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DEPARTMENT OF BUSINESS MANAGEMENT
FACULTY OF BUSINESS STUDIES AND FINANCE
WAYAMBA UNIVERSITY OF SRI LANKA
KULIYAPITIYA
SRI LANKA



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Wayamba Journal of Management

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Impact of Corporate Ownership Structure on Agency Costs: Evidence from Sri Lankan Listed Firms

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Abstract

Over the last decade, the corporate ownership structure and agency cost has been an important topic and discussion among research and business community. However, to what extent the ownership structures matter for mitigating agency costs still needs to be resolved. This study empirically investigates the role of different ownership structures in dealing with agency issues for Sri Lankan non-financial firms from 2015 to 2019. The panel data method was used to examine the impact of agency cost on ownership structure. The authors found a consistent view of the relationship between agency cost and ownership structure. Accordingly, the results explained that managerial ownership facilitates mitigating agency issues. The authors also noticed that larger firms could reduce agency costs by having sizable institutional or concentrated ownership. While in the case of small firms, foreign ownership alleviates agency costs. The study would help firms' stakeholders, particularly managers, owners and investors, make the right investment decisions.

Keywords: Agency Theory, Agency Cost, Corporate Ownership Structure, Sri Lanka

1. INTRODUCTION

The concept of agency cost was brought to the attention of seminal contributors, namely, Jensen and Meckling, in 1976. "Separation of Ownership and Control" was one of the main concerns in the corporate finance literature, which later brought agency relationship, agency problems and agency costs. The manager's involvement in non-value-adding activities that may not improve the firm's value will generate agency problems and agency costs. They defined agency cost as a sum of the monitoring expenditure by the principal, the bonding expenditure by the agent and the residual loss.

According to their argument, an agency problem will directly raise agency costs to the firm. Consequently, several empirical studies support that the existence of agency conflicts and the degree of agency cost significantly influence firm value, for example, Morck et al. (1988); McConnell and Servaes (1990); Agrawal and Knoeber (1996), among others.

Agency issues are inevitable due to the separation of ownership and management. In such a way, agency cost is a significant concern in the current business world and can be minimized through internal and external corporate governance

mechanisms. Corporate governance gives prominence to addressing power distribution as a critical issue in any country and to business firms to maximize their performance. Formerly, corporate governance mechanisms were established to improve the negative consequences – importantly agency conflicts and the costs resulting from these conflicts – of the separation between ownership and control. Agency costs usually vary with the extent of the relationship between ownership and control of a firm and the level of ownership dilution (Ang et al., 2000). Firms' ownership structure reflects the decisions made by those who own and those who would own shares. Therefore, whether concentrated or diffused, the ownership structure shows the profit-maximizing interests of the shareholders (Demsetz & Villalonga, 2001). Ownership is concentrated when the largest shareholder of the company holds more than 10% of the voting rights (Hamadi & Heinen, 2015). Following the agency theory, concentrated ownership could increase the firm value by reducing the agency cost.

Further, on the other way, Shleifer and Vishny (1997) mentioned that if a company has large shareholders, they will take decisions that provide their benefits at the expense of the small shareholders. Increasing ownership to a point where managers become entrenched will increase agency costs (Schooley & Barney, 1994; Morck et al., 1988). Accordingly, there are different ownership structures in firms where agency costs can impact differently to each firm.

There is an ongoing debate about ownership structure on owners' wealth maximization in Asian settings which differs from developed countries. Many studies have sought to evaluate the effect of agency costs on ownership structure empirically. However, the reported findings are not consistent among scholars. Furthermore, only a few studies (Ang et al., 2000; Singh & Davidson, 2003; McKnight & Weir, 2009; Belghitar & Clark, 2015) have examined the relationship between a few variables related to corporate governance and agency cost alternatives. However, most of these studies are adopted from other countries perspectives and are different from the Asian context (Florackis, 2008). They supported this argument, Claessens and Fan (2003) renowned that the lack of protection for minority rights in Asia has been the primary corporate governance issue. Subsequently, corporate governance mechanisms needed to be more vital to mitigate agency problems. Moreover, it is broadly accepted in the governance literature that institutional settings and the governing framework significantly influence the decision of a firm on the choice of ownership structure. In the case of Sri Lanka, the collapse of Pramuka Bank, Vanic Incorporation in the 1990s, the Golden Key Credit Card Company (GKCC) in 2008 and the recent bankruptcy of finance companies such as ETI Finance, The Finance Company PLC and Swarnamahar Financial Services PLC are evidenced in the context over the last three decades. In Sri Lanka, there is no clear regulatory

framework linked to corporate governance and agency costs. However, all listed firms at Colombo Stock Exchange (CSE) should disclose the mandatory code of practices and their compliance. On the other hand, several corporate controversies in Sri Lanka have created considerable uncertainty among business firms. Ownership is concentrated in most Sri Lankan listed companies with controlling shareholders (Senaratne & Gunaratne, 2008). Wellalage and Locke (2012) revealed that concentrated ownership, Foreign Ownership and Institutional Ownership are mainly dominant in Sri Lankan firms. Further, Chandrasena and Kulathunga (2015) stated the existence of minority disputes in Family owned firms in Sri Lanka. It is also acknowledged by Kalainathan (2014), and suggests the need for investor protection laws in this context. Therefore, there is a need to explore the various types of ownership, and their effects on agency costs in Sri Lanka, inspired by the authors to carry out this study.

Most of the prior studies on corporate ownership analyzed under the highly regulated environment of countries like US, UK and other mature markets. Investigating how different ownership structures may affect on agency costs in different institutional and country settings is also essential. Still, the impact of corporate ownership structure and its impact on agency costs remain uncultivated in developing countries. Therefore, the primary purpose of this study is to fill