in several ways. This study extends the existing literature by analysing the association between macroeconomic variables on SMP in an emerging economy. It supports to improve a better understanding of the effects of macroeconomic factors on

developing markets which have different institutions, structure and organizations compared to the developed markets. It provides a considerable practical significance since its econometric findings assist the application of proper regulatory, financial and economic policies. The findings of the study will be used by the financial analysts, owners and other stakeholders for their better decision making. The outcome of the research and subsequent policy recommendations may serve as a valuable reference for policy makers to prudently manage the macroeconomic forces to enhance the SMP of Sri Lanka in order to formulate of economic targets and policies.

2. LITERATURE REVIEW

Several studies have been conducted globally about various macroeconomic variables and capital markets but the findings are inconsistent because of the different economic environment. The study viewed the stock market performance from different perspectives in addition to different theoretical frameworks.

2.1 Theoretical review

2.1.1 Efficient Market Hypothesis

The Efficient Market Hypothesis (EMH) was first developed by Fama (1970). In the share market, this investment theory described as share prices fully reflect all accessible information. Moreover, the important way investors receive higher yields through investing in high-risk securities, and it ought to be challenging to outperform the

general market through expert in trading stocks.

2.1.2 Capital Assets Pricing Model

Capital Assets Pricing Model (CAPM) was developed by Sharpe (1964), Black (1972) and Lintner (1965). This model describes the association between systematic risk and expected return for the assets. It is widely used for assessing the cost of capital and also evaluating the performance of a portfolio. According to Hur and Chung (2017), in view of Korea's lead rising of stock market and discovered empirical evidence to bolster these theoretical implications. The CAPM will influence the linkage among macroeconomics variables and SMP.

2.1.3 Arbitrage Pricing Theory

The Arbitrage Pricing Theory (APT) was presented by Ross (1976). It predicts the return using the association between macroeconomic variables and expected return. This theory is an extension of the CAPM which is based on one aspect demonstrating that there is only one independent variable which is the risk premium of the market. CAPM and APT have the identical assumptions such as homogenous expectations, perfectly competitive markets, and frictionless capital markets. However, Ross (1976) suggests a multifactor method to elucidating asset pricing through the APT.

2.2 Empirical Review

Share market is the place where stocks are traded. Ordinary share is representing an ownership in a company. It provides the capital for a

company. Year by year stock market becomes more institutionalizing (Campbell et al., 1997). Number of organizations and individuals are arranging large investments funds in stock market. Make money directly is the main purpose of investing in stocks. Few studies demonstrate the crucial role of macroeconomic variables such as INF, industrial production index, IR, and foreign ER in elucidating the SMP (Kandir, 2008 and Muhammad et al., 2009).

Aurangzeb (2012) reveals that stock price movements are directly linked to company performance, movement of macroeconomic variables or government actions. Thus, investor must have good knowledge about right time to make right decision whenever these fundamentals produce something different. Several research studies reveal that stock market returns are positively associated with economic growth of the country.

2.2.1 Gross Domestic Product

The various studies have been conducted on GDP and share price. Few studies reveal that GDP and stock market index are positively associated (Nijam et al, 2015; Sireesha, 2013). But, Hunjra et al. (2014) explored that GDP has no association with stock price index in Pakistan. In Taiwan, GDP has great effect on stock market return which is revealed by Singh et al. (2011). Further Momani and Alsharari (2012) found there is significant statistical impact on share price with national production through their study. At the same time, EI-Nader and Alrainmony (2013) reveals that stock market development is

negatively affected by nominal GDP in Jordan stock market. Ademola (2014) cited in Osamwonyi and Evbayiro-Osagie (2012) found that GDP growth rate increases, Stock prices also will rise. Jayasundara et al. (2019) indicated that real GDP influences positively on the ASPI (All Share Price Index) in emerging market. Marques et al. (2013) also indicated that the growth of the economy is influenced by the growth of the stock market whereas Kapaya (2020) revealed unidirectional linkage between stock market and GDP. Gurloveleen and Bhatia (2015) analysed the influence on BSE 500 manufacturing companies from 2006 to 2015 and identified no association during that period. Tiryaki et al. (2019) revealed that stock market return has a positive association with industrial production. Francis et al. (2021) identified that industrial production is positively associated with share price in Sri Lankan context in long run. Therefore, the following hypothesis is developed.

H₁: Gross domestic product positively influences on SMP.

2.2.2 Interest Rate

The impact of Treasury bill rate has positive but week effect on the SMP concluded in their research study by Kyereboah and Agyire-Tetty (2008). Chen et al. (2012) suggested that, there is strong co-relation between macroeconomic variables such as IR on the stock price as well as volume indices. Aurangzeb (2012) found that IR exerts significant negative relationship with share price through his study. Jayasundara et al. (2019) found that IR shows a negative

impact towards the ASPI. But few studies demonstrate that IR is positively correlated with share price (Nijam et al., 2015; Khrawish et al., 2010). Amarasinghe (2015) reveals that the association between IR and stock prices is dynamic and revealed an inverse impact of IR on stock prices in Sri Lanka for the period of 2007 to 2003. Ajaz et al. (2017) found that because of changing IR, there was an asymmetric effect in stock market for the period of 1991 to 2015. Chang and Rajput (2018) investigated impact of IR on stock prices in Pakistan and found that IR has an inverse association. Furthermore, macroeconomic factors have symmetric association in the long term whereas asymmetric in short term. Lee and Brahmasrene (2018) didn't identify any effect of IR in short run in Korea. Anwer et al. found that there was no or little impact of policy rate of monetary authority on developing countries due to inefficient policy method. Hence, the following hypothesis is constructed,

H₂: Interest rate negatively influences on SMP.

2.2.3 Inflation

Inflation is a macro-economic variable that directly influence on the stock market fluctuations which was found by Chen et al. (2012) in their study. At the same time Zohaib et al. (2012) through their study reveals that inflation has insignificant impact on stock returns of Kenya Stock Exchange. Kyereboah and Agyire (2008) demonstrate that inflation was found to be adverse effect on the SMP. Pal and Mittal (2011) revealed

that inflation and market performance are negatively correlated in India. Moreover, Aurangzeb (2012) on Ghana Stock Market found out that inflation has negative impact on SMP. Ho (2017) analysed SMP in Malaysia and found that inflation has an inverse effect, and Lee and Brahmasurene (2018) indicated that an inverse effect of inflation rate in short term in Korea. Few studies found that inflation and share price are positively associated in Sri Lanka (Chang & Rajput, 2018; Hemamala & Jameel, 2016; Shafana, 2014; Balagobei, 2017). Controversy few studies found that INF has no significant relationship with market return (Perera, 2015; Wickramasinghe, 2011 and Lakmali & Madhusanka, 2015). Furthermore, Megaravalli and Sampagnaro (2018) showed that inflation and SMP are not associated in long term in China, Japan and India. Using Granger causality test, they found that inflation rate and SMP cannot be predicted in Japanese and Indian stock market. Therefore, the hypothesis is developed as,

H₃: Inflation rate negatively influences on SMP.

2.2.4 Exchange rate

ER is one of the most prominent factors in economy. Through exchange rate nations currency explain by another currency. It clearly demonstrates that stock market capitalization, stock price and stock return are significantly influence by the ER, which discover by Mazuruse (2014) throughout his research. Shafana (2014) revealed that ER is negatively correlated with

stock prices in Colombo Stock Exchange for the period of 2008-2011. But Balagobei (2017) indicated that ER positively influences stock market return in Sri Lanka and Francis et al. (2021) also found that ER positively affects the share price in CSE in the long term. Moreover, Wong (2017) examined the relationship between the share market and real ER, and revealed that stock market is negatively correlated with real ER in Asia and Europe countries. Liang, Lin and Hsu (2013) demonstrated the ER inversely influences the stock market from 2008 to 2011 using monthly secondary data for the countries of Indonesia, Thailand, Philippines, Malaysia and Singapore. Dahir et al. (2018) analysed about ER in the countries of BRICS and concluded that Brazil and Russia have favourable effect in medium and long term whereas India has an inverse association. Megaravalli and Sampagnaro (2018) investigated the association between short term and long term using only 107 observations, and found that ER has a positive relationship with share market of Japan, India, and China from 2008 to 2016. Effiong and Bassey (2018) studied the ER on share market in Nigeria. Therefore, the hypothesis is developed as follows,

H₄: Exchange rate negatively influences on SMP.

2.2.5 Money Supply

Zoa et al. (2014) revealed that MS theoretically has a favourable effect on share prices. Moreover, growth of money supply will influence growth in money and growth in an

economic activity which leads to increase the share price. Wickramasinghe (2011) showed that ASPI has a bi-directional causal association ASPI and MS (M1), and MS has a vital role in demonstrating the estimate variance in share prices. Balagobei (2017) revealed that MS has not shown any influence on SMP in Sri Lanka. But, Francis et al. (2021) found that there was no impact of MS on stock price in CSE in long term. Moreover, Leenee and Taylor (2014) identified that MS positively influences stock prices in Malaysia. Tiryaki et al. (2019) investigated effects of MS on the share prices in Turkey and revealed that contractionary monetary tools influence mainly SMP as compared to expansionary monetary tools. Etale and Eze (2019) examined the influence in long term as well short term on Nigeria concerning broad MS and indicated that it influences favourably. Based on the prior evidences, the hypothesis is constructed as follows,

H₅: Money supply positively influences on SMP.

The findings of impact of macroeconomic variables on SMP were mixed in the previous studies. So, the study is conducted to generalize the findings.

3. METHODS

Research Methodology consists of techniques and procedures to be employed to carry out the research. It focuses on research design, approach, sample, data source and analysis methods. In this study, the data was collected from the

secondary data sources. ASPI data was gathered using annual reports of CSE whereas the macro economic data was derived from Central bank's annual reports, Securities and Exchange Commission (SEC) and Department of Census and Statistics in Sri Lanka.

The population of the study consists of all listed companies in CSE from 1995 to 2019. The CSE is the main stock exchange and responsible for the activities of the share market in Sri Lanka. It covered 286 firms under 20 business sectors in 2019. Method of data analysis represents the descriptive statistics as well as inferential statistics. Descriptive statistics describe the characteristics of the variables of the study. Inferential statistics consist of Pearson's correlation and multiple regression analysis.

The study employs the multiple linear regression model which involves in examining the impact of selected macroeconomic variables on SMP.

$$ASPI = \beta_0 + \beta_1GDP + \beta_2IR + \beta_3INF + \beta_4ER + \beta_5MS + \varepsilon$$

Where:

ASPI – All Share Price Index

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ – Regression coefficient

GDP – Gross Domestic Product

IR – Interest Rate

INF – Inflation Rate

ER – Exchange Rate

MS – Money supply

ε – Error term

Five variables have been considered as macroeconomic variables such as GDP (log of GDP), IR (annual rate

for 364 days' treasury bill); INF (annual inflation rate); ER (ER between Sri Lankan rupee and US dollar); and MS (Broad money supply (M2b)) whereas ASPI is utilized as the proxy for SMP.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

It is used to describe the basic features of the data gathered for this study. The usual descriptive statistics includes maximum, minimum, mean, and standard deviation.

As seen in table 1 the average GDP is 5.08% with minimum value -1.5% and maximum value 9.1%. IR has a mean value 11.57% with the standard deviation (SD) of 4.156. Further the average INF is 8.20 with a SD of 4.837 and ER has an average value Rs.107.34. The average of MS is Rs.2304.34 billion with SD 2279.56. In the case of dependent variables, ASPI shows a mean performance of 3316.19 with SD of 2622.76 and has a wide range from 447.60 to 7299.

4.2 Correlation Analysis

The study uses a Pearson's correlation analysis to discover the association and direction of the macroeconomic variables and SMP.

Table 2 represents that correlation coefficient between GDP and ASPI is 0.173 which is not significant at 0.05 level ($p=0.406>0.05$) and it indicates that GDP isn't associated with ASPI. Other macroeconomic variables such as IR, INF have a significant negative association with SMP while ER and MS have a

positive significant association with SMP at 0.05 levels.

4.3 Multicollinearity and Homoscedasticity

Multicollinearity refers to the situation where two or more explanatory variables are highly related with one other. It refers to "the successive inclusion of additional variables that lift the collinearity of the full set of explanatory variables to a 'harmful' level" (Lauridsen & Mur, 2006).

Variance inflation factor (VIF) is a statistical tool employed to recognize the issue of multicollinearity. If the VIF is greater than 10, there is a multicollinearity problem (Hair et al., 1995). In this study there was the absence of multicollinearity problem among the macroeconomic variables as all VIFs are less than 10.

As seen in table 4, there is no heteroscedasticity in the model ($p>0.05$) which means that errors are spread out consistently between the variables.

4.4 Unit Root Test

Economic and financial variables usually exhibit trending behaviour. This study uses the Augmented Dickey Fuller (ADF) test to detect the presence of unit root in the variables.

Table 5 shows that three macroeconomic variables such as GDP, IR and INF are stationary at level. The series of ER, MS and ASPI consist of unit root and are therefore non-stationary processes,

but the first difference of the time series turns out to be stationary.

4.5 Multiple Regression Analysis

Multiple regression analysis is performed to examine the impact of macroeconomic variables on SMP in Sri Lanka. As seen in table 6, the adjusted R-squared value is 0.919 which represents 91.9% of observed variation of ASPI is explained by the changes in the independent variables namely GDP, IR, INF, ER and MS. Remaining part 8.1% of the variation is related to the other factors which are not shown in this model. Moreover, the model is significant and more appropriate to this study ($F=53.289$, $p < 0.01$).

As seen in table 6, the SMP is significantly affected by only four macro-economic variables namely GDP, IR, ER and MS. The table shows that GDP has a significant positive influence on SMP in Sri Lanka ($\beta=2702.804$, $p<0.05$). H_1 states that GDP positively influences on SMP. Hence, this hypothesis has been supported. The finding collaborates with previous empirical studies of Marques et al. (2013) Nijam et al. (2015), Sireesha, (2013), Ademola (2014) and Jayasundara et al. (2019). Moreover, the coefficient of IR indicates that IR has a negative significant influence on SMP in Sri Lanka ($\beta=-284.90$, $p<0.05$). H_2 states that IR negatively influences on SMP. Hence, this hypothesis has been supported. The negative association between IR and ASPI is demonstrated in the studies of Aurangzeb (2012), Jayasundara et al. (2019), Amarasinghe (2015), and Chang and Rajput (2018).

The table 6 shows that INF has not significant influences on SMP ($\beta = -1151.690$, $p>0.05$) in Sri Lanka. H_3 states that IF negatively influences on SMP. Hence, this hypothesis has not been supported. The finding collaborates with extant studies such as Zohaib et al. (2012), Perera (2015), Lakmali and Madhusanka (2015) and Wickramasinghe (2011).

The table 6 displays that ER has a significant negative influence on SMP ($\beta=-17724.98$, $p<0.01$) in Sri Lanka. H_4 states that ER negatively influences on SMP. Therefore, this hypothesis has been supported. The finding collaborates with previous studies of Shafana (2014), Wong (2017), and Liang et al. (2013). According to the table 6, MS has a significant positive influence on SMP in Sri Lanka ($\beta =10073.43$, $p<0.05$). H_5 states that MS positively influences on SMP. Hence, this hypothesis has been supported. The positive association between MS and ASPI collaborates with prior studies (Francis et al., 2021; Leenee & Taylor, 2014; Etale & Eze, 2019).

5. CONCLUSION

The aim of this study is to examine the influence of macroeconomic variables on SMP in Sri Lanka. Whole listed companies in Colombo stock exchange have been considered in this study. It can be concluded that out of five macro-economic variables only four macro-economic variables have a significant influence on SMP. GDP and MS have a positive influence on SMP whereas IR and ER have a negative influence on SMP in Sri

Lanka. But SMP is not affected by INF in the economy.

Based on the analysis, IR has a negative influence on the ASPI. Investors prefer to make the investment in the financial assets such as treasury bills and bonds than investing to common stock as the return rate on the financial assets is higher than the common stocks. Their policy IR is changed by Central bank time to time. The policy makers should maintain the IR at lower level to keep price higher for the shares which would attract more investment.

Furthermore, the findings reveal that the INF doesn't have any significant influence on ASPI. However, to achieve the stable low-level inflation rate, currently Central bank has moved their view towards an INF targeting monetary policy. Moreover, findings reveal that exchange rate affects negatively on the ASPI. Presently, a Sri Lankan rupee has continuously depreciated against the dollars which would create an unfavourable effect on ASPI. Moreover, the study shows that MS has a positive influence on the ASPI.

The recommendations are discussed in this study. As GDP is positively associated with SMP, an economy should focus on manufacturing, industrial and service sectors to develop their operations. Prudent

macroeconomic and fiscal policy management should support to mitigate the fluctuations in IR and ER. Stability in these variables has significant implications for SMP. The government must formulate strategies to reduce the adverse consequences of the macroeconomic variables that have a negative effect. Future researchers will be stimulated to do the research wider into the influence of the macro-economic factors on SMP of several emerging economies rather than concentrate on one economy for comparison purpose between the nations. Hence, future researchers could support to produce more information on the SMP and trend of few nations at once which bring ease for others parties like policymakers, investors and future researchers as a reference purposes.

Future researchers will be motivated to make the selection on the variables with higher frequency data available to enhance the accuracy of the result to be generated in the data analysis part. Further, future researchers are suggested to generate the result by employing more type of data analysis to enhance the comprehensive association between the variables. For example, Co-integration test, granger causality test and VECM test may be employed to boost the understanding about the variables.

APPENDIX

Table 1. Descriptive Statistics

Variables	Minimum	Maximum	Mean	Std. Deviation (SD)
GDP	-1.50	9.10	5.08	2.20
IR	6.01	19.96	11.57	4.15
INF	0.90	22.60	8.20	4.83
ER	51.25	178.78	107.34	33.57
MS	228.50	7627.28	2304.34	2279.56
ASPI	447.60	7299.00	3316.19	2622.76

Source: Survey data

Table 2. Correlation Analysis

Variables	(1)	(2)	(3)	(4)	(5)	(6)
GDP (1)	1.000					
IR (2)	0.027 0.894	1.000				
ER (3)	-0.072 0.728	-0.520 0.007	1.000			
INF (4)	0.020 0.923	0.665 0.000	-0.356 0.080	1.000		
MS (5)	-0.024 0.906	-0.509 0.009	0.966 0.000	-0.424 0.034	1.000	
ASPI (6)	0.173 0.406	-0.569 0.003	0.873 0.000	-0.442 0.026	0.937 0.000	1.000

(Source: Survey Data)

Table 3: Multicollinearity

Variables	VIF
GDP	1.129
IR	2.605
INF	2.128
ER	8.252
MS	8.316

(Source: Survey data)

Table 4: Heteroskedasticity test: Breusch-Pagan-Godfrey

F-statistic	1.138	Prob. F(5,19)	0.374
Obs- R-squared	5.762	Prob. chi-Square	0.330
Scaled explained SS	1.900	Prob. chi-Square	0.862

(Source: Survey data)

Table 5: Augmented Dickey Fuller (ADF) test for 1995 - 2019

Macroeconomic Variables	Level		First differences	
	t-statistic	Prob.*	t-statistic	Prob.*
GDP	-3.543	0.015	-	-
IR	-3.224	0.031	-	-
ER	0.898	0.993	-4.240	0.014
INF	-3.267	0.028	-	-
MS	-1.333	0.596	-2.403	0.018
ASPI	-0.419	0.889	-5.345	0.000

(Source: Survey data)

Table 6. Multiple Regression for ASPI

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	6654.44	5019.75	1.32	0.20
GDP	2702.80	1133.72	2.38	0.02
IR	-284.90	803.37	-0.35	0.02
ER	-17724.98	4446.43	-3.98	0.00
INF	-1151.69	696.09	-1.65	0.11
MS	10073.43	1418.89	7.09	0.00
R-squared	0.936	Durbin-Watson stat		1.655
Adj. R-squared	0.919			
F-statistic	53.289			
Prob (F-statistic)	0.000			

(Source: Survey Data)

REFERENCES

- Ademola, A. M. B. (2014). Understanding the relationship between some macro-economic variables and movement of stock prices of selected banks in Nigeria, *International Journal of Management Sciences and Humanities*, 2(2), 208-233.
- Ajaz, T., Nain, M.Z., Kamaiah, B. and Sharma, N.K. (2017). Stock prices, exchange rate

- and interest rate: evidence beyond symmetry, *Journal of Financial Economic Policy*, 9(1), 1-18.
- Alam, Z., and Rashid, K. (2014). Time Series Analysis of the Relationship between Macroeconomic Factors and the Stock Market Returns in Pakistan. *Journal of Yasar University*, 9(36).
- Ali, M. B. (2011). Impact of micro and macroeconomic variables on emerging stock market return: A case on Dhaka stock exchange (DSE). *Interdisciplinary Journal of Research in Business*, 1(5), 8-16.
- Altin, H. (2015). Efficient market hypothesis, abnormal return and election periods. *European Scientific Journal*, 11(34), 169-178.
- Amarasinghe, A. (2015). Dynamic relationship between interest rate and stock price: Empirical evidence from Colombo stock exchange. *International Journal of Business and Social Science*, 6(4), 92-97.
- Anwer, Z., Azmi, W. and Ramadili Mohd, S. M. (2019), How do Islamic equities respond to monetary actions?, *International Journal of Emerging Markets*, 14 (4), 503-522.
- Aurangzeb, D. (2012). Factors affecting performance of stock market: Evidence from south Asian countries. *International journal of academic research in business and social sciences*, 2(9), 1-15.
- Balagobei, S. (2017). Macroeconomic Variables and Stock Market Returns in Sri Lanka. *Asian Journal of Finance & Accounting*, 9(2), 206-218.
- Bhattacharya, B., and Mukherjee, J. (2002). The nature of the causal relationship between stock market and macroeconomic aggregates in India: An empirical analysis. In *4th annual conference on money and finance, Mumbai*, 401-426.
- Campbell, J. Y., Campbell, J. J., Campbell, J. W., Lo, A. W., Lo, A. W., and MacKinlay, A. C. (1997). *The econometrics of financial markets*. Princeton University press.
- Chang, B.H. and Rajput, S.K.O. (2018). Do the changes in macroeconomic variables have a symmetric or asymmetric effect on stock prices? Evidence from Pakistan, *South Asian Journal of Business Studies*, 7(3), 312-331

- Chen, M. H., Agrusa, J., Krumwiede, D., and Lu, H. J. (2012). Macroeconomic influences on Japanese hotel stock returns. *Journal of Hospitality Marketing & Management*, 21(1), 81-99.
- Dahir, A.M., Mahat, F., Ab Razak, N.H. and Bany-Arifin, A.N. (2018). Revisiting the dynamic relationship between exchange rates and stock prices in BRICS countries: a wavelet analysis, *Borsa Istanbul Review*, 18(2), 101-113.
- Effiong, E.L. and Bassey, G.E. (2018). Stock prices and exchange rate dynamics in Nigeria: an asymmetric perspective, *Journal of International Trade and Economic Development*, 28(3), 299-316.
- EI-Nader, H. M., and Alrainmony, A. D. (2013). The Macroeconomic Determinants of Stock Market Development in Jordan, *International Journal of Economics and Finance*, 5(6), 91-103.
- Eita, J. H. (2012). Modelling macroeconomic determinants of stock market prices: Evidence from Namibia, *Journal of Applied Business Research (JABR)*, 28(5), 871-884.
- Etale, L.M. and Eze, G.P. (2019). Analysing stock market reaction to macroeconomic variables: evidence from Nigerian stock exchange (NSE), *Global Journal of Arts, Humanities and Social Sciences*, 7(3), 14-28.
- Fama, E. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work, *Journal of Finance*, 25, 383-417.
- Francis, S. J., Ravinthirakumaran, N., and Ganeshamoorthy, M. (2021). The impact of macroeconomic variables on stock prices in Sri Lanka: a bounds testing approach, *International Journal of Accounting & Business Finance*, 7(Special), 68 – 91.
- Gunasekarage, A., and Colombage, S. R. N. (2002). The Behaviour of Share Prices in Emerging Markets: Evidence from the Colombo Stock Exchange. *Vidyodaya: Journal of Management Science*, 1(1 & 2) 2002: 94-116.
- Gunasekarage, A., Pisedtasalasai, A., and Power, D. M. (2004). Macroeconomic influence on the stock market: evidence from an emerging market in South Asia, *Journal of Emerging Market Finance*, 3(3), 285-304.

- Gurloveleen, K. and Bhatia, B.S. (2015). An impact of macroeconomic variables on the functioning of Indian stock market: a study of manufacturing firms of BSE 500, *Journal of Stock and Forex Trading*, 5(1), 1-7.
- Hatemi-J, A. (2002). Money supply and the informational efficiency of the stock market in Korea: evidence from an alternative methodology. *Journal of Economic Integration*, 17(3), 517-526.
- Hemamala, R. K. K., and Jameel, A. L. M. (2016). Relationship between inflation and stock market return: special reference to the Colombo stock exchange (CSE), *5th Annual International Research Conference-2016 Faculty of Management and Commerce- SEUSL*, 40-48.
- Ho, S. Y. (2017). The macroeconomic determinants of stock market development: evidence from Malaysia, *Munich Personal RePEc Archive*, 5(6), 2-28.
- Hunjra, A. I., Chani, D., Irfan, M., Ijaz, M. S., and Farooq, M. (2014). The impact of macroeconomic variables on stock prices in Pakistan, *International Journal of Economics and Empirical Research*, 2(1), 13-21.
- Hur, S. K., and Chung, C. Y. (2017). Revisiting CAPM betas in an incomplete market: Evidence from the Korean stock market. *Finance research letters*, 21, 241-248.
- Jayasundara, J. M. D. P., Rathnayake, R. M. A. K., and Fernando, P. J. S. (2019). Impact of macroeconomic variables on Stock Market Performance s: Evidence from Sri Lanka. *Sri Lanka Journal of Business Economics*, 8(1), 67-89.
- Kapaya, S.M. (2020). Stock market development and economic growth in Tanzania: an ARDL and bound testing approach, *Review of Economics and Political Science*, 187-206.
- Kandir, S. Y. (2008). Macroeconomic variables, firm characteristics and stock returns: Evidence from Turkey. *International research journal of finance and economics*, 16(1), 35-45.
- Khrawish, H. A., Siam, W. Z., and Jaradat, M. (2010). The relationships between stock market capitalization rate and interest rate: Evidence

- from Jordan, *Business and Economic Horizons (BEH)*, 2(1232-2016-101136), 60-66.
- Kyereboah-Coleman, A., and Agyire-Tettey, K. F. (2008). Impact of macroeconomic indicators on Stock Market Performance, *The Journal of Risk Finance*, 9(4), 365-378.
- Lakmali, A., and Madhusanka, K. J. S. (2015). The Effect of Macro-Economic Variables on Stock Prices in Sri Lankan Stock Market, *International Research Symposium Rajarata University of Sri Lanka*, 86-93.
- Lee, Y. K., Ng, Y. L., Soon, C. Y., and Thou, L. Y. (2017). *The Relationship between Macroeconomic Variables and Stock Market Performance in Thailand* (Doctoral dissertation, UTAR).
- Lee, J.W and Brahmasrene, T. (2018). An exploration of dynamical relationships between macroeconomic variables and stock prices in Korea, *The Journal of Asian Finance, Economics and Business*,5(3), 7-17.
- Leenee, A., and Taylor, C. (2014). Impacts of Crude Oil Price & Money Supply on Stock Price: The Case of Malaysia. <https://doi.org/10.13140/2.1.3305.6000>.
- Liang, C. C., Lin, J. B., and Hsu, H. C. (2013). Re-examining the Relationships between Stock Prices and Exchange Rates in ASEAN-5 using Panel Granger Causality Approach, *Economic Modelling*, 32, 560-563.
- Lintner, J. (1965). The valuation of risk assets on the selection of risky investments in stock portfolios and capital budgets, *Review of Economics and Statistics*, 47(1),13-37.
- Marques, L.M., Fuinhas, J.A. and Marques, A.C. (2013). Does the stock market cause economic growth? Portuguese evidence of economic regime change, *Economic Modelling, Elsevier B.V*, 32(1), 316-324.
- Mazuruse, P. (2014). Canonical correlation analysis, *Journal of Financial Economic Policy*, 6(2), 179-196.
- Megaravalli, A.V. and Sampagnaro, G. (2018). Macroeconomic indicators and their impact on stock markets in ASIAN 3: a pooled mean group approach, *Cogent Economics and Finance*, 6(1),1-14.

- Menike, L. M. C. S. (2006). The effect of macroeconomic variables on stock prices in emerging Sri Lankan stock market. *Sabaragamuwa University Journal*, 6(1), 50-67.
- Mishkin, F., and Eakins, S. (2011). Financial institutions and the markets, *Pearson Education, Inc.*
- Momani, G. F., and Alsharari, M. A. (2012). Impact of economic factors on the stock prices at Amman stock market (1992-2010). *International Journal of Economics and Finance*, 4(1), 151-159.
- Muhammad, S. D., Hussain, A., Ali, A., and Jalil, M. A. (2009). Impact of macroeconomics variables on stock prices: Empirical evidence in case of KSE, *European Journal of Scientific Research*, 38(1), 96-103.
- Nijam, H. M., Ismail, S. M. M., and Musthafa, A. M. M. (2015). The impact of macro-economic variables on Stock Market Performance; evidence from Sri Lanka, *Journal of Emerging Trends in Economics and Management Sciences*, 6(2), 151-157.
- Osamwonyi, I. O., and Evbayiro-Osagie, E. I. (2012). The relationship between macroeconomic variables and stock market index in Nigeria, *Journal of Economics*, 3(1), 55-63.
- Pal, K., and Mittal, R. (2011). Impact of macroeconomic indicators on Indian capital markets, *The Journal of Risk Finance*, 12(2), 84-97.
- Patro, D. K., Wald, J. K., and Wu, Y. (2014). Currency devaluation and stock market response: An empirical analysis, *Journal of International Money and Finance*, 40, 79-94.
- Perera, P. R. M. R. (2015). Macroeconomic variables effect on All share price index in Colombo stock exchange of Sri Lanka, *International Journal of Scientific & Engineering Research*, 6(6), 960-961.
- Perold, A. F. (2004). The capital asset pricing model, *Journal of economic perspectives*, 18(3), 3-24.
- Shafana, M. A. C. N. (2014). Macroeconomic variables effect on financial sector performance in Emerging Sri Lankan Stock Market, *International Journal of Science and Research*, 3(10), 227-231.

- Sharpe, W.F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk, *Journal of Finance*, 19(3), 425-442.
- Singh, T., Mehta, S., and Varsha, M. S. (2011). Macroeconomic factors and stock returns: Evidence from Taiwan. *Journal of economics and international finance*, 3(4), 217-227.
- Sireesha, P. (2013). Effect of select macro-economic variables on stock returns in India. *International Journal of Marketing, Financial Services & Management Research*, 2(6), 197-209.
- Tiryaki, A., Ceylan, R. and Erdogan, L. (2019). Asymmetric effects of industrial production, money supply and exchange rate changes on stock returns in Turkey, *Applied Economics*, 51(20), 2143-2154.
- Wickremasinghe, G. (2011). The Sri Lankan stock market and the macro economy: an empirical investigation, *Studies in Economics and Finance*, 28(3), 179-195.
- Wong, H. T. (2017). Real Exchange Rate Returns and Real Stock Price Return, *International Review of Economics & Finance*, 49, 340-352.
- Zoa, C. H., Chet, F. W., Sheng, H. Y., Lin, W. H., and Shen, Y. J. (2014). The Impact of Macroeconomic Variables on the Stock Market Performance in Japan, *Thesis, Faculty of Banking and Finance (FBF), Universiti Tunku Abdul Rahman (UTAR)*.
- Zohaib Khan, S. K. (2012). Impact of Interest rate, Exchange rate and Inflation, *Int. J. Eco. Res*, 315, 142-155.

The Effect of Tourist Motivational Factors on Tourist Destination Image

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Abstract

This research investigates the effect of tourist motivation factors on tourist destination image. Tourism is foreign income source of the economy which benefitted enormously through its destination. Even though there are number of research conducted in Sri Lanka, no empirical study has been conducted in Southern Province considering the push and pull motivational factors which affected to the destination image, and this is the modest attempt to fill this research gap. Descriptive and quantitative research method was used to analyze the data. The dependent variable is destination image where independent variables were push and pull motivational factors. The data was analysed by multiple linear regression. It was argued that Seeking relaxation and gaining knowledge, are push motivational factors, and affordability and easy access and experiencing adventures are as pull motivational factors that affected to destination image.

Keywords-: Tourist Motivation; Push Factors; Pull Factors; Destination Image

1. INTRODUCTION

“Tourism is traveling for leisure, business, and alternative functions for no more than one year” (Kamb, 2021). As a tropical country, Sri Lanka has various climate zones, starting from arid dry zone conditions to lush, mountainous regions adding to its attractions (Fernando, et.al, 2019). In 2018 travelers arrived in the country was about 2,333,796 and according to a range of nights spent in 2018 by international

tourists was twenty-five,205,000 (SLTDA, 2019). These statistics show that tourism could be a powerful driver of the economic process of the country. The tourism sector of Sri Lanka has benefitted enormously through its destination such as cultural capes, landscapes, ayurvedic tourism, eco-tourism, beaches, cultural heritage landscapes and wildlife parks (Laksiri, 2007). Statistics show that in 2017, Sigiriya was the mostly visited destination by more than 563,000 visitors (SLTDA,

2019). It is evident that tourism industry helps increase the national income, decrease the unemployment rate, encourage new enterprises and develop infrastructure plus the rural areas of the country (SLTDA, 2019). Thereby, it is vital to pay more attention on why people should visit Sri Lanka, in tourism planning by the private sector as well the government sector (Ranasinghe et al., 2020). It has been identified some motivational factors affecting to tourist arrivals to Sri Lanka and travel around the country such as seeking relaxation, enhancing relations, gaining knowledge, fulfilling spiritual needs, affordable and easy access, and adventure activities. Most of the Sri Lankan and foreign tourists' prime motivation factor is pleasure and it includes factors such as: holiday, recreation and site seeing. (Abeysekara & Kulathilaka, 2020).

Theories in sociology, psychology and anthropology were foundations for travel motivational factors. Specially Dann's theory and Iso-Ahola's theory were the theories based on Physiological needs, needs for self-actualization of the human motivation. There, Dann's Theory introduced the push, pull motivational factors as one of major motivational factors that affected to tourist destination image (Yousaf et.al., 2018; Qian et.al., 2020). Push factors include such as escape, prestige, novelty, pleasure and Pull factors are the attractiveness of the destination,

ease of travel, infrastructure facilities. Many researchers have identified that, there is a relationship between these motivational factors and destination image (Ranasinghe, 2019; Qian, et.al, 2020; Abeysekara and Kulathilaka, 2020; Vinyals et.al, 2019; Wong et.al, 2021; Pearce, 2013; Pestana and Parreira, 2020; Fernando et.al,2019; Wicramasooriya, et.al, 2020). The researchers argue that Sri Lanka's natural beauty and its diversity is the prime pull motive factors that agnates destination image. Also, Sri Lankan culture, religion, historical monuments, friendliness of people, customs and traditions are pull motivational factors which affected to destination image (Wicramasooriya, et.al, 2020; Ranasinghe ,2019). Even though there are number of research conducted in Sri Lanka, no empirical study has been conducted considering the push and pull motivational factors which affected to the destination image of tourists focusing to Southern Province, Sri Lanka. Where Southern Province considered as famous destination for tourist attraction, especially Galle and Matara Districts. Table 1 illustrates the annual occupancy rates of tourists' hotels and resorts in Sri Lanka for the period of 2017 to 2020. It shows that South Cost which represent the Southern Province is one the most attractive tourist destination place in Sri Lanka. Moreover, Southern Province has its own identity for

tourist attraction with its stunning beaches, places such as Sinharaja rain forest, incredible wildlife like dry ever green sanctuaries which are Yala, Udawalawa national parks and classical heritage landmarks of Galle and Matara Dutch Forts and other natural environmental attractions. These factors of destination attributes and tracing real feelings of visiting Southern Province might be different for tourists than other provinces of the country. Hence studying the tourist motivation factors which affects to destination image may provide different results for Southern Province in Sri Lanka. Thereby this research is the modest attempt to fill that research gap. And the main objective of this research is to empirically investigate the effect of tourist motivation factors on tourist destination image special reference to Southern Province, Sri Lanka.

2. LITERATURE REVIEW

There are several theories that have been developed related to motivational factors and destinations of tourism. Among those, Dann's Theory of Push, Pull Motivations (1997), Iso- Ahola's Motivation Theory in Tourism, and Motivation Theory of Destination Image are important.

2.1 Dann's push and pull motivation theory

Dann (1977) push, pull motivation theory is one of all the widely accepted theoretical frameworks

in business analysis. According to Dann (1977), multiple factors inspire tourists to go to specific places or destinations. These factors divided to two categorized as push or pull motivations. Push factors can be identified as internal drivers or intrinsic factors that lead people to travel. These factors are associated with factors such as ego enhancement, self-esteem, knowledge-seeking, relaxation, socialization, recreation, adventure, and escape. Push factors can be categorized as factors that lead people to travel. These requirements are commonly identified as the socio-psychological needs of individuals. Pull factors are extrinsic factors/ external factors that motivate people to travel. Pull factors are mainly related to destination facilities. (Example: price, infrastructure, facilities)

2.2 Iso- Ahola's motivation theory in tourism

This is basically social psychology model of tourism. Iso-Ahola, (1983), stated that "interpersonal salvation, personal salvation, personal seeking, interpersonal seeking is the impetus for tourism and entertainment (Choe et.al., 2013). Iso-Ahola (1983) further states that "the interaction of two forces manages the psychological benefits of recreational travel: avoidance of normal and stressful environments. In this "process of optimization, people open themselves up to other levels of interaction and social interaction at other times and at different

times. This does not mean that people always have such optimism or balance". The dialectical process often fails and causes more interaction and stress than expected. The psychological evidence reviewed suggests that recreational travel has the potential to provide the individual with an alternative stimulus and the need for the desired social interaction (Goossens, 2000).

2.3 Motivation theory of destination image

Many researchers are more concerned to explain behaviour and satisfaction of tourist through destination image than explaining what influences on it. The studies where destination image is taken as a dependent variable are limited (Madden et.al, 2016), maybe due to the trust in capability of the motivation theory to explain. It seems cognitive and affective image are influenced to motivate towards destination image. The "cognitive destination refers to the beliefs, impression and knowledge about the attribute of destination whereas the affective image refers to the feelings and emotions towards the destination" (Martin and Rodriguez 2008). In marketing motivation theory is widely accepted, especially the internal motivation can use to segment the tourists and can design customize marketing campaigns accordingly to attract the tourists (Madden et.al, 2016). Most tourism studies agree that at "the pre-visit stage, motivation plays a major role in determining

tourists' decisions regarding when, where and what type of tourism to pursue" (Madden et.al, 2016).

2.4 Tourist motivation and destination image

According to Woosnam and Styliadis (2020), destination image was a beneficial area of study, and he explains that personal behavior depends on image rather than reality. Destination image is defined as the expression of a load of knowledge, impressions, and prejudices, emotional thoughts, of a person or group of people who have a particular objective or place (Pujiastuti et.al, 2020). Also, tourism destination image can be explained as the perception about tourism infrastructure, unique cultural attraction and destination, hospitality atmosphere. (Vinyals et.al, 2019). Whereas travel motivation is considered as a key component of understanding travel decision-making behavior, and it plays a specific role in predicting future travel patterns. Travel motivation can be described as a "global network of biological and cultural forces that provide value and guidance for travel choices, behaviors and experiences" (Malhotra et.al., 2004). Moreover, a strong link between travel motivation and travel destination choices is well documented in the travel literature (Mansfeld, 1992). Considering the past literature on holidaymaker motivation, it is evident that push and pull factors are immensely affected for such motivation (Mehmetoglu, 2011).

Many of the push factors associated with sources that are invisible or inherent desires of individual travelers. Reasons to touring and the advantages of touring experience directly and indirectly represent strategies to meet personal goals and personal needs (Kim, Lee, & Klenosky, 2003). For example, travelers who came to rest and relaxation do so in order to escape from normal life, while others are greatly rewarded for maximizing their enjoyment (Fodness, 1994).

2.5 Push factors and pull factors

Researchers argue that push and pull motivational model is accepted as to measure the travel motivation (Crompton, 1979; Dann, 1977; Yuan & McDonald, 1990). Push factors are defined as innate motivations that cause tourists to seek activities to reduce their needs. Dann, (1977) discuss that pushing factors are logical and often temporary. Kim et al. (2003) linked pushing factors as demand and pulling factors into supply. Findings on the interaction of these factors help destination managers activate their successful market presence (Özdemirler & Uysal, 2005). They represent the awareness of tourists about the main destination and the qualities they need to incorporate into their experience (Gnoth & Zins, 2013). Yuan and McDonald (1990) determine seven factors for selection of destination such as budget, culture, history, simple travel, desert, universal setting,

facilities. Further it was confirmed that attractions have the potential to stimulate and strengthen the primary drive of destinations such as beaches, recreation facilities, cultural sites, recreation, landscaping, shopping and gardening (Vurren & Slabbert, 2012; Yuan & McDonald, 1990). Dann (1977) suggested developing anomie and ego-enhancement as two push motives. Anomie refers to the desire to go beyond the feeling of loneliness in everyday life and to gain recognition through the status quo that travel provides. Moreover, the desire to escape from the cognitive secular environment, rest, fame, regression, health and fitness, improving relationships, exploration, and self-assessment were also identified as push factors for motivation on destination (Dann, 1977). Also, it was described push travel motives into five categories such as: Leisure travel motives, Events or festival travel motives, Shopping travel motives, Relaxation travel motives, and Nature or heritage travel motives (Merwe, and Saayman, 2011). This classification is linked with the image that they have established in their mind and pull factors are associated with the attractiveness of a regions and its various elements which helps to formation of the destination image.

2.6 Tourists Destination image

Destination image, especially the area of attraction where a tourist destination is assessed based on a

set of attributes corresponding to resources or attractions. There is considerable number of authors gave several kinds of definitions related to the destination image. Crompton (1979) states that, the destination image is a collection of beliefs, ideas, and feelings that a person has about a destination. San Martín and Del Bosque (2008) define the destination image as a mental representation of a person's knowledge, feelings, and global feelings about a destination. According to Wong, Song, and Zhang (2021), factors that attract tourists to a destination, in essence, affect the image of a tourist as a destination. According to MacKay and Fesenmaier (1997) the image of a destination is a collection of different products and attributes woven into an overall feeling. Those attractions, such as sightseeing, activities to attend, and memorable experiences, are elements of a destination that should attract tourists and provide the motivation and magnetism needed to get to a determined place. Other authors interpret this image as a collection of all the beliefs, ideas, and feelings that people associate with a destination (Crompton, 1979). The destination image influences tourists to decide where to spend their vacation and money. Here, the importance of the destination image for travelers is crucial. Potential travelers generally have limited knowledge of a destination they have never been to before, as it can be difficult to get objective

action on additional destinations or holiday features.

2.7 Effect of tourist motivational factors on tourist destination

The travel literature clearly shows there is a strong link between travel motivations and destination choices (Kim et al., 2003). Destination development should be planned with the unique motivation of tourists to their specific destinations. In the current competitive environment, their destination varies according to the motivations of the tourists. When considering destinations, many businesses related to tourism try to attract tourists and use different products and services to help their customers choose from a group of destinations (Crompton, 1979). These are called traction factors. Dragging factors are mainly associated with the attraction of a particular destination and the perceived features of the beach, accommodation and recreational facilities as well as cultural and historical and historical resources. According to Kozak (2002), the focal point of the tourism system is the destination with its characteristics and resources, and it was identified four major categories of motivation: culture, the pursuit of pleasure, relaxation, and physics. German tourists are more likely to have motivations based on culture and nature. British tourists loved to have fun and mingle with other tourists. Tourists coming to Turkey had stronger cultural and physical

motivations than tourists from Mallorca (Kozak, 2002). The study by Zhang and Chai (2009) revealed six driving factors that are motivation towards destination: new experience, salvation, knowledge seeking, fun and relaxation, rest and relaxation, family and friends being together. Also, five factors such as: nature and historic historical environment, hygiene and cleanliness facts, easy to access and economical deal, outdoor activities, sun and foreign environment are impotent towards destination image. Tourists came to Sri Lanka with four major objectives such as: Primary, secondary, intermediate and minimal motives. The primary impetus is the need for tourists to rest and relax. Secondary push factors help travelers to get away from their busy schedule, busy life, experience different lifestyles, learn new things and seek new knowledge (Gnanapala ,2011; Abeysekara and Kulathilaka, 2020, Fenando et.al, 2019, Silva et. al., 2020). Further, they argue that attractions related to the destination of the natural beauty of Sri Lanka and its various flora and fauna are the main motivation of tourism in Sri Lanka. Also, Sri Lankan eco system, culture, Buddhism, historical monuments buildings, the friendliness of the Sri Lankan people, customs and traditions are the secondary motives.

3. METHODOLOGY

3.1 Research design

This research is descriptive in nature and quantitative research method was used to describe the data. Significant effort was depleted in the designing stage of research study applying the unstructured technique to generate tourist push, pull factors and using those in a structured way to check out tourist push, pull factors who visited the Southern province of Sri Lanka.

3.2 Population and Sample

The researcher considered both local tourists and foreign tourists who are visited within last 2020 to 2021 May to Southern province, Sri Lanka was the research population. Researchers selected the sample of 150 tourists (80 local tourists and 70 international tourists) to collect data and check the response.

3.3 Data Source, methods, instruments, and analysis

The Primary data was used as main source of information gathered in this study. Besides, the secondary data is also applied where necessary. The questionnaire was developed based on conceptual framework and each major constructs of independent variables (seeking relations, enhancing relaxation, gaining knowledge, fulfilling spiritual needs, affordable and easy access, variety seeking natural environment, adventure activities, events and activities)

were measured through five indicators of each variable. Dependent variable also measured through five indicators (See Table 2). A pre-test was carried out to determine whether respondents have any difficulty of understanding the questionnaire, and ambiguous or biased questions. Pre-test of the questionnaire was carried out to improve the measurement items to assure the content and face validity of the measurement. After assuring validity of measurements, pilot test was carried out using 15 tourists to assure the reliability and validity of indicators and constructs. The validated and reliability assured questionnaire was administered by the researchers to a convenient sample of tourists who visited to the Southern area during 2020 up to 2021May. Further, that international tourist was contacted through tourists' agents and managers of the hotels. Some interviews were conducted face to face and, the researchers prepared online Google form to collect data and then distributed questionnaire through agents and managers. They contacted them through online platforms such as WhatsApp, Facebook, Instagram. The data was analysed by multiple linear regression using Statistical Package for Social Science (SPSS) 20 software. The aim of regression analysis is to construct mathematical models which describe the effect of tourist motivational factors and tourist destination image.

3.4 Conceptual Framework

The conceptual framework was developed based on the literature review and theoretical foundations. Accordingly, researchers conceptualize both independent and dependent variables within a conceptual framework which illustrates in figure 3.1.

3.5 Hypothesis

It is assumed the tourist motivation is the major factor that determines the destination image and researchers argue that push and pull motives are major motivational tools to measure the travel motivation towards choosing their destinations. Seeking relaxation one of major factor for selecting a destination by a tourist and thereby it is hypothesized that,

H1: There is positive effect of Seeking Relaxation on tourist destination image.

Enhancing relation is one of the stimuli influencing the forming of perception and evaluation of destination pre and post visit. It gathered tourist experience and sociodemographic characteristics. And it is hypothesized that,

H2: There is positive effect of Enhancing Relations on tourist destination image.

Destination image incorporates perceptions, beliefs, feelings, and knowledge about destination; hence, it is hypothesized that,

H3: There is positive effect of Gaining Knowledge on tourist destination image

One of intrinsic motivation factors is fulfilling psychic needs of tourist when selecting their destination. Therefore it is hypothesized that,

H4: There is positive effect of Fulfilling Spiritual Needs on tourist destination image

Tourist motivation on destination is affected by external stimuli's, some of the tourists select their destination based on the affordability and easy access to the selected destination. Therefore it is hypothesized that,

H5: There is positive effect of Affordable and Easy Access on tourist destination

Destination image has been explored based on tourist's beliefs about cognitive foundations associated with natural environment and climate attractions, activities, and other resource attributes. Accordingly, it is hypothesized that,

H6: There is positive effect of Variety Seeking Natural Environment on tourist destination image

Some of the tourists select their destination to get an exciting experience or undertaking something risky. Thus, it is hypothesized that,

H7: There is positive effect of Adventure Activities on tourist destination image

Occasionally, tourists are selecting their destination based on participating in events and activities. Therefore, it is hypothesized that,

H8: There is positive effect of Events and Activities on tourist destination image

4. RESULTS AND DISCUSSION

The overall survey was conducted by sending 200 questionnaires. Out of the answers received for those questionnaires, 150 were selected and other questionnaires had to be ignored due to incompleteness. The researchers did not find any considerable difference of the answers of international and local tourists. Further, researchers found that almost all local tourists are first time visitors to places like Sinharaja rain forest, Udawalawa and Yala national Park, and some other historical sites. Hence, though the cultural values are different among foreign and local tourists their motivational factors when choosing a destination is normally the same.

4.1 Descriptive analysis of destination image and tourist motivation

Descriptive analysis uses to measure the variability, and shape of the sample data. Table 3 shows

the descriptive statics which describe the features of collected data.

4.1.1 Dependent variable

According to the Table 3, the mean value of dependent variable is 3.9853. It is closed to 4. Hence, the perception of the tourist with regards to the motivational factors on Destination Image (DI) is align with agree status.

4.1.2 Independent variables

According to Table 3 the mean values of Push Factors, Seeking Relaxation (SR) has the highest mean value, and it is 4.0747. It is closer to 4, which is considered as the agreed level. Also mean values of other factors such as Enhancing Relations (ER), Gaining Knowledge (GK), Fulfilling Spiritual Needs (FSN), are respectively 3.8787, 3.8960, and 3.8693 also close to 4. In the Pull Factors, the highest mean value shows Affordable and Easy Access factor (AEA) and it is 4.1853. The factors such as Variety Seeking Natural Environment (VSNE), Adventure Activities (AA), Events and Activities (EA) mean values are respectively 4.0107, 3.8840, and 4.0267 also close 4. Hence, both push and pull factors are considered as agreed levels.

4.2 Normality test/ data distribution

To test the shape of the distribution, the normality test was conducted. Normality through the values of Skewness and Kurtosis

or Shapiro-wilk test use for measure the shape of the distribution (Saunders, Lewis, & Thornhill, 2009). According to Veal (2006) "if the Skewness values are closer to zero and Kurtosis values are in between the range of +2 to -2, it can be considered as that data set follows a normal distribution". Table 4 shows the statics of normality test and data distribution. As the statistics in table 3 discloses, the data of this study has normal distribution because all Skewness values are near to zero while kurtosis value aligned in the range of +2 to -2.

4.3 Econometric results of the effect of tourist motivational factors on destination image

The motivational factors (Independent Variables) are describing under two major headings: Push Motivational Factors and Pull Mutational Factors. Under the push motivational factors study considered for factors as: Seeking Relaxation (SR), Enhancing Relations (ER), Gaining Knowledge (GK) and Fulfilling Spiritual Needs (FSN). And pull motivational factors were discussed with four namely: Affordable and Easy Access (AEA), Variety Seeking Natural Environment (VSNE), Adventure Activities (AA), and Events and Activities (EA). Multiple Regression analysis was used to measure how push and pull motivational factors and their

effect on destination image. To test the variation among dependent and independent variables R square test was run. "The value of adjusted R square indicates the degree of variant of dependent is explained by the independent variable" (Harrell, 2009). Thus, Table 5 indicates both push and pull motivational factors and how it explains the dependent variable (Destination Image). It shows that, 47.2% of variation of dependent variable (Destination Image) is explained by push and pull independent variables in the model. Moreover, these statistics shows that, 52.8% of variation are considered as other factors that affected to destination image of tourist's motivation.

4.4 Reliability of the indicators

The reliability analysis of the push factors and pull factors are shown in Table 6. Each indicator in each dimension measured through asking five questions. According to Table 6, Cronbach's Alpha value in all the indicators is greater than the 0.7 and it denotes all the variables are highly reliable.

Further to measure the internal consistency of the model Cronbach's alpha was used. When Cronbach's alpha ranges from 0 to 1 it denotes that data in the model is internally consistent, and the higher value indicating greater internal consistency. Table 7 illustrates the cumulative reliability values of dependent (Destination Image) and independent variables (Push and

Pull Motivational Factors) and it shows all values are near to 1 of both dependent and independent variables and it signifies that, there is higher internal consistency among the items in the construct because all Cronbach's alpha values are higher than the standard value 0.7.

4.5 Multicollinearity test

To test the Multicollinearity, VIF (Variance Inflation Factor) and Tolerance value were used. There is the tolerance of less than 0.20 or 0.10 and or VIF of 5 or 10 above indicates a multicollinearity problem (Harrell, 2009). See Table 8 for multicollinearity test results of the study. Accordingly, the statistics shows that there is no multicollinearity problem with the data.

4.6 Push motivational factors and the effect on destination image

Table 9 indicates the push motivational factors and how it explains the dependent variable (Destination Image). Moreover, 39.1% of variation of dependent variable (Destination Image) is explained by an independent variable (Fulfilling Spiritual Needs (FSN), Seeking Relaxation (SR), Gaining Knowledge (GK) and Enhancing Relations (ER).) in the model. Moreover, 60.9% of variation are considered as other factors that affected to destination image of tourist's motivation.

4.6.1 Analysis of variance for push factors

The relationship between destination image and Fulfilling Spiritual Needs (FSN), Seeking Relaxation (SR), Gaining Knowledge (GK) and Enhancing Relations (ER) with Destination Image (DI) was tested through ANOVA. Table 10 shows that there is a statistically significant association of Fulfilling Spiritual Needs (FSN), Seeking Relaxation (SR), Gaining Knowledge (GK) and Enhancing Relations (ER) with Destination Image (DI) and those variables can be significantly used to predict the Destination Image (Sig. Value is .000).

4.6.2 The effect of push factors on destination image

The push factors (SR, GK, ER, DI) and their impact on destination image are illustrated in Table 11. Accordingly, the p values of Seeking Relaxation (SR, .010) and Gaining Knowledge (GK, .047) were less than 0.05. Hence, these factors are significantly affected to determine the Destination Image. Seeking relaxation aims to get rid of routine life, to get relaxation, to feel novelty, to self-exploration and evaluation, and to find thrill and excitement, spent time outside the home. It shows that most of the tourists travel to Southern Province in Sri Lanka for seeking relaxation. Researchers didn't see much difference among foreign and local travelers' however most of international travelers are particular with feel novelty.

Gaining knowledge describes with to improve knowledge, to increase knowledge about different destinations, and to collect data for their studies are also affected as a motivational factor on deciding Southern Sri Lanka as their destination. When gaining knowledge international travelers are precise with learning different culture and experiencing different lifestyles.

4.7 Pull motivational factors and the effect on destination image

Table 12 indicates the pull motivational factors, independent variables and how it explains the dependent variable (Destination Image). Moreover, 37.4% of variation of dependent variable (Destination Image) is explained by independent variables. Moreover, 37.4% of variation of dependent variable (Destination Image) are explain by an independent variable (Affordable and Easy Access (AEA), Variety Seeking Natural Environment (VSNE), Adventure Activities (AA), Events and Activities (EA) in the model. Moreover, 62.6% of variation are considered as other factors that affected to destination image of tourist's motivation.

4.7.1 Analysis of variance of pull factors

The pull factors the analysis of variance was tested through ANOVA. Table 13 shows that there is a statistically significant association with Affordable and Easy Access (AEA), Variety

Seeking Natural Environment (VSNE), Adventure Activities (AA), Events and Activities (EA) and those variables can be significantly used to predict the Destination Image (Sig. Value is .000).

4.7.2 Pull factors and the effect on destination image

The pull factors (AEA, VSNE, AA, EA) and their effect on destination image are illustrated in Table 14. Accordingly, the p values of Affordable and Easy Access (AEA) and Events and Activities (EA) were less than 0.05. These factors are significantly affected to determine the Destination Image. Accordingly, Affordable and Easy Access (AEA) recorded the highest beta value (beta: .295) and positive p (.001) value. It denotes: Personal safety, safe destination, low expenditure, peaceful environment, service qualities. When compare the international and local very little difference was identified, where international tourists are more particular with safe destination and peaceful environment. The second highest beta recorded with Events and activities (EA) (beta: .262) with positive p (.025). It represents the activities for entire family, Destination promotions, Traditional Sri Lankan food and beverages, Different language, lifestyle and other cultural attraction, Festivals and other events like Perahera, festivals, and educational field visits. Comparing the local with

international tourists they are specific with Traditional Sri Lankan food and beverages, Different language, lifestyle and other cultural attraction. There by the researchers argued that when improving the push factors (SR and GK) and pull factors (AEA and EA) can be attractive to the southern Sri Lanka.

4.8 Testing hypothesis

The results of the study shown in Table 11, hypothesis was tested through push factors, accordingly,

H1 was accepted ($\beta = 0.278$, $p = 0.010$) and rejecting the null hypothesis. It shows seeking relaxation is having a positive effect on destination image This finding supports the Yuan and McDonald (1990) empirical findings.

H2 was rejected the coefficient value of beta is 0.117 and it is statistically positive. However, the p value is greater than the alpha value 0.05 ($p = .301$). Hence there was not a significant positive effect of enhancing relations on destination image.

H3 was accepted (beta is 0.205 and $p = 0.047$) and rejecting the null hypothesis. It illustrates that gaining knowledge have positive effect on destination image.

H4 was rejected and the coefficient value of beta is 0.103 and it is statistically positive. However, when considering the significance value of fulfilling spiritual needs, it is 0.373 and it is

greater than p value (0.05). Hence there was not a significant positive effect of fulfilling spiritual needs.

The results of the study shown in Table 14 hypothesis was tested through pull factors, accordingly.

H5 is accepted, and (Beta is 0.295 and $p = 0.001$) it is strongly significant. Therefore, the results imply that there is a significantly positive effect of affordable and easy access on destination image.

H6 was rejected, the coefficient value of beta is 0.085 and it is statistically positive although, p value is 0.440 and it is greater than p value (0.05). Hence, it can be concluded that there was not a significant positive effect of variety seeking natural environment on destination Image.

H7: was rejected and the beta is 0.066 and it is statistically positive, and the p value is 0.564 and it is greater than 0.05. Thus, no significant positive effect of adventure activities on destination image.

H8: was accepted, where beta is 0.262 and the p value is 0.025 and it is less than the p value 0.05. Therefore, the results imply that there is a significantly positive effect of events and activities on destination image.

5. CONCLUSION

Destination images contribute to the destination choice of the tourists, and it has significantly

influence on tourist satisfaction and destination loyalty. People travel for pleasure and need, and they motivated to travel to see beautiful places, explore culture, relaxation, enhancing relations, gaining knowledge, fulfilling spiritual needs, experiencing and seeking varieties in natural environment, and participating events and activities. This paper critically analysis the effect of those motivational factors on tourists' destination image. It was concluded that tourist is selecting Southern Sri Lanka as their destination for seeking relaxation in line with the findings of Dann 1977, Iso- Ahola (1983), Merwe and Saayman (2011), Gnanapala ,2011; Abeysekara and Kulathilaka, 2020, Fenando et.al, 2019, Silva et. al., (2020), gaining knowledge, confirms with the findings of Dann (1977), Zhang and Chai (2009), Gnanapala ,2011; Abeysekara and Kulathilaka, 2020, Fenando et.al, 2019, Silva et. al., (2020), experiencing events and activities, verifies with the findings of Gnanapala (2011) and based on the affordability and easy access proves the findings of Yuan and Mc Donald (1990). This paper also suggested that these four pushes and pull factors should improve to attract tourist for Southern, Sri Lanka as a destination.

6. IMPLICATIONS OF THE RESEARCH

Based on the conclusion relevant steps can be taken to increase the

awareness of tourists about the natural resources and historical sites in Sri Lanka specially in Southern Province. Its emphasis that when making policy decisions Managers, and Policy makers of Tourism Industry must pay attention on providing recreation and relaxation activities for tourists, improvement of knowledge on historical places, increase the services quality,

safety and affordability. Especially, managers should improve the cultural activities at the places that tourists are lodging. Particularly, international tourists have made it clear within their response that they are looking forward to seeing natural beauty and wanting to experience favorable weather and historical sites.

APPENDIX

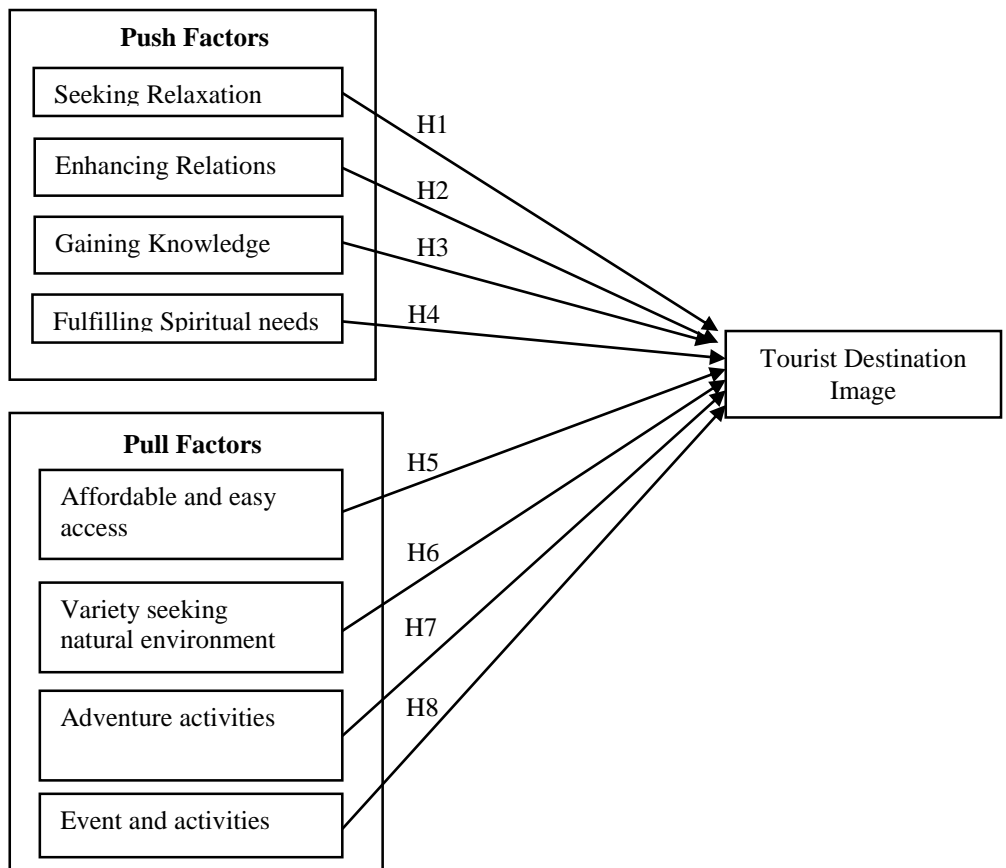


Figure 3. 1 Conceptual Framework

Table 1: Annual occupancy rates of tourist hotels and resorts

Resort Region	2017	2018	2019	2020
Colombo city	75.31%	79.19%	58.74%	15.9
Greater Colombo	73.14%	75.41%	57.9%	N/A
South Coast	72.38%	73.1%	59.68	23.2
East Coast	72.95%	71.35%	57.31	18.1
Hill Country	73.55%	71.67%	57.45	22
Ancient Cities	73.85%	71.37%	56.96	16.9
Northern Region	70.98%	68.48%	48.55	14.5

Source: Tourist Board Annual Statistical Reports (2017,2018,2019,2020)

Table 2: Operationalization of variables

Variable	Dimension	Measurement Items	Measurement	Reference
Push factors - push factors are defined as intrinsic motives that cause tourists to seek activities to reduce their needs. Push factors is a socio-psychological visitor contract that effects on their motivation to visit an attraction and destination.	Seeking relaxation	Get rid of routine life.	5-point Likert scale	Solanki (2011)
		Get relaxation		Yuan and McDonald (1990)
		Feel novelty		Balogu and McClearly (1999)
		Find thrill and excitement		Laksiri (2007)
		Seek solitude in a foreign land		Yousaf, Amin, & Santos (2018)
		Spend time outside from home environment		
	Enhancing relations	Meet different people	5-point Likert scale	Dale Fodness (1994)
		Enhancement of kinship		Yoon and Uysal (2005)
		Exchange custom and tradition		L. J. Crompton (1979)
		Visit a place friend have never been		Silva et al., (2020)
		Re-experiencing family togetherness		
	Gaining knowledge	Improving knowledge,	5-point Likert scale	Yoon and Uysal (2005)
		Learning about different culture,		Dale Fodness (1994)

		Experience new and different lifestyles or traditions	5-point Likert scale	Gnanapala (2011)
		Increase knowledge about foreign destination		
		Increase experiences		
	Fulfilling spiritual needs	Visit a place that has never been		
		Fulfill spiritual requirements		
Fulfill dream of visiting foreign country				
Self-exploration and evaluation				
	Participate in new activities			Dann (1977)
Pull factors - Pull factors are extrinsic factors. Pull factors are the quality of the setting that attracts them to come to an attraction or specific destination.	Affordable and easy access	Low expenditure	5-point Likert scale	Sahadev & Islam (2005)
		Service quality		Yoon & Uysal (2005)
		Safe destination		
	Variety seeking natural environment	Interesting rural countryside	5-point Likert scale	Fodness (1994)
		Peaceful environment		Klensoky (2002)
		Weather/ climate		
		Exotic atmosphere		
		Outstanding natural scenery		
		British culture and tea plantation		
	Adventure activities	Personal safety	5-point Likert scale	Dann (1977)
		Adventure outdoor activities		
		Mount climbing		
		Surfing and beach parties		
	Event and activities	Cultivations	5-point Likert scale	Ferreira (2011)
		Activities for entire family		Gnanapala (2011)
Destination promotions				

		Traditional Sri Lankan food and beverages		Uysal & Jurowski (1994)
		Different language, lifestyle and other cultural attraction		
		Festivals and other events		
Tourist destination image- Collection of beliefs, ideas, and feelings that a person has about a destination	Destination image	Full of places of historical or cultural interest	5-point Likert scale	Crompton (1979)
		Fashionable place		Balogu and McClearly (1999)
		Climate A		Fernando et al., (2019)
		Convenience		
		Full of beauty of landscape		

Source: Develop by researchers 2021

Table 3: Mean and Standard Deviation of Destination Image and Tourist Motivation

	<i>N</i>	<i>Mean</i>	<i>Std.</i>
Destination Image	150	3.9853	.58852
Seeking Relaxation (SR)	150	4.0747	0.72632
Enhancing Relations (ER)	150	3.8787	0.74398
Gaining Knowledge (GK)	150	3.8960	0.89434
Fulfilling Spiritual Needs (FSN)	150	3.8693	0.78509
Affordable and Easy Access (AEA)	150	4.1853	0.73131
Variety Seeking Natural Environment (VSNE)	150	4.0107	0.69622
Adventure Activities (AA)	150	3.8840	0.76158
Events and Activities (EA)	150	4.0267	0.76031

Source: 2021 Survey data

Table 4: Normality test/ data distribution

	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Seeking Relaxation	-0.677	0.198	0.793	0.394
Enhancing Relations	-0.381	0.198	-0.164	0.394
Gaining Knowledge	-0.767	0.198	0.422	0.394
Fulfilling Spiritual	-0.595	0.198	0.412	0.394

Affordable and Easy	-1.063	0.198	0.846	0.394
Variety Seeking	-0.418	0.198	-0.115	0.394
Adventure Activities	-0.231	0.198	-0.666	0.394
Events and Activities	-0.389	0.198	-0.595	0.394

Source: Survey data 2021

Table 5: Model summary

Model	R	R Sq5uare	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.687 ^a	0.472	0.442	0.43953	1.927

Source: Survey data 2021

Table 6: Reliability analysis of push and pull factors

Variable	Cronbach's alpha Value	No. of items
Push factors		
SR	0.863	5
ER	0.827	5
GK	0.914	5
FSN	0.880	5
Pull factors		
AEA	0.863	5
VSNE	0.837	5
AA	0.793	5
EA	0.889	5

Source: Survey results 2021

Table 7: Cumulative reliability values of dependent (Destination image) and independent variables (Push and Pull motivational factors)

Variable	Cronbach's Alfa	Number of items
Push Factors	.907	4
Pull Factors	.884	4
Destination Image	.817	5

Source: Survey data 2021

Table 8: Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
1	SR	0.316	3.161
	ER	0.306	3.264
	GK	0.376	2.657
	FSN	0.284	3.52

	AEA	0.504	1.983
	VSNE	0.319	3.134
	AA	0.326	3.069
	EA	0.303	3.296

Source: Survey data 2021

Table 9: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.625 ^a	.391	.374	.46547

a. Predictors: (Constant), FSN, SR, GK, ER

Source:2021 Survey data

Table 10: Analysis of variance

Model		F	Sig.
1	Regression	23.298	.000 ^b
	Residual		

Source: Survey data 2021

Table 11: Push factors and the effect on destination image

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.882	.226		8.323	.000
	SR	.226	.086	.278	2.611	.010
	ER	.092	.089	.117	1.037	.301
	GK	.135	.067	.205	2.004	.047
	FSN	.077	.087	.103	.894	.373

a. Dependent Variable: DI

Source: Survey data 2021

Table 12: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.611 ^a	.374	.356	.47217

a. Predictors: (Constant), EA, AEA, VSNE, AA

Source: Survey data 2021

Table 13: Analysis of variance

Model		F	Sig.
1	Regression	21.621	.000 ^b
	Residual		

Source: Survey data 2021

Table 14: Pull factors and effects on destination image

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.689	.255		6.634	.000
	AEA	.238	.068	.295	3.502	.001
	VSNE	.072	.093	.085	.774	.440
	AA	.051	.088	.066	.578	.564
	EA	.203	.089	.262	2.272	.025

a. Dependent Variable: DIGM

Source: Survey data 202

REFERENCES

- Abeyssekara, K., & Kulathilaka, C. (2020). Impact of travel motives on destination choice of mice travelers in southern province.
- Choe, J., Dong, E., Chick, G., & Zhang. (2013). Turner's communitas and non-Buddhists who visit Buddhist temples. *Tourism: An International Interdisciplinary Journal*, 61(3), 245-257.
- Crompton, L. J. (1979). Motivation for pleasure vacation. *Annals of Tourism Research*, 408-424.
- Dann, G. M. S. (1977). Anomie, Ego-Enhancement and Tourism. *Annals of Tourism Research*, 4, 184-194.
- Fernando, A. L. B., Perera, P. G. T. N., & Liyanage, L. N. (2019). Factors associated with destination image on tourists' revisit. *International Conference on Applied Social Statistics (ICASS)*
- Fodness, D. (1994). Measuring Tourist Motivation. *Annals of Tourism Research*, 21, 555-581.
- Gnanapala, A. (2011). Tourist Motivation: Push and Pull Towards Sri Lanka. *International conference on Business Management*, 743-750.
- Gnoth, J., & Zins, A. (2013). Developing a tourism cultural contact scale. *Journal of Business Research*, 66(6), 738-744.
- Goossens. (2000). Tourism information and pleasure motivation. *Annals of tourism research*, 27(2), 301-321.
- Harrell. (2009). *Regression modelling strategies with applications to linear models, logistic regression,*

- and survival analysis*. New York: Springer.
- <https://slttda.gov.lk>, Tourism Research and Statistics - Sri Lanka Tourism statistics 2019
- Iso-Ahola. (1983). Towards a social psychology of recreational travel. *Leisure studies*, 2(1), 45-56.
- Kamb, A. (2021). Potentials for reducing climate impact from tourism transport behavior. *Journal of Sustainable Tourism*, 29(8), 1365-1382. doi:10.1080/09669582.2020.1855436.
- Kim, S., Lee, C., & Klenosky, D.B. (2003). The influence of push and pull factors at Korean national parks. *Tourism management*, 24(2), 169-180.
- Laksiri, W. M. R. (2007). Marketing Sri Lanka as an International Tourist Destination. (*Master's thesis, Høgskolen i Agder*).
- MacKay, K. J., & Fesenmaier, D. (1997). Pictorial element of destination in image formation. *Annals of tourism research*, 24(3), 537-565.
- Madden K., Rashid, B., & Zainol, N. A. (2016). Beyond the motivation theory of destination image. *Tourism and Hospitality Management*, Vol. 22, No. 2, pp. 247-264
- Malhotra, N. K., Dan, N., & David, F. B. (2004). *Marketing research: An applied orientation*. Pearson Education.
- Mansfeld, Y. (1992). From motivation to actual travel. *Annals of tourism research*, 19(3), 399-419.
- Mehmetoglu, M. (2011). Examining the relationship between push and pull factors through partial least-squares path modeling. In *Advances in hospitality and leisure: Emerald Group Publishing Limited*.
- Pearce, P. L. (2013). The social psychology of tourist behaviour: *International series in experimental social psychology* (Vol. 3): Elsevier.
- Pestana, M. H., & Parreira, A. (2020). Motivations, emotions and satisfaction: The keys to a tourism destination choice. *Journal of Destination Marketing & Management*, 16, 100332.
- Pujiastuti, E., Utomo, H., & Novamayanti. (2020). Millennial tourists and revisit intention. *Management Science Letters*, 10(12), 2889-2896.
- Qian, T. Y., Wang, J. J., & Zhang. (2020). Push and Pull Factors in E-Sports Livestreaming: A Partial Least Squares Structural Equation Modeling Approach.

- International Journal of Sport Communication*, 13(4), 621-642.
- Ranasinghe, R. (2019). Destination Image and Loyalty: Comparison between Asia Pacific and European Tourists in Sri Lanka. *Journal of Management and Tourism Research*, 2, 84-101.
- Ranasinghe, R., Damunupola, A., Wijesundara, S., Karunaratna, C., Nawarathna, D., Gamage, S., & Ranaweera, A. (2020). Tourism after corona: Impacts of COVID 19 pandemic and way forward for tourism, hotel and mice industry in Sri Lanka. *Hotel and Mice Industry in Sri Lanka*.
- Martín, S., & Bosque, D. (2008). Exploring the cognitive–affective nature of destination image and the role of psychological factors in its formation. *Tourism management*, 29(2), 263-277.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students. <http://books.google.com/books?id=u-txtfaCFiEC&pgis=1>
- Silva, O., Medeiros, T., Moniz, A. I., Tomas, L., Furtado, S., & Ferreira, J. (2020). Tourists' Characteristics, Travel and Motivation Satisfaction. *Advances in tourism, technology and smart systems*.
- Siriwardana, S., Chaminda, J. W., & Rathnayake, D. (2019). What have they heard? Pre-visit Image of Sri Lanka as a Tourist Destination. *South Asian Journal of Management*, 26(2).
- Veal, A. J. (2006). Research methods for leisure and tourism- a practical guide. Pearson UK, 327-413.
- Vinyals-Mirabent, S. (2019). European urban destinations' attractors at the frontier between competitiveness and a unique destination image. A benchmark study of communication practices. *Journal of destination marketing & management*, 12, 37-45.
- Vurren, V., & Slabbert, E. (2012). Travel motivations and behavior of tourists to a South African resort. *Tourism & Management Studies*.
- Wicramasooriya, L. d. S., Chandralal, K., & Jayawickrama, W. (2020). How Sri Lanka Has Been Promoted as a Tourist Destination? An Exploration of the Promotional Efforts of Sri Lanka Tourist Promotional Authority of Sri Lanka.
- Wijesundara, S. R., & Gnanapala, A. C. (2019). An Analysis of

the Tourists' Behavior on
Tea Tourism in Sri Lanka.

Wong, A., Song, Y. C., & Zhang,
C. (2021). Not all films are
created the same:
understanding the cross-level
effect of movie ratings on
destination image creation.
*Journal of Travel & Tourism
Marketing*, 38(4), 356-367.

Yousaf, A., Amin, I., & Santos, C.
(2018). Tourists' Motivations
to Travel: A Theoretical
Perspective on the Existing
Literature. *Tourism and
Hospitality Management*, 24,
197-211.

Yuan, S., & McDonald, C. (1990).
motivational determinates of
international pleasure time.
Journal of Travel Research,
29(1), 42-44

**Impact of Transformational Leadership on Employee Performance
with the mediation impact of employee engagement**

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Abstract

The objective of the current study is to examine the mediating effect of Employee Engagement (EE) in the association between Transformational Leadership (TFL) and Employee Performance (EP). The study employed a cross sectional descriptive method and was based on 218 front line employees who were working at MOH Offices in the Jaffna District. Simple random sampling method was employed. Established questionnaires were used to measure the variables. Exploratory factor analysis was used to get the factor structure of each study construct. Subsequently regression analysis was performed to identify the association among the variables. The results revealed that TFL positively influences EP as well as EE. EE also positively influences EP. In addition, EE mediates the association between TFL and EP. The study highlights the importance of TFL in promoting performance among the health sector employees.

Keywords-: Employee engagement, Work performance, Transformational leadership, Health sector.

1. INTRODUCTION

Effective leadership is vital for efficient service to the people. Many researchers have investigated the associations among leadership and employee behavior, while in Sri Lanka, studies on these variables are not adequate. This study will attempt to identify the effect of TFL on EP among the frontline employees working at MOH Offices in Jaffna District, while exploring the mediating role of EE in the effect

of these leadership styles on employees' work performance. Jaffna District is the one with more MOH Offices in the Northern Province and thus the region was considered for this study. The health sector plays an important role in promoting the healthy life of people in the country. The staff in this sector contribute much to people's lives. The style of leadership of

administrators in this sector could have an impact on the behavior of staff and the service provided to the communities. Thus, this study is an effort to understand the effect of TFL style on employees' job performance and the interaction effect of EE in the effect of leadership style on employees' job performance.

MOHs are the primary service delivery points in preventive health. They act as the frontline preventive health units in Sri Lanka. The designated preventive health personnel attached to MOH offices include Medical Officer of Health, Public Health Midwives, Public Health Inspectors, Community Dental Officers and supervisory staff (National Institute of Health Sciences, 2012). The role of MOH Offices is critical due to the emergence of COVID-19 pandemic as they are responsible for prevention of the pandemic in the community (Sri Lanka, Ministry of Health, 2020). Therefore, understanding of the job performance of frontline employees working at MOH Offices is vital in the current crisis situation.

There are evidences on the linkage between leadership and performance of employees in different countries and various industries (e.g. Rasool, Arfeen, Mothi & Aslam, 2015; Gimuguni, Nandutu & Magolo, 2014). Chan (2010) advocates that a particular leadership style cannot be effective in all situations and

contexts. In the Sri Lankan context, previous researchers have not given much attention to the Sri Lankan health service sector. Therefore, the current study attempts to recognize the role of TFL in EP in the health service sector in the Jaffna District.

There are evidences of studies examining the associations between leadership and employee outcomes in different contexts and sectors (e.g. Lopez-Dominguez, Enache, Sallan & Simo, 2014; Vonger, 2009; Basham, 2012; Sani & Maharani, 2012; Bolden et al., 2012). However, these researches have been carried out in Western context where the cultural aspects of people differ remarkably. Therefore, the present study attempts to survey how TFL style affects EP and the interaction effect of EE in the connection between perceived TFL and EP among the front line employees in the health sector.

2. RESEARCH PROBLEM

People rely on public service for satisfying their day to day needs, however, there is distrust among people regarding the public service. Public sector organizations were seen to experience poor performance, and were burden for the government (Corea, 1988). Gunaruwan (2016) also found that there is inefficiency in the public sector in Sri Lanka and the poor employee performance was the main cause of inefficiency. Warnakula and

Manickam (2010) reported the same results. Hence, exploring the effect of TFL on EP and assessing how far EE mediates the relationship between the variables become necessary.

There are few evidences of studies that examined the effect of TFL on various employee outcomes (e.g. Raveendran, 2021; Chamika & Gunasekara, 2016; Athukorala, Perera, & Meedeniya, 2016; Dhammika, Ahmad & Sam, 2013; Mathotaarachchi, 2013), etc. However, there is need for research to identify how far TFL predicts EP in the health service organizations in the Jaffna District.

3. OBJECTIVE

The main objective of this study is to examine the impact of perceived TFL on EP and the interaction effect of EE in the connection between TFL and EP among the frontline employees working at MOH Offices in the Jaffna District.

4. RESEARCH QUESTIONS

This research is directed towards answering the following research questions:

- To what extent perceived TFL style impacts EP of the frontline employees working at MOH Offices in Jaffna District of Sri Lanka?
- Does EE mediate the impact of TFL style on EP?

5. LITERATURE REVIEW

5.1 Transformational Leadership

Leadership is defined as the process in which a person influences other people to enthusiastically exert efforts towards the organizational goal achievement (Nel et al., 2004). Leaders' style can be divided into two main categories: transformational and transactional leadership (Bass & Avolio, 1997; 2000). Since the work of Burn (1978) on this phenomenon, these styles have become popular. Leaders who adopt TFL inspire people to attain better results. They allow autonomy among workers in their jobs and the authority to make decisions. TFL comprises of the components of idealized influence (attributes and behavior), inspirational motivation, intellectual stimulation and individualized consideration (Avolio, Bass & Jung, 1999; Bass & Avolio, 1990).

Despite plenty of researches has been carried out on leadership all over the world, there are very few studies available in the literature to recognize the link between leadership styles and EP and the mediating effect of EE in the linkage between TFL and EP in the Sri Lankan context. Particularly, Raveendran and Gamage (2019) examined organizational commitment as a mediator in the effect of TFL on EP in the Divisional Secretariats in the Jaffna. Similarly, few other

researches on leadership styles and employee outcomes in Sri Lankan context have been reported (Jayakody, 2008; KasturiArachchi, 2011; Athukorala, Perera & Meedeniya, 2016; Fernando, 2018).

5.2 Employee Performance

EP is a construct consisting of various work related dimensions. According to Nmadu (2013), EP is the level of completion of tasks that make up an employee's job. The performance is measured against the standard set for employees in terms of accuracy, speed, quality, quantity, timeliness, etc. An accepted model used for measuring EP is the Individual Work Performance Scale of Koopmans et al (2013) which contains three dimensions of performance, namely task performance, contextual performance and counter-productive work behaviour. Task performance can be defined as the ability of an individual in performing the core tasks in his/her job (Campbell, 1990). This includes the quantity and quality of work, job related skills and job related knowledge (Rotundo & Sackett, 2002; Campbell, 1990). Contextual performance can be defined as the behaviour that supports the organizational, social and psychological environment (Borman & Motowidlo, 1993). This includes efforts, supporting for colleagues at work, cooperation and effective communication (Rotundo &

Sackett, 2002; Campbell, 1990). Counterproductive work behaviour can be defined as the actions of employees that can harm the functioning of the organization (Rotundo & Sackett, 2002). This type of behaviour includes absence from work, off-task behaviour, substance abuse, theft, etc. (Koopmans et al., 2011).

5.3 Transformational Leadership and Employee Performance

Several researchers have reported that TFL is positively correlated with EP, job satisfaction and commitment (e.g. Walumbwa, Wang, Lawler & Shi, 2004). Emery and Barker (2007) found that TFL leads to more satisfaction among employees than do transactional style. Purwanto, Purba, Sijabat and Bernarto (2021) reported that TFL positively impacts innovative work behaviour. In addition, Ratnaningtyas, Handaru and Eryanto (2021) found that TFL has a positive effect on work productivity. Walumbwa et al (2004) found that TFL style boosts employees' organisational commitment and job satisfaction. Moreover, Walumbwa, Orwa, Wang and Lawler (2005) found that TFL has positive effect on organizational commitment and job satisfaction of employees. Cavazotte, Moreno and Bernardo (2013) reported that TFL positively influences task performance. Many other studies have confirmed the same effect

(e.g. Jiang, Lu & Le, 2016; Sparkling, Mollaoglu & Kirca, 2016; Spangler & Braiotta, 1990; Andreani & Petrik, 2016; Ng, 2017; Buil, Martínez & Matute, 2019). A few studies conducted in Sri Lanka also reported a positive effect of TFL on EP (e.g. Chamika & Gunasekara, 2016; Karunajeewa, 2018).

However, Idris, Suyuti, Supriyanto and As (2022) reported that TFL does not affect EP. Tseng and Huang (2009) pointed out that TFL does not fit to all categories of organizations. Based on the majority of the empirical evidences, the hypothesis 1 was established.

H1: Transformational leadership has a significant positive influence on job performance of employees

5.4 Employee engagement

The idea of EE was established by Kahn (1990). He defines EE as the harnessing of organization members to their work roles. The dimensions of EE include physical engagement cognitive engagement and emotional engagement (Kahn, 1990). The cognitive dimension of EE is concerned with employees' beliefs about their organization and its leaders. The emotional dimension is concerned with how employees feel about the organization and its leaders. It is related to the attitude toward the organization and its leaders. The physical aspect of empowerment

is concerned with the physical energy exerted to accomplish the employees' roles.

5.5 Association between transformational leadership style and employee engagement

TFL is considered as a key factor in determining EE (Mansor, Mun, Farhana & Tarmizi, 2017). Thisera and Sewwandi (2018) reported that TFL positively influences employee engagement in the hospitality sector in Sri Lanka. Surveying 450 employees working in the service sector in India, Agrawal (2020) reported positive impact of TFL on employee engagement. Murali and Aggarwal (2020) also reported the same results in the IT sector in United Arab Emirates. Likewise, many researchers have reported that TFL has a positive impact on EE (e.g. Perera & Wijewantha, 2015; Balasuriya & Perera, 2021). However, the results of the study by Mozammel and Haan (2016) revealed that applying TFL style does not guarantee that the employees would be fully engaged. Based on the literature, the following hypothesis was formulated.

H2: Transformational leadership has a significant positive influence on employee engagement

5.6 Association between employee engagement and employee performance

Many researchers (e.g. Harter et al., 2002; Towers Perrin, 2007)

have confirmed that EE positively influences EP. Research also shows that high engagement leads to higher satisfaction, commitment, innovation and creativity, and lower turnover and absenteeism (Gichohi, 2014). Saxena and Srivastava (2015) conducted a study in different manufacturing industries located in Maharashtra and Gujarat and found that EE was strongly related to organizational culture, effective communication with superiors, empathic attitudes towards the employees, participation in the decision making process, career development, etc. These aspects ultimately result in increased performance among employees.

Sendawula, Kimuli, Bananuka and Muganga (2018) reported positive linkage between EE and EP. Particularly, EE predicts performance of employees as it leads to positive behaviours among employees (Otieno et al., 2015). Highly engaged employees work with peers to enhance job performance for the betterment of the organization (Ologbo & Sofian, 2013). The same results have been reported by many researchers (e.g. Shantz et al., 2013; Ariani, 2013)

H3: Employee engagement has a significant positive influence on employee performance

5.7 The mediation of employee engagement between transformational leadership and employee performance

Balasuriya and Perera (2021) reported that EE plays a mediating role in the linkage between TFL and EP in selected *porcelain manufacturing companies in Sri Lanka*. Mariam (2020) reported that EE mediates the association between TFL and EP. Pourbarkhordari, Zhou and Pourkarimi (2016) also reported the same finding. Al-Amin (2017) carried out a survey of employees in various jobs in Bangladesh and proved the mediation of EE in the association between the variables. Considering the empirical evidences, the current study hypothesized the mediation of EE as given below.

H4: Employee engagement mediates the influence of transformational leadership on employee performance

6. METHODS

6.1 Conceptualisation and operationalisation

The conceptual model was constructed with the study variables as shown in Figure 1. The variables of the study were operationalised as shown in Table 1.

6.2 Sample and measures

In this study, the front line employees working at the MOH Offices in Jaffna District were considered as the study population. This includes midwives, public health inspectors and supervisory staff. A sample of 295 employees covering all categories were selected based on random sampling method. Out of the surveys distributed, a total of 218 usable surveys were returned.

TFL was measured using Multifactor Leadership Questionnaire - Form 5X (rater form) developed by Bass and Avolio (2000). EP was measured using Individual Work Performance Questionnaire of Koopmans et al (2013). EE was measured using Job Engagement Scale (JES) developed by Rich et al (2010). A pilot test was conducted with 36 employees who were selected based on convenience sampling method. Based on respondents' feedback, the items were modified. The questionnaires were directly administered to the respondents.

6.3 Method of data analysis

Data were analysed using SPSS 21.0 for Windows. Exploratory Factor Analysis (EFA) was performed to extract the factors. Tolerance and VIF values, and Collinearity statistics were assessed to detect multicollinearity issues among the variables. Finally, regression analysis was conducted to identify

the association among the study variables.

7. ANALYSIS AND RESULTS

Initially, the reliability was examined by estimating Cronbach's alpha of the subscales and the results are shown in Table 2.

7.1 Testing assumptions for factor analysis

Normality was tested based on skewness and kurtosis values for items of the questionnaires. The values for skewness and kurtosis between -2 and +2 are considered acceptable to confirm that the data are normally distributed (George & Mallery, 2010). In the current study, the skewness and kurtosis values of items fall between -2 and +2. This confirms that the data are normally distributed.

7.2 Exploratory Factor Analysis (EFA)

The study constructs were subjected to EFA to extract the items measuring each sub-construct. The Results of EFA of transformational leadership, EE and EP are shown in Table 3, Table 4 and Table 5 respectively. Principal Component Analysis was used to extract factors and Promax rotation method was employed in SPSS.

In EFA for TFL construct, the low factor loading items were removed and the items measuring the five sub-constructs were extracted. The total variance explained by the factors extracted

is 62% which is considered adequate. In EFA for EE construct, the low factor loading items were removed and the items measuring the three sub-constructs were extracted. The results of EFA of EE are depicted in Table 4. As shown in the table, the total variance explained by the factors extracted is 59%.

In EFA for EP construct, the items measuring the three sub-constructs namely task performance, contextual performance and counterproductive work behaviour were extracted and the results of EFA are portrayed in Table 5. After extraction of factors, the scores of the items measuring the counterproductive work behaviour were reversed as the counterproductive behaviour is a negative aspect of EP. After that, scores of extracted factors of EP were summed up to get the total score for the variable. The total variance explained by the factors extracted is 57% which is considered adequate.

After performing EFA, the items measuring the variables were summed up to get the total score of each study variable and regression analysis was performed to identify the association among the variables. Tolerance and VIF values were assessed to detect multicollinearity issues among the variables. As shown in Table 6, the Tolerance value is greater than 0.1 and the VIF value is below 10 for the variables of this study. As the values are within the cut-off

limits (Hair et al., 2014), there is no multicollinearity problem among the variables. Therefore, analysis could be performed to find the linkage between the variables.

7.3 Testing Hypotheses

H1: Transformational leadership has a significant positive influence on job performance of employees

As per results reported in Table 7c, TFL significantly and positively impacts EP ($\beta = .683$, $p = .01$ level). In addition, the ANOVA results reported in Table 7b portrays that the F value is significant at 0.01 level. As per R square value depicted in Table 7b, 22.5% of the variation in EP is accounted for the variation in transformational leadership. Based on the results, the hypothesis 1 is supported.

H2: Transformational leadership has a significant positive impact on employee engagement

As per results reported in Table 8b, TFL has a positive impact on EE ($\beta = .704$, $p = .05$ level). In addition, the ANOVA results reported in Table 8a shows that the F value is significant at 0.01 level. As per results of regression analysis, R square value is .210. Thus, 21% of the variation in EE is accounted for the variation in transformational leadership.

Based on the results, the hypothesis 2 is supported.

H3: Employee engagement has a significant positive influence on employee performance

As per regression results reported in Table 9b, EE has a significant positive impact on EP ($\beta = .216$, $p = .01$ level). In addition, the ANOVA results reported in Table 9a shows that the F value is significant at 0.01 level. The results of regression analysis show that R square value is .210. Thus, 21% of the variation in EP is accounted for the variation in EE. Based on the results, the hypothesis 3 is supported.

H4: Employee engagement mediates the influence of transformational leadership on employee performance

The Table, 10a, 10b and 10c show the results of mediation effect using regression analysis. As per the results reported in Table 10c, impact of TFL style on EP mediated by EE is significant ($B = .649$, $p < 0.05$). Here, the impact of TFL on EP remained significant with the inclusion of employee engagement. The Table 10a depicts the R-square change when the mediator variable was included. Further, the ANOVA results reported in Table 10b shows that the F value is significant at 0.01 level after the inclusion of employee

engagement. Therefore, EE mediates the effect of TFL on EP among the front line employees working at the MOH offices in Jaffna. Thus, the hypothesis 4 was supported.

8. DISCUSSION

The present study reveals that TFL has a positive impact on EP. The result is congruent with the findings of previous studies (for example, Jiang, Lu, & Le, 2016; Sparkling, Mollaoglu & Kirka, 2016; Chammika & Gunasekra, Karunajeewa, 2018). Based on the study of banking sector in Sri Lanka, Chamika and Gunasekara (2016) stated that supervisors have to use TFL or rather embrace transactional leadership style. Thus, TFL could have effect on employee productivity and and performance. Karunajeewa (2018) reported that TFL has a positive impact on EP. Therefore, the results of this study comply with the empirical evidences in Sri Lanka.

This study has shown that TFL positively impacts EE. The finding is consistent with studies of Thisera and Sewwandi (2018), Agrawal (2020) and, Murali and Aggarwal (2020). The study also revealed that EE positively influences EP. The result is congruent with the existing literature (e.g. Towers Perrin, 2007; Sendawula, Kimuli, Bananuka & Muganga, 2018; Ologbo & Sofian, 2013)

As an important part of the study, the mediation effect of EE in the

linkage between TFL and EP was examined. The findings reveal that EE mediates the impact of TFL on EP and the finding is concurrent with the prior studies conducted by Balasuriya and Perera (2021), Mariam (2020) and Pourbarkhordari, Zhou and Pourkarimi (2016). TFL promotes EE and leads to go extra mile in employees' work and thus the performance of employees is enhanced.

9. CONCLUSION

The current study revealed that TFL is a predictor of EP. Further, EE mediates the impact of TFL on EP. The findings would be useful for the administrators in the health sector. Practicing appropriate leadership style in the health sector becomes vital. Bearing the finding of the present study in mind, the leaders of the health sector may consider adopting transformational style to boost EP and EE levels among employees.

The current study emphasizes that EE should be enhanced in job for promoting performance among employees. Previous studies have not adequately examined the mediating role of EE in the leadership-performance relationship in the health sector in Sri Lankan context. Therefore, the present study would contribute to the body of knowledge. The study will be a base for further researchers to further investigate

the association among the variables TFL, EP and EE. The health sector may consider the findings of this research for developing leadership programmes to enhance appropriate leadership skills.

10. DIRECTIONS FOR FUTURE RESEARCH

The present study was limited to the MOH offices in the Jaffna District. The other regions should be covered by future researchers to confirm the association between TFL, EP and EE. Further, it is necessary to survey the employees of other service sectors. In addition, as the current study employed a cross sectional survey method, it is better to do a longitudinal study and the data could be collected using different techniques. Particularly, the TFL style was taken for investigation in the present study and thus the other styles such as transactional leadership, laissez-faire leadership, servant leadership, people oriented and task oriented leadership styles could be considered by future researchers. As there are not adequate studies in Sri Lankan context, more research should follow with different samples from various sectors, types of businesses and in different regions. Moreover, future researchers may investigate the influence of leadership styles on other dimensions of employee behaviours such as absenteeism, job satisfaction, organizational commitment, organizational citizenship behaviour, etc.

APPENDIX

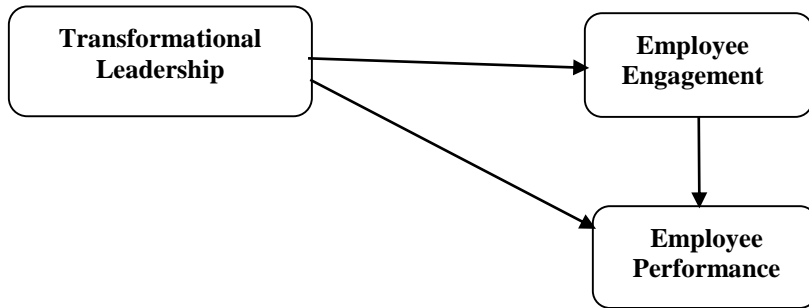


Figure 1: The conceptual framework

Table 1: Operationalization

Concept	Variable	Dimensions	Measure/Instrument
Leadership Styles	Transformational leadership	<ul style="list-style-type: none"> • Idealized influence- (attributes and behaviour) • Intellectual stimulation • Inspirational motivation • Individualized consideration 	Multifactor Leadership Questionnaire (MLQ) Form 5X - Rater form Bass and Avolio (2000)
Employees' Job Performance	Perceived Job Performance	<ul style="list-style-type: none"> • Task performance • Contextual performance • Counterproductive work behaviour 	Individual Work Performance Questionnaire (IWQP) of Koopmans et al (2013)
Employee Engagement	Employee Engagement	<ul style="list-style-type: none"> • Physical engagement • Emotional engagement • Cognitive engagement 	Job Engagement Scale (JES) developed by Rich et al (2010)

Table 2: Reliability of scales

Variable	No. of items	Cronbach's Alpha
Transformational leadership		
Intellectual_stimulation	4	0.875
Inspirational_motivation	4	0.729
Individualized_consideration	4	0.717
Idealized_influence_attributes	4	0.824
Idealized_influence_behaviour	4	0.811
Employee Performance		
Task_performance	5	0.732
Contextual_performance	8	0.716
Counterproductive_work behaviour	5	0.895
Employee Engagement		
Physical_engagement	6	0.883
Emotional_engagement	6	0.847
Cognitive_engagement	6	0.804

Source: Survey data, 2021

Table 3: EFA of transformational leadership

Pattern Matrix ^a					
	Component				
	Individ. consideration	Inspir. motivation	Intell. stimulation	Ideal. influ. - behaviour	Ideal. Influ. - attributes
IN_CON2	.872				
IN_CON4	.803				
IN_CON1	.763				
ID_CON3	.553				
IN_MO1		.912			
IN_MO2		.829			
IN_MO3		.827			
IN_STI4			.806		
IN_STI2			.585		
IN_STI1			.555		
IN_STI3			.525		
ID_IN_BE1				.753	
ID_IN_BE4				.737	

ID_IN_BE3				.621	
ID_IN_AT1					.698
ID_IN_AT4					.699
ID_IN_AT2					.648
ID_IN_AT3					.622
Total variance explained	33%	12%	8%	5%	4%
Cumulative % of variance explained	33%	45%	53%	58%	62%

Source: Survey data, 2021

Table 4: EFA of employee engagement

Pattern Matrix^a			
	Component		
	Physical Engagement	Emotional Engagement	Cognitive Engagement
ENG_11	.874		
ENG_9	.751		
ENG_12	.652		
ENG_6	.611		
ENG_14	.563		
ENG_13	.457		
ENG_18		.846	
ENG_1		.615	
ENG_15		.606	
ENG_17		.540	
ENG_10		.472	
ENG_16			.726
ENG_7			.664
ENG_4			.652
ENG_2			.625
Total variance explained	38%	15%	6%
Cumulative % of variance explained	38%	53%	59%

Source: Survey data, 2021

Table 5: EFA of employee performance

Pattern Matrix^a			
	Component		
	Task performance	Contextual performance	Counterproductive work behaviour
P_Task1	.907		
P_Task2	.892		
P_Task3	.867		
P_Task4	.835		
P_Cont1		.872	
P_Cont2		.865	
P_Cont4		.831	
P_Cont5		.801	
P_Cont7			
P_Cwp1			.856
P_Cwp2			.825
P_Cwp3			.817
P_Cwp5			.616
Total variance explained	39%	13%	5%
Cumulative % of variance explained	39%	52%	57%

Source: Survey data, 2021

Table 6: Collinearity statistics

Model		Collinearity Statistics	
		Tolerance	VIF
1	Transformational leadership & Employee Performance	.813	2.972
2	Transformational leadership & Employee engagement	.593	2.663
3	Employee engagement & Employee Performance	.772	1.918

Source: Survey data, 2021

Table 7a: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.425	1	22.425	62.678	.000 ^b
	Residual	77.282	216	.358		
	Total	99.708	217			

a. Dependent Variable: EP

b. Predictors: (Constant), TFL

Table 7b: Regression Coefficients

Model		Unstd. Coefficients		Std. Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.820	.232		7.840	.000
	Transformational leadership	.683	.086	.474	7.917	.000
a. Dependent Variable: EP						
R square = .225						

Source: Survey data, 2021

Table 8a: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	405.681	1	405.681	4.669	.032 ^b
	Residual	18766.893	216	86.884		
	Total	19172.573	217			
a. Dependent Variable: EE						
b. Predictors: (Constant), TFL						

Source: Survey data, 2021

Table 8b: Regression Coefficients

Model		Unstd. Coefficients		Std. Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.198	3.617		12.422	.000
	Transformational leadership	.704	.344	.145	1.161	.032
a. Dependent Variable: EE						
R square = .210						

Source: Survey data, 2021

Table 9a: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.030	1	4.030	9.475	.001 ^b
	Residual	94.678	216	.438		
	Total	99.708	217			
a. Dependent Variable: EP						
b. Predictors: (Constant), EE						

Table 9b: Regression Coefficients

Model		Unstd. Coefficients		Std. Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.898	.513		3.699	.000
	Employee engagement	.216	.005	.225	3.388	.001
a. Dependent Variable: EP						
R square = .252						

Source: Survey data, 2021

Table 10a: Mediation of employee engagement - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.474 ^a	.225	.221	.59815	.225	62.678	1	216	.000
2	.500 ^b	.210	.243	.58990	.025	7.089	1	215	.008
a. Predictors: (Constant), TFL									
b. Predictors: (Constant), TFL, EE									

Table 10b: Mediation of Employee engagement - ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.425	1	22.425	62.678	.000 ^b
	Residual	77.282	216	.358		
	Total	99.708	217			
2	Regression	24.892	2	12.446	35.767	.000 ^c
	Residual	74.816	215	.348		
	Total	99.708	217			
a. Dependent Variable: EP						
b. Predictors: (Constant), TFL						
c. Predictors: (Constant), TFL, EE						

Table 10c: Regression coefficients – Mediating effect of employee engagement

Model		Unstd. Coefficients		Std. Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.820	.232		7.840	.000		
	Transformational leadership	.683	.086	.474	7.917	.000		
2	(Constant)	.683	.485		1.408	.160		
	Transformational leadership	.649	.086	.451	7.555	.000	.967	1.079
	Employee engagement	.211	.004	.159	2.663	.008	.811	1.309
a. Dependent Variable: EP								

Source: Survey data, 2021

REFERENCES

- Agrawal, S. (2020). Role of sub-constructs of psychological capital and transformational leadership in engaging employees in service sector. *Business Perspectives and Research*, 8(2), 244-256.
- Al-Amin, M. (2017). Transformational leadership and employee performance mediating effect of employee engagement. *North South Business Review*, 7(2), 28-40.
- Andreani, F., & Petrik, A. (2016, March). Employee performance as the Impact of transformational leadership and Job Satisfaction in Pt Anugerah Baru Denpasar. *Journal of Management and JMK*, 18(1), 25–32. doi:10.9744/jmk.18.1.25-32
- Ariani, D. W. (2013). The relationship between employee engagement, organizational citizenship behavior, and counterproductive work behavior. *International Journal of Business Administration*, 4(2), 1923–4015.
- Athukorala, C., Perera, I., & Meedeniya, D. (2016). The impact of transformational and transactional leadership styles on knowledge creation in Sri Lankan software industry. *Moratuwa*

- Engineering Research Conference (MERCCon)* (pp.309-314). IEEE. doi:10.1109/MERCCon.2016.7480159
- Avolio, B. J., Bass, B. M., & Jung, J. (1999). Reexamining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72(4), 441-462. doi:10.1348/096317999166789
- Balasuriya, B. L. L. A., & Perera, G. D. N. (2021). The Impact of transformational leadership on employee performance: The Mediating Role of employee engagement in Selected Porcelain Manufacturing Companies in Sri Lanka. *Vidyodaya Journal of Management*, 7(2), 1-16. DOI: <https://doi.org/10.31357/vjm.v7i11>
- Basham, L. M. (2012). Transformational and transactional leaders in higher education. *SAM Advanced Management Journal*, 77(2), 15-23.
- Bass, B. (1997). Does the transactional-transformational leadership paradigm transcend organisational and national boundaries? *American Psychologist*, 52(2), 130-139. doi:10.1037/0003-066X.52.2.130
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. Collier Macmillan.
- Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European Journal of Work and Organizational Psychology*, 8(1), 9-32. doi:10.1080/135943299398410
- Bass, B. M., & Avolio, B. J. (1997). *Full range leadership development: Manual for multifactor leadership questionnaire*. California: Mind Garden, Inc.
- Bass, B. M., & Avolio, B. J. (2000). *MLQ Multifactor Leadership Questionnaire sample set: Technical report, leaders form, rater form, and scoring key for MLQ From 5x-Short* (2nd ed.). California: Mind Garden.
- Baumruk, R. (2004). The missing link: the role of employee engagement in business success. *Workspan*, 47(11), 48-52.
- Bolden, R., Gosling, J., O'Brien, S., Peters, K., Ryan, M., & Haslam, A. (2012). *Academic leadership: changing conceptions, identities and experiences in UK higher education*.

- (Research and Development Series, Publication 4; Series 3). England: Leadership Foundation for Higher Education.
- Borman, W.C. & Motowidlo, S.J. (1993). Expanding the criterion domain to include elements of contextual performance, In Schmitt, N. and Borman, W.C. (Eds), *Personnel Selection in Organizations*, Jossey Bass, San Francisco, CA, pp. 71-98.
- Buil, I., Martínez, E., & Matute, J. (2019). Transformational leadership and employee performance: The role of identification, engagement and proactive personality. *International Journal of Hospitality Management*, 77, 64-75.
<https://doi.org/10.1016/j.ijhm.2018.06.014>
- Burns, J. (1978). *Leadership*. New York: Harper Torchbooks.
- Campbell, J.P. (1990). Modeling the performance prediction problem in industrial and organizational psychology, In Dunnette, M.D. and Hough, L.M. (Eds), *Handbook of Industrial and Organizational Psychology*, Consulting Psychologists Press, Palo Alto, CA, pp. 687-732.
- Cavazotte, F. M. (2013). Transformational leaders and work performance: The mediating roles of identification and self-efficacy. *BAR-Brazilian Administration Review*, 10(4), 490-512.
doi:10.1590/S1807-76922013000400007
- Chamika, M. W., & Gunasekara, U. L. (2016). The Impact of Leadership Styles on Employee Performance. *Proceedings of the Undergraduates Research Conference - 2016*. Sri Lanka: Department of Accountancy, Faculty of Commerce and Management Studies, University of Kelaniya. Retrieved from <http://repository.kln.ac.lk/handle/123456789/16434>
- Chan, S. H. (2010). The influence of leadership expertise and experience on organizational performance: a study of Amanah Ikhtiar Malaysia. *Asia Pacific Business Review*, 16 (1-2), 59-77.
- Corea, G. (1988). Case or No Case for Privatisation in Sri Lanka. *Central Bank News Survey*, 8(3), 1-5.
- Dhammika, K. (2013). Measuring Employees' Performance in the Public Sector in Sri Lanka: Testing of Two Models. *Kelaniya Journal of Human Resource Management*, 8(1), 1-20.
doi:doi.org/10.4038/kjhrm.v8i1.1

- Dhammika, K. A., Ahmad, F. B., & Sam, T. L. (2013). Transactional, Transformational, Union and Organizational Commitment: An Examination of the Effect Flaws. *International Journal of Business and Social Science*, 4(6), 103 -111.
- Emery, C. R., & Barker, K. J. (2007). The effect of transactional and transformational leadership styles on the organizational commitment and job satisfaction of customer contact personnel. *Journal of organizational culture, communications and conflict*, 11(1), 77-90.
- Family Health Bureau (2019) Annual Report- 2017, Colombo: Family Health Bureau.
- Fernando, M. E. (2018). Impact of manager's leadership style on employees' emotional intelligence on virtual project performance in the Sri Lankan IT industry. (Master's dissertation, University of Moratuwa, Sri Lanka). Retrieved from <http://dl.lib.mrt.ac.lk/handle/123/13312>
- George, D., & Mallery, M. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference, 17.0 update* (10th ed.). Boston: Pearson.
- Gichohi, P. M. (2014). The role of employee engagement in revitalizing creativity and innovation at the workplace: A survey of selected libraries in Meru County-Kenya. *Library Philosophy and Practice*, (Fall - 9). 1-33
- Gimuguni, L., Nandutu, J., & Magolo, A. (2014). *Effect of leadership styles on performance of local governments in Uganda, A case of Mbale District*. Retrieved from <http://ir.mu.ac.ke:8080/xmlui/bitstream/handle/123456789/2141/Nandutu%20J.pdf?sequence=1&isAllowed=y>
- Gunaruwan, T. L. (2016). Unsatisfactory Performance of Sri Lanka's State-Owned Enterprises: Causality Diagnostics in Management Autonomy and Accountability. *5th International Conference of Sri Lanka Forum of University Economists* (pp. 67-72). Kelaniya: Department of Economics, University of Kelaniya.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis* (7th ed.). UK: Pearson Education Limited.
- Harter, J.K., Schmidt, F.L. & Hayes, T.L. (2002). Business-unit level relationship between employee satisfaction, employee engagement, and

- business outcomes: a meta-analysis. *Journal of Applied Psychology*, 87, 268-79. Hee, O. C., Ibrahim, R., Kowang, T. O., & Fei, G. C. (2018). Employee engagement as a mediator between transformational leadership and employee. *Asian Journal of Scientific Research*, 11(3), 441-448.
- Herbst, T. H., & Conradie, P. D. (2011). Leadership effectiveness in higher education: managerial self-perceptions versus perceptions of others. *South African Journal of Psychology*, 37(1), 1-14.
- Idris, I., Suyuti, A., Supriyanto, A. S., & As, N. (2022). Transformational Leadership, Political Skill, Organizational Culture, and Employee Performance: A Case from Tourism Company in Indonesia. *Geo Journal of Tourism and Geosites*, 40(1), 104-110.
- Jayakody, J. A. (2008). Charismatic leadership in Sri Lankan business organizations. *Journal of Management Development*, 27(5), 480-498.
- Jiang, W., Zhao, X., & Ni, J. (2017). The Impact of transformational leadership on Employee Sustainable Performance: The Mediating Role of Organizational Citizenship Behavior. Sustainability. *Frontier in Psychology*, 9(9), 1567. doi:10.3389/fpsyg.2020.00314
- Kahn, W.A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33, 692-724.
- Karunajeewa, D. (2018). Impact of leadership styles on EP: Case study on a service base company. (Master Thesis submitted to University of Moratuwa).
- Kasturi Arachchi, C. (2011). An investigation of the leadership experiences of principals in the government schools in Sri Lanka. *Proceedings of Annual Research Symposium* (pp. 95-99). University of Colombo, Sri Lanka.
- Koopmans, L., Bernaards, C., Hildebrandt, V., Van Buuren, S., Van der Beek, A. J., & De Vet, H. C. (2013). Development of an individual work performance questionnaire. *International journal of productivity and performance management*. 62(1), 6-28
- Koopmans, L., Bernaards, C.M., Hildebrandt, V.H., Schaufeli, W.B., De Vet, H.C.W. & Van derBeek, A.J. (2011). Conceptual frameworks of individual work performance – a systematic review. *Journal of Occupational and*

- Environmental Medicine*, 53(8), 856-66
- Lopez-Dominguez, M., Enache, M., Sallan, J., & Simo, P. (2014). Transformational leadership as an antecedent of change oriented organizational citizenship behavior. *Journal of Business Research*, 66(10), 2147-2152.
- Mansor, Z. D., Mun, C. P., Farhana, B. N., & Tarmizi, W. A. N. (2017). Influence of transformation leadership style on employee engagement among Generation Y. *International Journal of Economics and Management Engineering*, 11(1), 161-165.
- Mariam, G. G. (2020). The effect of transformational leadership behavior on employee performance: mediation role of employee engagement. Addis Ababa: Addis Ababa University.
- Mathotaarachchi, K. P. (2013). The impact of transformational and transactional leadership behaviours on employees' trust and their organizational commitment for non-teaching staff of the Sri Lankan Universities. The Macrotheme Review. *A Multidisciplinary Journal of Global Macro Trends*, 2(1), 56-92.
- Men, L. R. (2015). Employee engagement in relation to employee-organization relationships and internal reputation: effects of leadership communication. *Journal of Public Relations*, 9(2), 1-22.
- Mozammel, S., & Haan, P. (2016). Transformational leadership and employee engagement in the banking sector in Bangladesh. *The Journal of Developing Areas*, 50(6), 43-55.
- Murali, S. R., & Aggarwal, D. (2020). A Study on the Impact of Transformational Leadership Style on Employee Engagement and Employee Performance in ICT Industry- (a Study with Reference to the ICT Industry in United Arab Emirates). *International Journal of Management*, 11(5).
- National Institute of Health Sciences, Sri Lanka (2012). Annual Report-2012, Kalutara: National Institute of Health Sciences.
- Nel, P. S., V. D., Haasbroek, G. D., Schultz, H. B., Sono, T. J., & Werner, A. (2004). *Human Resources Management* (6th ed.). New York: Oxford University Press.
- Ng, T. W. H. (2017). Transformational leadership and performance outcomes:

- Analyses of multiple mediation pathways. *The Leadership Quarterly*, 28(3), 385–417.
<https://doi.org/10.1016/j.leaqua.2016.11.008>
- Nmadu, G. (2013). Employees performance and its effects on their job performance in workplace. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 5(11), 13-23.
- Ologbo, A. C., & Sofian, S. (2013). Individual and organizational factors of employee engagement on employee work outcomes. *International Journal of Business and Behavioral Sciences*, 3(3), 498- 502.
- Otieno, A. B. B., Wangithi, E., & Njeru, A. (2015). Effect of employee engagement on organisation performance in Kenya's horticultural sector. *International Journal of Business Administration*, 6, 2.
- Perera, W. W. M. D., & Wijewantha, P. (2015). The Nexus between Transformational Leadership and Employee Engagement: A Study of Softlogic Brands. Proceedings of the 2nd HRM Student Research Symposium, Department of Human Resource Management, Faculty of Commerce and Management Studies, University of Kelaniya, Sri Lanka, 26th January 2016. P. 41.
- Pourbarkhordari, A., Zhou, E., & Pourkarimi J. (2016). How Individual-focused Transformational Leadership Enhances Its Influence on Job Performance through Employee Work Engagement. *International Journal of Business and Management*, 11(2), 249
- Purwanto, A., Purba, J. T., Sijabat, R., & Bernarto, I. (2021). The Role of Transformational Leadership, Organizational Citizenship Behaviour, Innovative Work Behaviour, Quality Work Life, Digital Transformation and Leader Member Exchange on Universities Performance. *Linguistica Antverpiensia*, 2, 2908-2932. Available at SSRN: <https://ssrn.com/abstract=>
- Rasool, H. F., Arfeen, I. U., Mothi, W., & Aslam, U. (2015). Leadership styles and its impact on employee's performance in health sector of Pakistan. *City University Research Journal*, 5(1), 97-109.
- Ratnaningtyas, H., Handaru, A. W., & Eryanto, H. (2021). Transformational Leadership and Work Motivation on Work Productivity Mediated by Work Engagement: An Introductory Analysis. *The*

- International Journal of Social Sciences World (TIJOSSW)*, 3(2), 25-32.
- Raveendran, T. (2021). Effect of transformational leadership on organizational commitment through the interaction of psychological empowerment. *Proceedings of International Conference on Contemporary management (ICCM)*. Faculty of Management Studies and Commerce, University of Jaffna.
- Raveendran, T., & Gamage, A.S. (2019). The Mediating Effect of Organizational Commitment in the Impact of Transformational Leadership Style on EP: A Study of Divisional Secretariats in the Jaffna District. *International Journal of Human Resource Studies*, 9(2), 116-139. doi:10.5296/ijhrs.v9i2.14623
- Rich, B. L., LePine, J. A., & Crawford, E. R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53, 617–635.
- Richman, A. (2006). Everyone wants an engaged workforce: how can you create it? *Workspan*, 49, 36-39.
- Rotundo, M. and Sackett, P.R. (2002). The relative importance of task, citizenship, and counterproductive performance to global ratings of performance: a policy-capturing approach. *Journal of Applied Psychology*, 87(1), 66-80.
- Sani, A., & Maharani, V. (2012). The impact of transformational leadership and organizational commitment on job performance among lecturers of faculty in the Islamic Maulana Malik Ibrahim Malang University: the mediating effects of organisational citizenship behavior. *International Journal of Academic Research*, 4(4), 102-106.
- Saxena, V., & Srivastava, R. K. (2015). Impact of employee engagement on employee performance—Case of manufacturing sectors. *International Journal of Management Research and Business Strategy*, 4(2), 139-174.
- Sendawula, K., Kimuli, S., Bananuka, J., & Muganga, G. (2018). Training, employee engagement and employee performance: Evidence from Uganda's health sector. *Cogent Business & Management*, 5(1), 1470891.
- Shantz, A., Alfes, K., Truss, C., & Soane, E. (2013). The role of employee engagement in the relationship between job design and task performance, citizenship and deviant behaviours. *The*

- International Journal of Human Resource Management*, 24(13), 2608–2627.
- Spangler, W. D., & Braiotta, J. L. (1990). Leadership and corporate audit committee effectiveness. *Group & Organization Studies*, 15(2), 134-157.
- Sparkling, A.E., Mollaoglu, S., Kirca, A. (2016). Research synthesis connecting trends in architecture, engineering, and construction project partnering. *Journal of Management & Engineering*, 33, 04016033.
- Sri Lanka, Ministry of Health (2020). Quarantine and Prevention of Diseases Ordinance (Chapter 222), Gazette Extraordinary of the Democratic Socialist Republic of Sri Lanka-15.10.2020 [Online] Available from: http://www.documents.gov.lk/files/egz/2020/10/2197-25_E.pdf [Accessed: 11th December 2020].
- Thisera, T. J. R., & Sewwandi, E. P. I. (2018). transformational leadership and employee engagement in hospitality sector in Sri Lanka. *Global Journal of Management and Business Research*. 18(12), 27-33.
- Towers Perrin (2007/2008). Closing the Engagement Gap: A Road Map for Driving Superior Business Performance. Available at: http://www.towersperrin.com/tp/getwebcachedoc?webc=HRS/USA/2008/200803/GWS_Global_Report20072008_31208.pdf
- Truss, C., Soane, E., Edwards, C., Wisdom, K., Croll, A. & Burnett, J. (2006). *Working Life: Employee Attitudes and Engagement*. London: Chartered Institute of Personnel and Development
- Tseng, H., & Huang, X. (2009). A Study on the Effect of the Degree of Optimism, Work Pressure and Work Efforts of Life-Insurance Salesman on their Performance. *Journal of American Academy of Business*, 14(2), 133-144.
- Vinger, G. (2009). The restructuring of a university: a call for the exhibition of transformational leadership behaviours. *The International Journal of Learning*, 16(10), 267-286.
- Walumbwa, F. O., Orwa, B., Wang, P., & Lawler, J. J. (2005). Transformational Leadership, Organizational Commitment, and Job Satisfaction: A Comparative Study of Kenyan and U.S. Financial Firms. *Human Resource Development Quarterly*, 16(2), 235-257.
- Walumbwa, F. O., Wang, P., Lawler, J. J., & Shi, K. (2004). The role of collective

efficacy in the relations between transformational leadership and work outcomes. *Journal of Occupational and Organizational Psychology*, 77(4), 515-530.

Warnakula, W. M., & Manickam, B. (2010). Employees' behaviour in online social networking websites (SNSs). *Tropical Agricultural Research*, 22(1), 94-106.

Yammarino, F. J., & Dubinsky, A. J. (1994). Transformational leadership theory: Using levels of analysis to determine boundary conditions. *Personnel psychology*, 47(4), 787-811.

**The Impact of Brand Equity on Customer Purchase Intention of
Mobile Phones: Evidence from Undergraduates of Private Sector
Higher Educational Institutions in Sri Lanka**

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Abstract

Branding is a key decision to be taken by business people to increase their sales and keeping customers attached to their products. The present study was designed to explore how brand equity dimensions impact mobile phone purchase intention, which could be explored among undergraduates in Sri Lankan private sector higher educational institutions. The brand equity model has become the global standard for brand equity research. Brand equity is defined as brand awareness, brand quality, brand association, and brand loyalty. As the Sri Lankan mobile phone market is rapidly changing, brand equity issues are also visible. Accordingly, 377 respondents from selected private sector higher education institutes have a higher student base than others. Data were analyzed through correlation and multiple regression techniques. Results revealed all brand equity dimensions impacted purchase intention. As a result, the study concludes that the brand equity dimensions are the essential variables influencing customer purchase intent.

Keywords: Brand Equity Model, Customer Purchase Intention, Mobile Phone market, Undergraduates

1. INTRODUCTION

Branding is the most key element and the most valuable asset in many businesses in the globe. It aids in describing a consumer's social standing and way of life. Brands are extremely important in our lives. They are not just symbols of the company or the product anymore; they now become the lifestyle, social and economic background.

Consumers have a stronger bond with the brands they buy and use as a result of these questions (Hasan, 2008). To succeed in today's competitive business world, businesses must have effective methods for acquiring, retaining, and increasing customers and strong brand equity. The most popular and possibly important marketing concept, brand equity, evolved in

the 1980s (Keller, 2013). Brand equity is defined as a set of factors that affect the value of a product or service to both the company and its customers (Andai, 2016).

As explained by Keller (1998), the most widely recorded factors contributing to brand equity are brand awareness, perceived quality, brand association, and brand loyalty, which have become crucial in every marketing strategy. It signifies the time and effort needed to create a brand (Huang & Sarigollu, 2014). Creating a brand increase many benefits, including increased loyalty, increased sales, increased market share, and cost savings (Keller, 1998).

Nevertheless, branding has an impact on marketers in both positive and negative ways. On the plus side, Keller (1998) claims that brand equity has increased the importance of the brand in marketing policy and established it as a focal point for managerial decisions and analysis. On the negative side, the term has been defined in various ways and for various reasons. The present study use the Aaker (1991) model of brand equity, which incorporates all four contributing factors and is intended to assess brand equity from the consumer's perspective. Firms' survival is primarily dependent on a thorough understanding of their customers. Manufacturers have been expected to make things with client wants in mind due to the current competitive business

environment. They also recognize the process of consumer decision-making. Customers' buying intentions for one product over another are influenced by substantial brand equity.

This study is concerned with the smartphone market due to its rapid development in recent years and the fast and dynamic situation of the mobile phone market. Cell phone companies' goal these days is to form an unbreakable and powerful favored link with their customers, which has many positive consequences such as reduced vulnerability to competition and higher profits (Thunman,2012). To overcome issues and challenges from competitors and the ever-changing environment dynamics, marketers are increasingly emphasizing the impact of brand equity. Improving a strong brand for mobile phones in the minds of customers has become a critical scene in the mobile phone industry (Sewanthy & Kennedy,2020).

According to the mobile phone industry, one of the primary factors influencing Purchase Intention is the brand equity of mobile phones (PI). When consumers are purchasing a mobile phone, they think about its brand equity as well. Consumers prefer one brand of mobile phone over another, and when brands understand their needs, positive

preferences and attitudes are more likely to lead to repeat purchases and long-term relationships between businesses and consumers. Most younger generations of mobile phone owners are motivated to purchase an upgraded model due to rapid technological and design shifts. (Xi- Hua, 2010).

Furthermore, mobile phones have carved out a special place in the hearts of consumers, particularly those in generation Y (Vogels, 2019). As a result, the purpose of this study is to assess the influence of mobile phone brands among Generation Y. (Gen Y). Since more than 75 percent of Gen Y consumers own mobile phones worldwide, Gen Y is a significant market segment to research (Potgieter, 2015). Since university students are young and regular cell phone users, this study focuses primarily on them (Shahzad & Sobia, 2013). Therefore, this study mainly focuses on undergraduates of private sector higher educational institutions. They think more about brand equity when purchasing a mobile phone as they wish.

There are numerous studies on brand equity and customer purchase intention of mobile phones have been conducted around the world (Henderson, 2012). In the Sri Lankan context, few kinds of research are based on this area were conducted (Sewanthy & Kennedy, 2020; Gunawardane, 2015). However, There are few realistic studies

that investigate perceived quality, brand association, brand awareness, and brand loyalty as factors influencing consumer purchase intention. This study is primarily concerned with the brand when it comes to mobile phone purchases. Locally, half of the population owns a mobile phone, and because this figure is high in comparison to developing countries, there is a growing trend toward using mobile services (Businesswire, 2016). According to the survey data the available, 31.80 million numbers of mobile-phone subscriptions already available in Sri Lanka by 2020 (Data Reportal, 2020). As can be seen, mobile phone consumption exceeds Sri Lanka's current population, and the number of mobile connections in Sri Lanka in January 2020 was equivalent to 149 percent of the total population (Data Reportal, 2020).

According to survey data, the Samsung brand has 42.41 percent of the market share, Huawei has 24.43 percent, Apple has 8.15 percent, and Oppo could generate 6.68 percent of the market share for their brand. Finally, by December 2020, Nokia will have a 3.99 percent market share in Sri Lanka (Statcounter, 2020). Based on the data presented above, we can conclude that the aforementioned leading phone brands account for 85.66 percent of the total market share of mobile phones in Sri Lanka. As a result, evaluating customer behavior concerning mobile phones is critical. This study

aimed to investigate the impact of selected brand equity dimensions and overall brand equity impact on consumer purchase intention of mobile phones in Sri Lankan context.

Some researchers stated that for future studies and research, a framework can be developed as a whole, indicating the diverse relationships between the associated variables to consumer purchase intention toward smartphone brands (Ling et al., 2014). Furthermore, even though some types of studies have previously been conducted to purchase smartphone brands, few researchers have focused on the relationship between brand equity dimensions and student intention to purchase smartphone brands (Ling *et al.*, 2014). As a result, most of this research has been done based in developed countries.

Because of the research problem, this study seeks to address the knowledge gap by attempting to answer the question, 'what is the impact of brand equity on customer purchase intention of smartphones among the undergraduates of private sector higher educational institutes in Sri Lanka?

Some Sri Lankan-related studies focused on undergraduates with related to brand equity and mobile purchase intention in universities island-wide (Riyath & Ismail, 2014). This study mainly focuses on the

undergraduates of private sector higher educational institutions in Sri Lanka since university students are selected for this study because they are teenagers and well interested and know the new technologies and arrival of new mobile phones better than others (Riyath & Ismail, 2014).

Objectives of the study

The objectives have been classified as per the sub variables in the conceptual framework as follows:

- ❖ To identify the impact of brand association on customer purchase intention of mobile phones.
- ❖ To identify the impact of brand awareness on customer purchase intention of mobile phones.
- ❖ To identify the impact of brand quality on customer purchase intention of mobile phones.
- ❖ To identify the impact of brand loyalty on customer purchase intention of mobile phones.

Therefore, this study aimed to investigate the effect of brand equity on customer purchase intention of mobile phones among the undergraduates of private sector higher educational institutions in Sri Lanka.

2. METHODS

This study investigates the impact of brand equity, brand association, brand quality, brand

awareness brand loyalty on customer purchase intention of mobile phones among undergraduates of private sector higher educational institutions in Sri Lanka. The researcher developed a model to conceptualize the study's theoretical framework, as shown in figure 1 based on Aker's (1991) model. In addition, a quantitative approach was used for this study. Quantitative research studies use structured questions with multiple response options and a large number of participants (Welman,2005).

The study was quantitative since data was obtained by presenting questionnaires to study participants with pre-formulated response alternatives (Burns & Bush, 2014). The study was also descriptive and cross-sectional. Descriptive research involves observing and describing the behaviors of specific populations to determine their characteristics (Welman et al., 2005). A cross-sectional study was chosen due to its simplicity and suitability for the study's subject matter. The population of interest in this study is the undergraduates of the private sector higher educational institutions in Sri Lanka. Therefore, this study selected higher educational institutions such as NSBM Green University and Sri Lanka Institute of Information Technology (SLIIT), which have high student base institutions in Sri Lanka when compared with other ones. According to the handbooks of

these two institutions, more than 9000 students are available in 2020 each other. Therefore, the population of this study is considered as approximately 18000. According to Morgan's table, the sample size for the current study is selected as 377. The respondents for this study were chosen using a convenience sampling method, which is a non-probability sampling method.

A structured questionnaire was used to collect primary data for this study. The research questionnaires consisted of two sections in this study. Section one contained general information and addressed the demographic characteristics of respondents, whereas section two addressed the impact of brand equity dimensions on undergraduates' purchase intention of smartphones. In this section, a five-point Likert scale was used to collect information; enabling respondents to indicate their level of agreement, neutrality, or disagreement with the questions asked, and these were measured on 5-point Likert scale values ranging from (1) "strongly disagree" to (5) "strongly agree". Respondents were asked identical questions and given adequate space and time to react, with little interference from the researcher, to maintain the reliability and validity of the responses obtained. This questionnaire was developed using google forms and was distributed using an electronic method using Facebook, Messenger, Whatsapp,

and Viber. The responses were analyzed using SPSS (statistical package for social sciences) analysis tool version 23.

Descriptive statistical techniques and inferential statistics were used to analyze the primary data of this study. Descriptive statistical analysis was used to analyze the existing situation of the brand equity dimensions and customer purchase intention.

For this study, inferential statistics that tested the relationships between customer purchase intention and all brand equity dimensions and their correlations were used.

3. RESULTS

According to the demographic analysis shown in Table 01, 44.8% (169) of students of the sample belong to between 21-25years, which was the highest percentage of age categories. There are no students above 35 years. Most of the students are male students representing 59.2% (223). Most of the students followed the course as science represented 40.3% (152). 30.5% (115) of students used Samsung as their smartphone brand. Most of the students are in the 40001-80000 income level group, represented in 53.8% (203).

The normality of data distribution was assessed by examining its skewness and kurtosis (Kline, 2005). The normality test results for the

variables indicated skewness in the range of -1.96 to $+1.96$ and kurtosis in the range of -3 to $+3$ as per table 2. This implies that the assumption of normality was satisfied.

Generally, Cronbach's alpha is commonly used to assess internal consistency, and if a scale has a Cronbach's alpha value greater than 0.7, it is considered reliable (Sekaran & Roger, 2003). Table 3 shows that the Cronbach's alpha for all variables is greater than 0.7, indicating that the study's reliability is established.

3.1. Correlation Analysis

A correlation coefficient is a statistical measure that quantifies how well changes in one variable predict changes in the other. To determine the relationship between independent and dependent variables, Pearson correlation analysis was used. Table 4 represents correlation values between independent variables as Brand Awareness, Brand Loyalty, Brand Association, and Brand Quality, and dependent variables as Customer Purchase Intention. According to Table 4.7, there is a strong positive correlation between Brand Awareness and Customer Purchase Intention, Brand Loyalty and Customer Purchase Intention, and Brand Quality and Customer Purchase Intention. However, the correlation between Brand

Association and customer purchase Intention indicates a moderate positive correlation.

3.2 Regression Analysis

Regression analysis is a strong and adaptable method for examining the associative relationships between a metric dependent variable and one or more independent variables (Sekaran & Roger, 2003). Therefore, regression analysis was used to identify the impact of independent variables on the study's dependent variable. Customer Purchase Intention is the dependent variable, and dimensions of Brand Awareness, Brand Loyalty, Brand Association, and Brand Quality are the independent variables. The goodness-of-fit of the model is demonstrated by the R squared value. This means the degree to which impact is explained. If the R Square value is close to 1, it could be stated that the independent variable explains most of the impact on the dependent variable and vice versa. Table 5 indicates that the R^2 value is 0.833, which means 83.3% of the variation in the Customer Purchase Intention of mobile phones is explained by Brand Awareness, Brand Loyalty, Brand Association, and Brand Quality, and it indicates that a sufficient portion of the model (83.1%) is fit for the population.

All dimensions of brand equity positively influence customer

purchase intention, according to the coefficient values (Table 6). When determining the influence of dimensions of brand equity to determine the customer purchase intention, all four dimensions are significant at a 95% confidence level ($0.000 < 0.05$). Based on the regression analysis, the null hypotheses of all the independent variables were rejected. Therefore, it could be stated that all the independent variables have a positive and significant impact on customer purchase intention of mobile phones.

3.3 Results of Hypothesis Testing

H1: There is a positive and significant impact of brand association on customer purchase intention of mobile phones.

As per Table 6 it could be mentioned that brand association is statistically significant at 0.05 level ($P = 0.000 < 0.05$). Therefore, the null Hypothesis can be rejected. This assures that brand association significantly impacts customer purchase intention of mobile phones. According to Table 4.11, the value of β is 0.218, which denotes that there is a positive impact of brand association on customer purchase intention. So, it indicates a positive and significant impact on customer purchase intention.

H2: There is a positive and significant impact of brand awareness on customer purchase intention of mobile

phones.

As per Table 6, it could be stated that brand awareness is statistically significant at 0.05 level ($P = 0.000 < 0.05$). Therefore, the null Hypothesis can be rejected. This assures that brand awareness significantly impacts customer purchase intention of mobile phones. According to Table 4.11, the value of β is 0.191, which denotes that there is a positive impact of brand awareness on customer purchase intention. So, it indicates a positive and significant impact on customer purchase intention.

H3: There is a positive and significant impact of brand loyalty on customer purchase intention of mobile phones.

As per Table 6, it could be mentioned that brand association is statistically significant at a 0.05 level ($P = 0.000 < 0.05$). Therefore, the null Hypothesis can be rejected. This assures that brand loyalty significantly impacts customer purchase intention of mobile phones. According to Table 4.11, the value of β is 0.331, which denotes that there is a positive impact of brand loyalty on customer purchase intention. So, it indicates a positive and significant impact on customer purchase intention.

H4: There is a positive and significant impact of brand quality on customer purchase intention of mobile phones.

As per Table 6, it could be mentioned that brand quality is statistically significant at 0.05 level ($P = 0.000 < 0.05$). Therefore, the null Hypothesis can be rejected. This assures that brand association significantly impacts customer purchase intention of mobile phones. According to Table 4.11, the value of β is 0.309 which denotes that there is a positive impact of brand quality on customer purchase intention. So, it indicates a positive and significant impact on customer purchase intention.

4. DISCUSSION

The primary goal of the study was to determine the effect of brand equity on customer purchase intent. The present study discovered that brand awareness, brand loyalty, brand association, and brand quality influence customer purchase intention of mobile phones among undergraduates in Sri Lankan private sector higher educational institutions. This finding is mostly similar to past studies and contradicts some available literature.

According to Masika (2013), brand awareness is the degree to which consumers are familiar with a brand. The findings revealed that brand awareness has a positive and statistically significant impact on undergraduates' purchase intentions for mobile phones.

Furthermore, the literature backs up these findings, as demonstrated by a study conducted by Masika (2013), which discovered that brand awareness had the greatest influence on consumer purchasing decisions. The findings were also consistent with Koniewski's observation that brand recognition has a greater impact on subsequent purchasing decisions if the product has been tested and met the consumer's expectations (Koniewski, 2012).

This study stated that brand awareness positively and significantly influences purchase intention. The results related to this Hypothesis did not support this Hypothesis. This result is contrary to expectations and literature. For example, Akhtar *et al.*, 2016; Siali *et al.*, 2016) found that brand awareness is an important factor that influences consumers' decisions to purchase. However, this result is consistent with the results of previous research reports, such as those that believe that brand awareness does not affect consumers' purchasing intentions (Yasin *et al.*, 2007). As the researchers have pointed out, consumers' lack of awareness of brands may not help them assess the brand's quality. In turn, they may not plan to buy or may not be able to cultivate brand loyalty (Aydin *et al.*, 2014).

The findings revealed that brand association has a positive and statistically significant impact on

undergraduates' purchase intentions for mobile phones. Furthermore, (Mohan, 2014) discovered that objective attribute information such as price and physical characteristics will influence brand association. Previous research has also demonstrated that differentiation, preference, and partnership strength are critical components of brand awareness, which is a critical source of customer-based brand equity (Keller, 2013).

According to this study, brand association has a positive effect on purchase intention. This Hypothesis's findings show a significant relationship between brand association and purchase intention. Brand awareness is important in this context because (Ekhveh & Darvishi, 2015) have shown that brand awareness is linked to an information node in the memory.

However, these findings contradict the literature, in which Yee and San (2011) identified perceived quality as a critical factor in consumer decision-making. According to Schiffman *et al.* (2010), perceived quality is not the actual quality of a brand or product; rather, it is a consumer's assessment of an entity's overall excellence or superiority. The research findings are consistent with the previous theory's findings, which propose that perceived quality is an aspect of brand equity that encourages consumers to purchase certain products and influences their

purchase decision (Zeithaml, 1988). As a result, the findings are consistent with recent studies claiming that perceived quality has a significant impact on consumers' purchasing intentions.

The findings revealed that brand loyalty has a positive and statistically significant impact on undergraduates' purchase intentions for mobile phones. Behavioral scientists who support the theory of instrumental conditioning believe that brand loyalty is the result of preliminary product testing, which is enhanced by satisfaction, which leads to repeat purchases (Schiffman et al., 2010). In the study, H4 states that brand loyalty positively influences the purchase intention of brand smartphones.

The multiple regression analysis continued to obtain results related to this Hypothesis. The result suggests a positive relationship between brand loyalty and purchase intention. This result provides support for H4. Consumers' commitment to consuming and using specific brand products positively correlates with their purchase intentions. This finding provides additional evidence that brand loyalty reconstructs customer intent by assessing their preference and attractiveness for specific brands (Bennett *et al.*, 2009). This result is in line with those reported by Aaker, 1996: Aydin *et al.*, 2014, who found that brand loyalty influences the

consumer's intention to purchase.

5. CONCLUSION

5.1 Conclusion

As this research paper aimed at investigating the impact of brand equity on customer purchase intention of mobile phones, responses were collected from both males and females of undergraduates, add up to 377 respondents in number. For this research paper, surveyed respondents belonged to different age groups and income classes and had different smartphone brands. The majority of the respondents were males, aged between 21-25 years old students.

A closed-ended questionnaire was created and distributed to assess the various factors influencing purchase decisions, including brand association, awareness, quality, and loyalty. The scope of the study focused primarily on the four major market players, namely, iPhone, Samsung, Huawei, Nokia, and other brands. According to the findings, the majority of respondents believed that brand association, brand awareness, brand quality, and brand loyalty guided and influenced their purchase decision when purchasing mobile phones.

The results of the correlation and multiple regression analyses revealed that the brand loyalty predictor variable had the greatest impact in explaining purchase

decision, implying that the majority of respondents felt that their loyalty to the current brand they used guided their purchase decision.

Furthermore, customers, particularly university students who are loyal to a particular brand, are those who have a high level of experience and participation in that particular smartphone brand, because loyalty to the brand cannot exist if there is no prior experience of purchase and use. Brand quality had the second strongest correlation and impact. It determines the purchasing of a cell phone relative to other variables. Perceived product quality can be significantly different from the actual manufacturing quality of products. However, despite the widespread belief that the perceived quality of smartphones may lead consumers to choose a particular brand over another competing brand, this will ultimately lead to an increase in brand value.

When compared to other variables, the Pearson correlation test and multiple regression analysis revealed that brand association and brand awareness are the moderately important determining factors when purchasing a cell phone. The study also reveals that even functional products, such as mobile phones, are based on brand loyalty and quality, which are supported by brand association and brand awareness.

5.2 The implications of the research

The implications of this study contribute to the development of a more holistic and inclusive brand equity theory. This can be accomplished by employing a model that incorporates four antecedents of brand equity as well as various brand equity outcomes related to the intention to purchase smartphones. The findings also provide empirical support for the research framework.

Therefore, this research contributes to the brand equity theory by providing empirical evidence that supports the theoretical principles. This research also has several marketing implications. First, the study found that a causal relationship between brand equity and purchase intention dimensions.

Accordingly, especially perceived quality, brand association, and brand loyalty can help the company's smartphone marketing managers create vital prerequisites (brand associations) to establish brand image. And pay more attention to the perceived quality of smartphones. Second, the results of this study support the relationship between brand awareness and purchase intention. Based on this discovery, smartphone marketers should pay close attention to these efforts to increase visibility and stimulate the willingness to

purchase branded souvenirs. Here, recognition must be an important part of marketing priorities.

5.3 Limitations and suggestions for future research

5.3.1 Limitations

The questionnaire is also designed on an electronic platform and sent through an electronic social network, so the selected sample only represents Internet users. Therefore, the reaction of non-Internet users may differ from the reaction of Internet users. The scope can also be expanded to include qualitative aspects that will increase the research value. In addition, it is worth noting that questionnaires tend to limit the respondents to the questions given. Respondents' thoughts are limited to a given set of questions.

5.3.2 Suggestions for future research

A single metric was used to assess customer purchase intent

in this study. A variety of metrics can be used to investigate the link between brand equity and customer purchase intent. Interactions between brand awareness, brand association, perceived quality, and brand loyalty will help determine which factor is most important in determining customer satisfaction. The brand equity dimensions, according to our findings, are the most important variables that influence customer satisfaction in terms of application recommendations.

This research has been extended to the smartphone industry; however, it is suggested that future research be narrowed down and focused on a specific smartphone brand to provide relevant information that may be beneficial to that specific smartphone company. To gain a more holistic understanding of the concept, future research can be conducted to measure factors other than brand equity that may influence consumer purchase intention of smartphones.

APPENDIX

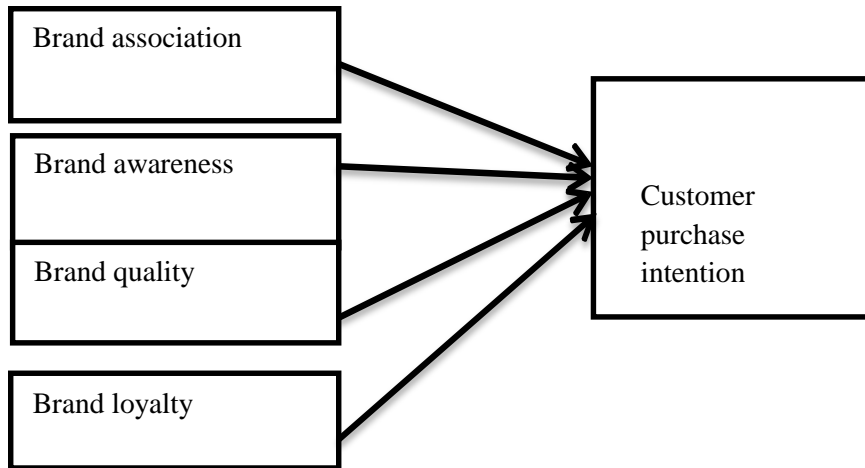


Figure1: Conceptual model

Source: Aaker, D. (1991). *Managing Brand Equity: Capitalizing on the Value of a Brand Name*. Free Press, New York

Table 1: Frequency of Responses

	No: of Respondents	Percentage (%)
Age Group (In Years)		
Below 20	32	8.5
21- 25	169	44.8
25- 30	150	39.8
31- 35	26	6.9
Above 35	-	-
Gender		
Male	223	59.2
Female	154	40.8
Course		
Computing	51	13.5
Engineering	76	20.2
Science	152	40.3
Business	98	26.0
Smartphone brands		
Apple (iphone)	38	10.1
Samsung	115	30.5
Huawei	127	33.7
Nokia	59	15.6
Others	38	10.1
Family Income Level (Per month in		
0- 40000	42	11.1
40001- 80000	203	53.8
80001- 120000	116	30.8
Above 120000	16	4.2

Source: Survey data, 2021

Table 2: Normality Test for variables

Variables	Skewness	Kurtosis
Brand Awareness	.937	-.907
Brand Loyalty	.853	-.317
Brand Association	-1.153	2.653
Brand Quality	.996	-.343
Customer Purchase Intention	.891	-.318

Source: Survey data, 2021

Table 3: Reliability Analysis

Variables	Cronbach's Alpha	Comment about
Brand Awareness	0.800	Reliable
Brand Loyalty	0.756	Reliable
Brand Association	0.757	Reliable
Brand Quality	0.779	Reliable
Customer Purchase Intention	0.725	Reliable

Source: Survey data, 2021

Table 4: Correlation Analysis

Variables	Customer Purchase Intention	
	Pearson Correlation Coefficient	Sig. Value
Brand Awareness	0.808	0.000
Brand Loyalty	0.872	0.000
Brand Association	0.591	0.000
Brand Quality	0.850	0.000

Source: Survey data, 2021

Table 5: Strength of the model

Model	R-Square	Adjusted R Square	Durbin-Watson
	.833	.831	2.114

Source: Survey data, 2021

Table 6: Regression Analysis

Variables	Coefficients (Beta)	Sig. value	The decision for the Hypothesis
Brand Awareness	0.191	0.000	Accepted
Brand Loyalty	0.331	0.000	Accepted
Brand Association	0.218	0.000	Accepted
Brand Quality	0.309	0.000	Accepted

Source: Survey data, 2021

REFERENCES

- Akhtar, N., Siddiqi, U. I., Ashraf, A., & Latif, M. (2016). Impact of a Brand Equity on Consumer Purchase Decision in L'Oreal Skincare Products. *International Review of Management and Business Research*, 5(3), 808.
- Andai, J. (2016). Influence of brand equity on consumer purchase choices among pay TV subscribers in Nairobi, Kenya (Doctoral dissertation, University of Nairobi).
- Asamoah, E. S. (2014). Customer based brand equity (CBBE) and the competitive performance of SMEs in Ghana. *Journal of Small Business and Enterprise Development.*, 21(1), 117-131.
- Balaji, P. (2015). A study on customer-based brand equity (CBBE) of refined sunflower cooking oil in Tamil Nadu. *International Journal of Commerce and Business Management*, 8(1), 36-41.
- Burns, A. C., & Bush, R. F. (2006). *Marketing research* 5th ed. New Jersey.
- Day, G. (1969). A two-dimensional concept of brand loyalty. *Journal of Advertising Research*, 9(3), 29-35.
- Ekhveh, A., & Darvishi, A. Z. (2015). The Impact of Brand Awareness on Re-purchase Intention of Customers With Trilogy of Emotions Approach (Case Study for Cell Phones). *Applied mathematics in Engineering, Management and Technology*, 3(4), 25-30.
- Gunawardane, N. (2015). Impact of Brand Equity towards Purchasing Decision: A Situation on Mobile Telecommunication Services of Sri Lanka., *Journal of Marketing Management (JMM)*, 3, 100-117. doi: 10.15640/jmm.v3n1a 10
- Hasan, T. (2008). Influence of Brand Name while Buying Cars.
- Huang, R., & Sarigöllü, E. (2014). Assessment of brand equity measures. *International Journal of Market Research*, 56(6), 783-806.
- Keller. (2013). *Strategic brand management: Building, measuring, and managing brand equity*.

- Koniewski, M. (2012). Brand awareness and customer loyalty. Unpublished MBA Project.
- Masika, C. (2013). The influence of mobile marketing on brand equity; A case study of Safaricom Limited. *Unpublished MBA Project, University of Nairobi.*
- Mohan, A. (2014). Consumer behavior toward smartphone industry in Indian market. Unpublished MBA Project, Dublin Business School.
- Oliver, R. (1999). Whence consumer loyalty. *The Journal of Marketing*, 33-44.
- Potgieter. (2015). The mobile application preferences of undergraduate university students: A longitudinal study. *South African Journal of Information Management*, 17(1):1-6.
- Riyath, M. I. M., & Musthafa, S. L. (2014). Factors affecting mobile phone brand preference: empirical study on Sri Lankan university students. South Eastern University of Sri Lanka.
- Schiffman, L., & Kanuk, L. (2007). *Consumer behavior* (9th ed.). NJ: Prentice-Hall, Inc.
- \Sewanthy, & Kennedy, F. (2020). Mobile Phone Brand Equity and Purchase Intention: The Mediating Effect of Brand Preference. *International Journal of Research*
doi:10.29121/granthaalayah.v8.i11.2020.2272
- Welman, C. K., & Kruger, F. F. & Mitchell, B. 2005. *Research Methodology* (3rd ed.). Cape Town: Oxford Press University.
- Xi-hua, Z. (2010). The Exploration of the Addiction by Using Mobile Phone among University Students. *Education and Teaching Research*, 4(1), 25-42.
- Vogels, E. A. (2019). Millennials stand out for their technology use, but older generations also embrace digital life.
- Yee, C., & San, N. (2011). Consumers' Perceived Quality, Perceived Value and Perceived Risk Towards Purchase Decision on Automobile. *American Journal of Economics and Business Administration*, 3(1), 47-57
- Zeithaml, V. (1988). *Consumer*

Perceptions of Price,
Quality and Value: A
Means-End Model and
Synthesis of Evidence.
Journal of Marketing, 52,
2-22.

Impact of Community-Based Tourism Projects' Empowerment on the Adoption of Sustainability Practices by Community Tourism Entrepreneurs in Sri Lanka

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Abstract

Community-Based Tourism (CBT) has emerged in many countries as a tool for poverty reduction and sustainability enhancement. Even though sustainability practices are essential for promoting community-level tourism, due to lack of capacity and know-how, poor attitudes, reluctance to change, etc. cause to lower the application of sustainability practices by community tourism entrepreneurs. Therefore, CBT projects were initiated and greater efforts were taken to indoctrinate the sustainability practices among the micro and small scale tourism entrepreneurs (MSSTEs). However, several past researchers argued that those efforts were unable to build fruitful results. This was reported in several community tourism villages, especially in the Sri Lankan context. Therefore, this research endeavors to study the impact of empowerment efforts of CBT projects on the adoption of sustainability practices by the MSSTEs. The structured questionnaire survey was applied for data collection from a sample of 200 MSSTEs in six villages of Sri Lanka who were empowered by two selected CBT projects. Empowerment efforts were the independent variable, and capacity building, financial assistance, education and training, network building, monitoring and evaluation were the five sub-constructs of it. Sustainability practices were the dependent variable and economic, social and cultural, and environmental sustainability were the three sub-constructs of it. Findings revealed that CBT empowerment efforts affect significantly on the adoption of the three facets of sustainability practices by the MSSTEs. Economic sustainability was the highest achieved practice and it implies that CBT project empowerments were able to eliminate poverty in the rural community and strengthen their economic status.

Keywords: Community Based Tourism projects, Community tourism entrepreneurs, Empowerment efforts, Sustainability practices

1. INTRODUCTION

With the increase of community involvement in tourism in many countries and demands shift happen from mass tourism to niche tourism, Community-Based Tourism (CBT) concept has emerged as an alternative type of tourism (Khalid, et al., 2019; Sriyani, 2021_a). Meanwhile, CBT is considered as a powerful tool for reducing poverty, harnessing the potential use of untouched resources, and enhancing sustainability in tourism (UNWTO, 2017). Presently, several international organizations such as World Tourism Organization (WTO), United Nations (UN), International Labour Organization (ILO), Australian Aids (AusAID), and national level organizations such as Sri Lanka Tourism Development Authority (SLTDA), Sri Lanka Tourism Bureau, and provincial tourism bureaus apply the CBT concept with the broadest views of poverty reduction, diversifying local economies, enhancing livelihoods and sustainability in the tourism sector (UNWTO, 2017; Asker, et al., 2010; Sheham, 2016; Sriyani, 2018 and 2021_a). Community-Based Tourism is defined as the tourism activities conducted by the local community in a rural area and involves community participation and aims to generate benefits for local communities in the developing world by allowing

tourists to visit these communities to receive an exciting experience and learn (Anuar & Sood, 2017). With the increase in community involvement in tourism activities, greater attention required to be given on sustainability practices among the community (Sardianou, et al., 2016). Sustainable tourism is defined as "tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, environment and host communities" (UNWTO, 2001). These economic, social, and environmental impacts are concerned as the three main elements of sustainable practices which are called today as Triple Bottom Line (TBL) of Profit, Planet, and People. The host communities in the rural tourism destinations are recognized as the vital agents who should bear the hard role of being the guarantors of ensuring sustainability in terms of Planet, People, and Profit (Amir, 2015; Sriyani, 2021_b). However, due to the low level of education, capacity, technology and business know-how, etc. of the community people in rural destinations, bearing such a hard role is questionable without the assistance of a third-party (Kumara, 2016; Sriyani, 2021_a). Therefore, the implementation of sustainable tourism development is profound in many countries with the involvement of tourism

development projects (Sardianou, et al., 2016).

By reviewing peer-reviewed articles on empowerment that were published since the introduction of Scheyvens' empowerment framework, Agahazamani & Hunt (2017) revealed limited applications of the empowerment concept in the tourism sector. On the other hand, nevertheless, several past studies are available on sustainability in CBT, but it is lacking the empirical evidence of sustainable tourism linking with the concept of empowerment, and assessing how vital the empowerment is in achieving the social, economic, and environmental goals of sustainable development (Boley, et al., 2015; Khalid, et al., 2019; Scheyvens & van der Watt, 2021). Even if scholars, academics, and practitioners have emphasized various diagnostic tools and measuring empowerment from a general perspective, Dolezal & Novelli (2020) noted that very few scholars have investigated the diverse facets of community empowerment in sustainable tourism. In the Sri Lanka context also, fewer empirical studies were undertaken relating to the empowerment efforts of the CBT projects to stimulate the community tourism entrepreneurs in rural villages to adopt sustainable tourism practices (Samarathunga et al., 2015; Pattiyagedara & Fernando, 2020).

Moreover, it was argued that many CBT projects emphasized enhancing economic benefits due to the highest emphasis on poverty reduction rather than the environment, and social and cultural, and this caused to eroding of local culture and social structures in the rural villages (Khalid, et al., 2019).

On the other hand, the existing empirical findings show contradictory arguments on the impact of CBT empowerment projects on sustainable tourism in rural destinations. For example, in South and South-East Asia, several negative impacts associated with tourism as well as several potential gains for local communities were found (Forstner, 2004; Gnanapala & Sandaruwani, 2016; Sriyani, 2021_b). Riehl, et al., (2015) realized mixed effects of Namibia's Community-Based Natural Resource Management (CBNRM) program on socio-economic well-being (Cited by Sardianou, et al., 2016). Past researchers, for example, Gnanapala & Sandaruwani (2016), Kumara (2016), and Sriyani (2018) evidenced that unsuccessful CBT stories were reported in several destinations in Sri Lanka. Gnanapala & Sandaruwani (2016) further highlighted that the local villagers in Sri Lanka do not sufficiently benefit even financially from tourism development. Even though CBT

projects make great efforts on encouraging sustainability practices in tourism among the community tourism entrepreneurs in rural destinations, past researchers (Samarathunga, et al., 2015; Rathnayake & Kasim, 2016; Gnanapala & Sandaruwani, 2016; Havadi-Nagy & Espinosa Segui, 2020) highlighted that due to inadequate government planning, policies and regulations, high level of poverty, low level of education, lack of industry know-how, poor attitudes, etc. affect the community to give a low level of attention on the sustainability practices though such practices have been recognized as essential for the sustainability and growth in the tourism industry.

Therefore, by considering the afore-described research gaps, this study endeavors on two main objectives including to reveal the impact of empowerment efforts of CBT projects on the adoption of sustainability practices by the tourism entrepreneurial community in rural villages, and to determine which pillars among the three pillars of sustainability practices were affected highly and significantly due to the empowerment efforts of the CBT projects. Because the CBT is becoming popular all over the world including in Sri Lanka rather than mass tourism, the findings based on the sustainable practices among the rural tourism community would be beneficial

to fulfill the identified research gaps, to provide important implications for community-based tourism planners and practitioners to assure the sustainability in community tourism.

2. LITERATURE REVIEW

2.1 Empowerment and Sustainable Tourism

Community-Based Tourism is known as the tourism activities conducted by the local community in rural areas with the community participation aiming at generating benefits for local communities in the developing world by allowing tourists to visit these communities to receive an exciting experience and learn about local culture (Dangi & Jamel, 2016; Anuar & Sood, 2017; UNWTO, 2017). Among the countries which implement tourism development projects, Goodwin & Santilli (2009) and Ampumuza, et al., (2008) have identified several countries like Bolivia, Java, Thailand, Botswana, Chira Island, Nepal, Australia, Korea, New Zealand, Kenya, Uganda, Sri Lanka, India, Laos, Cambodia, and Turkey as in the front.

Scheyvens & Van der Watt (2021) mentioned that there is no single definition for empowerment that is widely used for sustainable development in tourism. However, Pigg (2002)

emphasized that empowerment entails individuals or collectives gaining control over, and the capability to make purposive choices about, their lives and futures. Though many researchers in community tourism development argued that CBT projects facilitate individuals to become beneficiaries of 'development', McMillan (2011) emphasized that empowerment allows individuals to become agents of change rather than beneficiaries of 'development'.

On the other hand, sustainable tourism was identified as "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities" UNEP and UNWTO (2005). This definition is aimed at a high level of tourist satisfaction and integration of socio-economic benefits for all stakeholders including the creation of employment and income-earning opportunities, social services to host communities, and promotion of sustainable tourism practices among them. International Labour organization (ILO, 2011, P.7) defined sustainable tourism under the three pillars social justice, economic development, and environmental integrity. It further emphasized respect for the socio-cultural authenticity of host communities, conserving

their established and living cultural heritage and traditional values, and contributing to inter-cultural understanding and tolerance; while ensuring viable, long-term economic operations, providing equal socio-economic benefits to all stakeholders, including decent and stable employment, income earning opportunities, social services to host communities, and contributing to poverty alleviation.

2.2 Dimensions of Community Empowerment and Sustainability in Tourism

The dimensions of community empowerment towards sustainability in tourism were first identified by Scheyvens in 1999 through the most used empowerment framework which includes four dimensions: psychological, social, economic, and political. Next, the subsequent researchers strengthened this framework by adding environmental and cultural dimensions further (Scheyvens & Van der Watt, 2021). Ayazlar & Ayazlar (2016, P.140) mentioned that it is a must to respect traditional lifestyles as well as traditional industries and protect the host community culture while generating income from tourism activities. Social and cultural dimensions of CBT were also discussed relating to many aspects of peoples' everyday life such as safety and health, happiness, children and

family, friendship, work-life, literacy, community efficacy, etc. (Kostalova, 2017, P.08). The economic aspect is considered as gaining more livelihoods, and income-generating opportunities for the community people, and the environmental aspect of CBT emphasized protecting the natural resources for the use of future generations while using these resources presently for tourism activities (ILO, 2013; SLTDA, 2009). Waterfalls, rivers, lakes & reservoirs, flora and fauna, mangroves, sandy beaches, forests, wildlife, etc. are such natural resources and few of those are inherited to a particular destination and have a unique value for the tourism industry. As well, ensuring the non-polluted environment surrounding the business is a must (SLTDA, 2009).

With the transition of tourism from traditional types which were based on 3Ss (Sun, Sea, and Sand) towards Nature, Culture, and People, demand arises for the participation of the community in tourism planning and monitoring to ensure the provision of exciting and real experience of village life (Kampetch & Jitpakdee, 2019; Sriyani, 2021_b). Therefore, the community development has been expanded by incorporating sociocultural well-being together with stimulating the participation of residents in tourism activities and environmental conservation goals

in addition to the economic growth. Hence, many researchers (Abukhalifem & Wondirad, 2019; Khalid, et al., 2019) argued that gearing-up sustainable practices through CBT projects are vital to ensure strong participation and political leadership at the village level. Khalid, et al., (2019) and Yu, et al., (2018) mentioned that community participation is a must to ensure the continuation of sustainability practices during the period of post-implementation of CBT sustainability projects. Yu, et al., (2018) also highlighted that forethought initiative which provides a part of empowerment for the community supports to work as change agents collaboratively in the society by shaping and developing their future.

Moreover, past researchers (for example Sardianou, et al., 2016; Anuar & Sood, 2017) have further extended the community empowerment scope of CBT projects by incorporating several other dimensions such as capacity building, poverty alleviation, education, training, conservation, environmental and social justice, equitable distribution of tourism costs and benefits, as well as developing a sense of pride and respect. With this expanded role of CBT, many researchers (for example, Kampetch & Jitpakdee, 2019; Yanes, et al., 2019) emphasized the empowerment of

tourism requires fostering self-determination, self-reliance, self-help, local control, cultural well-being, and sustainable livelihoods among the community. Also, network building among the community is considered a vital part of the empowerment for the sustainability of the tourism businesses (David & Szucs, 2009; Erkus & Eraydin, 2010). Ampumuza, et al., (2008) expressed that networking creates more benefits for linking partners and stakeholders and it helps to link the local people's enterprises to mainstream tourism. Tasci, et al., (2013) mention that, the development of linkages among the actors in the tourism value chain, support for creating community-level societies, improved linkages between public, non-governmental, private, local, and civil society, inter and intra-cultural relations, and links through cultural exchange and dialogue between local community members and tourists can be achieved as benefits of CBT projects.

Scheyvens & Van der Watt (2021) presented 7 number of enabling conditions including social capital, customary practices, access to markets and credits, business training and linkages, governance, law and policy, and politics. Sriyani (2021_a) highlighted that CBT empowerment projects in many countries back up the community in terms of financial, human, and social capital and assist them to

harness the opportunities from proper utilization of natural capital while protecting those for the future uses. Financial assistance includes financial grants to start and run the business, networking access to the financial and non-financial institutions, encouraging savings, etc. (Kostalova, 2017, P.5). Ampumura, et al., (2008) and Goodwin & Santilli (2009) mentioned that CBT projects empower the community to start group saving schemes, create village development funds and revolving funds and provide micro-financing opportunities. As per this review of existing literature, it can be identified three key sustainability dimensions of tourism namely: economic, social and cultural, and environment. However, the contemporary dimensions of sustainable tourism: Profit, People, and Planet were used only by the ILO and a few researchers. Though in general, the diverse dimensions were presented in the past research literature relating to community empowerment towards tourism, there is a vacuum on the dimensions or measures specifically focused on the community empowerment towards sustainability practices in tourism.

2.3 Impact of Community Empowerment on Sustainability Practices in the Tourism Sector

As per the findings of previous studies, varied arguments can be seen regarding the impact of community empowerment efforts of CBT projects for enhancing sustainability practices in tourism. By analyzing the Chi Phat CBT project in Koh Kong Province, Cambodia, Reimer & Walter (2013) revealed that encouragement for greater community participation and environmental awareness have resulted in less logging and hunting, focusing on local culture, and sharing benefits among the whole community. Also, positive outcomes like environmental and cultural respect, the inclusion of traditional knowledge, equitable sharing of tourism income and indigenous empowerment are resulted from being facilitated in Kakadu National Park in the Northern Territory of Australia (Department of the Chief Minister-NT, 2020). Moreover, Mbaiwa (2015) found that Community-Based Natural Resource Management (CBNRM) programs aimed to address land-use conflicts, distribution of wildlife economic benefits to people living in wildlife areas, and local community participation in wildlife resource management. Further, Dixey (2005) and Jamal & Dredge (2014) emphasized that the CBNRM program provided significant technical and financial assistance and created substantial direct and indirect wider benefits

even among the women in the tourism community in Northern Botswana. Scheyvens (2005) revealed that the New Zealand government empowered the CBT in Samoa by stressing the reliance on local skills, knowledge, and resources, emphasizing local ownership and control, improving standards of living for rural communities, respecting environmental and cultural assets, and emphasizing the valuable role of local NGOs in training, education and capacity building, as well as directing environmental conservation, assistance to direct external expertise and funding toward local community-based conservation and tourism initiatives. Asker, et al., (2010) stated that CBT projects in rural areas affect employment growth, directly and indirectly, increasing the number of tourism business establishments and diversifying tourism activities, repopulation, social upgrading, and revitalization of local culture and local crafts. Pattiyagedara & Fernando (2020) also mentioned that CBT positively influences socio-economic benefits for residents. Dangi & Jamel (2016), UNWTO (2017), and Sriyani (2021_b) emphasized that not like the mass tourism, CBT is a proper tool for poverty reduction, sustainability improvement, and community development that strengthens the ability of rural communities to manage tourism resources while ensuring the local

community's participation towards initiating and sustaining the tourism business activities. Abukhalifeh & Wondirad (2019) highlighted that most of the CBT empowerment projects were able to create two major influential forces namely, the presence of strong CBT organizations and committed leadership with growing support.

Also, Jamal & Dredge (2014) pointed out that despite the development agendas have shifted to incorporate pro-poor initiatives and identify "triple bottom line" (environmental, economic, and social) goals that comfort with community development agendas tend to be complicated and sometimes indecisive. However, Khalid, et al., (2019) emphasized that there is a high risk of failure of any CBT project established on enhancing sustainable tourism practices if the community does not control or support the post-implementation actions. Though CBT projects aimed at achieving project goals, several CBT projects failed in achieving the goals of sustainable development and transformation of the lives of community people are problematic (Irshad, 2010; Ratnayake & Kasim, 2015; Samarathunga, et al., 2015; Ranasinghe, 2015; Sheham, 2016). In the Sri Lankan context, researchers revealed such failed CBT projects as Walathwewa Community Environmental and

Tourism Initiative (Ratnayake & Kasim, 2015; Ranasinghe, 2015), Rekawa Community Environmental and Tourism Initiative (Ratnayake & Kasim, 2015), Bundala and Nilwala community tourism project (Sheham, 2016), and Padavigampola and Madurawala CBT projects (Sriyani, 2021_b). Also, several researchers (for example, Sharpley & Naidoo, 2010) highlighted that even though tourism enables to bring short-term economic benefits to the poor, tourism alone is unlikely to make longer-term sustainable contributions to poverty reduction. Even the empowerment of formal CBT projects was affected adversely to erode the traditionally established values of the village level. Alawattage, et al., (2016) highlighted that traditional small kinship groups formed informally to find microfinance requirement of their businesses called the 'Auction Ciettu' system was eroded by such formal interventions. Further, Sriyani (2021_b) and Rodriguez-Giron & Vanneste (2019) argued that due to severe competition even at the community level, presently, several community people work alone to maximize the benefits for their own after reaching the self-sustainable level. Moreover, several authors such as Hunt, et al., (2015) and Jamal & Camargo (2014) argued that displacement and marginalization of local people, leakage of profits

offshore, widening socio-economic inequalities, loss of traditional sources of income such as agriculture and fishery, and various forms of environmental degradation were the several adverse socio-economic and environmental impacts of tourism development in rural destinations. This review of past research revealed that positive as well as negative impacts of CBT projects were reported. However, the emphasis on the impact of enhancing the sustainability practices among the rural entrepreneurial community in tourism is still lacking.

2.4 Challenges for Practicing Sustainable Tourism at Community Level

Though sustainability in CBT activities is a must for ensuring long-term poverty alleviation and socio-economic development in rural tourism destinations, past researchers emphasized that several barriers inhibit sustainable tourism. These include inadequate support received from the government, inadequate financial, training, and technical support, lack of awareness and less capacity and ability of the people who are living in remote areas, the dominance of tourism by intermediaries and wealthy privileged, poor infrastructure (such as roads, electricity, clean water supply, waste management), low human capacity, inequitable distribution

of tourism opportunities and income, less caring the community leadership (Kontogeorgopoulos, et al., 2014), negative community perception, traditional power patterns of community, a little contribution from tourism to community well-being, a weak relationship between the objectives of conservation and rural socio-economic development (Sheham,2016). Rajapakshe, et al., (2021) identified five sustainability challenges faced by SMEs as business capability to adopt economic, social and environmental challenges, application of ethical business practices, respect for limited natural resources and environmental values in the business process, quality standards, certifications and consideration of stakeholder needs in the business process. Sustainability challenges that had been emphasized by Jayasundara, et al., (2019) include efficient use of natural resources and safeguarding of the environment, engaging in ethical and responsible business practices, supplying high-quality products and services, and developing metrics to meet the stakeholder requirements. Ellis (2011) mentioned that even though CBT focuses on niche tourism markets which are generally small by nature, such as ecotourism, adventure tourism, etc., however, when the volume of tourists

increases the communities seem to be ill-prepared to respond to the demand. Community-based conservation programs in Zimbabwe appear the inability to ensure cultural sustainability and human-environmental relationships. Sheham (2016) mentioned that majority of CBT projects were identified as failed projects due to the inability to achieve both project goals as well as community goals therefore, sustainable tourism may not be the remedy to long term development as supposed, because development goals fundamentally conflict with sustainability goals and benefits cannot accrue to communities.

3. METHODS

The positivism paradigm and quantitative research approach were selected for this study because it was expected to recognize the individual's constituents on a phenomenon of empowerment efforts of CBT projects towards the adoption of sustainability practices, and reveal relationships between these constructs. Moreover, data were expected to collect from a large sample with the purpose of testing the hypothetical relationships. The research strategy of this study was cross-sectional survey method and a structured questionnaire was used in collecting data from the sample of MSSTEs. The population of this study was micro and small-scale tourism

entrepreneurs in Sri Lanka who were empowered by a CBT project to start tourism businesses and ensure sustainability in tourism. MSSTEs were defined based on the criteria of the number of employees of the business as 1-50, by using the definition of the National Policy Framework for SME Development in Sri Lanka (2016). A sample of 220 micro and small-scale tourism entrepreneurs (MSSTEs) was selected by using the random number generator with the list of MSSTEs who were empowered by the two selected CBT projects namely the International Labour Organization (ILO) and Ruhunu Tourism Bureau (RTB). ILO CBT project was initiated under the international donations and RTB CBT project was initiated under the Ministry of Tourism by using government funds. Both of these projects presently operate at the post-project period. The researcher was able to have a list of 140 MSSTEs from Ampara district and 310 MSSTEs from the Galle and Matara districts. Two villages namely Panama and Arugam Bay from Ampara district and 4 villages namely Kanneliya, Vihrahena, Mederipitiya, and Godahena from Galle and Matara districts were considered in selecting the sample. The structured research questionnaire included the demographic profile, and the business profile of the MSSTEs, five-point Likert-scale questions

from strongly disagree (1) to strongly agree (5) to reveal the extent of the empowerment efforts of CBT projects and the adoption of sustainability practices by the MSSTEs in the sample. Out of 220 questionnaires, 20 were ignored due to incomplete responses, and 200 questionnaires were processed for analysis purposes. The response rate was about 91 percent. Cronbach alpha test was applied to determine the reliability and the internal consistency of the measurements.

The dependent variable of this study was the sustainability practices adopted by the MSSTES and it was measured by using the most used three key dimensions economic, social and cultural, and environmental. It is believed that to ensure sustainable development, MSSTEs should incorporate these three concepts relating to every aspect of their business activities (Masocha, 2018). Empowerment efforts of the CBT projects were the independent variable of this study and 5 sub-dimensions including capacity building, financial assistance, education and training, network building, and monitoring and evaluation were taken into account based on the views of the previous researchers. In Appendices, Table 1 shows the operationalization of sub-dimensions of these dependent and independent variables.

Below mentioned three hypotheses were developed by focusing on the research gaps identified in this study and correlation and multiple regression analysis were applied to test these hypotheses.

H₁: Empowerment efforts of the CBT projects affect significantly on reaching economic-related sustainability by the MSSTEs

H₂: Empowerment efforts of the CBT projects affect significantly on reaching social and cultural related sustainability by the MSSTEs

H₃: Empowerment efforts of the CBT projects affect significantly reaching environment-related sustainability by the MSSTEs.

In addition to the structured questionnaire survey, an interview guide was applied to have a discussion with the 6 community tourism leaders and 6 officers of the selected two CBT projects. About 30 minutes discussion had with each of the person and after getting the permission, the interviews were recorded. Narrative expressions of the participants were summarized and used for analysis purpose.

4. RESULTS

As per the demographic profile of the MSSTES, a majority (62%) in the study sample were women. It implied that more women had joined to receive empowerment

from CBT projects in the selected villages. The majority have passed G.C.E. O/L (36%) and G.C.E. A/L (32%) and this convinced the high potential of entrepreneurial literacy among the MSSTEs in the selected villages to enhance their knowledge and know-how on sustainability practices. Also, 71% of the sample was between 30 to 50 years of age, and the empowerment of such capable and mature people is a good investment in local development. Homestays, souvenir shops, retailing food and beverages are the most common feminine CBT businesses, and tour guide and transport, wildlife and village life safari, water-based and land-based adventure activities, and restaurants are the most common masculine CBT businesses in the selected villages.

As seen in Table 2, Cronbach's alpha values greater than 0.6 for all constructs imply the internal consistency and the scales deemed reliable for further analyses as per the rule of thumb described by Zikmund (2013). Also, the assumptions of multiple regression analysis were met as per the statistics reported. The VIF values for all the five sub-dimensions of the independent variable were reported as between 1 to 5 and hence multicollinearity assumption was met. The Scatterplot diagram shows that standard residuals are scattered with no clear pattern and hence, the multiple

regression model is not influenced by the heteroscedastic problem.

One of the main objectives of this study is to reveal the impact of empowerment efforts of CBT projects on the adoption of sustainability practices by the tourism entrepreneurial community in rural villages. Table 3 shows the group statistics of empowerment efforts and sustainable tourism practices of the tourism entrepreneurial community. All the mean values reported as greater than 3.0 except the empowering through 'monitoring and evaluation'. Also, 'education and training' reported the highest mean value (4.153) and 'financial assistance' reported the 2nd highest mean value (3.962). Hence, these two were the popular empowerment mechanisms for enhancing sustainability among the community tourism entrepreneurs. On the other hand, 'economic sustainability was the highest perceived sustainable practice adopted by the MSSTES in the sample. Also, as per the mean values, a satisfactory level of adoption of the other two aspects of sustainability practices can be seen and it shows that the projects' efforts were fruitful in inculcating a culture of sustainability in tourism in the selected villages.

Table 4 shows the correlations between the five dimensions of CBT empowerment efforts and

enhancing sustainable tourism practices by the MSSTEs. All the Pearson correlation values were reported as positive and significant at the 0.01 level. Among the CBT empowerment efforts, Education and Training shows the highest positive correlation value (0.538) and it implies that education and training was the highly affecting factor in inculcating sustainability practices among the community. Monitoring and Evaluation effort was the less correlated factor (0.306) for stimulating the community towards the sustainability practices. However, all the 5 empowerment efforts contribute to enhancing the tourism sustainability practices among the rural community. The model summary depicted in Table 5 shows the R^2 values relating to the three models of economic sustainability, social and cultural sustainability, and environmental sustainability, and Table 6 shows the ANOVA results of these three models.

The three hypotheses formulated for this study aimed at testing whether the empowerment efforts of the CBT projects affect significantly reaching economic related, social and cultural related and environmental-related sustainability by the MSSTEs. These statistics show that a high positive correlation was reported between the CBT empowerment efforts and all the dimensions of

sustainability practices in tourism including economic sustainability (0.693), social and cultural sustainability (0.641), and environmental sustainability (0.556) reached by the MSSTEs. Findings further revealed that CBT empowerment efforts explain 48 percent ($R^2 = 0.480$) of the total variability of the dependent variable of economic sustainability, 41.2 percent ($R^2 = 0.412$) of the total variability of the dependent variable of social and cultural sustainability, and 30.9 ($R^2 = 0.480$) percent of the total variability of the dependent variable of environmental sustainability. The R^2 value of economic sustainability is very closer to 0.5 shows that the model is effective enough to determine the relationship between CBT empowerment and reaching the economic sustainability other than social and cultural, and environmental sustainability. As depicted in Table 6, the F values relating to all the three sustainability practices [economic sustainability: $F(1, 200) = 19.541, p < .000$; social and cultural sustainability: $F(1, 200) = 69.926, p < .000$; and environmental sustainability: $F(1, 200) = 44.529, p < .000$] show that independent variable (CBT empowerments) statistically significantly predict the dependent variable of reaching sustainability in tourism in terms of economic sustainability, social and cultural sustainability, as

well as environmental sustainability and it implies that the regression model is a good fit of the data.

The second objective of this study was focused to determine which pillars among the three pillars of sustainability practices were affected highly and significantly due to the empowerment efforts of the CBT projects. The coefficient statistics relating to CBT empowerment efforts and community sustainability practices in tourism shown in Table 7 support testing the three hypotheses formulated on focusing on this objective. Accordingly, the highest beta value of 0.667 was reported on economic sustainability and the second-highest value (0.641) and third-highest value (0.555) were reported respectively on social and cultural sustainability and environmental sustainability. All the beta values are significant at the 0.01 significance level and t values are also greater than 2 indicating that all the three hypotheses of the study can be accepted. Accordingly, it can be determined that the selected two CBT projects affect enhancing economic sustainability, social and cultural sustainability, as well as the environmental sustainability among the MSSTEs in the selected 6 villages. Economic sustainability was the highly reached sustainability by the MSSTEs through the empowerment of

CBT projects and the other two sustainability practices (social and cultural sustainability, and environmental sustainability) were also affected significantly by the empowerment efforts.

The descriptive statistics regarding economic sustainability show that projects empowerments enable the community to open access to a diverse range of tourism-related livelihood opportunities, increasing the employment and income level of the villagers, recycling and reusing the waste to earn an extra income, and attracting more visitors. In terms of social and cultural sustainability, projects empowerments enable the community to have a well-functioning CBT association with strong and committed leadership to direct the community for greater participation in tourism development, enhance the quality of life of the people while managing properly the dual role of female entrepreneurs and managing the multi-income sources of the family, eliminate unfair competition among the members in the community by assisting to maintain standards, and intervening to transfer the inherited knowledge and skills on local culture and crafts among future generations. Also, the empowerments of both projects facilitate the achievements of environmental sustainability in terms of ensuring a non-polluted

surrounding by self-managing the business waste, empowering to develop the village as a "green destination" and maintaining a balance between the business expansions and natural resources utilization, and aware and change the mindsets of the visitors and community on how they can contribute in protecting the environment.

Further, the discussions had with the community leaders of the two selected CBT projects revealed that it was able to achieve mainly the sustainability in tourism by increasing tourism-related livelihood opportunities and direct and indirect employment opportunities in the tourism sector, increasing women's involvement in tourism activities, increasing the household income due to multi income sources, improving living standard and quality of life of families, infrastructure development in the villages, utilizing productively the untouched resources and talents for tourism, accumulation a reputation as the business community and powerful entrepreneurial networks, generating a strong village-level leadership and a strong voice and leadership succession, and greater community participation in village-level development. Moreover, the majority of the community leaders claimed that even though the CBT projects work hardly on empowering the community to adopt and reach

sustainability in tourism, due to the prevailing economic crisis of the country as well as the lack of long term tourism development plan and transparent decision making at the ministry level, and regular changes of the ministers and the responsible heads at the ministry and provincial level affect severely on ensuring the overall sustainability in the tourism industry.

5. DISCUSSION

Varied arguments are presented in the research literature on the impact of community empowerment efforts of CBT projects for enhancing the use of sustainability practices by community tourism entrepreneurs. Most of the past studies such as ILO (2011), Kostalova (2017), Pandigama & Sriyani, 2019, Scheyvens & Van der Watt (2021), Rajapakshe, et al., (2021), etc. used economic, social and cultural, and environmental sustainability as the dependent variable and this study also used the same dimensions. Previous researchers such as Ampumura, et al., (2008), Goodwin & Santilli (2009), Tasci, et al., (2013), Ranasinghe (2015), Samarathunga, et al., (2015), Sardianou, et al., (2016), Anuar & Sood (2017), Scheyvens & Van der Watt (2021), etc. used a similar type of dimensions in measuring the independent variable of CBT empowerment as used in this study. However, empowerment through

monitoring and evaluation which was applied in this study is unavailable in the existing research literature. This study found that CBT empowerments were done in terms of capacity development, financial assistance, education and training, network building, and monitoring and evaluation. Though the capacity development of this study was taken as strengthening the community by developing the required infrastructure and other facilities which require to convert a destination into a tourism attractive place, several past studies interpreted it by including education and training also as capacity development. As found in this study, several researchers mentioned that education and training (Sardianou, et al., 2016; Anuar & Sood, 2017; Scheyvens & Van der Watt (2021) and financial assistance (Ampumura, et al., 2008; Goodwin & Santilli, 2009; Kostalova, 2017) were the highly recognized empowerment tools by the community. The findings of this study also supported the arguments on the effectiveness of network building (Ampumura, et al., 2008; David & Szucs, 2009; Erkus & Eraydin, 2010; Connelly & Sam, 2018; Nitikasetsoontorn, 2015) and capacity development (Scheyvens, 2005; Anuar & Sood, 2017) as empowerment tools. Monitoring and evaluation as an empowerment tool was rare in the research literature and this

study also revealed that though a positive correlation exists, it was the less popular tool of empowerment. When considering the impact of CBT empowerment on reaching the tourism sustainability by the rural tourism entrepreneurs, past researchers provided varied arguments such as the effect positively and significantly (Tasci, et al., 2013 & 2014; Asker, et al., 2010; Nitikasetsoontorn, 2015; Connelly and Sam, 2018; Pattiyagedara & Fernando, 2020), not affect significantly (Ranasinghe, 2015; Samarathunga, et al., 2015; Ratnayake & Kasim, 2015; Sheham, 2016; Karacaoğlu and Birdir, 2017; Rodriguez-Giron & Vanneste, 2019), and mix results (Mielke, 2012; Riehl, et al., 2015). Karacaoğlu & Birdir (2017) realized that conservation of tourism resources and capacity development had a lower acceptance rate and these cannot fully embrace sustainable tourism. However, this study revealed that the CBT empowerments were affected positively and significantly on reaching sustainability in all the three facets of economic, social and cultural, and environmental sustainability. Among these three facets, economic sustainability was the highly reported sustainability practice. Accordingly, it can be determined that CBT projects gave the highest concern on poverty reduction and let to gain

economic benefits fairly for all the MSSTEs as argued by (Asker, et al., 2010; Dangi & Jamel, 2016; UNWTO, 2017). However, even recent researchers found that sustainability practices were recognized as a good predictor of business success by the tourism community (Connelly & Sam, 2018) while others say not (Karacaoğlu & Birdir 2017; Sriyani, 2021_b).

6. CONCLUSION

One of the main focuses of this study was to reveal whether the CBT empowerment efforts affect significantly on enhancing the reaching of sustainability in tourism by the MSSTEs and it was found that the community was able to reach sustainability in tourism in terms of all the three aspects of economic, social and cultural, and environmental sustainability. Another key focus of this study was to determine which facet of tourism sustainability among the three facets was affected significantly due to CBT empowerment efforts. It was found that compared to social and cultural as well as environmental sustainability, economic

sustainability was reported as highly achieved sustainability practice which reached due to empowerment efforts. Accordingly, it can be determined that CBT projects gave the highest concern on poverty reduction and let to gain economic benefits fairly for all the MSSTEs who work cooperatively with the CBT society. Even though past experiences were there in an international and national level regarding the problems and bottlenecks of CBT project empowerment towards adopting sustainability practices by the community, the selected two projects of this study were able to achieve their goals. As per the qualitative views of the community leaders, having a strong five-year strategic plan for the tourism sector development as well as the involvement of CBT projects as the arm which brings development paths and facilitation to the local level together with the community participation is essential for continuing the achieved sustainability at the rural level in tourism.

APPENDIX

Table 1: Operationalization of Variables

Code	CBT project assistance for <u>Capacity Building</u> in the village
CB1	Assistance for infrastructure developments like road systems, water, electricity, communication, sanitary facilities, transport, theme parks, etc.
CB2	Assistance for building common facilities to manage properly the solid waste.
CB3	Assistance for opening up avenues for tourism-based entrepreneurial livelihoods.
CB4	Encouraging the villagers to develop a village development fund.
CBT project's involvement in <u>Financial Assistance</u> for the villagers	
FA1	Providing financial grants and capital goods to start tourism businesses.
FA2	Assistance to receive microfinance to start a tourism business.
FA3	Assistance to find incremental capital to expand the business.
FA4	Encouragements for individual and group savings and use of the retained earnings for business expansions.
CBT project's involvement in providing <u>Education & Training</u> for the villagers	
ET1	Providing Business Management & Technology training.
ET2	Aware of the community & visitors on protecting and proper utilization of natural and other resources while protecting those for future uses.
ET3	Aware the community on how to manage waste at their premises, compose manufacturing, reduce food waste, etc.
ET4	Aware the community about the imposed rules and regulations relating to sustainability practices.
ET5	Aware of the community about how to reduce environmental pollution and resource degradation.
ET6	Train the community on how to utilize eco-friendly things in their businesses.
ET7	Inculcate the attitudes of self-determination, self-help, and self-reliance among the community.
CBT project's involvement in <u>Network Building</u> among the community	
NB1	Support for creating community-level societies
NB2	Networking with the Municipal Council/Pradeshiya Saba/waste collectors to dispose properly of the solid waste
NB3	Create linkages between public, non-governmental, private, and civil society
NB4	Facilitate to create of market linkages
NB5	Networking with public, private, & NGO sector financial institutions
CBT project's involvement in <u>Monitoring & Evaluation</u> the sustainable practices	
ME1	The project team visits the village to observe the progress of CBT

	activities and sustainable practices.
ME2	CBT project annually organizes a competition to select the best sustainable tourism business model in the village.
ME3	CBT project discusses the problems relating to sustainability practices faced by the community.
Economic Sustainability	
EC1	Increase employment opportunities and a diverse range of livelihood opportunities
EC2	Enhance the income level of the villagers
EC3	Equitable sharing of income-earning opportunities
EC4	Managing waste for earning extra income and cost reduction
EC5	Increasing visitors due to clean environment & high-quality services
Social & Culture Sustainability	
SCS1	Well-functioning of the CBT association
SCS2	Strong and committed community leadership
SCS3	Greater community participation in village-level tourism development
SCS4	Enhance the quality of life of the villagers
SCS5	Balancing tourism business activities as a housewife or dual/multi income earner
SCS6	Eliminate the unfair competition among the members
SCS7	Intervene to transfer the inherited knowledge & skills on local culture and crafts
Environmental Sustainability	
EN1	Self-manage the business waste to ensure a non-polluted surrounding
EN2	Developed the village as a “Green Destination”
EN3	Maintain a balance between business expansions and resources utilization
EN4	Aware the visitors and community about protecting the environment

Table 2: Reliability Test Results

<i>Construct</i>	<i>Indicators</i>	<i>Cronbach's alpha</i>
Capacity Building	CB1,CB2, CB3, CB4	0.802
Financial Assistance	FA1,FA2,FA3,FA4	0.793
Education & Training	ET1,ET2,ET3,ET4,ET5,ET6,ET7	0.837
Network Building	NB1,NB2,NB3,NB4,NB5	0.719
Monitoring & Evaluation	ME1,ME2,ME3	0.809
Economic Sustainability	EC1,EC2,EC3,EC4,EC5	0.812
Social & Cultural Sustainability	SC1,SC2,SC3,SC4,SC5,SC6,SC7	0.767
Environmental Sustainability	EN1,EN2,EN3,EN4	0.791

Source: Survey 2022

Table 3: Group Statistics of CBT Empowerments & Sustainability Practices

<i>Construct</i>	<i>N</i>	<i>Mean</i>	<i>Standard Deviation</i>
Capacity Building	200	3.493	1.183
Financial Assistance	200	3.962	1.117
Education & Training	200	4.153	1.005
Network Building	200	3.327	1.012
Monitoring & Evaluation	200	2.538	1.138
Economic Sustainability	200	3.816	1.173
Social & Culture Sustainability	200	3.312	1.102
Environmental Sustainability	200	3.110	1.002

Source: Survey: 2022

Table 4: Correlations between CBT Empowerments and Sustainability Practices

<i>CBT Empowerments</i>	<i>Sustainability Practices</i>
Capacity Building	.465**.
Financial Assistance	.513**.
Education & Training	.538**.
Network Building	.451**.
Monitoring & Evaluation	.306**.

** . Correlation is significant at the 0.01 level (2-tailed). N=200

Source: Survey-2022

Table 5: Model Summary of CBT Empowerments and Tourism Sustainability

<i>Model</i>	<i>R</i>	<i>R²</i>	<i>Adjusted R²</i>	<i>Std. Error of the Estimate</i>
Economic Sustainability	.693	.480	.453	.53402
Social & Culture Sustainability	.641	.412	.407	.35244
Environmental Sustainability	.556	.309	.301	.38007

Predictors: (Constant) CB,FA,ET,NB,ME

Source: Survey-2022

Table 6: ANOVA Results on CBT Empowerments and Tourism Sustainability

<i>Model</i>		<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>	<i>Sig.</i>
EC	Regression	9.349	1	9.349	19.541	.000 ^b
	Residual	11.758	200	.198		
SC	Total	21.107	201			
	Regression	8.686	1	8.686	69.926	.000 ^b
EN	Residual	12.421	200	.124		
	Total	21.107	201			

	Regression	6.502	1	6.502	44.529	.000 ^b
	Residual	14.536	200	.145		
	Total		201			
a. Dependent Variables: EC,SC,EN						
b. Predictors: (Constant)- CB,FA,ET,NB,ME						

Source: Survey-2022

Table 7: Coefficient Statistics of Empowerment Efforts and Sustainability in Tourism

<i>Model</i>		<i>Unstandardized Coefficients</i>		<i>Standardized Coefficients</i>	<i>t</i>	<i>Sig.</i>
		B	Std. Error	Beta		
EC	(Constant)	.671	.113		6.088	.000
	Empowerments	.512	.058	.667	8.916	.000
SC	(Constant)	.621	.123		5.063	.000
	Empowerments	.598	.072	.641	8.362	.000
EN	(Constant)	.913	.110		8.276	.000
	Empowerments	.387	.058	.555	6.680	.000

Source: Survey – 2022

REFERENCES

- Abukhalifeh, A. N. and Wondirad, A. (2019). Contributions of community-based tourism to the socio-economic well-being of local communities: the case of Pulau Redang Island, Malaysia, *International Journal of Tourism Sciences*, <https://doi.org/10.1080/15980634.2019.1621521>
- Aghazamani, Y. and Hunt, C. A. (2017). Empowerment in Tourism: A Review of Peer-Reviewed Literature, *Tourism Review International*, 21, 333–346, DOI: <https://doi.org/10.3727/154427217X15094520591321>
- Alawattage, C., Graham, C. and Wickramasinghe, D. (2019). Micro accountability and bio politics: Microfinance is a Sri Lankan village, *Accounting, Organizations and Society*, *ELSEVIER*, 72, 38-60, <https://www.sciencedirect.com/science/article/abs/pii/S0361368218302642>
- Amir, A. F. (2015). Sustainable tourism development: a study on community resilience for rural tourism in Malaysia, *Procedia - Social and Behavioral Sciences*, 168, 116-122.
- Ampumuza, C., Hendriks, N., Klunder, R., Mazurek, J.,

- Ong, S. T., Pan, S., et al. (2008). Women Empowerment through Tourism. Wageningen: Wageningen University and Research Centre.
- Anuar, A.N.A. and Sood, N.A.A.M. (2017). Community-Based Tourism: Understanding, Benefits and Challenges, *Journal of Tourism & Hospitality*, 6(1), DOI: 10.4172/2167-0269.1000263
- Anuar, A. N. A., and Sood, N. A. A. S. (2017). Community-based tourism: Understanding, benefits, and challenges. *Journal of Tourism & Hospitality*, 6(1), 1000263.
<https://doi.org/10.4172/2167-0269.1000263>
- Asker, S., Boronyak, L., Carrard, N., and Paddon, M. (2010). *Effective Community Based Tourism: a best practice manual*. Sustainable Tourism Cooperative Research Center.
- Ayazlar, G., and Ayazlar, R. A. (2016, December 20). Residents' Tourism Support Behavior: The Role Of Sustainable Tourism Attitude. *ReaserchGate*, 135.
- Boley, B.B., Maruyama, N., and Woosnam, K.M. (2015). Measuring empowerment in an eastern context: Findings from Japan. *Tourism Management*, 50, 112–122.
- Dangi, Tek B., and Tazim Jamal. (2016). An Integrated Approach to Sustainable Community Based Tourism. *Journal of Sustainability*. 8, 475, doi:10.3390/su8050475.
- David, L., and Szucs, C. (2009). Building of Networking, Clusters, and Regions for Tourism in the Carpathian Basin via Information and Communication Technologies. 63-74.
- Department of the Chief Minister-Northern Territory, (2020). Beyond Measure: The economic and social value of Kakadu National Park, www.deloitte.com.au
- Dixey, L. (2005). Inventory and analysis of community-based tourism in Zambia. Zambia: Production, Finance, and Technology (PROFIT), 29–60, [africanphilanthropy.issuelab.org › resources](http://africanphilanthropy.issuelab.org/resources)
- Dolezal, C. and Novelli, M. (2020). Power in Community-Based Tourism: Empowerment and Partnership in Bali, *Journal of Sustainable Tourism*, 1–19.
DOI: [10.1080/09669582.2020.1838527](https://doi.org/10.1080/09669582.2020.1838527)
- Ellis, S. (2011). Community-based tourism in Cambodia: exploring the role of community for successful

- implementation in the least developed countries.
<https://ro.ecu.edu.au/theses/451>
- Erkus, H., and Eraydin, A. (2010). Environmental Governance for Sustainable Tourism Development. *ScienceDirect*, 113-124.
- Forstner, K. (2004). Community Ventures and Access to Markets: The Role of Intermediaries in Marketing Rural Tourism Products, *Development Policy Review*, 22 (5), 497-514
- Gnanapala, W.K.A., and Sandaruwani, J.A.R.C. (2016). Socio-economic Impacts of Tourism Development and Their Implications on Local Communities, *International Journal of Economics and Business Administration*, 2(5), 59-67, <http://www.aiscience.org/journal/ijebe>
- Goodwin, H.J, and Santilli R. (2009). Community-Based Tourism: a success? *ICRT Occasional Paper 11*, <https://www.researchgate.net/publication/265278848>
- Havadi-Nagy, K.X., and Segui, A. S. (2020). Experiences of community-based tourism in Romania: chances and challenges, *Journal of Tourism Analysis: Revista de Análisis Turístico* 27(2), 143-163, <https://www.emerald.com/in-sight/publication/issn/2254-0644>
- Hunt, C.A., Durham, W.H., Driscoll, L. and Honey, M. (2015), “Can ecotourism deliver real economic, social, and environmental benefits? A study of the Osa Peninsula, Costa Rica”, *Journal of Sustainable Tourism*, 23 (3), 339-357
- International Labour Organization-ILO, (2011), Toolkit on Poverty reduction through tourism in rural areas, <https://www.ilo.org>
- ILO. (2013). *Poverty Reduction through Tourism*. Geneva: ILO.
- Irshad, H. (2010). *Rural tourism- An Overview*. Alberta: Agriculture and Rural Development Division. humaira.irshad@gov.ab.ca
- Jamal, T. and Dredge, D. (2014) Tourism and Community Development Issues in R. Sharpley and D. Telfer, *Tourism and Development*. 178-204.
- Jayasundara, J. M. S. B., Rajapakshe, P. S. K., Prasanna, R. P. I. R., Naradda Gamage, S. K., Ekanayake, E. M. S., and Abeyrathne, G. A. K. N. J. (2019). The Nature of Sustainability Challenge in Small and Medium Enterprises and its Management. MPRA Working Paper.
- Kampetch, P. and Jitpakdee, R. (2019). The Potential for

- Key Success of Community-Based Tourism Sustainability: Case Study Baan Rim Klong Homestay, Samut Songkram, Thailand. *ABAC Journal*, 39(4), (October-December), 111-122.
- Karacaoğlu, S. and Birdir, K. (2017). Success Factors of Community Based Tourism (CBT) Perceived by Local Peoples: The Case of % 100 Misia Project, *International Rural Tourism and Development Journal*, E-ISSN: 2602-4462, 1(2): 53-61, <https://www.researchgate.net/publication/326671050>
- Khalid, S., Ahmad, M. S., and Ramayah, T., Hwang, J., and Kim, I. (2019). Community empowerment and sustainable tourism development: The mediating role of community support for tourism, *Sustainability*, 11(2), 6248. DOI: [10.3390/su11226248](https://doi.org/10.3390/su11226248)
- Kontogeorgopoulos, N., Churyen, C., and Duangsaeng, V. (2014). Success Factors in Community-Based Tourism in Thailand: The Role of Luck, External Support, and Local Leadership, *Tourism Planning & Development*, 11(1), 106–124, <https://doi.org/10.1080/21568316.2013.852991>
- Kostalova, B. (2017, May). Tourism Impact And Residents' Perspective: The Case Of Zell Am See - Kaprun. III. Vienna: Modul Vienna University.
- Kumara, H. I. (2016). Challenges to Implementing Community-Based Eco-Tourism as a bottom Up Development Approach in the Sinharaja rain forest(Sri Lanka). <https://hdl.handle.net/10289/9894>
- Masocha, R. (2018). Does environmental sustainability impact innovation, ecological and social measures of firm performance of SMEs? Evidence from South Africa. *Sustainability*, 10(11), 3855
- Mbaiwa, J.E. (2015). Community-Based Natural Resource Management in Botswana. In: van der Duim, R., Lamers, M., van Wijk, J. (eds) *Institutional Arrangements for Conservation, Development, and Tourism in Eastern and Southern Africa*. https://doi.org/10.1007/978-94-017-9529-6_4
- McMillan, C.L. O’Gorman, K.D., and MacLaren, A.C. (2011). Commercial Hospitality: A Vehicle for the Sustainable Empowerment of Nepali Women, *Internal Journal of Contemporary Hospitality Management*, 23, 189–208.
- Pattiyagedara, S.S., and Fernando, P.I.N. (2020). Rural tourism niche-market

- as a development strategy on rural community: reference to Hiriwadunna village track, Meemure and Heeloya Knuckles Valley tourism village, Sri Lanka, *Sri Lanka Journal of Management Studies*, 2(1), 89-107.
- Pigg, K.E. (2002) 'Three faces of empowerment: expanding the theory of empowerment in community development, *Journal of the Community Development Society*, 33 (1), 107–123.
- Rajapakshe, P. S. K., Upulwehera, J.M.H.M., Bandara, K.B.T.U.K., Gamage, S.K.N., Ekanayake, E.M.S., Jayasundara, J.M.S.B., and Prasann, R.P.I.R. (2021). The Readiness of Local Institutions in Addressing Sustainability Challenges Confronting the SMEs: A Case Study of Sri Lanka, *Sri Lanka Journal of Business Studies and Finance*, 1(1), 16-37.
- Rathnayake, I., and Kasim, A. (2016). Community Tourism Development Propositions based on empirical evidence from Sri Lanka, *BIMP-EAGA Journal for Sustainable Tourism Development*, 5(1), 32-48.
- Ranasinghe, R. (2015). Evaluation of Homestay Accommodation Supply in Sri Lanka. *International Journal of Multidisciplinary Research and Development*, 2(2), 442-447.
- Reimer, J. K., and Walter, P. (2013). How do you know it when you see it?: community-based ecotourism in the Cardamom Mountains of southwestern Cambodia. *Tourism Management*, 34, 122-132
- Riehl, B., Zerriffi, H., and Naidoo, R. (2015). Effects of community-based natural resource management on household welfare in Namibia. *PLoS One*, 10(5).
- Rodriguez-Giron, S., and Vanneste, D. (2019). Social capital at the tourist destination level: Determining the dimensions to assess and improve collective action in tourism, *Tourist Studies*, 19(1), 23-42, journals.sagepub.com/home/tou.
- Samarathunga, W. H. M. S., Wimalarathana, W., Silva, D. A. C. (2015). Community-Based Tourism Management Experience in Sri Lanka, *International Research Symposium Rajarata University of Sri Lanka*, <http://repository.rjt.ac.lk>
- Sardianou, E., Kostakis, I., Mitoula, R., Gkaragkani, V., Lalioti, E., and Theodoropoulou, E. (2016). Environment Development

- and Sustainability, June, DOI 10.1007/s10668-015-9681-7
- Scheyvens, R., and van der Watt, H. (2021). Tourism, Empowerment and Sustainable Development: New Framework for Analysis. *Sustainability*, 13, 12606.
<https://doi.org/10.3390/su132212606>.
- Scheyvens, R. (1999). Ecotourism and the Empowerment of Local Communities. *Tour. Manag.* 20 (2), 245–249. DOI: [10.1016/S0261-5177\(98\)00069-7](https://doi.org/10.1016/S0261-5177(98)00069-7)
- Scheyvens, R. (2005) Growth of Beach Fale Tourism in Samoa: The High Value of Low-Cost Tourism. In C.M. Hall and S. Boyd (eds) *Nature-Based Tourism in Peripheral Areas: Development or Disaster?* 188–202. Clevedon: Channel View Publication.
- Sheham, A. (2016). Sustainability of Community-Based Tourism in Sri Lanka. *EPRA International Journal of economic and Business Review*, 114-115.
- SLTDA. (2009). *Sri Lanka Sustainable Tourism Development Projects: Environmental Assessment and Management Framework*. SLTDA.
- Sriyani, G. T. W. (2018). Problems and Challenges faced by the Homestay operators in Sri Lanka. Proceedings of *International Conference on Management and Economics*. (ICME), University of Ruhuna, Sri Lanka.
- Sriyani, G.T.W. (2021_a). Impact of Social Capital Empowerments on the Businesses Success among the Micro and Small-Scale Tourism Entrepreneurs in Sri Lanka, *Wayamba Journal of Management*, 12(1), 233-250. DOI: <http://doi.org/10.4038/wjm.v12i1.7522>
- Sriyani, G.T.W. (2021_b). Impact of Competitive Capabilities Empowered by Community-Based Tourism Projects on Tourism Businesses Success in Rural Tourism Destinations, *Journal of Business Studies*, University of Jaffna, 8(SI), 156-180.
- Tasci, A.D., Semrad, K.J., and Yilmaz, S.S. (2013). *Community-Based Tourism Finding the Equilibrium in the COMCEC Context Setting the Pathway for the Future*. Ankara: COMCEC Coordination Office, www.comcec.org
- UNEP and UNWTO. (2005). *Making Tourism More Sustainable: A Guide for Policy Makers*. Paris and Madrid: UNEP DTIE and UNWTO.
- UNWTO Annual Report, (2017). e-Library, <https://www.e-unwto.org/doi/book/>

- United Nations World Tourism Organization (UNWTO). (2001). The concept of sustainable tourism.
- Yanes, A., Zielinski, S., Diaz Cano, M., and Kim, S. (2019). Community-Based Tourism in Developing Countries: A Framework for Policy Evaluation, *Sustainability*, www.mdpi.com/pdf
- Yu, C. -P. Cole, S. T, and Chancellor, C. (2018). Resident Support for Tourism Development in Rural Midwestern (USA) Communities: Perceived Tourism Impacts and Community Quality of Life Perspective, *Sustainability*, 10(3), 802, DOI:[10.3390/su10030802](https://doi.org/10.3390/su10030802)
- Zikmund, William G., Jon C. Carr, Barry Babin, and Mitch Griffin. (2013), '*Business research methods*', Nelson Education.

Impact of Electronic Banking on Operational Performance of Commercial Banks in Sri Lanka

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Abstract

The banking industry has experienced a dramatic change resulting from the adoption of Information Communication Technology. The data was gathered from 2014-2019 concerning internet banking, branch network and Automated Teller Machine, based on the annual reports of selected ten banks. Regression analysis was done for the period to determine the effects of e-banking on commercial banks' operations. Data is stationary at the level and normally distributed. Under the fixed-effect model, this study found a positive significant relationship among Internet Banking return on Assets, negative significant with Return on Assets and Branch Network, Automated Teller Machine. Also, an insignificant relationship between Return on Equity and Internet Banking so, internet banking is familiar with a recent year in Sri Lanka. Cost to Income and Internet Banking have a negative significance and other all variables are a significant relationship with Cost to Income. overall models statistically significant. Results suggest that E-banking has significantly improved the bank operational performance in Sri Lank from 2014 to 2019.

Keywords:- E-baking, branch network, operational performance, profitability, Efficiency

1. INTRODUCTION

1.1 Background of the study

Over the last few decades, the banking industry has experienced a dramatic change resulting from the adoption of Information Communication Technology. Financial institutions including banks have moved from traditional paper and manual operations to electronic operations such as electronic banking (Salehi

& Alipour, 2010). Although the latest techniques of E-banking are said to provide effective services and reduce operating costs. Implementing E-banking involves substantial risk and a cost as to how banks should integrate the E-banking with existing service successfully. This study aims to investigate how the expansion of e-banking affects the profitability and efficiency of the bank through

analyzing the data of companies under the banking sector in the Colombo Stock Exchange in Sri Lanka.

1.2 Problem statement

E-banking technology has been taken off the Sri Lankan banking industry replacing the traditional banking procedures. This is reflected in the expanded volume and complexity of banking operations, expanded developments and assortments in product and service conveyance. The banks with E-banking facilities can outperform their counterparts in terms of profitability (Malhotra & Singh, 2009). E-banking is gradually creating a cashless society (Aduda & Kingoo, 2012). E-banking has a strong impact on the overall performance of banking because it improves the efficiency and effectiveness of the banks (Olorunsegun, 2010). E-banking is beneficial for banks and customers, because it reduces the cost of customers in terms of reduced waiting time extra paper works, reduces the operating cost for banks.

According to (Sumra et al., 2011b), e-banking increases the cost to the customers as well since it includes the bank charges commissions and service charges for e-banking. (Oyewole et al., 2013) mention that their performance in the banks in Nigeria has decreased in the year of adoption to e-banking, because of the high cost of ICT. Furthermore, e-banking creates a

high cost which is associated with software research & development, amortization of purchase software, data processing, promotional expenses, and employee training (Sullivan, 2000).

It is not well-known whether the adoption of E-banking creates monetary value for banks. This is because not every increase in customer satisfaction moves into the higher operations performance and benefits, particularly in the case of very expensive investment in innovation like ATMs. Also, the extent to which E-banking can affect bank operations varies from bank to bank and from country to country. And only a limited number of studies have been conducted in the Sri Lankan context to identify the impact of E-banking on the profitability of banks in Sri Lanka. Lack of evidence about the Sri Lankan context and the lack of consensus of the findings in internationally available literature puzzles the bankers and policymakers on the impact of E-banking on the operational performance of Sri Lankan banks. Therefore, this study sought to fill the gap assessing the impact of E-banking on commercial bank operations, also, to outline the bottlenecks confronting commercial banks in utilizing E-banking in Sri Lanka.

1.3 Research questions

1) Identify the relationship between E-banking facilities and the performance of commercial banks in Sri Lanka.

2) Identify the extent of E-banking usage of commercial banks in Sri Lanka.

3) Identify the effect of initial investment on ATMs on the performance of commercial banks in Sri Lanka.

1.4 Objectives of the study

Establish the impact of electronic banking on the performance of commercial banks in Sri Lanka.

Establish the extent of mobile and internet banking usage in Sri Lankan commercial banks.

Establish the impact of capital investment on ATMs on the performance of commercial banks in Sri Lanka.

1.5 Significant of the Study

This research provides evidence regarding the degree of adoption of ICT in the banking industry. The importance of electronic banking has an impact on customers and banks. This study is of great importance to both parties as it does not only give the impact of E-banking on bank operations but also it investigates the factors deciding or constraining the supply of electronic services.

The study gives a better understanding of how electronic banking facilitates efficiency through electronic payment processing, reduced cost of operations, increased banking penetration, reduction in risk of cash related crimes, access to

credit and fast access to banking services (Jayasiri et al., 2016a).

- The study gives a better knowledge of the issues under investigation and sharpens research skills and the study fills the gaps in previous studies.

- It gives knowledge of how E-banking can give them a better way to access capital due to its short payment processing period and increased efficiency in payment and accounting processes.

2. METHODOLOGY

2.1 Research design

This research is studied according to “descriptive research design” because this research study it is planned to describe the quantitative data of commercial banks’ operational performance. This study searches the relationship between electronic banking and the operational performance of commercial banks in Sri Lanka. The research design is defined as it is the plan for collecting and utilizing data so that desired information can be obtained. Research design is the conceptual structure within which research would be conducted.

2.2 Conceptual framework

The conceptual framework was designed based on logical and sequential design. They are variables that affect dependent variables that can positive or negative. This means that when you increase it by one unit or reduce a unit in independent variables, there should also be an

increase or increase in reduce dependent variables. As illustrated in figure 1, three variables are taken into account while e-banking is taken as the main variable of this study.

2.3 Population and sample

As this research is based on the Sri Lankan context, the population interested in this study consists of 26 commercial banks represented by the public listed companies in CSE. In this study, the sample was selected from a stratified sampling method, representing the high value of assets base out of 10 commercial banks were studied (Nakamura, 1991). Thus, only 10 commercial banks were studied: 79% of the target population. This study sample consists of the BOC, PB, HNB, NTB, COMB, NDB, SAMP, DFCC, SEYL, and PANS ASIA (Table 2).

2.4 Data collection

The secondary data was collected using published and available annual reports of the commercial banks in the period of 2014 to 2019. Even in 2015, Sri Lanka still has a less acceptable level of online banking, and these studies are trying to determine the causes of this mentality upside down (Jayasiri et al., 2016b). Further, this study referred to each sampled bank website for more detail. (Maiyo, 2013) and (Shahabi & Faezy Razi, 2019) stated the data collected 5 years.

Therefore, in this study data covered the period of 2014 to 2019.

2.5 Data analysis

For analyzing the data, the statistical application “E-views” is used. Based on the secondary data, descriptive statistics and multiple regressions will be used to measure the relationship between these variables. That data was transformed into a logarithm (Jimoh, 2019).

$$\text{Model 1 ROA} = \beta_0 + \beta_1 \text{LogIB} + \beta_2 \text{LogBN} + \beta_3 \text{LogATMs} + \epsilon \dots \dots \dots (1)$$

$$\text{Model 1 ROE} = \beta_0 + \beta_1 \text{LogIB} + \beta_2 \text{LogBN} + \beta_3 \text{LogATMs} + \epsilon \dots \dots \dots (2)$$

$$\text{Model 1 CIT} = \beta_0 + \beta_1 \text{LogIB} + \beta_2 \text{LogBN} + \beta_3 \text{LogATMs} + \epsilon \dots \dots \dots (3)$$

Whereby:

ROA = Return on Assets

ROE = Return on Equity

CTI = Cost to Income

IB = internet banking

BN = branch network

As above mention regression examples will be used to build a multiple regression analysis for the return on assets, return on equity and cost to income. Further, a correlation matrix uses for the test multicollinearity.

2.6 Hypothesis of the Study

The nine hypotheses developed based on the model (Figure 1). The objectives were in line with the hypothesis which will lead to the outcome.

H1: There is a significant impact of internet banking on a return on assets.

H2: There is a significant impact of Branch Network on return on assets.

H3: There is a significant impact of the number of ATMs on return on assets.

H4: There is a significant impact of internet banking on a return on equity.

H5: There is a significant impact of branch network on return on equity.

H6: There is a significant impact of the number of ATMs on return on equity.

H7: There is a significant impact of internet banking on the cost of income.

H8: There is a significant impact of branch networks on the cost of income.

H9: There is a significant impact of the number of ATMs on the cost of income.

3. RESULT

3.1 Test in Normality

The test of normality was carried out for the component's identification from the component's analysis. For the test of normality, the skewness and kurtosis were calculated (Eze & Egoro, 2016). As cited in table 3, can be concluded that with the statistics generated under skewness and kurtosis test, all statistics of skewness were nearly 0 and kurtosis have been less than 3 for the variables are ROA, ROE, and CTI. Also, JB is very close to zero. The researcher can be concluded that data is normally distributed.

3.2 Test in stationary

According to table 4, the test of under the Levin, Lin & Chu method probability value is less than 0.05 it's at the level also. It concludes that all variables are stationary.

Model specification

This study result shows a probability value of ROA, ROE and CTI which is less than 0.05 and it requires continuing with the fixed effect, multiple regression models. If the probability value is less than 0.05 it requires continuing the analysis with a fixed-effect model (Ali & Puah, 2019).

From the finding in Table 5, the R-Squared (R^2) is more than 62% and the Adjusted R-Squared (R^2) value is more than 52% in all models. On that mean, there was a positive relationship between all determinants of electronic

banking and operational performance. Durbin Watson's test value is nearly 2 it indicates the presence of autocorrelation (Eze & Egoro, 2016). F-statistic shows that the overall table 6, is statistically significant.

3.3 Regression analysis

According to table 6, ROA has a positive significant impact on Internet banking and also a negative significant relationship with branch networks and ATMs. There is a positive relationship between ROE and internet banking and a negative relationship between BN and ATMs. CTI has a negative significance with IB and BN. And the positive significant relationship with ATMs also.

$$ROA = 0.1008 + 0.0017\log IB - 0.0079\log BN - 0.014\log ATMs + \mu \dots (1)$$

$$ROE = 0.875 + 0.0129\log IB - 0.1293\log BN - 0.047\log ATMs + \mu \dots (2)$$

$$CIT = -0.3615 - 0.0326\log IB - 0.1169\log BN + 0.4101\log ATMs + \mu \dots (3)$$

3.4 Correlational matrix

According to (Jäntschi et al., 2015) indicated that assumptions that allow testing is that the predictors are not too highly correlated when the correlation of more than 0.8 may be problematic. As cited in table 6, concluded that analysis of correlation of statistics showed this assumption has been met.

As the result shows in Table 7, there are fairly low data correlations among the independent variables. These low correlation coefficients show that there is no problem of multicollinearity, thus enhancing the reliability for regression analysis due to the coefficient being less than 0.8.

3.5 Descriptive analysis

According to table 8, ROA has a mean of 0.013450 while the median of the variable shows a value of 0.013500. The deviation from the mean value of 0.003100. This means that variables are normality distributed since there is no wide gap between the mean and standard deviation. The maximum value and the minimum value are 0.019000, 0.005000 respectively. Similarly, the mean value of ROE is 0.165340 with a standard deviation of 0.052852 and mean value of Cost to income (CTI) is 0.491467 and the deviation is 0.078725. The maximum values are 0.374000, 0.642000 and minimum values are 0.063600, 349000 respectively. The minimum value of internet banking is 13.13231 maximum value of 22.2421. The value represents the Sampath bank in 2019.

Further, the mean is 20.22056 and Std. The deviation is 2.008397. That means, the data were not normality due to commercial banks' performance are high in some banks and some are less performance in this sector (Nakamura, 1991). The branch

network of the commercial banks has a mean of 5.552784 while the median is 5.578768. The maximum and minimum values of the branches are 6.762730 and 4.001333. While the total number of observations is 60 of all the study variables.

4. DISCUSSIONS

4.1 Hypotheses

According to the natural logarithm in equation (1) is adopted, most panel data have unequal variance, thus the natural logarithm support to stabilize the variation of the performance in the commercial banks, which help to continue this analysis (Eze & Egoro, 2016) and (Orji et al., 2018).

$$ROA = \beta_0 + \beta_1 \log IB + \beta_2 \log BN + \beta_3 \log ATMs + \mu \dots \dots \dots (1)$$

According to the results of the regression, Internet banking, Branch network and ATMs explained 72.80% of the variance in return on assets. ($R^2 = .7280$, $F = 10.48$, $p < 0.000$). The result shows that in table 9, internet banking is statistically significant at 5% level and Branch network, ATMs coefficient are statistically significant at 1% level. This implies that internet banking has a positive relationship with return on assets and others are negative.

As a result, indicate previously that these constructs are related and support this assumption and therefore, the researcher

conducted a regression analysis to test the hypotheses of the study.

1) H1: There is a significant impact of internet banking on a return on assets.

According to the regression result, the significant level is 0.0127 at t statistic 2.592 which is less than 0.5 (5%) standard level. It indicates that there is a significant impact of internet banking on a return on assets. Arriving at a β value of 0.001699 further indicated that the impact is positive. Hence, internet banking has a positive significant impact on return on assets, H1 is accepted.

2) H2: There is a significant impact of branch network on return on assets. As cited in table 8, indicated that the significance level is 0.0021 at t statistic -3.254 which is less than 0.01 (1%) standard levels. Arriving at a β value of -0.007932 further indicated that the impact is negative. It indicates that there is a significant impact of branches network on return on assets also. Accordingly, H2 is accepted.

3) H3: There is a significant impact of ATMs on return on assets.

The result reveals that the coefficient of ATMs on return on assets β 0.014740. It indicates that ATMs has a negative relationship with bank profitability at a 5% level. That means, increasing the ATMs by one, and the return on assets decrease by 0.0147. Finally, indicated that there is a negative significant impact of ATMs on

return on assets. This study does not reject the H3.

Therefore, regression model can be built at below,

$$ROA = 0.1008 + 0.0017\log IB - 0.0079\log BN - 0.0147\log ATMs + \mu$$

The established 2nd regression equation was;

$$ROE = \beta_0 + \beta_1 \log IB + \beta_2 \log BN + \beta_3 \log ATMs + \mu \dots \dots \dots (2)$$

According to above table 11, the study showed that the ratio of operational results of commercial banks in Sri Lanka can be considered by changes in internet banking, branch network, and ATMs. Based on the results of the R correlation, the study showed that there is a strong correlation among the bank profitability of 10 commercial banks and internet banking, branch network, and ATMs. It is 0.623208 (62.32%). Based on the coefficient results, the study showed that there is a positive and negative relationship between bank profitability and these variables.

4) H4: There is a significant impact of internet banking on a return on equity.

According to the regression result, internet banking's significant level is 0.3330 at t statistic 0.978233 which is greater than 0.05 standard level. It indicates that there is no significant impact of internet banking on a return on equity. Accordingly, hypothesis 4 is rejected.

5) H5: There is a significant impact of branch network on return on equity.

As cited in table 10, indicated that the significant level is 0.0111 at t statistics -2.643279 which is less than 0.05 standard level. It indicates that there is a significant impact of branch network on return on equity. Arriving at a β value of -0.129291 further represented the negative impact. And branch network has a negative significant impact on return on equity. Accordingly, H5 is accepted.

6) H6: There is a significant impact of ATMs on return on equity.

As cited in table 9, indicated that the significant level is 0.6467 at t statistic -0.461330 which is greater than 0.05 standard level. It indicated that there is no significant impact of ATMs on return on equity. Accordingly, H6 is rejected.

Therefore, a regression model can be built at below,

$$ROE = 0.875 + 0.0129\log IB - 0.1293\log BN - 0.0477\log ATMs + \mu$$

The OLS linear regression equation based on the relation of the above variables for models 3 is econometrically stated as;

$$CIT = \beta_0 + \beta_1 \log IB + \beta_2 \log BN + \beta_3 \log ATMs + \mu \dots \dots \dots (3)$$

The study also found that there is a statistically significant link between the operational performance (Efficiency) of commercial banks and the internet

banking, branch network and ATMs.

7) H7: There is a significant impact of internet banking on the cost to income.

Accordingly, to the regression results, since the significant level is 0.0194 at t statistic -2.421522 which is less than 0.05 standard level. It indicates that is a significant impact of internet banking on the cost to income (Refer to table 11 for more details). Arriving at a β value of -0.032616 further indicated that the impact is negative. And internet banking has a negative significant impact on the cost of income. Accordingly, accepted the H7.

8) H8: There is a significant impact on the branch network on the cost to income.

As cited in table 11, indicated that the significant level is 0.0240 at t statistic -2.333492 which is less than 0.5 (5%) standard level. It indicates that there is a significant impact of branch network on the cost to income. Arriving at a β value of -0.116865 further indicated the negative impact. And branch network has a negative significant impact on the cost to income. Accordingly, H8 is accepted.

9) H9: There is a significant impact of ATMs on the cost to income.

As cited in table 12, indicated that the significance level is 0.0003 at t statistic 3.870187 which is less than 0.01 (1%) standard levels. Arriving at a β value of 0.410052 further indicated that the impact is

positive. It indicates that there is a significant impact of ATMs on the cost to income also. Accordingly, H9 is accepted.

Therefore, a regression model can be built at below

$$\text{CIT} = -0.3615 - 0.0326\log\text{IB} - 0.1169\log\text{BN} + 0.4101\log\text{ATMs} + \mu$$

4.2 Graphical representation of the variables used

To show the trend, we showed variables about the study, variables were built. The following section reports on trends in variables in View.

4.2.1 Graphical representation of the dependent variables

The profitability of the bank was measured by the performance of the assets and equity. The researcher calculated the impact of dividing banks' net profit after tax by total assets and dividing the banks' net profit after tax by total equity period of study. The efficiency of the bank was measured by the CTI which calculated the impact dividing banks' operating income by operating expenses. Figure 3 shows that the return on commercial banks' assets has declined from 2014 to 2019, ROE has grown slowly from 2015 to 2017 and growing steadily from 2018 to 2019. And the cost of the commercial banks' income has grown steadily from 2014 to 2015, declining from 2014 to 2018 also.

4.2.2 Graphical representation of the Independent variables

This study uses the fees and commission on the internet banking users, the number of branches and the number of ATMs installed by commercial banks as a measure of e-Banking. Figure 3, shows that independent variables have been varied from 2014 to 2019. Figure 4, shows the number of branches has been decreasing slowly since 2014. And shows that the number of ATMs has been increasing steadily since 2014, and internet banking fees and commission charges fluctuate parlay with ATMs. According to figure 4.2 ATMs and internet banking has decreased from 2017 to 2018 and gradual increase in average level since 2018.

5. CONCLUSION

5.1 Conclusion

Electronic banking allows you to process payments and transactions faster and easier than it used to be. Customers can access funds and transfer funds between accounts, pay bills and shop 24 hours a day using electronic means such as ATMs, mobile phones, or computers. E-banking has also improved the relationship between bank performance and operational performance. Further, this study discovered that BOC is the highest performing bank in Sri Lanka. CB has recorded the second-highest performance. The findings suggest that banks with

extended branch networks have higher profitability and efficiency. So it has a significant relationship with all dependent variable and this study found that internet banking has a slow impact on ROE due to impaired unavailability of infrastructure and lack of supportive legislation for internet banking (Nyangosi et al., 2009) and ATMs of the bank has an insignificant relationship with ROE due to some bank performance are high and some are low (Nakamura, 1991). In this finding, other ROA and CTI are highly significant with internet banking, ATMs and branch network. Hence, the internet banking and ATMs of the bank has affected the Sri Lankan banking sector by building it more profitability. Therefore, these symptoms reflected that number of ATMs of the bank has positively affected the bank performance. According to these findings, this study discovered a significant positive impact of internet banking, branch network and ATMs, on the operational performance of commercial banks in Sri Lanka.

5.2 Recommendations

Commercial banks must invest heavily in technology, as this will greatly contribute to the introduction of e-banking technologies, which will affect the operational performance of commercial banks. This study discovered that e-banking increases bank performance by offering value-added products and services through ICT. Therefore,

the bank can be acquired the right technology by focusing on their needs and goals rather than acquiring technology because other banks have it. Commercial banks must continue to invest in e-banking, impact on banks' operating performance, which operating costs and increases profits. Internet banking is becoming a more popular instrument in Sri Lanka. Therefore, if the banks take remedial actions to develop internet banking, it positively affects improve the bank performance. The branch network on e-banking is also a vital factor to improve bank performance. Additionally, the study can also be extended to evaluate whether e-banking has helped to improve bank performance, especially in rural areas.

Further, this study found that the number of ATMs has affected increase the operational performance of the commercial bank. However, the intensity of the incremental bank performance is not considered in this study. Hence, it is important to carry out further studies on this matter in due course.

5.3 Limitation of the study

Sri Lanka's financial market consists of capital markets, the insurance industry and the banking sector. However, this study is limited only to the banking sector. We have therefore concluded that the study is limited to commercial banks operating in the country.

The study used secondary data that may be general and inaccurate and cannot help companies make decisions on curable issues. Information and data may not be very accurate, and the source of the data must be adequately verified.

The study used panel data. Equipment data was collected and analysed. All limitations of the panel analysis tool used to apply to this study.

Finally, the conclusions of the study are inconclusive, as the study focuses on six determinants of operational indicators. In addition, the availability of data determines the elements of the study, not any statistical or probabilistic criteria. Therefore, caution should be exercised when generalizing the results of the study.

5.4 The direction of the further research

The study was conducted only in Sri Lanka commercial banks. Research can be done for other financial markets or other banking sectors in other countries.

This study was limited to commercial banks. It can be learnt to accept and use ICT by microfinance organizations.

The study found that there is a small value between online banking and the efficiency of service delivery, as seen by the Central Bank. An investigation consisting of should be made for a longer period, as well as the size of a larger sample.

APPENDIX

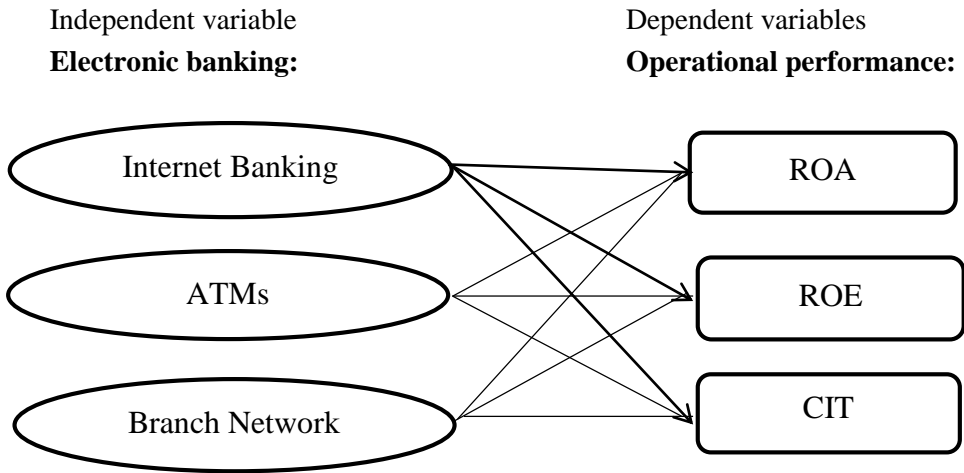


Figure 1: Conceptual framework of the study

Table 1: Literature base to the conceptual framework

Variables	Studies/year	Measurement scale
Internet Banking	(Njogu, 2014)	Fees and commission
Branch Network	(Holden & Karsh, 2009b), (Shahabi & Faezy Razi, 2019)	Number of Branches
ATMs	(Shahabi & Razi), (Holden & Karsh, 2009b)	Number of ATMs
Return on Assets	(Bougatef, 2017), (Tan et al., 2017)	Net income/Aver. assets
Return on equity	(Bougatef, 2017), (Tan et al., 2017)	Net income/ aver. equity

Cost to income ratio	(Bougatef, 2017)	Operational expenses/operational income
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Sources: Author's created

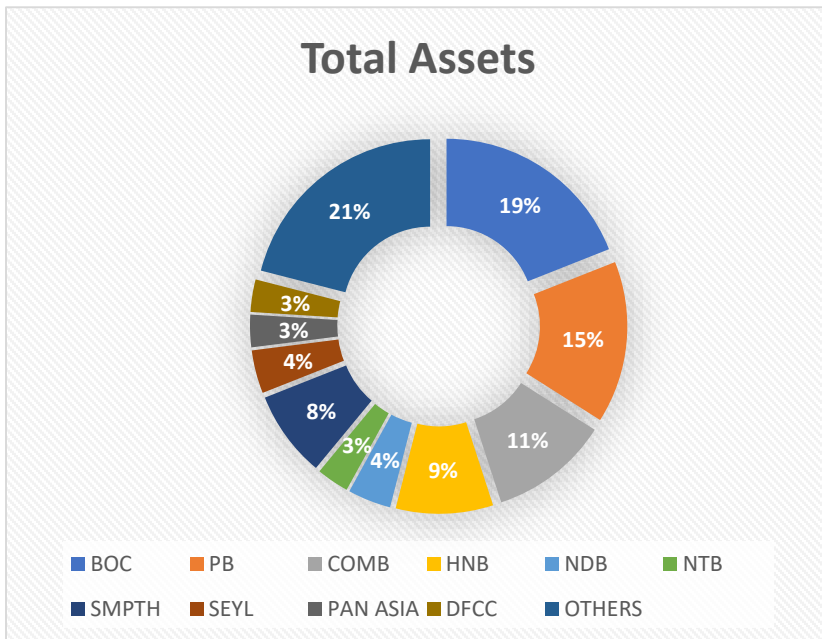


Figure 2: Total assets of sample selection (Sources: Central bank annual report)

Table 2: Sample selection- Total assets

Banks	% OF TOTATL ASSETS
BOC	19
PB	15
COMB	11
HNB	9
NDB	4
NTB	3
SMPH	8
SEYL	4
PAN ASIA	3
DFCC	3
OTHERS	21
Total	100

Sources: Central bank annual report

Table 3: Result of the Normality

	Skewness statistic	Kurtosis statistic	Jarque-Bera	Probability value
ROA	-0.021530	2.700167	0.229385	0.891640
ROE	-0.070237	3.058618	0.057922	0.971454
CTI	0.359642	3.810177	2.934392	0.230571

Sources: E-Views data

Table 4: Result of the Unit Root

<i>Levin, Lin & Chu t* (at level)</i>			
De. Variables	Prob	In: Variables	Prob
ROA	0.0000	Internet banking	0.0000
ROE	0.0167	Branch network	0.0002
CTI	0.0000	ATMs	0.0000

Sources: E-Views data

Table 5: Model summary

	R²	Adj R²	D.W stat	F-stats	P-value
ROA	0.728021	0.658579	1.816968	10.48395	0.000000*
ROE	0.623208	0.527006	1.679105	6.478101	0.000001*
CTI	0.821965	0.776509	1.753845	18.08270	0.000000

Sources: E-Views data

Table 6: Summary of the regression result

	Coefficient (β)		
	ROA	ROE	CTI
(Constant)	0.100839	0.874692	-0.361523
Internet banking	0.001699	0.012868	-0.032616
Branch Network	-0.007932	-0.129291	-0.116865
ATMs	-0.014740	-0.047738	0.410052

Sources: E-Views data

Table 7: Result of Multicollinearity

1	2 ROA	3 ROE	4 CTI	5 IB	6 BN	7 AT Ms
8 RO A	9 1.00 00	10	11	12	13	14
15 RO E	16 -	17 1.0000	18	19	20	21
22 CT I	23 -	24 -	25 1.0000	26	27	28
29 IB	30 0.31 12	31 0.3094 69	32 - 0.0259 4	33 1.00 00	34	35
36 BN	37 0.59 24	38 0.4605 06	39 - 0.1441 6	40 0.66 314	41 1.00 00	42
43 AT Ms	44 0.59 36	45 0.5625 33	46 0.0172 7	47 0.41 117	48 0.77 96	49 1.0 000

Sources: E-Views data

Table 8: Result of Descriptive

Statistic	ROA	ROE	CTI	Internet Banking	Branches	ATMs
Mean	0.01345	0.16534	0.49147	20.2206	5.55279	5.27109
Median	0.01350	0.16345	0.49050	20.7797	5.57877	5.28346
Maximum	0.01900	0.37400	0.64200	22.2421	6.76273	6.60629
Minimum	0.00500	0.06360	0.35900	13.1323	4.00133	4.20439
Std.div	0.00310	0.05285	0.07873	2.00839	0.87239	0.74108
Skewness	-0.35454	1.10312	0.07664	-1.7596	-0.15434	0.46335
Kurtosis	2.91368	6.09586	2.07483	6.04806	1.53411	2.03593
Jarque-Bera	1.27559	36.1296	2.19856	54.1765	5.61027	4.47052
Prob:	0.52845	0.00000	0.33311	0.00000	0.06049	0.10696

Sources: E-Views data

Table 9: Summary of the Regression Result

	Coefficient			
	β	Std. Error	t. stat	Significant
(Constant)	0.100839	0.019180	5.257537	0.0000*
Internet banking	0.001699	0.000655	2.591802	0.0127**
Branch network	-0.007932	0.002437	-3.254418	0.0021*
ATMs	-0.014740	0.005156	-2.858863	0.0063*

Sources: E-Views 11.0

Note: Dependent variable is Return on Assets (ROA)

The symbols (*), (**) and (***) indicate statistical significance at 1% and 5% and 10% level, respectively.

Table 10: Summary of the regression result

	Coefficient		t. stat	Significant
	β	Std. Error		
(Constant)	0.874692	0.384935	2.272313	0.0277**
Internet banking	0.012868	0.013155	0.978233	0.3330
Branch network	-0.129291	0.048913	-2.643279	0.0111*
ATMs	-0.047738	0.103480	-0.461330	0.6467

(Sources: E-Views 11.0)

Note: Dependent variable is Return on equity (ROE)

The symbols (*), (**) and (***) indicate statistical significance at 1% and 5% and 10% level, respectively.

Table 11: Summary of the regression result

	Coefficient		t. stat	Significant
	β	Std. Error		
(Constant)	-0.361523	0.394130	-0.917268	0.3637
Internet banking	-0.032616	0.013469	-2.421522	0.0194**
Branch network	-0.116865	0.050082	-2.333492	0.0240**
ATMs	0.410052	0.105952	3.870187	0.0003*

(Sources: E-Views 11.0)

Note: Dependent variable is Cost to Income (CIT)

The symbols (*), (**) and (***) indicate statistical significance at 1% and 5% and 10% level, respectively.

Table 12: Summary of the hypothesis testing

Hypothesis	Sig.	Decision
H1: There is a significant impact of internet banking on return on assets.	.0127	Accepted
H2: There is a significant impact of Branch Network on return on assets.	.0021	Accepted
H3: There is a significant impact of number of ATMs on return on assets.	.0063	Accepted
H4: There is a significant impact of internet banking on return on equity.	.3330	Rejected
H5: There is a significant impact of branch network on return on equity.	.0111	Accepted
H6: There is a significant impact of number of ATMs on return on equity.	.6467	Rejected
H7: There is a significant impact of internet banking on cost of income.	.0194	Accepted
H8: There is a significant impact of branch network on cost of income.	.0240	Accepted
H9: There is a significant impact of number of ATMs on cost of income.	.0003	Accepted

Sources: E-Views 11.0

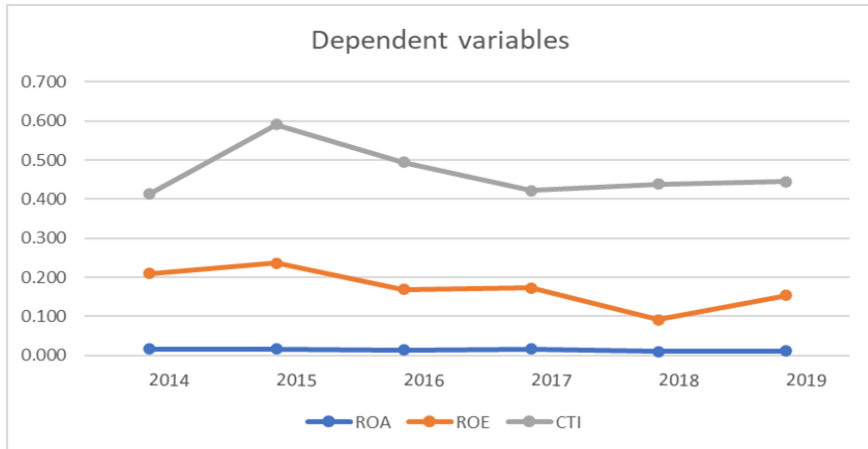


Figure 3: Graphical representation of the ROA, ROE and CTI

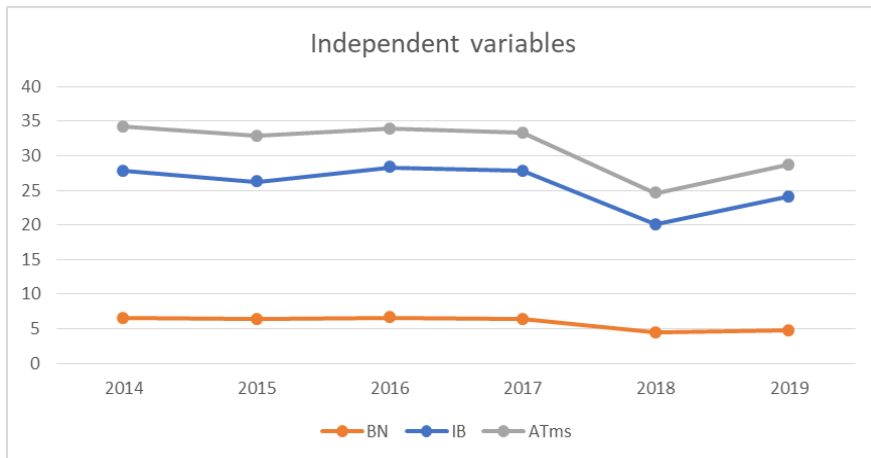


Figure 4: Graphical representation of the average values of IB, BN and ATMs

REFERENCES

- Aduda, J., & Kingoo, N. (2012). The Relationship between Electronic Banking and Financial Performance among Commercial Banks in Kenya. *Journal of Finance and Investment Analysis*, 1(3), 99–118.
- Ali, M., & Puah, C. H. (2019). The internal determinants of bank profitability and stability: An insight from banking sector of Pakistan. *Management Research Review*, 42(1), 49–67, doi: 10.1108/MRR-04-2017-0103
- Bougatef, K. (2017). Determinants of bank profitability in Tunisia: does corruption matter? *Journal of Money Laundering Control*, 20(1), 70–78, doi: 10.1108/JMLC-10-2015-0044
- Eze, G. P., & Egoro, S. (2016). Electronic Banking and Profitability of Commercial Banks in Nigeria. *Journal of Finance and Economic Research*, 3(1), 2251–15.
- Holden, R. J., & Karsh, B.-T. (2009a). A theoretical model of health information technology usage behaviour with implications for patient safety. *Behaviour & Information Technology*, 28(1), 21–38.
- Holden, R. J., & Karsh, B. T. (2009b). A theoretical model of health information technology usage behaviour with implications for patient safety. *Behaviour and Information Technology*, 28(1), 21–38, doi: 10.1080/01449290601138245
- Jäntschi, L., Pruteanu, L. L., Cozma, A. C., & Bolboacă, S. D. (2015). Inside of the Linear Relation between Dependent and Independent Variables. *Computational and Mathematical Methods in Medicine*, 2015, 1–11.
- Jayasiri, N., Kariyawasam Graduate, N. J., & Jayasiri, N. K. (2016a). AWARENESS AND USAGE OF INTERNET BANKING FACILITIES IN SRI LANKA. In *International Journal of Scientific Research and Innovative Technology* (Vol. 3, Issue 6).
- Jayasiri, N., Kariyawasam Graduate, N. J., & Jayasiri, N. K. (2016b). AWARENESS AND USAGE OF INTERNET BANKING FACILITIES IN SRI LANKA. In *International Journal of Scientific Research and Innovative Technology* (Vol. 3, Issue 6).
- Jimoh, A. (2019a). Effect of Electronic Banking on the Profitability of Deposit

- Money Banks in Nigeria. *Journal of Advances in Education and Philosophy*, 03(11), 405–413.
- Maiyo, J. (2013). *The effect of electronic banking on financial performance of commercial banks in Kenya*. University of Nairobi.
- Malhotra, P., & Singh, B. (2009). The Impact of Internet Banking on Bank Performance and Risk: The Indian Experience. In *Eurasian Journal of Business and Economics* (Vol. 2, Issue 4).
- Nakamura, L. I. (1991). Commercial Bank Information: Implications for the Structure of Banking. *Working Paper of Federal Reserve Bank of Philadelphia*, 92–1(1991), 31.
- Njogu, J. N. (2014). *The effect of electronic banking on profitability of commercial banks in Kenya*.
- Nyangosi, R., Arora, J. S., & Singh, S. (2009). The evolution of e-banking: A study of Indian and Kenyan technology awareness. *International Journal of Electronic Finance*, 3(2), 149–165, doi: 10.1504/IJEF.2009.026357
- Olorunsegun, S. (2010). The impact of electronic banking in Nigeria banking system. *Unpublished MBA Research Project*, 8–55.
- Orji, A., Ogbuabor, J. E., Okon, A. N., & Orji, O. I. A. (2018). Electronic Banking Innovations and Selected Banks Performance in Nigeria. *The Economics and Finance Letters*, 5(2), 46–57.
- Oyewole, O. S., Abba, M., Gambo, J., & Abam, I. (2013). E-banking and Bank Performance: Evidence from Nigeria. *International Journal of Scientific Engineering and Technology*, 771(2), 766–771.
- Salehi, M., & Azary, Z. (2009). Fraud Detection and Audit Expectation Gap: Empirical Evidence from Iranian Bankers. *International Journal of Business and Management*, 3(10), doi: 10.5539/ijbm.v3n10p65
- Shahabi, V., & Faezy Razi, F. (2019). Modeling the effect of electronic banking expansion on profitability using neural networks and system dynamics approach. *Qualitative Research in Financial Markets*, 11(2), 197–210, doi: 10.1108/QRFM-11-2018-0117
- Shahabi, V., & Razi, F. F. (2019). Modeling the effect of electronic banking expansion on profitability using neural networks and system dynamics approach. *Qualitative Research in Financial Markets*.

- Sullivan, R. J. (2000). How Has the Adoption of Internet Banking Affected Performance and Risk in Banks? *Financial Industry Perspectives*, 1–16.
- Sumra, S. H., Manzoor, M. K., H. Sumra, H., & Abbas, M. (2011). The Impact of E-Banking on the Profitability of Banks: A Study of Pakistani Banks. *Journal of Public Administration and Governance*, 1(1), 31, doi: 10.5296/jpag.v1i1.692.
- Tan, Y., Floros, C., & Anchor, J. (2017). The profitability of Chinese banks: Impacts of risk, competition and efficiency. *Review of Accounting and Finance*, 16(1), 86–105, doi: 10.1108/RAF-05-2015-0072.

Socioeconomic Determinants of Household Out-of-Pocket Payments on Healthcare in Sri Lanka

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Abstract

Since its independence, Sri Lanka has had a free health care policy, and out-of-pocket healthcare expense has increased over time. The study's primary goal is to investigate the factors influencing out-of-pocket healthcare spending in Sri Lanka. Secondary data from the Household Income and Expenditure Survey conducted by the Department of Census and Statistics in Sri Lanka in 2016 were used in this study. Data were analyzed using descriptive statistics and the Semi-Log regression model. The results of the Semi-Log regression model show that households with the urban residential sector, post-secondary education, and chronic conditions were significant positive predictors of out-of-pocket healthcare expenditure, while households with primary education were substantial negative predictors. Distance to maternity clinics has a strong beneficial influence on healthcare expenditure on the supply side. As a result, the findings demonstrate a compelling need to mitigate the adverse effects of growing healthcare costs. The government can enact new rules and regulations to protect households' ability to meet their healthcare needs by offering all healthcare facilities and expanding health infrastructure.

Keywords-: Out-of-pocket healthcare costs, socio-demographic, economic, and health factors

1. INTRODUCTION

World Health Organization (WHO) defined Out-of-pocket (OOP) payments as “direct payments made by individuals to healthcare providers at the time-of-service consumption” (WHO,2010). Out-of-pocket payment is the most inefficient, inequitable, and regressive method of the major forms of

health care financing, including government-funded (through taxes), social insurance, and private insurance (Puteh and Almuallm,2017). However, it is a primary method for financing healthcare in most developing countries. According to O'Donnell et al. (2008), out-of-pocket (OOP) payments or the household's share of direct healthcare expenditure are the primary sources of

healthcare finance in low- and middle-income countries. In the Asian region, out-of-pocket payments to total household healthcare expenditure range from 30 to 82 percent (van doorslaer et al.,2006).

Considering the Sri Lankan context, its healthcare system combines the public and private sectors. However, over time in Sri Lanka, out-of-pocket health care payments have risen under the free health care policy (Withanachchi and Uchida,2006). According to Rannan-Eliya and Sikurajapathy (2008), out-of-pocket health care costs by households comprised approximately 33% of national health expenditure in 1953, 41% in 1980, and 48% in 2005. Further, Amarasinghe et al. (2013) pointed out that private finance accounts for 52% of overall healthcare expenditure, with 95% being out-of-pocket. Kumara and Samaratunga (2016) Found that more than 60% of households in Sri Lanka incur out-of-pocket healthcare expenses. Further, Figure 1 illustrates that the share of out-of-pocket health care spending in total household spending increased over the year. Households spent about 2% of their overall expenditure on out-of-pocket health expenses in 1990/1991. This percentage climbed to roughly 3% till 2012/2013. In 2016, households paid approximately 1.5 percent of their total spending on out-of-pocket health expenses. It is noted that under Sri Lanka's free

healthcare program, out-of-pocket health care expenditures are increasing. In this scenario, the primary objective of this study is to investigate the relationship between socioeconomic variables of out-of-pocket household payments on healthcare in Sri Lanka.

1.1. Theoretical background

Many theories in economics on health care demand are based on Grossman's human capital approach to health (Grossman ,2000). The human capital theory outlines how an individual invests in human capital to increase productivity and produce earnings and commodities that feedback into the individual's utility function. Grossman used a household production function of consumer behavior to distinguish between medical care as input and health as an outcome. According to Grossman's approach, a person inherits an initial stock of health that declines with age but can be increased through investment. The decision to seek medical care is an input that can be used to assist offset the natural depreciation of the health stock. Other elements that influence the demanding healthcare include exercise, education, nutrition, and lifestyle choices.

Figure 2 showed diminishing returns between health investment and health, i.e., the production function is in the typical shape as the level of health capital increases. It is increasingly challenging to generate health

from inputs. The demand curve slopes downward due to the diminishing marginal productivity of health capital. It generated three hypotheses on the impact of age, education, and wage rate on the demand for health by Grossman.

According to Figure 3, over the life cycle, depreciation increases from d_i to d_{i+1} . Consequently, marginal cost increases, and demand for health stock decreases from H_i to H_{i+1} . Due to higher elasticity, demand causes a massive decrease in the optimal stock of health with age. When the cost of capital is $r+dn$, and the stock of health is $H_n=H_{min}$, as a result of that, death will occur. Healthy times are equal to zero at death, and there is no time available for both market and non-market activities. If the elasticity of the demand or marginal efficiency of the capital schedule is less than one, expenditure on medical care will rise with age.

According to Grossman (2000), education is a large and significant element that influences health and healthcare spending at the individual and national levels. The connection between health status and healthcare consumption is expected to influence and change healthcare costs. Education, often known as human capital, is a tool used to assess non-market efficiency. People with a higher level of education earn more money. If the wage rate and marginal product of a given health stock were unlinked, an increase in education would boost the

marginal efficiency of health capital. As a result, the MEC schedule shifts to the right from the MEC_1 curve to the MEC_2 curve (Figure 4). If the cost of capital were independent of E and the MEC schedule's elasticity was smaller than one, more educated individuals would demand more health but less medical care (Grossman,1972).

Figure 5 shows how an increase in wage raises the return on healthy days. Because the wage rate and the level of the MEC schedule are directly associated, health demand is favorably related to wage. By increasing the pay from W_1 to W_2 , the MEC schedule shifts from MEC_1 to MEC_2 . If the cost of health capital remains constant, the ideal stock of health will increase from H_1 to H_2 . Therefore, as wages rise, the demand for medical care increases.

The behavioral model of health care, on the other hand, is a conceptual model that highlights the factors that influence the use of health care services (Andersen,1995). This model depicts how three factors influence an individual's use of health care services: Predisposing characteristics, enabling resources, and needs. For example, needs show the necessity for individuals to use health care (Babitsch et al.,2012). Individuals' pre-illness sociocultural characteristics are predisposing variables (Andersen and Newman, 2005). It is based on demographic factors (age, gender,

and biological imperatives), social structure (education, occupation, ethnicity, social network, social interaction, and culture), and pre-illness health beliefs (Babitsch et al., 2012; Andersen and Newman, 2005). According to Andersen (1995), health beliefs are "attitudes, values, and knowledge about health and health services that can impact people's future perception of need and use of health services" (Andersen, 1995, pp 2). However, if someone is predisposed to use health care, other resources must be available to act effectively (Andersen and Newman, 2005). It is necessary to have community/organizational (physician and hospital density, office hours, provider mix, quality management oversight, outreach, educational program, health policy, and family/person enabling resources (Babitsch et al., 2012). Community resources include the structures and distribution of health care facilities and employees. People must have access to and understand how to use these services. Income, health insurance, a stable source of care, and travel and waiting time are also factors in this category. Need is determined as an initial factor of use. According to Andersen and Davidson (2001), individual needs can be differentiated. They are the perceived and assessed requirements for health care services. Perceived need refers to how people perceive their general health and symptoms of illness, discomfort, and health worries.

The evaluated condition includes professional assessments and objective measurements of individuals' health status and need for medical care (Andersen, 1995; Andersen and Davidson, 2001; Babitsch et al., 2012; Andersen and Newman, 2005).

1.2. Review of Literature

This section examined existing studies on individual demand for health care to assess which characteristics influence health care demand consumption.

The relationship between age and healthcare spending is intricately linked. According to Hwang et al. (2001), there is a positive relationship between OOP spending and age. For example, people in the oldest age category (age 80 or more) spent more than five times as much as people in the youngest age category (age 19 or less) and twice as much as people in the middle age category (age 45 to 65). Further, household heads in the oldest age category (65 or more) spent more on OOP than other families. Malik and Syed (2012) also revealed that households with older members had a more significant influence on OOP payments than households with younger members, implying that adult respondents were better predictors of OOP than younger respondents. There is a positive relationship between age and out-of-pocket costs, with children under the age of 5 incurring lower out-of-pocket expenses due to government initiatives for young children in

Kenya. However, older adults over 65 pay a more significant out-of-pocket expense (Ke Xu et al., 2006). Population age structure is one of the most influential elements influencing healthcare spending in Ghana (Angko, 2013). Apere and Karimo (2014) identified households headed by older people with large families are more likely to incur OOP healthcare spending, in Nigeria's south-south geographical zone. In contrast, Samadi and Rad (2013) revealed a long-term negative relationship between health spending and age groups.

The rate of urbanization has a significant and beneficial impact on the rise in healthcare expenditure in Ghana. According to his estimation, a 1% increase in urbanization results in a 4% increase in per capita healthcare expenditure (Angko, 2013). Malik and Syed (2012) also concluded that urban families spent more on OOP than rural households. Rural inhabitants are often less educated, resulting in lesser health awareness, and healthcare services are more limited in rural locations. Furthermore, they cannot afford specialized doctors/hospitals or high-tech equipment and recorded low spending on healthcare (Molla et al., 2017). However, Ke Xu et al. (2006) observed that the urban-rural split was a minor predictor of out-of-pocket healthcare spending.

Masiya and Kaonga (2016) found that the education level of the head

of the household was associated with a higher demand for health care. According to Molla et al. (2017), a 10% rise in illiteracy results in an 11% decrease in household health spending. Uneducated households use less healthcare because they are either unaware of the availability of healthcare or prefer home or alternative cures.

There is conflicting evidence regarding the association between OOP spending and health insurance coverage. Some researchers discover a negative relationship between health insurance membership and OOP payments, implying that health insurance membership does not currently provide adequate financial protection and that reform is required. Ke Xu et al., 2006; Wagstaff et al., 2007). Morrissey (2001) has claimed that having health insurance coverage significantly lowers OOP spending. In contrast, mean OOP spending on uninsured people was higher than on people with health insurance (Masiya and Kaonga, 2016).

Rashidul et al. (2017) revealed that household income differences substantially influenced OOP spending. The severity of illness in low-income groups may be greater than in high-income groups. In general, poor people may not utilize healthcare if their illness is not severe, but wealthy people may use healthcare in the early stages of the condition. According to Xu Ke et al. (2011),

income elasticity for OOP expenditures in high-income countries was more than one (1.50). The elasticity was approximately one in low-income countries and less than one in lower-middle and upper-middle-income countries. According to Molla et al. (2017), a 10% increase in household income correlates to a 2% increase in household healthcare expenditure at a high level of relevance. According to Sanwald and Theurl (2016), Higher-income households are more likely to have OOP expenses. According to Sozmen and Unal (2013), high-income households in Turkey spend more on out-of-pocket expenses. Per capita income has been highlighted as a crucial component in explaining healthcare expenditure among households and nations as one of the influencing variables on out-of-pocket healthcare expenditure. In OECD countries, cross-section regressions of aggregate health expenditure per capita on GDP per capita consistently revealed income elasticity significantly greater than one, ranging from 1.2 to 1.5. According to Fabbri and Monfurini(2003), family income is a primary driver of the number of private consultations. Individuals with higher earnings have been found to use more private services.

Availability of healthcare facilities, such as the number of Physicians and public services, are also important factors in determining the out-of-pocket

health expenses. For example, according to Masiya and Kaonga (2016), the lack of available public services shifts the cost of OOP to the poorest sector. Ke Xu et al. (2006) discovered that the type of health provider affects out-of-pocket spending because visiting a private health facility leads to greater out-of-pocket payments than visiting a public health provider, which results in lower out-of-pocket spending payments. Further lack of health sector resources for the management of specific chronic diseases in the elderly recorded a positive influence of old age on OOP health expenditures, especially since Bangladesh lacks a particular program of coverage for more senior citizens to mitigate excess healthcare costs at an affordable price (Rashidul et al. ,2017) .The number of physicians has a positive relationship with health costs in both the long and short run. As the number of doctors increases, people seek more expensive care, raising healthcare expenses (Samadi and Homaie ,2013). According to Masiya and Kaonga (2016), the type of perceived disease is also a significant factor driving OOP expenditure. According to Hwang et al. (2001), there is a positive relationship between OOP spending and chronic illness for Medicate beneficiaries: families with chronically ill members are 2.6 times more likely than other families to spend \$1000 OOP yearly for medical care. Molla et al. (2017) found a statistically

significant relationship between chronic illnesses in the home and household healthcare spending. Having a chronic disease among household members results in a 101 percent increase in yearly household healthcare costs compared to households without chronic disorders.

Considering the studies on the Sri Lankan context, Kumara and Samaratunge (2016) discovered that age, education, living sector, and income all impacted the burden of out-of-pocket health care spending in Sri Lanka. Households with more than one elderly adult, preschool children, people with chronic illnesses, and educated household leaders are more likely to pay out-of-pocket health care costs. Out-of-pocket healthcare cost is emphasized as a more noticeable component in households with multiple members suffering from chronic illnesses. Higher-income households spend a greater proportion of their earnings on out-of-pocket expenses. Out-of-pocket spending for urban households is higher than for estate and rural households. Furthermore, supply-side factors such as the proximity of government hospitals, bed numbers, and dentists at government hospitals should minimize out-of-pocket costs. According to Pallegedara and Grimm (2018), out-of-pocket medical expenses gradually increase. They found that the government's limited supply of public health services drives

people towards the private sector. This study also identified per capita income as a major contributor to rising healthcare expenses in Sri Lanka. Population age composition and crude death rate are two critical factors influencing out-of-pocket healthcare costs across districts and over time (Pallegedara and Grimm,2018).

2. METHODOLOGY

This study is mainly based on secondary data. Data were obtained from the 2016 Household Income and Expenditure Survey (HIES) 2016 conducted by the Department of Census and Statistics of Sri Lanka. HIES surveys a sample of 25,000 housing units throughout the country.

All independent variables included in the analysis mainly covered economic, demographic, social and living standards, and health characteristics of the households. Household OOP payments are usually positive, with sizable zero responses and a positively skewed data distribution (Mullahy,2009). In the case of the HIES data, around 70% of households reported OOP payments. It exhibited a positively skewed distribution. Therefore, the study uses a natural logarithm transformation of health expenditure in the regression model.

3. RESULTS AND DISCUSSION

According to figure 7, fees for private medical expenditures highly contribute to the households' healthcare expenditures in Sri Lanka at 32.5%. Purchasing of medical and pharmaceutical products is the second principal component of the households' healthcare expenditures in Sri Lanka at 26.12%.

Table 1 presents the coefficients of the Semi-Log model, t-statistics, P-values, and Standard errors. There is a statistically significant influence of the residential sector on healthcare expenditure in Sri Lanka. It revealed that positive relationship between the residential sector with healthcare expenditure. The coefficient of the residential sector under Semi- Log regression model, healthcare expenditure will increase at the rate of 135.2 percent in the urban sector, and healthcare expenditure will increase at the rate of 44.8 percent in the rural sector. Malik and Syed (2012) found that urban households made higher OOP expenditures than other sector households. In contrast, Ke Xu et al. (2006) found that the urban-rural difference was an insignificant predictor of OOP spending. Samadi and Homaie (2013) demonstrate a positive long-term relationship between the percentage of urbanization and health expenditures. This is because the individuals in urban

regions have more access to healthcare resources. As well as Molla et al. (2107) found that rural and estate households spend less on healthcare than their urban counterpart. Rural and estate people are usually less educated and hence have less health awareness, and there are fewer healthcare services available in their area. Moreover, they cannot afford specialist doctors/hospitals and sophisticated technology in the urban sector.

Out of pocket healthcare expenditure will decrease by 26.7 percent among the household heads with primary education. Also, healthcare expenditure will increase by 15.2 percent for household heads with post-secondary education. Therefore, there is a statistically significant impact of the level of education on healthcare expenditure in Sri Lanka. Masiya and Kaonga (2016) found the level of education of the head of the household was positively associated with a greater demand for health. Sanwald and Theurl (2016) revealed the highest probability of out-of-pocket healthcare expenditure. Further, Households with a higher level of education show a significantly higher likelihood of having OOP expenditures. Compared with private-sector employees in Sri Lanka, the coefficient of employment status under the semi-log regression model, out-of-pocket healthcare expenditure will decrease by 11.8 percent due to a particular household head

being an own-account worker. Previous studies by Samaraweera (2008) and Malik and Syed (2012), found employment status as an essential factor that influences the healthcare expenditure. Out of pocket healthcare expenditure will decrease at the rate of 5.7 percent due to the household with no chronic disease in Sri Lanka. It shows a statistically significant impact of chronic disease on healthcare expenditure in Sri Lanka. It revealed that household with chronic disease has higher spending on healthcare. Some researchers emphasize the same results of this study. Such as Molla et al. (2017), Hwang et al. (2001); O'Donnell et al.(2008); Kumara and Samaratunga (2016) are some of them. Hwang et al. (2001) demonstrate a positive relationship between OOP spending and chronic disease. However, age, marital status, and wage are not statistically significant in determining the out-of-pocket healthcare expenditure.

Considering the supply-side factors in determining the healthcare expenditure in Sri Lanka such as distance (in kilometers) to healthcare resources (hospital, Maternity home, Government dispensary, private dispensary, maternity clinic) from their house ,the distance of maternity clinics from their homes shows a statistically significant impact on healthcare.

4. CONCLUSION

The main objective of this research is to identify the determinants of out-of-pocket healthcare expenditure in Sri Lanka based on the Household Income and Expenditure Survey (HIES)2016. Semi-log (Log-Lin) regression estimation is used to identify the determinants of out-of-pocket healthcare expenditure. The study found that demand-side factors play an essential role in determining out-of-pocket healthcare expenditure than Supply-side factors in Sri Lanka based on HIES 2016. It means that demand-side factors of the residential sector, level of education, and chronic conditions of households significantly influenced healthcare. In contrast, the Supply-side factor of the distance of maternity clinics from their houses shows a statistically significant positive impact on healthcare. Results revealed that households with chronic disease have higher spending on healthcare than households with no chronic diseases. Chronic disease positively impacts healthcare expenditure in Sri Lanka. Therefore, the government can proceed with new rules and healthcare programs to prevent chronic diseases and fulfill their healthcare requirements to reduce out-of-pocket healthcare costs.

APPENDIX

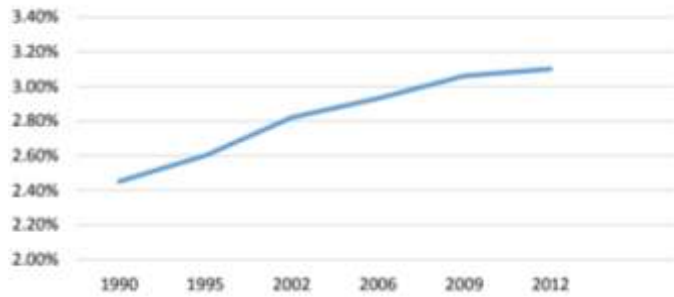


Figure 1: The share of out- of- pocket health care expenditure in total expenditure by Sri Lankan households

Source: HIES 2012/2013

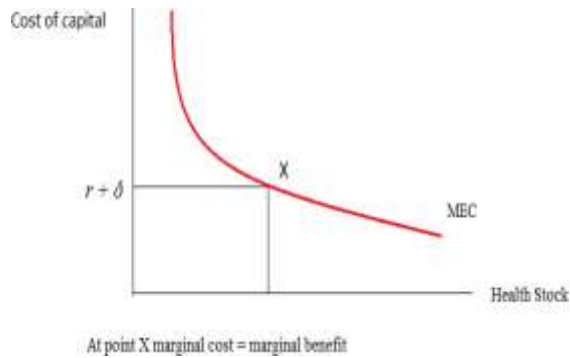


Figure 2: Demand for Health Capital

Source: Grossman,1972

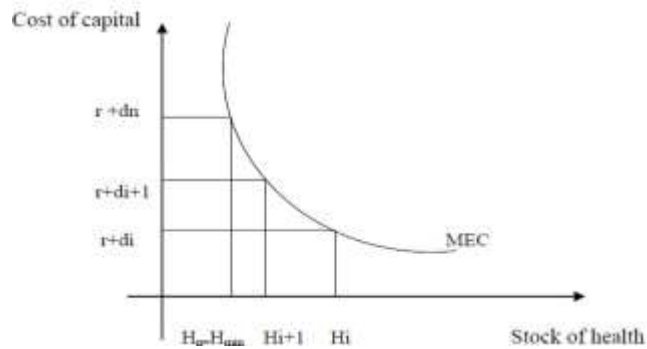


Figure 3: Impact of age on demand for health

Source: Grossman,1972

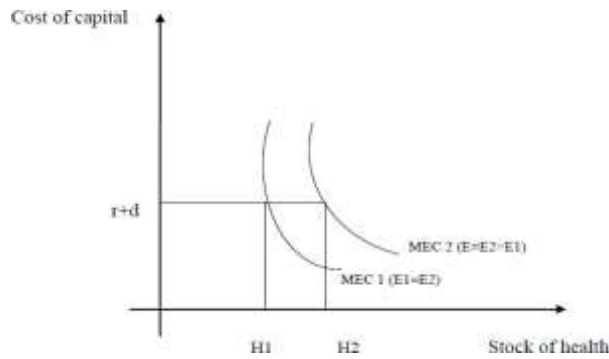


Figure 4: Impact of education on demand for health

Source: Grossman,1972

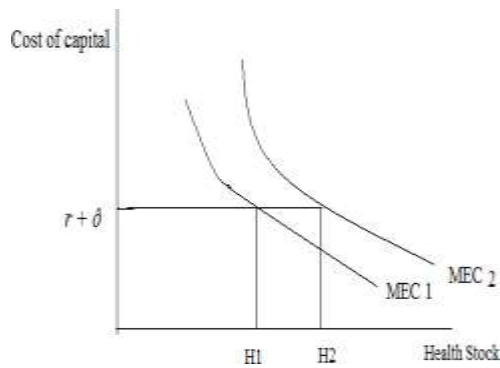


Figure 5: Impact of wages on demand for health

Source: Grossman,1972

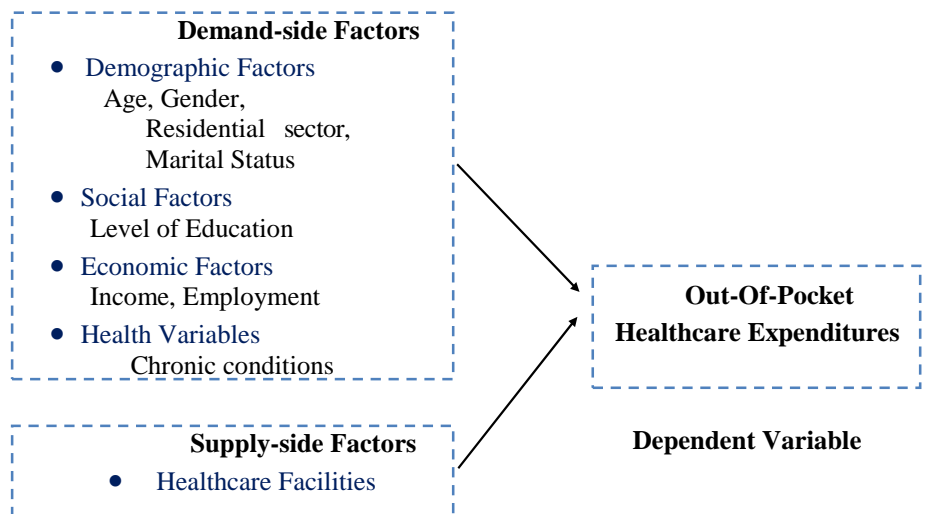


Figure 6: Conceptual model for determinants of out-of-pocket healthcare expenditure

Source: Developed by researcher

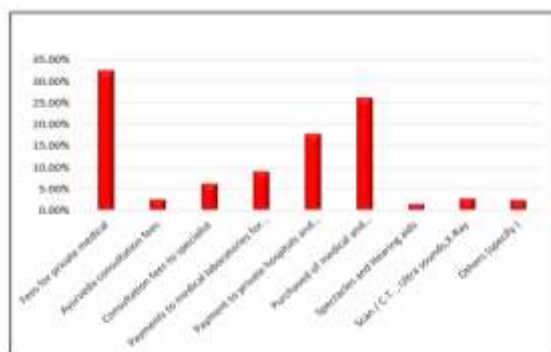


Figure 7: Healthcare Expenditures by the major Components

Source: HIES 2016

Table 1: Determinants of Out-of-Pocket Healthcare expenditure in Sri Lanka

Determinants	Variable	Coefficient	Standard error	P-value	t-test	
Demographic Characteristics	Age	0.00048	0.0017	0.785	0.27	
	Gender (male=1)	0.119	0.070	0.091	1.69	
	Residential sector:	Urban	1.352	0.092	0.000*	14.61
		Rural	0.448	0.086	0.000*	5.3
	Marital status:	Never married	0.142	0.124	0.253	1.14
		Divorced	-0.251	0.253	0.323	-0.99
		Widowed	-0.026	0.085	0.759	-0.31
Separated		0.061	0.14	0.662	0.44	
Social factor	Level of Education:					
	Primary	-0.267	0.053	0.000*	-5.02	
	Post-secondary	0.152	0.051	0.003*	2.93	
	Tertiary	0.079	0.079	0.315	1.00	
Economic Factors	Wage-salaries	1.51	8.16	0.064	1.85	
	Employment status:	Gov. employee	-0.103	0.071	0.144	-1.46
		Semi gov. employee	-0.117	0.103	0.254	-1.14
	Employer	-0.194	0.107	0.070	-1.82	
	Own account worker	-0.118	0.042	0.005*	-2.81	
	Family worker	0.297	0.253	0.24	1.17	

Health factor	Suffer from Chronic condition No=1	-0.057	0.045	0.026*	-1.27
Healthcare facility	hospital	0.005	0.0034	0.095	1.67
	Maternity home	-0.002	0.0032	0.452	-0.75
	Government dispensary	-5.52	0.0063	0.999	-0.00
	private dispensary	0.002	0.0022	0.201	1.28
	maternity clinic	0.011	0.0051	0.021*	-2.31
	constant	6.354	0.148	0.000*	42.78

Source: Researcher's findings using HIES 2016

*Significant coefficients at 5% significance Level

Base category: Being female, being married, having a chronic illness, being a private sector employee, being a household head with a pre-secondary education level, being an Estate sector household.

REFERENCES

- Amarasinghe ,S ., De Alwis, S and Saleem S. (2013). IHP Technical Reports Series, Number 2: Private Health Sector Review 2012, Colombo: Institute for Health Policy
- Andersen, R. M. (1995). Revisiting the Behavioural Model and Access to Medical Care: Does it Matter? *Journal of Health and Social Behaviour*, 36:1-10.
- Andersen, R. M. and Davidson, P. L. (2001). Improving Access to Care in America: Individual and Contextual Indicators. *Changing the US Health Care System*
- Andersen, R.M. and Newman, J. F. (2005). Societal and Individual Determinants of Medical Care Utilization in the United States. *The Milbank Quarterly*, Vol. 83 (4):1-28
- Apere,T.O and Karimo T.M.(2014).Determinants of Out-Of-Pocket Healthcare Expenditure in theSouth-South Geopolitical Zone of Nigeria ,*International Journal of Economics, Finance and Management* ,3(6)
- Angko, W. (2013). The Determinants of Healthcare Expenditure in Ghana. *Journal of Economics and Sustainable Development* ,4

- Babitsch, B., Goh, I D and von Lengerke T.(2012). Re-revisiting Andersen's Behavioral Model of Health Services Use: A systematic review of studies from 1998-2011. *Psychosoc Med* ,9.
- Fabbri, D and Monfardini, C.(2003). Public vs. Private Health Care Services Demand in Italy, *Giornale degli Economisti*, GDE (Giornale degli Economisti e Annali di Economia), Bocconi University, 62(1)
- Grossman, M.(1972). On the concept of health capital and the demand for health. *Journal of Political Economy* ,80
- Grossman, M.(2000). The human capital model. In: Culyer, A.J., Newhouse, J.P. (Eds.), *Handbook of Health Economics*, vol. 1A, Elsevier, Amsterdam
- Household Income and Expenditure Survey. (2016). Department of Census and Statistics, Ministry of Finance and Planning, Sri Lanka
- Hwang ,W., Weller ,W .,Ireys ,H and Anderson G.(2001). Out-of-pocket medical spending for care of chronic conditions. *Health Aff (Millwood)*,20(6)
- Ke Xu., David, B., Evans, Patrick Kadama, Juliet Nabyonga, Peter Ogwang Ogwal, Pamela Nabukhonzo and Ana Mylena Aguilar.(2006). Understanding the impact of eliminating user fees: Utilization and catastrophic health expenditures in Uganda, *Social Science & Medicine*,62(4)
- Kumara, A.S and Samararatunge, R. (2016). Patterns and determinants of out-of-pocket health care expenditure in Sri Lanka: evidence from household surveys. *Health Policy Plan*.31(8)
- Malik ,A and Syed S.I.(2012), Socio-economic determinants of household out-of-pocket payments on healthcare in Pakistan. *Int J Equity Health* ,11
- Masiye, F. and Kaonga, O. (2016). Determinants of Healthcare Utilisation and Out-of-Pocket Payments in the Context of Free Public Primary Healthcare in Zambia. *International Journal of Health Policy and Management*, 5(12)
- Morrisey, M. A. (2001). Competition in

- hospital and health insurance markets: a review and research agenda. *Health services research*, 36(1 Pt 2)
- Molla, A.A., Chi, C. & Mondaca, A.L.N. (2017). Predictors of high out-of-pocket healthcare expenditure: an analysis using Bangladesh household income and expenditure survey, 2010. *BMC Health Serv Res*, **17**
- Mullahy, J. (2009). Econometric Modeling of Health Care Costs and Expenditures: A Survey of Analytical Issues and Related Policy Considerations. *Medical care*, 47
- O'Donnell, O., van Doorslaer, E., Wagstaff, A and Lindelow, M(2008). *Analyzing Health Equity Using Household Survey Data : A Guide to Techniques and Their Implementation*. Washington, DC: World Bank.
- Pallegedara , A and Grimm, M.(2018). Have out-of-pocket health care payments risen under free health care policy? The case of Sri Lanka. *Int J Health Plann Mgmt*,33
- Puteh S.E.W and Almuallm Y.(2017).Catastrophic Health Expenditure among Developing Countries. *Health Syst Policy Res*. 4(1)
- Rannan-Eliya R.P and Sikurajapathy L. (2008). Sri Lanka: “Good Practice” in expanding healthcare coverage. In: *Good Practices in Health Financing Lessons from Reforms in Low- and Middle-Income Countries*. Washington DC: World Bank
- Rashidul A. M.,Abdur R. S and Alec Morton et al.(2017).Distribution and determinants of out-of-pocket healthcare expenditures in Bangladesh.
- Samadi A, Homaie R. E.(2013).Determinants of Healthcare Expenditure in Economic Cooperation Organization (ECO) Countries: Evidence from Panel Cointegration Tests. *Int J Health Policy Manag* ,1(1)
- Samaraweera G. R. S. R. C. (2008). A Comparative Study of Demand for Ayurvedic Care: Private vs. Government: a Case Study from Ratnapura District,<http://www>.

- mgt/images/stories/research/ircmf/2010/BE/7.PDF
- Sanwald, A and Theurl ,E.(2016). Out-of-pocket expenditure by private households for dental services - empirical evidence from Austria. *Health Econ Rev.* 6(1)
- Sozmen, K and Unal, B.(2008).Explaining inequalities in Health Care Utilization among Turkish adults:findings from Health Survey 2008, *European Journal of Public Health*,23(1).
- World Health Organization.(2010). *The World Health Report – Health systems financing: The path to universal coverage.* Geneva
- van Doorslaer, E., O’Donnell, O and Rannan-Eliya R, et al.(2006). Effect of payments for health care on poverty estimates in 11 countries in Asia: an analysis of household survey data. *Lancet.*
- Wagstaff, A., O’Donnell, O., Van Doorslaer, E., and Lindelow, M. (2007). *Analyzing health equity using household survey data: a guide to techniques and their implementation.* World Bank Publications.
- Withanachchi, N and Uchida Y.(2006). *Healthcare rationing: A guide to policy directions in Sri Lanka.* *Health Policy*,78(1)

**Drivers of Intention to Use Internet Banking: Unified Theory of
Acceptance and Use of Technology Perspective**

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Abstract

Most of the financial institutions in Sri Lankan context invest substantially on Internet Banking to provide efficient service to customers while achieving competitive edge in the industry. However, use of online banking remains low in comparison to certain emerging and developed nations. Thus, the purpose of this study is to investigate the factors that influence consumers' intentions to use Internet Banking using the Unified Theory of Acceptance and Use of Technology model (UTAUT-2). This study used a survey technique to collect data from 272 clients of National Savings Bank (NSB). The hypotheses were tested using multiple regression analysis. Six variables out of eight, performance expectancy, facilitating conditions, social influence, price value, habit, and trust, were shown to be relevant in influencing intention to use IB services. It also shown that the UTAUT-2 paradigm can be adapted to developing countries with various degrees of explaining power. An understanding of the determinants of Internet Baking use is important for managers of the financial firms as they can pursue strategic intervention to enhance the level of IB adoption. Further, the firms intending to launch IB services would be benefited with the precise understanding of the significant drivers determining the IB adoption behavior. This paper adds to the empirical literature on consumer IB adoption behavior, particularly in a developing nation like Sri Lanka.

Keywords: Internet Banking, Technology acceptance, UTAUT, Intention to use

1. INTRODUCTION

Financial Services Industry (FSI) has played a pivotal role in contributing to the growth and prosperity of the modern economies as the stability and integrity of the FSI has been one of the key factors of the stable national economic growth (Sethi, Chakrabarti, & Bhattacharjee,

2020). Disruptive technologies play significant role in shaping the sustainable growth in the Financial Services Industry (Bhuvana, 2020). With the developments of the internet technology, the landscape of the FSI has been dramatically changed as the firms in the FSI started establishing foothold into the areas once ignored by

traditional players (Del Gaudio, Porzio, Sampagnaro, & Verdoliva, 2021). Financial services firms are classified as those that primarily engage in retail banking, commercial lending, and insurance (other than health, credit cards, mortgage banking, investment advisory, and asset management).

The technological developments pertaining to FSI include internet banking, Crypto currencies, and mobile wallets, peer to peer (P2P) lending and cross boarder payment services etc (Auer, & Böhme, 2020). Among these Intent Banking (IB), is a system that allows consumers, people, or enterprises to access accounts, do business, or acquire information on financial goods and services through the Internet (Rahmath & Hema (2011) has become focal concern among the academics and practitioners during the recent past. The diffusion/acceptance/adoption of new technology across the economy, rather than the development of new technology, influences macroeconomic productivity growth. (Malhotra, & Singh, 2007). Thus, the acceptance of the IB services by the potential customers is an important concern to ensure the growth of the industry and economy. However, the low adoption/acceptance rate of the IB services becomes one of the serious challenge confronted by the firms operating in the FSI (Camilleri, & Grech, 2017).

Prior research have analyzed determinants of IB adoption with the consideration to the organizational, technological, individual and environmental factors, though they come up with the inconsistent results (Aboobucker, & Bao, 2018; Alalwan, Dwivedi, Rana, & Algharabat, 2018; Zahir, & Gharleghi, 2015). Determinants of IB acceptance have been identified using different theoretical models including Technology Acceptance Model, Diffusion of Innovation Theory, Theory of Planed behavior, Theory of Acceptance and Use of Technology model (Alwan et al. 2016, Boateng et al. 2016, Yuan et al., 2014, Cudjoe et al., 2016). The majority of studies on the factors of IB adoption are focused on developed markets, such as the United States or Europe, and this gap in the literature in other contexts must be addressed. As a result, this research aims to contribute to the empirical literature on the uptake of IB services, particularly in a developing nation like Sri Lanka.

During last couple of years there has been significant emphasis placed on launching IB services by majorities of banks in Sri Lanka (Central Bank of Sri Lanka, 2018). As a result of this trend the consumer adoption and usage may be drastically transformed, and however only a handful of studies looked specifically on this phenomenon in Sri Lankan context (Kariyawasam, & Jayasiri, 2016;

Nayanajith, Damunupola, & Ventayen, 2019). In comparison to both industrialized and developing nations in the area, the amount of IB usage in Sri Lanka remains low (Kariyawasam and Jayasiri, 2016 Priyangika, Perera, & Rajapakshe, 2017). Moreover, IB adoption levels in Sri Lanka is relatively low despite high adoption level of general technological advancements such as mobile usage, internet usage (Premarathne and Gunathilake 2016).

The low IB service adoption rate is troublesome for banking institutions as they are unable to realize the expected outcomes of launching IB interventions (Alwan & Al-Zu bi, 2016). Managers at financial businesses are likely to continue flailing, squandering time and resources on IB services until they understand the fundamental causes contributing to this low adoption rate (Roy, Balaji, Kesharwani, & Sekhon, 2017). Though many empirical studies were conducted in the developed context on this phenomenon it is rather challenging to generalize those findings to the Sri Lankan context due to the notable differences pertain to the education level (Grimm et al., 2010), cultural beliefs and values (Samarasinghe, 2012) and economic conditions (Popkova, 2014) between the developing and developed country two contexts. As a result, this research aims to contribute to the

empirical literature on IB adoption behavior of consumers, particularly in a developing nation like Sri Lanka. Thus, the research question addressed in this study is, "What variables influence customers' propensity to employ IB services in Sri Lanka?" The purpose of this research is to determine the factors that influence consumers' intentions to use Internet banking in Sri Lanka, with a focus on National Saving Bank. The study is positioned with the Unified Theory of Acceptance and Use of Technology theory to fulfill the purpose.

The structure of the paper is as follows. The study's second portion discusses previous research on Internet banking, online banking use, and determinants of desire to utilize internet banking, as well as associated technology adoption/acceptance theories. The second part concludes by giving the current study's research model, followed by the hypothesis formulation. The third portion describes the technique used to perform the study, and the fourth section gives the findings, followed by a discussion of the important findings. Last section of the paper discusses the theoretical and practical implication of the findings, limitation and directions of the future research.

2. LITERATURE REVIEW

2.1. Internet banking

Internet banking mainly allows a user to conduct financial transactions via the Internet. Based on this functionality of internet banking several authors provided definitions on IB. Few of the definitions on IB is given in Table 1. When comparing all definitions, it is very much like each other as most authors discussed about change of delivery channel for banks. IB is defined as the use of internet technology to allow customers, individuals, or businesses of financial institutions to access accounts, transact business, or obtain information on financial products and services via a public or private network, including the internet, for the purposes of this study.

2.2. Intention to use Internet Banking

This part examines the existing literature on the phenomena of interest in the current investigation, namely the desire to use IB. Existing literature on innovation adoption, IT adoption, and IB adoption is studied in order to fully comprehend the IB adoption framework. Within IT and innovation adoption literature, the term “adoption” is defined as whether a person or organization uses a particular innovation, system, or practice (Jeyaraj et al., 2006). However, the term has been subject to debate among scholars, particularly in the fields of IS, technology, and innovation. Consequently, authors have used

various terms, such as “acceptance” and “implementation,” to designate the adoption of an innovation, system, or practice. Table 2 shows the various terms and definitions used in IT and innovation adoption literature to denote adoption. As illustrated in the Table 2 previous studies have also used different means for operationalizing the adoption construct. Some authors have operationalized adoption using frequency of use by the individual or organization, while others have used a binary variable (adopted or not adopted) based on self-assessment. This review shows that there is no universally accepted definition and means of operationalizing the adoption construct.

In order to conceptualize the “intention to use IB” constructs, extant literature on IB adoption was reviewed and consistent with IT and innovation adoption literature, scholars and practitioners of IB adoption studies have utilized various terms to denote IB adoption. Among them, the most widely used constructs are IB adoption, extent of IB usage, IB acceptance, Diffusion of IB and Intention to use IB. Several authors (Firdous, & Farooqi, 2017; Nasri, 2011; Polasik, & Wisniewski, 2009) have used a dichotomous measure to measure IB adoption, while others (Yaseen, & El Qirem, 2017; Safeena, Date, & Kammani, 2011; Abbasi, Kamran, & Akhtar,

2017; Lee, 2009) have used continuous variables. However, use of dichotomous variables as a measure of IT and innovation adoption has been criticized as it does not capture variance in the intention/extent of adoption. Thus, the present study operationalizes the intention to use IB construct as a continuous variable.

2.3. Theories of Technology (IB) Adoption

A variety of models and frameworks have been created to explain user adoption of new technologies and the elements that influence user acceptability. As IB is treated as a technological innovation, and present study is aim at exploring determinants of intention to use IB services reviewing such theories are important. Most widely tested technology adoption theories includes: Theory of Reasoned Action (TRA) (Ajzen and Fishbein, 1980), Theory of Planned Behaviour (TPB) (Ajzen, 1991), Decomposed Theory of Planned Behaviour (DTPB) (Taylor & Todd, 1995); the Technology Acceptance Model (TAM) (Davis, 1989), TAM2 (Venkatesh & Davis, 2000) and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al. 2003), the Diffusion Innovation Theory (DIT) (Rogers, 1985).

These models have changed throughout time as a consequence

of academics' ongoing efforts to validate and extend them. In this technology adoption literature, the most extensively tested models are TRA, TPB, and TAM. However, all three models have been critiqued for having a low explanatory power in terms of behavioral intentions, which varied between 30 and 40%. (Jeyaraj *et al*, 2006).

In answer to the aforementioned criticisms, Venkatesh et al. (2012) created the UTAUT2 model, which provides new insights into the elements influencing technology adoption as well as how social and organizational culture impacts individual usage behavior. Despite the fact that the UTAUT2 model is relatively young, having emerged in 2012, researchers in the field of information systems are progressively investigating its applicability, validity, and reliability to explain technology adoption in many scenarios. When compared to previous models, UTAUT2 generated a significant improvement in the variance explained in technology usage, i.e., 40% to 52% in UTAUT and 56% to 74% in UTAUT2 (Venkatesh et al. 2012). Furthermore, since it focuses on consumer usage context, UTAUT2 is more suitable to this study. Other technology acceptance and use models, such as the original UTAUT, are more suitable in the context of employee use (Rogers, 2003). Based on above discussion, it is expected that

UTAUT2 is a preferable model in this study. Because there have been no previous studies assessing the UTAUT2 model in the context of IB acceptance in Sri Lanka, the current study established the research model depicted in Figure 1.

2.4. Hypothesis

PE is described as "the degree to which an individual feels that employing the system will assist him/her in achieving increases in work performance" (Venkatesh et al. (2003). It is apparent that once an individual perceives that IB services offers them ample opportunities to perform their tasks more efficiently and effectively they are more likely to use it. On the other hand, if they believe that IB services are not useful and does not provide them with expected performance they intend to use traditional method over IB service. Several scholars have discussed the significance of the association between PE and intention to use IB (Foon, & Fah, 2011; AbuShanab, & Pearson, 2007; Rahi, Ghani, Alnaser, & Ngah, 2018; Martins, Oliveira, & Popovic, 2014). As a result, it is expected that PE will have a large favorable impact on customers' intent to use IB.

H1: Performance expectancy is positively related to customers' intention to use IB services

Effort expectancy (EE) is defined as "the degree of ease associated with use of the system" (Venkatesh et al., 2003). When

customers perceive that it is cumbersome to access and navigates the IB services they are reluctant to use IB services vice versa. Previous research studies on UTAUT model, found that EE is a significant factor affects behavioral intention to usage IB (Rahi, & Ghani, 2019; Martins, Oliveira, & Popovic 2014). Further it has been found that EE has positive effect on behavioral intention to usage IB (Khater, 2016; Martins, Oliveira, & Popovic 2014). Thus, it is hypothesized that EE has positive influence on intention to use IB.

H2: Effort expectancy is positively related to customers' intention to use IB services

Social influence (SI) is defined as "the degree to which an individual perceives that important others believe he/she should use the new system" (Venkatesh et al., 2003). Once an individual's network of influential people pushes them to utilize IB services, they are more likely to embrace IB. In contrast, such significant individuals who will impact individual decisions do not support IB adoption and do not intend to use IB services. SI is a significant factor in determining behavioral intent to use IS, and it has been established that SI has a positive effect on behavioral intent to use IS (Venkatesh et al., 2003). Furthermore, other studies found that SI has a significant positive effect on behavioral intention to usage IS (AbuShanab, & Pearson, 2007; Martins, Oliveira, &

Popovic 2014). Thus, consistent with UTAUT, this study hypothesized that SI has an influence on behavioral intention to usage IBS.

H3: Social influence is positively related to customers' intention to use IB services

The Facilitating conditions (FC) provided to each consumer can vary Graphical User Interface, application vender, Personal computers (PC) or Mobile operating system, technology generation, mobile device and so on. A customer with access to a favorable set of FCs is more likely to want to use a technology (Venkatesh et al., 2012). From the IB perspective, access of information and other resources may vary with consumers that facilitate their use, such as videos & FAQs. It is generally expected that, all variables remain constant; a consumer having lower level of access to FCs will have lower level of intention to use IB (Venkatesh et al. 2012). Thus, following hypothesis was postulated.

H4: Facilitating conditions is positively related to customers' intention to use IB services

Hedonic motivation refers to fun or pleasure derived from using a technology, and it has been showed to play an important role in determining technology acceptance and use (Venkatesh et al. 2012). Once individuals are pleased with using IB services, they tend to continuously use it for day today banking purposes.

Conversely, when customers are not enjoying with using IB services they are more likely to shift again for the traditional Banking services. Thus, hedonic motivation will have positive correlation in determining technology use. This leads to following hypothesis.

H5: Hedonic motivation is positively related to customers' intention to use IB services

Price values refer to consumers' cognitive trade-off between the perceived benefits of the application and the monetary cost for using them (Venkatesh et al. 2012). Some people are independent and competitive, making decisions based on selected information and heuristics, whereas others are more interdependent, cooperative, and consider more details. As a result, in the context of IB, certain people are more inclined than others to pay attention to the pricing of IB services. This also implies that when individuals are compelled to pay a reduced cost to get IB services, they are more inclined to use them. Customers, on the other hand, are more hesitant to employ IB services when the costs are expected to be rather high. This leads to following hypothesis.

H6: Price value on will have a significant negative effect on intention to use IB services.

Habit refers to the extent to which people tend to perform behaviors automatically because

of learning (Venkatesh et al. 2012). Habits, such as belief creation or retrieval, will automatically influence an individual's conduct without conscious mental effort (Gardner, 2015). For instance, after an extended period of repeated interaction with IB on working hours, a consumer may have developed a positive view toward IB and an associated behavioral intention (Venkatesh et al. 2012). This habit can be spontaneously triggering the positive intention to use behavior. As a result, stronger habit will result in a stored intention, which will impact behavior. The following hypothesis was developed as a response to the previous argument.

H7: Habit will have a significant positive effect on intention to use IB services.

Trust is the defining attribute of a relationship and determining its very existence and nature is necessary even beyond economic factors (Baptista, & Oliveira, 2015). Researchers have confirmed this when an activity entails social uncertainty and risk (Kuisma, Laukkanen, & Hiltunen, 2007). Social uncertainty and risk factors with an IB related transaction is typically high because of the behavior of the system performance is intangible. Similarly, trust is a reducer of risk in the eyes of inexperienced online customers and act as social uncertainty reducer (Gefen 2000), on seals of approval or privacy

policy statements (Weir, Douglas, Carruthers, & Jack, 2009), and on affiliations with respectable companies (Reis, Gulsecen, & Bayrakdar, 2011). With IB's limited Web interface, does not allow customers to identify whether a Bank is trustworthy as in a typical face-to-face interaction. Further, trust important aspect where vendors can easily take advantage of online customer (Hutchinson, & Warren, 2003). Therefore, this study hypothesized that Trust has an influence on intention to use IBS. Thus, following hypothesis was postulated.

H8: Trust will have a significant positive effect on intention to use IB services.

3. METHODS

The purpose of this research is to discover the key factors that explain why people want to utilize IB services. The current study is classified as a descriptive research design since the goal is to characterize the causes of IB usage intention (Zikmund et al, 2010). The current study's research objective aims to determine the primary determinants influencing the intention to utilize IB services in Sri Lanka, with a focus on NSB consumers. As a result, the survey respondents would preferably be NSB customers. As a consequence, the current study's unit of analysis is "individual." Among the leading financial institutes of Sri Lanka, NSB has been selected as it is the largest

licensed specialized bank in the country. NSB was established in 1971 and presently operate with more than 255 branch network and 282 ATM machines covering Entire Island (NSB Annual Report 2018). NSB has been slow to adopt technology in past. However recent years they have turn their focus on innovation to improve their financial solutions to meet the customer expectations. To conduct this research the sample was narrowed down to customers of NSB in Colombo District as Colombo is identified as commercial hub and highly populated city in Sri Lanka.

As indicated in the Table 4, the target population (N= 16.089) consists with NSB customers in Colombo District who are using banking services provided by the National Savings Bank. As shown in Table 4, the sample of the respondents drawn for the study was 450. Assuming a very conservative response rate, a printed version of questionnaire distributed to in person, while online version distributed via email. List of customer base maintained at the head office of Bank was used as the sample frame and every 10th customer in the list was taken to the sample when drawing the sample for online survey. Every fifth customer visited the branch on the certain date were taken in to consideration for drawing the sample for in person data collection.

Out of the 450 questionnaires distributed, only 338 were returned. The branch wise response rate varied from one to another (see Table 4) and the overall response rate was 75.1%. However, 66 responses were disqualified due to various reasons. 52 questioners were incomplete due to significant number of questions were not answered by the respondents, 14 questioners were answered abnormally since there was same answer for all Likert scale questions. After accounting for incomplete responses 272 were proceed to the further analysis.

Validated questions from prior relevant research were used to assess the theoretical constructs. The modified questions were verified, and language modifications were made to match the instrument to the needs of this study. Table 3 depicts the operationalization of variables. The questionnaires were written in both English and Sinhala. A professional translator completed the back translation of the current study's questionnaire. Pre study was conducted in order to ensure face validity of the study variables of the present study. Pre study was executed by selecting 12 respondents and survey questionnaire was shared among them. After one week the completed questionnaire were collected back and discussed with them the clarity and understandability of the question items. Minor changes were made to the original questionnaire

based on the feedback given by the respondents.

4. RESULTS

Demographic factors were first analyzed and results are illustrated in Table 5. Majority of the respondents were male with 52.6% while 47.4% responds were female. Most of the respondents were from the age group of age 21 to 30 year with 42.6% of the total respondents. It was followed by 31 to 40 year group with representing 38.8% of the participants. Therefore, most of the participants are either represents Generation Y and generation X (Kotler & Keller, 2016). Further, in Sri Lanka perspective those age groups represent income earners with technological knowhow. Most of the participants i.e. 37.1% are having diploma as their education qualification. Further, more than 67% of the participants are having education of diploma or degree. As indicated in the table 7, 42% of the participants are having previous IB experience of more than 2 years. Further, it can be identified that clear majority of participants i.e. 69.1% is use smart phones as the preferred devise to enter the IB services.

The measures' convergent and discriminant validity were statistically verified using factor analysis. Hair et al. proposed three criteria for determining data adequacy for factor analysis (2010). First, a visual examination of the correlation

matrix indicated that a significant percentage of correlations were more than 0.30. Second, Barlett's Test of Sphericity provided statistically significant results (190approx.. chi-square 10794, df 340, sig.000) indicating that correlations among the variables were sufficient to proceed with factor analysis. Third, for both the overall test and each variable, the measure of sample adequacy in terms of Kaiser-Meyer-Olkin (KMO) values were observed. The entire KMO value was 0.643, which is more than the threshold value of 0.50. (Hair et al., 2010). KMO values larger than 0.5 were also found in each variable. Finally, all three requirements were satisfied.

After the underlying assumptions of factor analysis were established, all variables were factored using principal component analysis. Since the current investigation employed previously validated instruments, with the exception of one variable, an a priori criteria in which the researcher stated how many factors to extract (Hair et al., 2010) was used to determine the number of components to be extracted. The rotated factor matrix was obtained using Varimax rotation. Because the majority of the constructions had a well-established theoretical foundation, items with a factor loading of +/-0.5 and above were chosen as significant loadings (Hair et al., 2010). Table 6 displays the final factor structure.

Cronbach Alpha values were assessed to determine the reliability of the constructs, and the findings are reported in Table 8. All of the variables met the 0.6 criteria, indicating the measurements' internal consistency. As a consequence, correlations between variables were investigated using person correlation, and the findings are displayed in Table 7.

4.1. Hypothesis testing

Hypothesis testing is based on regression analysis using SPSS. Table 9 provides the results of hypothesis testing with R², standard coefficient, and significance. The Adjusted R Square value amounts to .429 (Table 10). Thus, the regression model explains 43% of the variance in the Internet banking adoption among respondents with the 8 independent variables specified the research model. As indicated in the ANOVA table the regression model is statistically significant ($F = 29.329, P = 0.000$).

In sum, this study confirms the results of UTAUT. Supporting H1, performance expectancy (PE) had significant effects on behavioral intention to use ($b = .141, p = 0.023$). Social influence had a significant positive impact on IB adoption, supporting H3 ($b = .114, p = 0.037$). Facilitating condition had a significant positive impact on IB adoption supporting H4 ($b = 0.124, p = 0.019$). Price value was found to have a significant effect on IB

Adoption, supporting H6 ($b = .148, p = 0.004$). Habit had a significant positive impact on IB adoption, supporting H6 ($b = .392, p = 0.000$). Supporting H7 while trust was found to have a significant effect on IB Adoption, supporting H8 ($b = .120, p = 0.029$). Effort expectancy and hedonic motivation were not found to have a significant effect on user's IB Adoption, not supporting H2 and H5.

5. DISCUSSION

The findings revealed that performance expectancy, habit, price value, facilitating condition, trust, and social influence all had a significant impact on IB adoption. IB adoption was favorably affected by habit. The association between habit and IB adoption has been studied, and the findings verified the significance of the link. This study found that over a long time of recurrent encounter with IB during working hours, a consumer may have established a favorable opinion of IB and a related behavioral intention. This is consistent with the findings of the Alalwan, Dwivedi, Rana, Lal, & Williams, (2018).

The findings also suggested that facilitating condition has a significant positive effect on IB adoption. As suggested by previous studies of Foon, & Fah, (2011), this implies that once an individual perceive that IB services offers them ample opportunities to perform their

tasks more efficiently and effectively they are more likely to use it. Moreover, consistent with previous findings (Roy, Kesharwani, & Bisht, 2012), this study found that trust has a significant effect on IB adoption. This finding means that when employees confident on using IB service over their security the level of usage is increased. This study also confirms the importance of social influence and price value in predicting customers' IB adoption and confirm the validity of UTAUT model in the context of Internet banking adoption. These findings are consistent with previous studies of Chaouali, Yahia, & Souiden, (2016). This study also found empirical support for the relationship between performance expectancy and IB adoption. This means that once an individual perceive that IB services offers them ample opportunities to perform their tasks more efficiently and effectively they are more likely to use it. This confirms the similar results of the previous studies (Foon, & Fah, 2011; Zhou, Lu, & Wang, 2010).

However this study did not find statistically significant relationship for the effort expectancy, hedonic motivation with IB adoption. This result is not consistent with theory proposed in UTAUT. This may imply that customer' perceptions about effort effectiveness and hedonic motivation will not play a more influential factor than the other factors in determining IB

adoption. Possible reason for this inconsistent finding would be related with the demographic profiles of the respondents. More than 82 percent of the participants are millennial born after 1981 having basic technical knowledge to operate internet banking which clearly indicate that effort expectancy will not significant as they may possess necessary technical skills as well as the present day technology provide greater user interface support to the users. Further, most of the participants i.e. 37.1% are having diploma as their education qualification and more than 67% of the participants are having education of diploma or degree. This indicates the level of awareness of using such technological applications with minimum effort among the respondents. Moreover, this study was based on the customers who were visiting the Colombo branches and the possibility of having great deal of exposure on using technological applications is much higher among them as they reside in metropolitan arrears in the country. The possible reason for not supporting the relationship between hedonic motivation and intention to use IB services could be explained with respects to nature of the services provided with IB services. Hedonic motivation refers to fun or pleasure derived from using a technology, (Venkatesh et al. 2012). Involving with the IB services are mostly routine where no diversity is associated with. Thus, when

someone use the routine feature provided by the IB services several time marginal utility is diminishing.

6. CONCLUSION

6.1. Implications

This research study is conducted based on UTAUT2 model proposed by Venkatesh et al. (2012) integrating Trust as an independent variable. This model was not previously tested in developing economy setting i.e. Sri Lankan context in general as well as area of internet banking acceptance. As a consequence, this research study contributes to bridging the theoretical gap between developed and developing settings, and the research findings contribute to the present literature by providing insights into the factors influencing Internet banking usage.

This study offered a model for assessing IB service intention, which may also be used to explain other e-banking usage behavior studies, such as mobile banking or other e-banking services. The study further contributes to the discovery that, among the identified independent factors, habit is the most important factor determining intention to use internet banking. Overall, this study has added to the body of knowledge in the subject of technology acceptance literature for a developing country like Sri Lanka. Financial institutions are experiencing a

significant difficulty due to low utilization of their IB services. According to Curran and Meuter (2007), as clients become more aware and comfortable with banking technology, organizations must learn how to manage Self-Service Technologies effectively. As a result, it is critical to assist financial institutions in developing an appropriate marketing plan that would increase the acceptable level of IB acceptance among their consumers. These findings will assist financial institutions in determining the most appropriate marketing strategy. Such findings will enable financial institutions to determine the most effective marketing plan for encouraging clients to adopt Internet banking as a more convenient and innovative channel.

In the Performance Expectancy aspect, it can identify that online users are highly concern about the effectiveness of what they performed using IB. Therefore, it is necessary to create marketing campaign on awareness of IB services of firms among the customers about the benefits of IB specially focusing on convenience and availability.

Facilitating condition is statistically proven that it is an important variable on intention to usage IB. As a result, financial institutions should spend in increasing the operational comfort and simplicity of their IB platforms in order to make their

services more user-friendly. Furthermore, banks should educate their consumers on how to conduct their day-to-day banking operations using IB services and make the services more familiar to them. When customers visit the branch, it is advantageous if the staff members can persuade and educate them on how to utilize IB services (Alalwan et al., 2014). Thereby, the bank will be able to resurrect customer hesitancy toward use Internet banking services due to lack of knowledge on how it works.

Price value of IB services is affecting intention to use IB services. To have rapid IB usage penetration levels among customers, financial institutes should devise an effective pricing strategy on their products. For example, the bank should promote discounts or waive off service charges to online utility bill payments. Thereby, the bank will be able to increase customer on-boarding to the IB services.

According to the survey findings, habit has been the most important factor of determining Intention to use IB services. To increase the repetition of the user behavior bank should be constantly reminded to online user via regular SMS or email messages. Thereby, bank will be able to be in the mind of the user and will be able to increase frequency of use of them.

Finally, trust has been playing pivotal role affecting on intention to use IB services. Therefore, it is necessity to persuade customers that using IB is trustworthy and less risky. Presently, most banks obtain necessary security certificates on its website and guarantee to provide a safe and secure internet banking experience. However, this may be addressed by offering adequate education and information on how to use IB correctly and safely, as well as enhancing the appearance of their websites (Gefen et al., 2003). Furthermore, structural assurances such as legal and regulatory compliance, warranty certificates, and so on must be made easier. As a result, it will alleviate customers' concerns about the possibility of fraud, hacking, and other risks associated with Internet banking.

6.2. Limitations and Future Research

This study was conducted in the context of Sri Lanka targeting subset of IB users of Colombo City from the NSB which will hinder the generalizability. Colombo city is the technologically most advance area of the country. Further, by narrow down the sample, the sample size was limited to 272 individual respondents without considering business entities. Hence, the findings may not apply to entirety of the NSB nor financial sector of Sri Lanka, as there is vast disparity in technological advancement when

compare to Colombo city to other areas of the country.

Further, the usage of IB in Sri Lanka is showing exponential growth over the last few years, hence it may be too early to conclude in this regard. Thus, a longitudinal study could circumvent this problem and the extent how much the effect of the proposed factors could be stable or change over time.

Finally, this report doesn't consider the regulatory and security aspect of the IB which create a significant impact on customer perception. In terms of security, it is critical to recognize important issues provided by the proliferation of information and communication technologies, as well as new opportunities created by the consequent digital transformation. In terms of regulation, it will be useful to establish which government policies and public investments are required to bridge the different digital gaps and reap digital profits.

With the constraints stated above, various promising topics for future study remain to be investigated, some of which are as follows. This research might

be applied or replicated in other electronic banking services such as mobile banking, ATMs, telephone banking, and credit cards in the future. This would be useful in determining the model's external validity. Further, this study is about human behavior, which is subject to change as the time passed by. Also, this data collection in this study was carried out by using closed ended questions which may not be able to capture the full respond of the participant. Therefore, it will be beneficial to conduct longitudinal study to gain valuable inside into the behavioural intention of the online users.

This research conducted using the UTAUT model which is one of the technology acceptance models. Therefore, it will be interesting for future research to test and explore different constructs from other technology acceptance models to test in the Sri Lankan context. = Future study might also be undertaken to broaden the research model by including additional issues such as regulatory and security concerns. Finally, the sample size could be made greater by covering a substantial area of Sri Lanka will help to generalize the research findings.

APPENDIX

Table 1: Conceptualization of Internet Banking

Author and Year	Definition
Berger (2003)	“An alternative delivery channel through which banking services are performed.”
Liao, Shao, Wang & Chen (1999)	“The provision of operations such as opening an account, money transfer, finding out the bill details and paying off the bill”
Reis, Gulsecen & Bayrakdar (2011)	“Banking services which eliminate the obligation of having to go to the bank branch during the working hours of the bank and having to wait in the queue, which can be accessed from everywhere where internet is available, through which all operations can be carried out except physical money operations.”
Rahmath & Hema (2011)	“Internet banking acts as a kind of financial intermediation which makes transaction through the Internet.”
Gopalakrishnan, Wischnevsky & Damanpour (2003)	“Internet banking is defined as a bank that offers (web-based) transactional services.”
Bradley & Stewart (2002)	“Internet banking represents an electronic and remote distribution channel for delivering financial services on a virtual level.”

Table 2: Terms used in IT and Innovation Adoption Literature

Variable	Definition
Perceived system use	“The amount of use of an innovation by a person or organization. This is a self-report of the frequency of use by the individual or organization.”
Intent to use	“A person’s or organization’s intention to use or adopt an innovation in the future. This is usually measured using forward-looking statements that capture the intent of the person or organization.”
Adoption	“Whether a person or an organization is an adopter or a non-adopter of an innovation. This is usually measured as a binary variable based on self-assessment.”
Diffusion	“The extent to which a person or an organization exploits an innovation. This is usually measured as a percentage of available features used, possible sites adopted, or possible applications.”
Rate of adoption	“The diffusion curve over time. This is usually measured as the percentage of adopters in a population.”
Actual system use	“The amount of actual use of an innovation by an individual or organization. This is an objective measure typically obtained from logs.”

Time of adoption	“A person’s or organization’s time of adoption. This is typically measured by an absolute (such as “2017”) or relative (“two years ago”) year of adoption.”
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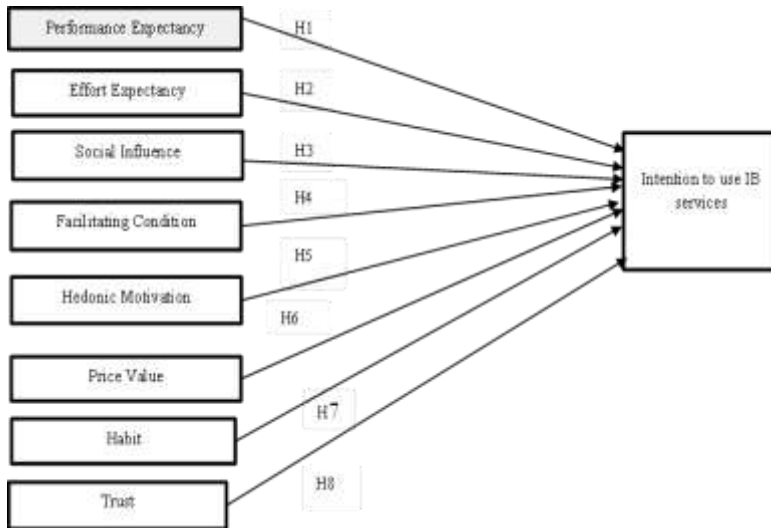


Figure 1: Research Model

Table 3: Operationalization of variables

Code	Item Description	Source
Performance Expectancy		
PE 1	I find Internet Banking useful in my daily financial activities.	Venkatesh et al. (2012)
PE 2	Using Internet Banking increase my chances of achieving financial freedom that are important to me.	
PE 3	Using Internet Banking helps me accomplish things more quickly.	
PE 4	Using Internet Banking increase my productivity.	
PE 5	Overall, I would find Internet Banking to be advantageous.	
Effort Expectancy		
EE 1	Learning how to use Internet Banking is easy for me.	Venkatesh et al. (2012)
EE 2	My interaction with Internet Banking is clear and understandable.	
EE 3	I find Internet Banking easy to use.	
EE 4	It is easy for me to become skilful at using Internet Banking.	
Social Influence		
SI 1	People who are important to me think that I should use Internet Banking.	Venkatesh et al. (2012)
SI 2	People who influence my behaviour think that I	

	should use Internet Banking.	
SI 3	People whose opinions that I value prefer that I use Internet Banking.	
Facilitating Condition		
FC 1	I have the resources necessary to use Internet Banking.	Venkatesh et al. (2012)
FC 2	I have the knowledge necessary to use Internet Banking.	
FC 3	Internet Banking is compatible with other technologies I use.	
FC 4	I can get help from others when I have difficulties using Internet Banking.	
Hedonic Motivation		
HM 1	Using Internet Banking is fun.	Venkatesh et al. (2012)
HM 2	Using Internet Banking is enjoyable.	
HM 3	Using Internet Banking is entertaining.	
HM 4	Using Internet Banking gives me pleasure.	Yang (2013)
Price Value		
PV 1	Internet Banking is Reasonably priced.	Venkatesh et al. (2012)
PV 2	Internet Banking is good value for the money.	
PV 3	At the current price, Internet Banking provides good value.	
Habit		
HT 1	The use of Internet Banking has become a habit for me.	Venkatesh et al. (2012)
HT 2	Using Internet Banking has become natural to me.	
HT 3	I am addicted to using Internet Banking.	
Trust		
TR 1	I believe that Internet Banking is trustworthy.	Gefen et al. (2003)
TR 2	I trust in Internet Banking.	
TR 3	I don't doubt the honesty of Internet Banking.	
TR 4	I feel assured that legal and technological structures adequately protect me from problems on Internet Banking.	
TR 5	Internet Banking has the ability to fulfil its task.	
Behavioural Intention		
BI 1	I intended to use Internet Banking in the future.	Venkatesh et al. (2012)
BI 2	I will always try to use Internet Banking to meet my daily financial needs.	
BI 3	I plan to use Internet Banking in the future.	
BI 4	I will recommend others to use internet Banking.	Akour (2010)

Table 4: Questionnaire Distribution and Response Rate

Name of the Branch	Population	Questionnaire distributed	Questionnaire returned	Response rate %
Head Office	4375	125	105	84.0
City	1985	55	37	67.3
City Plus	537	15	14	93.3

Borella	1876	50	37	74.0
Maligawatta	766	20	16	80.0
Wellawatta	1866	50	43	86.0
Bambalapitiya	1987	55	38	69.1
World Trade Centre	998	30	18	60.0
Pettah	769	20	9	45.0
Kotahena	675	20	13	65.0
Kollupitiya	255	10	8	80.0
Total	16089	450	338	75.1

Table 5: Demographic profile of the respondents

Variable	Frequency	Percent
Gender		
Female	129	47.4
Male	143	52.6
Age category		
20 Years or Less	11	4.0
21 to 30 years	116	42.6
31 to 40 years	100	36.8
41 years or above	45	16.5
Education Level		
G.C.E. O/L or below	8	2.9
G.C.E. A/L	80	29.4
Diploma	101	37.1
Degree or higher education	83	30.5
Experience with Internet Banking		
Less than 6 months	51	18.8
6-12 Months	47	17.3
1-2 Years	59	21.7
More than 2 Years	115	42.3
Preferred devise of use		
Smart Phone	188	69.1
PC/ Laptop – Office	36	13.2
P/C Laptop – Personal	48	17.6

Source: Survey Data, 2019

Table 6: Factor Analysis

Items	Factors								
	Performance Expectancy	Effort Expectancy	Social influence	Facilitating condition	Hedonic Motivation	Price Value	Habit	Trust	Intention to use
PE 1	.641								
PE 2	.676								
PE 3	.645								
PE 4	.722								
PE 5	.631								
EE 1		.682							
EE 2		.652							
EE 3		.751							
EE 4		.728							
EE 5		.614							
SI 1			.581						
SI 2			.651						
SI 3			.675						
FC 1				.654					
FC 2				.715					
FC 3				.674					
FC 4				.712					
HM 1					.781				
HM 2					.526				
HM 3					.658				
HM 4					.742				
PV 1						.642			
PV 2						.514			
PV 3						.582			
HT 1							.524		
HT 2							.641		
HT 3							.652		
TR 1								.687	
TR 2								.742	
TR 3								.651	
TR 4								.587	
TR 5								.492	
BI 1									.587
BI 2									.625
BI 3									.712
BI 4									.673

Source: Survey Data, 2019

Table 7: Reliability of the Measures

Variable	Cronbach's Alpha	No. of Items
Performance Expectancy	.665	5
Effort Expectancy	.759	4
Social Influence	.905	3
Facilitating Condition	.644	3
Hedonic Motivation	.703	4

Perceived Value	.767	3
Trust	.649	5
Behavioral Intention	.782	4

Source: Survey Data, 2019

Table 8: Correlations

	PE	EE	SI	FC	HM	PV	HB	BI
PE								
EE	.441**							
SI	.186**	.314**						
FC	.349**	.377**	.116					
HM	.494**	.563**	.498**	.224**				
PV	.381**	.295**	.123*	.229**	.287**			
HB	.539**	.263**	.090	.346**	.448**	.221**		
BI	.489**	.252**	.039	.359**	.357**	.342**	.590**	
TR	.374**	.451**	.302**	.309**	.393**	.291**	.287**	.335**

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 9: Coefficients

Variables	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.130	.304		3.717	.000
Performance Expectancy	.163	.071	.141	2.279	.023
Effort Expectancy	-.079	.065	-.075	-1.221	.223
Social Influence	.078	.037	.114	2.096	.037
Facilitating Condition	.138	.059	.124	2.354	.019
Hedonic Motivation	.089	.065	.094	1.368	.173
Perceived Value	.129	.044	.148	2.906	.004
Habit	.283	.042	.392	6.664	.000
Trust	.176	.080	.120	2.195	.029
Adjusted R2	.429				
ANOVA	F = 29.329, P= 0.000				

Source: Survey Data, 2019

REFERENCES

- Abbasi, S., Kamran, S., and Akhtar, C. (2017). Factors Affecting Customers' Adoption of Internet Banking in Pakistan, *Pakistan Administrative Review*, 1(2), 115-129.
- Aboobucker, I., and Bao, Y. (2018). What obstruct customer acceptance of internet banking? Security and privacy, risk, trust and website usability and the role of moderators, *The Journal of High Technology Management Research*, 29(1), 109-123.
- AbuShanab, E., and Pearson, J. M. (2007). Internet banking in Jordan: The unified theory of acceptance and use of technology (UTAUT) perspective, *Journal of Systems and Information Technology*, 9(1), 78-97.
- Ajzen, I. (1991). The theory of planned behaviour, *Organizational Behaviour and Human Decision Processes*, 50(2), 179-211.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*, Prentice-Hall.
- Alwan, H. A., and Al-Zu bi, A. I. (2016). Determinants of Internet Banking Adoption Among Customers of Commercial Banks; An Empirical Study in th Jordanian Bankin Sector, *International Journal of Business Management*, 11(3), 95-104.
- Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., and Algharabat, R. (2018). Examining factors influencing Jordanian customers' intentions and adoption of internet banking: Extending UTAUT2 with risk, *Journal of Retailing and Consumer Services*, 40, 125-138.
- Auer, R., and Böhme, R. (2020). The technology of retail central bank digital currency, *BIS Quarterly Review*.
- Baptista, G., and Oliveira, T. (2015). Understanding mobile banking: The unified theory of acceptance and use of technology combined with cultural moderators, *Computers in Human Behavior*, 50, 418-430.
- Berger, A. (2003). The Economic Effects of Technological Progress: Evidence from the Banking Industry, *Journal of Money, Credit and Banking*, 35(2), 141-176.
- Boateng, H., Dorson, T. A., Adam, D. R., and Okoe, A. F. (2016). Assessing the determinants of internet banking adoption

- intentions: A social cognitive theory perspective. *Computer in Human Behavior*, 65, 468-478.
- Bhuvana, R. (2020). Blockchain as a disruptive technology in healthcare and financial services-a review based analysis on current implementations, *International Journal of Applied Engineering and Management Letters*, 4(1), 142-155.
- Bradley, L., and Steward, K. (2002). A Delphi study of the drivers and inhibitors of Internet Banking, *International Journal of Bank Marketing*, 20(6), 250-260.
- Camilleri, S. J., and Grech, G. (2017). The relevance of age categories in explaining internet banking adoption rates and customers' attitudes towards the service. *Camilleri*, 29-47.
- Central Bank of Sri Lanka. (2018). Annual Report. Colombo.
- Chaouali, W., Yahia, I. B., and Souiden, N. (2016). The interplay of counter-conformity motivation, social influence, and trust in customers' intention to adopt Internet banking services: The case of an emerging country, *Journal of Retailing and Consumer Services*, 28, 209-218.
- Cudjoe, A. G., Anim, P. A., and Nyanyofio, J. G. (2015). Determinants of Mobile Banking Adoption in the Ghanaian Banking Industry: A Case of Access Bank Ghana Limited, *Journal of Computer and Communications*, 1-19.
- Curran, J. M., and Meuter, M. L. (2007). Encouraging Existing Customers to Switch to Self-Service Technologies: Put a Little Fun in their lives, *Journal of Marketing Theory and Practice*, 15(4), 283-298.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, *MIS Quarterly*, 13(3), 319-340.
- Davis, F. D., Bagozzi, P. R., and Warshaw, P. R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace, *Journal of Applied Social Psychology*, 22(14), 1111-1132.
- Del Gaudio, B. L., Porzio, C., Sampagnaro, G., and Verdoliva, V. (2021). How do mobile, internet and ICT diffusion affect the banking industry? An empirical analysis, *European Management Journal*, 39(3), 327-332.
- Foon, Y. S., and Fah, B. C. Y. (2011). Internet banking

- adoption in Kuala Lumpur: an application of UTAUT model, *International Journal of Business and Management*, 6(4), 161.
- Firdous, S., and Farooqi, R. (2017). Impact of internet banking service quality on customer satisfaction, *Journal of Internet Banking and Commerce*, 22(1).
- Gardner, B. (2015). A review and analysis of the use of 'habit' in understanding, predicting and influencing health-related behaviour, *Health psychology review*, 9(3), 277-295.
- Gefen, D., Karahanna, E., and Straub, D. W. (2003). Trust and TAM in Online Shopping: An Integrated Model, *MIS Quarterly*, 27(1), 51-90.
- Gopalakrishnan, S., Wischnevsky, J. D., & Damanpour, F. (2003). A multilevel analysis of factors influencing the adoption of internet banking, *IEEE Transactions on Engineering Management*, 50(4), 413-426.
- Grimm, M., Harttgen, K., Klasen, S., and Misselhorn, M. (2010). Inequality in Human Development: An Empirical Assessment of 32 Countries, *Social Indicator Research*, 97(2), 191-211.
- Hamadi, C. (2010). The Impact of Quality of Online Banking on Customer Commitment. *CIBIMA*.
- Jeyaraj, A., Rottman, J. W., and Lacity, M. C. (2006). A review of the predictors, linkages, and biases in IT innovation adoption research, *Journal of Information Technology*, 21(1), 1-23.
- Kariyawasam, N. J., and Jayasiri, N. K. (2016). Awareness and usage of internet banking facilities in Sri Lanka, *International Journal of Scientific and Innovative Technology*, 6(6), 173-190.
- Hutchinson, D., and Warren, M. (2003). Security for internet banking: a framework, *Logistics information management*, 16(1), 64-73.
- Khater, A. H. O. (2016). Customers' Acceptance of Internet Banking Service in Sudan by Using Unified Theory of Acceptance and Use of Technology (UTAUT) model, *Doctoral dissertation, Sudan University of Science and Technology*.
- Kuisma, T., Laukkanen, T., and Hiltunen, M. (2007). Mapping the reasons for resistance to Internet Banking; a means-end approach, *International Journal of Information*

- Management*, 27(2), 75-85.
- Lee, M. C. (2009). Factors influencing the adoption of internet banking: an integration of TAM and TPB with perceived risk and perceived benefit, *Electronic Commerce Research and Application*, 8(3), 130-141.
- Liao, S., Shao, Y. P., Wang, H., and Chen, A. (1999). The adoption of virtual banking: an empirical study, *International Journal of Information Management*, 63-74.
- Malhotra, P., and Singh, B. (2007). Determinants of internet banking adoption by banks in India, *Internet Research*.
- Mamode, N., Emmambokus, N., and Khan, N. A. (2011). Customer Adoption of Internet Banking in Mauritius. *Global Business and Management Research: An International Journal*, 2(2).
- Martins, C., Oliveira, T., & Popovic, A. (2014). Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application, *International Journal of Information Management*, 34, 1-13.
- Nayanajith, G., Damunupola, K. A., and Ventayen, R. J. M. (2019). Website Usability, Perceived Usefulness and Adoption of Internet Banking Services in the Context of Sri Lankan Financial Sector, *Asian Journal of Business and Technology Studies*, 2(1), 28-38.
- Nasri, W. (2011). Factors influencing the adoption of internet banking in Tunisia, *International Journal of Information Management*, 6(8), 143-160.
- Nor, K. M., and Pearson, J. M. (2015). The influence of trust on internet banking acceptance, *The Journal of Internet Banking and Commerce*, 2007.
- Polasik, M., and Wisniewski, T. P. (2009). Empirical analysis of internet banking adoption in Poland, *International Journal of bank marketing*.
- Popkova, E. (2014). New Prospects of Economic Growth in Context of Underdevelopment Whirlpools Phenomena, *Applied Econometrics and International Development* 14(1), 5-25.
- Premarathne, W., and Gunathilake, M. M. (2016). Consumer Adoption of Internet Banking in Sri Lanka, *International Journal of Advanced Research*, 4(11), 758-765.

- Priyangika, R. D., Perera, M. S., and Rajapakshe, D. (2017). An Emperical Investigation on Customer Attitude and Intention Towards Internet Banking: A Case of Licensed Commerical banks in Colombo District, Sri Lanka, *13th International Conference on Business Management (ICBM) 2016*. Colombo: University of Sri Jayawardenapura.
- Rahi, S., and Abd. Ghani, M. (2019). Investigating the role of UTAUT and e-service quality in internet banking adoption setting, *The TQM Journal*, 31(3), 491-506.
- Rahi, S., Ghani, M., Alnaser, F., and Ngah, A. (2018). Investigating the role of unified theory of acceptance and use of technology (UTAUT) in internet banking adoption context, *Management Science Letters*, 8(3), 173-186.
- Rahmath, S., and Hema, D. (2011). Internet Banking adoption in an emerging economy: *International Arab journal of e. Technology*, 2(1), 250-289.
- Reis, Z. A., Gulsecen, S., and Bayrakdar, B. (2011). To develop an educaion system for secure internet banking: GIBES. *Procedia Computer Science*, 3, 1333-1340.
- Rogers, E. M. (1985). The diffusion of home computers among households in Silicon Valley, *Marriage & Family Review*, 8(1-2), 89-101.
- Roy, S. K., Kesharwani, A., and Bisht, S. S. (2012). The impact of trust and perceived risk on internet banking adoption in India, *International Journal of Bank Marketing*.
- Roy, S. K., Balaji, M. S., Kesharwani, A., and Sekhon, H. (2017). Predicting Internet banking adoption in India: A perceived risk perspective, *Journal of Strategic Marketing*, 25(5-6), 418-438.
- Safeena, R., Date, H., and Kammani, A. (2011). Internet Banking Adoption in an Emerging Economy: Indian Consumer's Perspective, *International Arab Journal of e- Techonology*, 2(1), 56-75.
- Samarasinghe, R. (2012). The Influence of Cultural Values and Environmental Attitudes on Green Consumer Behaviour, *International Journal of Behavioural Science*, 7(1), 83-98.
- Sethi, P., Chakrabarti, D., and Bhattacharjee, S. (2020). Globalization, financial development and

- economic growth: Perils on the environmental sustainability of an emerging economy, *Journal of Policy Modeling*, 42(3), 520-535.
- Singhal, D., and Padhmanabhan, V. (2008). A Study on Customer Perception Towards Internet Banking: Identifying Major Contributing Factors, *The Journal of Nepalese Business Studies*, 1, 101-111.
- Taylor, S., and Todd, P. (1995). Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International Journal of Research in Marketing*, 12(2), 137-155.
- Venkatesh, V., and Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies, *Management Science*, 46(2), 186-204.
- Venkatesh, V., Morris, M. G., Davis, G. B., and Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View, *MIS Quarterly*, 27(3), 425-478.
- Venkatesh, V., Thong, J. Y., and Xin, X. (2012). Consumer Acceptance and Use of Information Technology: Extending The Unifined Theory of Acceptance and Use of Technology, *MIS Quarterly*, 36, 157-178.
- Wang, Y. S., Wang, Y. M., Lin, H. H., and Tang, T. I. (2003). Determinants of user acceptance of Internet banking: an empirical study, *International journal of service industry management*, 14(5), 501-519.
- Weir, C. S., Douglas, G., Carruthers, M., and Jack, M. (2009). User perceptions of Security, Convenience and usability for ebanking authentication tokens. *Computer & Security*, 28(2), 47-62.
- Yaseen, S. G., and El Qirem, I. A. (2018). Intention to use e-banking services in the Jordanian commercial banks, *International Journal of Bank Marketing*.
- Yuan, S., Liu, Y., Yao, T., and Liu, J. (2014). An investigation of users' continuance intention towards mobile banking in China, *SAGE Journal*.
- Zahir, M., and Gharleghi, B. (2015). Adoption of internet banking in Maldives, the most important determinants. *Asian Social Science*, 11(2), 181-189.

- Zhou, T., Lu, Y., and Wang, B. (2010). Integrating TTF and UTAUT to explain mobile banking user adoption, *Computers in human behavior*, 26(4), 760-767.
- Zikmund, W., Babin, B., Carr, J., & Griffin, M. (2010). *Business research methods (8th ed.)*: South Western, Cengage Learning.

Spirituality: An Antecedent for Emotional intelligence, Employee Satisfaction, Commitment and Performance

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Abstract

The purpose of this study was to ascertain the independent variable, spirituality's, effect on emotional intelligence, job satisfaction, and employee commitment and performance. Teachers' data were gathered, and a questionnaire was issued to 500 responders, of whom 389 (77.8%) were found to be operational. By merging scales from prior empirical studies, a standard instrument was constructed. The results of the CFA were utilized to validate the structural model framework and study hypotheses. The concepts of spirituality, emotional intelligence, and professional fulfilment are all inextricably linked. Satisfaction with one's employment has a direct and beneficial effect on performance. Additional research has established a connection between dedication and performance. This exemplifies the inextricable connection between employee commitment and performance. Spirituality, the researchers discovered, is not just advantageous to the community or society as a whole; it may also act as a catalyst for organizational success.

Keywords-: Spirituality, emotional intelligence, job satisfaction, employee commitment and employee performance

1. INTRODUCTION

Vagaries in modern industries are compelling obligatory alterations in management philosophies and viewpoints, which was an

aftermath of incomparable and instantaneous modifications sweeping across the globe. Management theorists have suggested that such organizational

amendments happening because of the modifications in the external environment which can be managed internally. Spirituality improves individual and organizational focus (Giacalone and Jurkiewicz, 2003a, 2003b). The literature related to spirituality is scarce, even though, the subject is studied enormously, (Rocha and Pinheiro, 2020; Karakas, 2010). The conceptual nature of the available literature does not satisfy the ability to handle the complexity of the discipline. Pawar, (2017); Molloy and Foust, (2016) and Brown, (2003) observed that, in the workplace context, the arena is still in the preliminary stage of growth. Karakas, (2010) and Pawar, (2017), highlighted that the literature lacks knowledge. Literature discloses that spirituality influence morale (Leigh, 1997). Krishnakumar (2002) explains that spirituality increases uprightness and faith, which enable the employees to perform the job in a better way. Milliman, (1999) discourses that spirituality provides positivity to teams, enhances their degree of devotion, and crafts superior outcomes. Giacalone (2003) projected that spirituality, job satisfaction and commitment are critical factors for future organisational life.

Organizations value commitment and performance, the most, in order to retain leadership in the market.

Contemporary organizations keep people who can sweat for the advantage of the organization in addition to their

duties and responsibilities. This necessitates companies to detect the issues and forces that can absolutely impact commitment and performance among employees. Previous investigates have substantiated various factors and forces which can positively influence employee commitment and performance and established that job satisfaction is one of the factors. Copious studies have been carried out to institute association between the concepts like spirituality and job satisfaction (Gupta 2013), employee satisfaction and employee commitment, (Gartner 1999), job satisfaction and employee performance (Schwab 1970), employee commitment and employee performance (Ali 2010). Numerous explorations have emphasized the contribution of spirituality. Spirituality increased creativity (Freshman, 1999), improved goodness (Wanger, 1999), evolved people (Burak, 1999), inserting commitment among personnel (Delbecq, 1999). Better commitment, enhanced performance, intensified profitability and deepened organizational effectiveness are the direct or the indirect result of all these factors.

No studies have taken place till to date to institute the connexion between all these constructs namely spirituality, emotional intelligence, satisfaction, commitment and performance of employees. This necessitates the obligation of conducting research to decrypt the associations among the various components and their

relative implication in resulting overall employee performance. Under this scenario, the purpose of the study is to reconnoitre the sway of spirituality on emotional intelligence, employee satisfaction, and employee commitment and employee performance.

1.1 Literature Review and Hypotheses Formulation

1.1.1 Spirituality and Emotional Intelligence

The term spirituality exists since the abstraction of humans. Spirituality is a major organizational issue for investigation across the world (Giacalone and Jurkiewicz, 2003a, 2003b; Nosheen et al., 2020). Spirituality supports emotions like selfless love, fretfulness, benevolence, meaning, conception, inner satisfaction and gratification (Chopra, 2002). McCormick (1994) defines spirituality as “one’s behaviour being substantiated through an internal experience an individual has.” Dehler (1994) points out that spirituality inspires others based on inner origins of a person. McLaughlin (2009) discoursed that spirituality at business enhances human values like sincerity, reliability and determination. Neck (1994) sketched that spirituality enables an individual to identify various steps to find significance and tenacity of life. Spirituality involves an exhaustive devotion to standard norms (Marschke,

2008). Mitroff (1999) highlighted that spirituality supports to initiate a sturdy association to co-workers and fellow mates. Spirituality impacts positively to participation at job and fulfilment at the occupation (Kolodinsky, 2008). Saks, (2006) in the same way opined that job satisfaction is an outcome of spirituality. (Mitroff, 1999) identified a favourable association between spirituality and job satisfaction. Lazar, (2010) also echoed a straight affiliation between spirituality and job satisfaction. Another observation is that spirituality transforms institutions into evocative and survivable entity (Jurkiewicz and Giacalone, 2016; Kolodinsky and Ritchie, 2016; Acharya and Mishra, 2016). Ayranci (2010) establish some associations were existent among the factors of spiritual and emotional intelligences. Riaz and Akram (2012) established a positive relationship between emotional intelligence and spiritual wellness. Kulshrestha and Singhal (2017) conducted research and established that spirituality can help organizations perform more effectively. Sudarsih et al. (2018) examined the impact of spiritual intelligence and emotional intelligence on employee productivity and discovered a significant and optimistic outcome. Masitoh and Sudarma (2019) established that an affirmative relationship exists among spiritual intelligence, emotional intelligence, job satisfaction and performance of the employees. Haryono et al.

(2018) established an association amid spirituality and emotional intelligence in temporary nurses. Sabanciogullari et al. (2020) also discovered that the relationship between spirituality and emotional intelligence is statistically significant.

Hypothesis One: There is a significant positive relationship between spirituality and emotional intelligence

1.1.2 Emotional Intelligence and Job Satisfaction

Emotional intelligence is the capacity to observe feelings and sentiments of self and others (Salovey & Mayer 1989). Individuals who are emotionally intelligent demonstrate self-control. Individuals who possess a high level of emotional intelligence demonstrate pro-social behavior (Goleman 1995). Individuals with a higher thought process will not be swayed by adversity. They are easily empathic toward others and can instill hope in a hopeless situation (Goleman 1998). Goleman (1998) argues that superior performers possess a higher level of emotional intelligence. Employees who are emotionally intelligent have a significant impact on workplace productivity (Lawet al.,2004; Jacques,2009). Additionally, Kim et al. (2009) asserted that emotionally intelligent individuals increase their productivity. Researchers have discovered contradictory findings regarding job satisfaction and emotional

intelligence. Kafetsios & Loumakou,(2003) voiced that emotional intelligence and job satisfaction have a weak relationship. Carmeli, 2003 (2007) also echoed the same opinion. Vacola, Tsaousis, and Nikolaou (2003) discovered that emotional intelligence and job satisfaction have a moderate association. According to Sy et al. (2006), job satisfaction and emotional intelligence are absolutely associated. Cobb (2004); Mousavi (2012) stated that these two variables are inextricably linked. Ealias and George (2012) examined the relationship between job satisfaction and emotional intelligence among employees of an international electronic company based in India and discovered that both constructs are highly correlated. Ouyang et al. (2015) conducted a study among employees of a large-scale information technology company in China and concluded that job satisfaction can significantly be influenced by emotional intelligence. Additionally, Vratskikh et al. (2016) establish a link between emotional intelligence and job satisfaction. The study indicated that job satisfaction can be influenced by emotional intelligence.

Hypothesis Two: There is a significant positive relationship between emotional intelligence and job satisfaction

1.1.3 Job Satisfaction and Employee Commitment

Job satisfaction encompasses a variety of factors relating to an employee's intellectual reactions to one's job (Balzer, 1997). According to Fisher (2000), job satisfaction is an emotion. Camp (1994) corroborated a similar observation. According to Tewksbury (2006), satisfaction of a job is the degree to which a worker adores the job. Job satisfaction is the accomplishment of a set of desires associated with one's own occupation (Lambert, 1999). Ostroff (1992) believes that satisfaction of a job is a necessary factor for the success of any organization. According to Kovach (1997), satisfaction of a job is a significant factor in the commitment of an employee. Employee satisfaction at work serves as a barometer of employee commitment (Porter, 1974). Mohamed (2012) established a link between satisfaction, trust, and commitment. According to Eslami (2012), satisfaction of a work has an affirmative and considerable effect on commitment of the employees. Meyer (2002) admonishes that employee satisfaction is a necessary condition for employee commitment. Job satisfaction is a critical component of employee commitment (Jaramilloa, 2005). Employee commitment is critical because it benefits businesses in a variety of ways. According to Hall (1970), commitment occurs when the goals of individuals and

institutions align. Commitment is a psychological state in which an employee feels devotion to the business entity. The association between workers and the business, as well as the implications for the employee's decision to continue in the organization is classified by a psychosomatic state referred to as commitment (Meyer, 1997). Tarigan and Ariani (2015) examined the relationship between job satisfaction, organizational commitment, and intention to leave at a manufacturing company in Yogyakarta and Surakarta, Indonesia, using a sample of 206 employees. They discovered that the variables are related. Atmojo (2015) conducted a study among Indonesia's state-owned plantation enterprises and discovered that satisfaction has a positive impact on the performance and commitment of employees. After conducting a study among 566 employees in eight companies in Serbia, South-Eastern Europe, Ulibrk et al. (2018) established that satisfaction and commitment are positively related. Larkin (2015) conducted a pilot study to identify the satisfaction level among K-12 online teachers and to identify factors associated with job satisfaction or dissatisfaction. The researcher discovered a direct relation between satisfaction and commitments. Agarwal and Sajid (2017) compared managers' job satisfaction, organizational commitment, and intention to leave in India's public and private sectors. The result point out that satisfaction is a strong predictor of all types of commitment

(affective, continuance and normative) As a result, these two variables can be considered to be highly related.

Hypothesis Three: There is a significant positive relationship between job satisfaction and employee commitment.

1.1.4 Job Satisfaction and Employee Performance

Performance of an employee is the effective and efficient use of resources to accomplish tasks successfully by person or a cluster of persons, as measured against established principles. Imagination, novelty, and obligation, are different indicators of performance. These factors are all intrinsically linked to an organization's success. Organizations must ensure superior employee performance (Ramlall, 2008). A higher standard of living, increased pay, and increased accessibility of resources are all characteristics of a stabilized economy. The objective to attain a stabilized economy can be achieved only through increased output (Griffin et al., 1981). Performance of an employee is influenced by a variety of factors, including the quality, quantity, timeliness, attendance, efficiency, and effectiveness of work (Mathis, 2009). Enhancing employee performance is a critical component of an enterprise's success. Employee performance is a metric used to assess an

organization's human resource excellence. Job satisfaction is one factor that can affect employee performance. Inuwa (2016) investigated the relationship between satisfaction and performance of non-teaching personnel at Bauchi State University Gadau, Nigeria (BASUG). The analysis demonstrates a direct and significant relationship between satisfaction and performance. Ramli (2019) discovered that satisfaction has a positive effect on the performance of PT.ABC workforce in Jakarta's Rumah Sakit Swasta. Satisfaction has an effect on the performance of Makassar Government Region employees (Berliana et al. 2018). Badrianto (2020) investigated the effect of work setting and satisfaction on performance at PT. Neginak Industries and discovered that satisfaction of one's job has a significant bearing on performance of the employees .

Hypothesis Four: Job satisfaction has a positive effect on employee performance.

1.1.5 Employee commitment and Employee Performance

Stanley and Meyer (2016) conducted a study examining the affiliation between commitment and performance using the three-component model (TCM) of commitment and concluded that there is a significant relationship between commitment of employees and their performance.

Mathew et al. (2018) also discovered an affirmative connection between the variables commitment and performance. The relationship between employee engagement and team performance was significantly influenced by organizational commitment (Uddin et al. 2019). Bandula & Jayatilake (2016) explored the influence of commitment on the performance of employees in a leasing company in Sri Lanka and concluded that commitment has a positive impact on the performance of job and that there exists a strong correlation between commitment and performance. Nkosi (2015) also examined the connection between commitment of employees and their performance on job in a local Municipality in South Africa's Mpumalanga Province, and also concluded with a positive result.

Hypothesis Five: Employee commitment is positively related to employee performance.

Numerous studies have been carried out to explore the affiliation between satisfaction and performance. Spirituality has an effect on the performance of organizations (Duchon and Plowman, 2005) Employees who perceive more connotation in their work report higher level of satisfaction (Wrzesniewski, 2003). Given the association between satisfaction on job and performance, spirituality and performance are also inextricably

linked (Duchon and Plowman, 2005). Rego et al. (2007) observe a positive connection between spirituality and individual performance. Spirituality can help build stronger organizations (Burke, 2006). Spirituality has a beneficial consequence on productivity (Duchon and Plowman, 2005). Spirituality results in motivation and fulfilment, which in turn results in commitment and performance (Fry, 2011). The performance of an employee is the reward for the corporation, and it is from this source of satisfaction that the employees derive their satisfaction (Skibba, 2002). Mathew et al. (2019) demonstrated that religiosity and spirituality can positively influence on satisfaction, commitment, and performance. On the basis of these hypotheses, the following research framework has been proposed:

Fig. 1: Proposed Framework

2. METHODS

2.1 Data Collection

The current study gathered data from teachers teaching in six distinct streams throughout Kerala, an Indian state. These educators work in public and private schools, colleges, and universities. The study used a convenience sampling technique to ensure that the population was accurately represented.

The questionnaire was distributed to teachers at pre-selected campuses. Data were gathered

from 500 teachers (approximately 83 samples from each category). 77.8 per cent of these instruments were discovered to be in use.

Survey Instrument

A survey was conducted to evaluate the research model. An instrument was developed, to operationalize the survey, using scales from previously published empirical studies. Later, an extensive literature review was conducted and identified four constructs. These constructs were assessed using validated reflective scales derived from previous research. Table 1 summarizes the variables and their associated research.

Table 1: Measurement Items

With the instrument, a pilot study was conducted among a sample of 50 respondents and survey was confirmed for further studies.

2.2 Analysis

Structural Equation Modelling (SEM) was adopted to carry out data analysis. The collected data were analysed with AMOS 22.0 software. A two-step approach was followed to estimate the measurement model with respect to convergent and discriminant validities and followed by testing the structural model framework and research hypotheses.

3. RESULTS

The Fornell (1981) criterion was used to quantify the degree of shared variants between the model's latent variables. The

convergent validity of the measurement model can be projected by measuring Average Variance Extracted (AVE) and Composite Reliability (CR). For AVE, values greater than 0.5 are acceptable; for CR, values greater than 0.7 are acceptable. The reported values for all variables in the study were found to be acceptable.

Table 2: Constructs with Average Variance and Composite Reliability

The statistics were analysed using path analysis using the AMOS 22.0 software. Hair (2006) proposed a two-step procedure for data analysis. In keeping with this proposal, this research utilized a two-step approach as well. Numerous statistical measures were used to assess the fit of the data to the proposed model via path analysis. The chi square minimum to degree of freedom ratio (CMIN/DF) was 4.84, which meets the criteria for moderate fit (Hair, 2006). The value indicates that the data and model are reasonably well fitted. Other indices such as GFI (goodness-of-fit index), CFI (comparative fit index), and RMSEA (root mean square error of approximation) should be greater than 0.9 and less than 0.05, respectively (Hair, 2006). These indices reflect the model's ability to fit the data (CMIN/DF = 4.84, GFI = 0.990, CFI = 0.981, RMSEA = 0.10). (Refer Table 3). As a result, the conjectured model illustrating the

relationship between the hypothesis's variables was found to be fit for further analysis.

Table 3: Model Fit Statistics

Table 4 contains information about the path coefficients. The relationship between spirituality and job satisfaction was found to be significant, implying acceptance of the hypothesis ($p < 0.05$). At various stages, the path analysis examined the relationship between job satisfaction and other constructs, including employee commitment and performance. According to the study, job satisfaction is inextricably linked to employee commitment and performance. Due to the similarity in the strength of the relationships (std beta.129,.122), the relationship was identified as significant. The final dependent variables were considered to be employee commitment and performance. Additionally, the relationship between these two variables was examined and found to be positive.

Table 4: Hypothesis Testing

4. DISCUSSION

The study focused on determining the effect of the independent variable, spirituality, on emotional intelligence, job satisfaction, employee commitment, and employee performance. Additionally, this research examined the relationship between the other two constructs, employee commitment and employee performance. The study's findings unequivocally endorsed the hypothesized structure.

This study establishes a link between spirituality, emotional intelligence, and job satisfaction. The study's findings corroborate previous research on the relationship between spirituality and job satisfaction. The majority of previous research has established a link between spirituality and happiness. In their respective studies, (Mitroff I. I., 1999; Chawla, 2010) also observed a significant relationship between spirituality and job satisfaction. In contrast, (Aydin, 2009; Polley, 2005; Robertson, 2008; Smalls, 2011) expressed disagreement with these annotations.

Spirituality is a factor that can have a significant impact on emotional intelligence, as well as job satisfaction, employee commitment, and employee performance, as demonstrated in this study. The study's findings corroborate the observation that employee satisfaction has a direct effect on employee commitment. This observation is consistent with the findings of (Feinstein, 2001; Jernigan, 2002; Maxwell, 2003), which contradict the findings of (Kalleberg, 2001; Norizan, 2012; Nunn, 2000) that job satisfaction and commitment have a low correlation.

Additionally, this study established a positive and direct relationship between job satisfaction and employee performance. This is consistent with previous studies such as (Judge, 2001; Harrison, 2006; Iaffaldano, 1985; Schleicher, 2004;). Refusing to

accept these interpretations (Daily, 2000; Keaveney, 1993; Mohr, 2007; Siegel, 1971;), establishes a tangential relationship between job satisfaction and performance. This research bolsters the findings of numerous studies (Caldwell, 1990; Hackett, 1994; Khan M.R., 2010; Meyer J. P., 1989) by establishing an unequivocal link between employee commitment and performance. Additionally, there are studies that demonstrate a disconnect between commitment and performance (Mathieu J. a., 1990; Mowday R., 1982).

On the basis of the findings, it can be emphasized that spirituality is not only beneficial to the community or society as a whole, but can also aid in organizational performance. Ford Motor Company, Hewlett-Packard, Du Pont, AT&T, the World Bank, and Apple have all implemented strategies to incorporate spirituality-related programs into their organizations (Petchsawang and Duchon, 2012). As a result of this, administrators should take steps to increase the level of spiritual activities in their institutions. As a result, personnel, selection, evaluation, and remuneration systems must be overhauled. Bureaucrats can contribute to the evolution of spirituality on a variety of levels, including individual, group, and organizational. By giving adequate consideration to all of these constructs, organizations can benefit from their endeavour to excel.

5. CONCLUSION

The findings of this study have implications for both theory and practice. These outcomes benefit both professionals and researchers. This study's significant and noteworthy conceptual output is that it extends the hypothetical confirmation of a relationship between a set of variables that can affect workforce performance. The findings of this study substantiate the notion that spirituality can influence emotional intelligence, job satisfaction, employee commitment, and performance. This study identifies numerous opportunities to boost employee performance. Improved business performance will have a positive effect on the economy. Thus, it is up to organizations to identify strategies and tactics for evangelizing positive practices that will increase commitment and, ultimately, performance, which will benefit society.

Additionally, this study has a few limitations. One significant limitation is that the data collected for this article are subjective in nature. Additionally, this study is limited to a single environment. The study is adaptable to a variety of economic environments, nationalities, and industrial contexts. Additional research is required to validate the variables suggested in this study and to develop a comprehensive structure by diagnosing all significant variables that affect an employee's performance.

APPENDIX

Table 1: Measurement Items

Construct	Studies	Number of Items	Measurement Scale
Spirituality	(Underwood, 2002)	13	6 PointLikirt scale
Emotional Intelligence	(Goleman, 1998)	12	5 PointLikirt scale
Job Satisfaction	(MacDonald, 1997)	10	5 PointLikirt scale
Employee Commitment	(Meyer J. P., 1991)	19	7 PointLikirt scale
Employee Performance	(Goodman, 1999)	15	4 PointLikirt scale

Table 2: Constructs with Average Variance and Composite Reliability

Construct	AVE	CR	Cronbach alpha
Spirituality	.596	.951	0.943
Emotional Intelligence	.579	.974	0.927
Job Satisfaction	.595	.936	0.924
Performance	.501	.918	0.905
Commitment	.536	.911	0.844

Table 3: Model Fit Statistics

MEASURES	THRESHOLD VALUES	OBSERVED VALUES
CMIN/DF	<3 Ideal	3.14
CFI	> 0.95	.981
GFI	> 0.95	.981
AGFI	>0.80	.927
RMSEA	< 0.05 good, 0.05 to 0.10 Moderate	.10
P CLOSE	> 0.05	.070

Table 4: Hypothesis Testing

IV	DV	Estimate	β	C.R.	P value	Decision	Type
Spirituality	Emotional Intelligence	.263	.452	9.005	.0000	Accepted	Hypothesised
Emotional Intelligence	Job Satisfaction	.246	.412	9.000	.0000	Accepted	Hypothesised
Job Satisfaction	Employee Commitment	.219	.122	2.460	.014	Accepted	Hypothesised
Employee Commitment	Employee Performance	.187	.294	7.234	.0000	Accepted	Hypothesised
Job Satisfaction	Employee Performance	.148	.129	3.236	.001	Accepted	Hypothesised

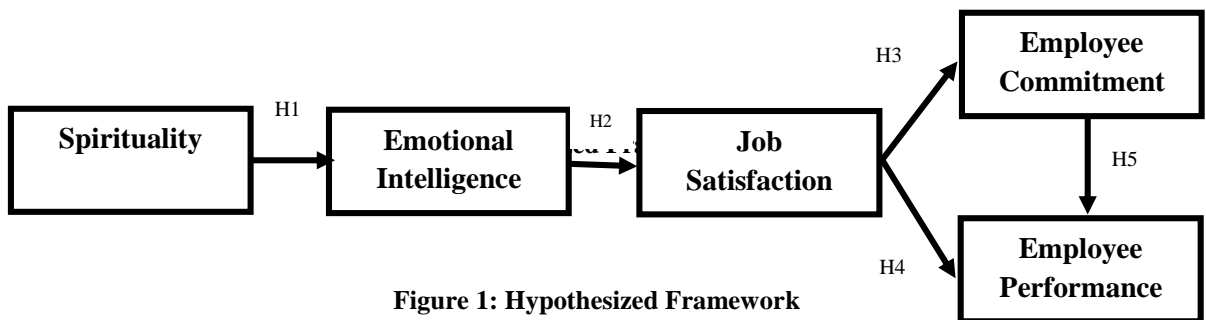


Figure 1: Hypothesized Framework

REFERENCES

- Acharya, A. and Mishra, B. (2016), "Exploring the relationship between workplace spirituality and knowledge retention in India", Paper presented at Academy of Management Conference, Anaheim, CA
- Agarwal, P., & Sajid, S. M. (2017). A study of job satisfaction, organizational commitment and turnover intention among public and private sector employees. *Journal of Management Research*, 17(3), 123-136.
- Ali I., R. K. (2010). Corporate Social Responsibility Influences, Employee Commitment and Organizational Performance. *African Journal of Business Management*, 2796-2801.
- Atmojo, M. (2015). The influence of transformational leadership on job satisfaction, organizational commitment, and employee performance. *International research journal of business studies*, 5(2).
- Aydin, B. (2009). A research analysis on employee satisfaction in terms of organizational culture and spiritual leadership. *International Journal of Business and Management*, 4(3), pp 159–168. .
- Badrianto, Y., & Ekhsan, M. (2020). Effect of work environment and job satisfaction on employee performance in pt. Nesinak industries. *Journal of Business, Management, & Accounting*, 2(1).
- Bandula, P. M. K. U., & Jayatilake, K. (2016). Impact of employee commitment on job performance: Based on leasing companies in Sri Lanka. *International Journal of Arts and Commerce*, 5(8), 8-22.
- Berliana, M., Siregar, N., & Gustian, H. D. (2018). The Model of Job Satisfaction and Employee Performance. *International Review of Management and Marketing*, 8(6), 41.
- Brown, R.B. (2003), "Organizational spirituality: the sceptic's version", *Organization*, Vol.10No. 2, pp. 393-400.
- Burak, E. H. (1999). Spirituality in the workplace. *Journal of Organizational Change Management*, 12,280–291.
- Burke, R. (2006), "Leadership and spirituality", *Foresight*, Vol. 8 No. 6, pp. 14-25.
- Caldwell, D. F. (1990). Building Organizational Commitment: A Multifirm Study. *Journal of*

- Occupational Psychology*, 63 (3), 245–261.
- Camp, S. D. (1994). Assessing the Effects of Organizational Commitment and Job Satisfaction on Turnover: An Event History Approach. *The Prison Journal*, 74 (3), pp. 279–305.
- Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behavior and outcomes: An examination among senior managers. *Journal of Managerial Psychology*.
- Chawla, V. &. (2010). Individual spirituality at work and its relationship with job satisfaction, propensity to leave and job commitment: An exploratory study among sales professionals. *Journal of Human Values*, 16, 157–167.
- Chen, J. S. (2006). Organization communication, job stress, organizational commitment, and job performance of accounting professionals in Taiwan and America. *Leadership & Organization Development Journal*, 27(4), 242–49.
- Chopra, D. (2002). The soul of leadership. *School Administrator*, 59(8).
- Clarke, G. (2006). Faith Matters: Faith-based organisations, civil society and international development. *Journal of International Development*, 18 (2006): 835-848.
- Cotton, J. &. (1986). Employee turnover: A meta-analysis and review with implications for research. *Academy of Management Review*, 11, 55–70.
- Ćulibrk, J., Delić, M., Mitrović, S., & Ćulibrk, D. (2018). Job satisfaction, organizational commitment and job involvement: The mediating role of job involvement. *Frontiers in psychology*, 9, 132.
- Daily, C. M. (2000). CEO satisfaction and firm performance in family firms: Divergence between theory and practice. *Social Indicators Research*, 51, 125–170.
- Dehler, G. &. (1994). Spirituality and organizational transformation: Implications for the new management paradigm. *Journal of Managerial Psychology*, 19(6): 17–26.
- Delbecq, L. (1999). Christian spirituality and contemporary business leadership.
- Dordevic., B. (2004). Employee Commitment in Times of Radical Organisational Changes. *Economics and Organisation*, 2, 2, 111-117.

- Duchon, D. and Plowman, D.A. (2005), "Nurturing the spirit at work: impact on work unit performance", *The Leadership Quarterly*, Vol. 16 No. 5, pp. 807-833.
- Ealias, A., & George, J. (2012). Emotional intelligence and job satisfaction: a correlational study. *Research journal of commerce and behavioral science*, 1(4).
- Eslami, J. a. (2012). Organizational Commitment and Job Satisfaction. *ARPJ Journal of Science and Technology*, 2, 85-91.
- Feinstein, A. a. (2001). A study of relationship between job satisfaction and organizational commitment among restaurant employees. *Journal of Hospitality, Tourism and Leisure Scienc*, p.6.
- Fisher, C. D. (2000). Mood and emotions while working: missing pieces of job satisfaction? *J. Organiz. Behav*, 21: 185–202.
- Fornell, C. L. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39-50.
- Freshman, B. (1999). An exploratory analysis of definitions and applications of spirituality in the workplace. *Journal of organizational change management*.
- Fry, L.W., Hannah, S.T., Noel, M. and Walumbwa, F.O. (2011), "Impact of spiritual leadership on unit performance", *The Leadership Quarterly*, Vol. 22, pp. 259-270.
- Gaertner, S. (1999). Structural determinants of job satisfaction and organizational commitment in turnover models. *Human Resource Management Review*, Vol. 9 No. 4, pp. 479-93.
- Giacalone, R.A. (2003). Right from wrong: The influence of spirituality on perceptions of unethical business activities. *Journal of Business Ethics*, 46, 85–97.
- Giacalone, R.A. and Jurkiewicz, C.L. (2003b), "Toward a science of workplace spirituality", In Giacalone, R.A. and Jurkiewicz, C.L. (Eds), *Handbook of Workplace Spirituality and Organizational Performance*, M.E Sharpe, Armonk, pp. 3-28
- Goodman, S. A. (1999). Person-organization fit and contextual performance: Do shared values matter. *Journal of Vocational Behavior*, 55(2), 254-275.

- Griffin et al., I. J. (1981). Expression of myeloid differentiation antigens on normal and malignant myeloid cells. *J. Clin. Invest.*, 68 (1981), pp. 932-941.
- Gupta, M. K. (2013). Creating satisfied employees through workplace spirituality: A study of the private insurance sector in Punjab (India). *Journal of Business Ethics*, 1–10.
- Hackett, R. D. (1994). Further assessments of Meyer and Allen's (1991) three-component model of organizational commitment. *Journal of Applied Psychology*, 79(1): 15-23.
- Hair, J. B. (2006). *Multivariate data analysis (6th ed.)*. Upper Saddle River, N.J: Pearson Prentice Hall.
- Hall, D. T. (1970). Personal factors in organizational identification. *Administrative Science Quarterly*, 15 (2), 176-190.
- Harrison, D. A. (2006). How important are job attitudes? Meta-analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal*, 49, 305–325.
- Haryono, S., Rosady, F., & MdSaad, M. S. (2018). Effects of emotional and spiritual intelligence on job performance among temporary nurses at Abdul Riva'i Regional General Hospital, Berau District, East Kalimantan Province, Indonesia. *Management Issues in Healthcare System*, 4, 42-54.
- Iaffaldano, M. T., & M. (1985). *Psychological Bulletin*, 97, 251-273.
- Inuwa, M. (2016). Job satisfaction and employee performance: An empirical approach. *The Millennium University Journal*, 1(1), 90-103.
- Jacques, E.T. (2009), The Relationships between Emotional Intelligence and the Academic Performance and Selection of a Major of College Students, Pro-Quest database
- Jaramilloa F, M. J. (2005). A meta-analysis of the relationship between organisational commitment and salesperson job performance: 25 years of research. *J. Bus. Res.*, 58:705-714.
- Jernigan, I. B. (2002). Dimensions of work satisfaction as predictors of commitment type. *Journal of Managerial Psychology*, Vol. 17 No.7, pp. 564-79.
- Judge, T. A. (2001). Dispositional affect and job satisfaction: A review and theoretical extension. *Organizational Behavior*

- and Human Decision Processes*, 86, 67–98.
- Jurkiewicz, C.L. and Giacalone, R.A. (2016), *Developing a Workplace Skillset*, Academy of Management Conference, Anaheim, CA
- Kafetsios, K., & Loumakou, M. (2007). A comparative evaluation of the effects of trait emotional intelligence and emotion regulation on affect at work and job satisfaction. *International Journal of Work Organisation and Emotion*, 2(1), 71-87.
- Kalleberg, A. L. (2001). Satisfied Movers, Committed Stayers the Impact of Job Mobility on Work Attitudes in Norway. *Work and Occupations*, 28 (2), pp. 183-209.
- Karakas, F. (2010), “Spirituality and performance in organizations: a literature review”, *Journal of Business Ethics*, Vol. 94 No. 1, pp. 89-106.
- Keaveney, S. M. (1993). Coping with organizational Role Stress: Intrinsic Motivational Orientation, Perceived Role Benefits, and Psychological Withdrawal. *Journal of the Academy of Marketing Science*, 21:113-24.
- Khan M.R., Z. J. (2010). The Impacts of Organizational Commitment on Employee Job Performance. *European Journal of Social Sciences*, 15(3), Pp. 292-298.
- Kim, T., Cable, D., Kim, S. and Wang, J. (2009), “Emotional competence and work performance: the mediating effect of proactivity and the moderating effect of job autonomy”, *Journal of Organizational Behavior*, Vol. 30 No. 7, pp. 983-992
- Kolodinsky, R. G. (2008). Workplace values and outcomes: exploring personal, organizational, and interactive workplace spirituality. *Journal of Business Ethics*, 81, 465–480.
- Kolodinsky, R.W. and Ritchie, W.J. (2016), “Meaningful engagement: impact of calling work orientation and perceived leadership support”, Paper presented at Academy of Management Conference, CA, Anaheim.
- Kovach, K. (1997). *Organization size, job satisfaction, absenteeism and turnover*. Washington, D.C: University Press of America.
- Krishnakumar, S. &. (2002). The “what”, “why” and “how” of spirituality in the workplace. *Journal of*

- Managerial Psychology*, 17, 153–164.
- Kulshrestha, S., & Singhal, T. K. (2017). Impact of spiritual intelligence on performance and job satisfaction: A study on schoolteachers. *International Journal of Human Resource & Industrial Research*, 4(2), 1-6.
- Lambert, E. G. (1999). The missing link between job satisfaction and correctional staff behavior: The issue of organizational commitment. *American Journal of Criminal Justice*, 24(1), 95–116.
- Larkin, I. M. (2015). Job satisfaction, organizational commitment, and turnover intention of online teachers in the K-12 setting.
- Lazar, A. (2010). Spirituality and job satisfaction among female Jewish Israeli hospital nurses. *Journal of Advanced Nursing*, 66: 334–344.
- Leigh, P. (1997). The new spirit at work. *Training & Development*, 51, 26–34.
- Law, K.S., Wong, C.S. and Song, L.J. (2004), “The construct and criterion validity of emotional intelligence and its potential utility for management studies”, *Journal of Applied Psychology*, Vol. 89 No. 3, pp. 483-496.
- MacDonald, S. &. (1997). The generic job satisfaction scale: Scale development and its correlates. *Employee Assistance Quarterly*, 13, 1–16.
- Marschke, E. P. (2008). Professionals and executives support a relationship between organizational commitment and spirituality in the workplace. *Las Vegas: International Business & Economics Research (IBER)*.
- Masitoh, S., & Sudarma, K. (2019). The Influence of Emotional Intelligence and Spiritual Intelligence on Job Satisfaction with Employee Performance as an Intervening Variable. *Management Analysis Journal*, 8(1), 98-107.
- Mathew, G. C., Prashar, S., & Ramanathan, H. N. (2018). Role of spirituality and religiosity on employee commitment and performance. *International Journal of Indian Culture and Business Management*, 16(3), 302-322.
- Mathew, G. C., Prashar, S., Ramanathan, H. N., Pandey, U. K., & Parsad, C. (2019). Impact of religiosity, spirituality, job satisfaction and commitment on

- employee performance: a quantile regression approach. *International Journal of Indian Culture and Business Management*, 19(4), 491-508.
- Mathieu, J. a. (1990). A review of meta-analysis of the antecedents, correlates and consequences of organizational commitment. *Psychological Bulletin*, Vol. 108 No. 2, pp. 171- 94.
- Mathis, R. a. (2009). *Human Resource Management*. Mason, OH, USA: Western Cengage Learning.
- Maxwell, G. a. (2003). Organizational commitment : a study of managers in hotels. *International Journal of Contemporary Hospitality Management*, 15(7), pp. 362–369.
- McCormick, D. W. (1994). Spirituality and management. *Journal of managerial psychology*, 9(6), 5-8.
- McLaughlin, C. (2009). Spirituality and ethics in business. *The centre for visionary leadership*.
- Meyer J. P., A. N. (1991). A three-component conceptualization of organizational commitment. *Human Resources Management Review*, 1 (1), pp. 61-89.
- Meyer, J. P. (1989). Organizational commitment and job performance: It's the nature of the commitment that count. *Journal of Applied Psychology*, 74, 152–156.
- Meyer, J. P. (1997). *Commitment in the workplace: Theory, research, and application*. Newbury Park: CA: Sage.
- Meyer, J. P. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior*, 61(1), 20-52.
- Milliman, J. M. (1999). Spirit and community at Southwest Airlines: An investigation of a spiritual values-based mode. *Journal of Organizational Change Management*, 12(3), 221-233.
- Mohamed, M. S.-7. (2012). Relationship among Organizational Commitment, Trust and Job Satisfaction: An Empirical Study in Banking Industry. *Research Journal of Management Sciences*, 1 (2), pp. 1-7.
- Mohr, A. T. (2007). Role conflict, general manager job satisfaction and stress and the performance of

- international joint ventures. *European Management Journal*, 25, 25–35.
- Molloy, K.A. and Foust, C.R. (2016), “Work calling: exploring the communicative intersections of meaningful work and organizational spirituality”, *Communication Studies*, Vol.67No.3, pp. 339-358, doi:10.1080/10510974.2016.1148751.
- Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). Employee-organization linkage. *The psychology of commitment absenteeism and turn over_ Academic Press Inc. London*.
- Neck, C. P. (1994). Thought Self-leadership: Finding Spiritual Fulfillment in Organizational Life. *Journal of Managerial Psychology*, 9(6): 9-16.
- Nkosi, S. M. (2015). Effects of training on employee commitment, retention and performance: A case study of a Local Municipality in South Africa. *European Journal of Business and Management*, 7(15), 104-108.
- Norizan, I. (2012). *Organizational Commitment and Job Satisfaction among Staff of Higher Learning Education Institutions in Kelantan. Malaysia: Doctoral Dissertation, University Utara Malaysia*.
- Nosheen, A., Omar, K.B. and Waqas, F. (2020), “Relating ethical leadership with work engagement: how workplace spirituality mediates?”, *Cogent Business and Management*, Vol. 7 No. 1, doi:10.1080/23311975.2020.1739494
- Nunn, J. (2000). Career Planning Key to Employee Retention. *Journal of Property Management*, 65 (5), pp. 20-21.
- Ostroff, C. (1992). The relationship between satisfaction, attitudes, and performance: An organizational Level Analysis. *Journal of Applied Psychology*, 77, 963-974.
- Ouyang, Z., Sang, J., Li, P., & Peng, J. (2015). Organizational justice and job insecurity as mediators of the effect of emotional intelligence on job satisfaction: A study from China. *Personality and Individual Differences*, 76, 147-152.
- Pawar, B.S. (2017), “The relationship of individual spirituality and organizational spirituality with meaning and community at work: an empirical examination of the direct effects and

- moderating effect models”, *Leadership and Organization Development Journal*, Vol. 38 No. 7, pp. 986-1003, doi:10.1108/LODJ-01-2016-0014.
- Petchsawang, P. and Duchon, D. (2012), “Workplace spirituality, meditation, and work performance”, *Journal of Management, Spirituality & Religion*, Vol. 9 No. 2, 189-208.
- Polley, D. V. (2005). Paying the devil his due: limits and liabilities of workplace spirituality. *The International Journal of Organizational Analysis*, 13 No. 1, pp. 50-63.
- Porter L.W., S. R. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5): 603-9.
- Ramlall, S. J. (2008). Enhancing Employee Performance Through Positive Organizational Behavior. *Journal of Applied Social Psychology*, 38 (6), 1580- 1600.
- Ramli, A. H. (2019). Compensation, job satisfaction and employee performance in health services. *Business and Entrepreneurial Review*, 18(2), 177-186.
- Rashid A, M. S. (2003). The influence of corporate culture and organisational commitment on performance. *Journal of management development*, 22(8), 708-728.
- Razak, A., Sarpan, S., & Ramlan, R. (2018). Influence of promotion and job satisfaction on employee performance. *Journal of Accounting, Business and Finance Research*, 3(1), 18-27.
- Rego, A., Cunha, M.P. and Souto, S. (2007), “Workplace spirituality, commitment and self-reported individual performance: an empirical study”, *Management Research*, Vol. 5 No. 3, pp. 163-183.
- Robertson, J. (2008). *Spirituality Among Public School Principals and its Relationship to Job Satisfaction and Resiliency*. USA: Union University.
- Rocha, R.G. and Pinheiro, P.G. (2020), “Organizational spirituality: concept and perspectives”, *Journal of Business Ethics*, doi:10.1007/s10551-020-04463-y.
- Saks, A. (2006). Antecedents and consequences of employee engagement. *J.*

- Manag. Psychol*, 21(7):600-619.
- Sabancıogullari, S., Çatal, N., & Doğaner, F. (2020). Comparison of newly graduated nurses' and doctors' opinions about spiritual care and their emotional intelligence levels. *Journal of religion and health*, 59(3), 1220-1232.
- Schleicher, D. W. (2004). Reexamining the job satisfaction-performance relationship: The complexity of attitudes. *Journal of Applied Psychology*, 89, 165-177.
- Schwab, D. P. (1970). Theories of performance and satisfaction: A review. *Industrial Relations*, 9, 408-430.
- Shore, L. M. (1995). Managerial Perceptions of Employee Commitment to the Organization. *Academy of Management Journal*, 38(6), 1593-1615.
- Siegel, J. a. (1971). Satisfaction and performance: Casual relationships and moderation effects. *Journal of Vocational Behavior*, 1: 263-69.
- Skibba, J. S. (2002). *Personality and job satisfaction*. Stout: Menomonie. Applied Psychology University of Wisconsin.
- Smalls, E. W. (2011). *The Impact Of Spiritual Well-Being On Job Satisfaction And Performance For Non-profit Employees*. Walden University.
- Stanley, D. J., & Meyer, J. P. (2016). Employee commitment and performance. In *Handbook of employee commitment*. Edward Elgar Publishing.
- Steers, R. (1977). Antecedents and Outcomes of Organizational Commitment. *Administrative Science Quarterly*, 22, 46-56.
- Sudarsih, S., Puspitasari, E. F. N., & Setyanti, S. W. L. H. (2018). SKKD No. 1305/UN25. 5.1/TU. 3/2018" Emotional Intelligence, Spintual Intelligence and Employee Performlance: The Mediating Role of Work Motivation".
- Sy, T., Tram, S., & O'hara, L. A. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. *Journal of vocational behavior*, 68(3), 461-473.
- Tarigan, V., & Ariani, D. W. (2015). Empirical study relations job satisfaction, organizational commitment, and

- turnover intention. *Advances in Management and Applied Economics*, 5(2), 21.
- Tewksbury, R. &. (2006). Examining the effect of emotional dissonance on work stress and satisfaction with supervisors among correctional staff. *Criminal Justice Policy Review*, 17(3), 290–301.
- Uddin, M. A., Mahmood, M., & Fan, L. (2019). Why individual employee engagement matters for team performance? Mediating effects of employee commitment and organizational citizenship behaviour. *Team Performance Management: An International Journal*.
- Underwood, L. G., & Teresi, J. A. (2002). The daily spiritual experience scale: Development, theoretical description, reliability, exploratory factor analysis, and preliminary construct validity using health-related data. *Annals of Behavioral Medicine*, 24(1), 22-33.
- Vratskikh, I., Masadeh, R., Al-Lozi, M., & Maqableh, M. (2016). The impact of emotional intelligence on job performance via the mediating role of job satisfaction. *International Journal of Business and Management*, 11(2), 1-69.
- Wanger-Marsh, F. &. (1999). The fourth wave: The spirituality-based firm. *Journal of Organizational Change Management*, 4(12), 292-301.
- Wrzesniewski, A. (2003), "Finding positive meaning in work", in Cameron, K.S., Dutton, J.E. and Quinn, R.E. (Eds), *Positive Organizational Scholarship*, Berrett-Koehler,

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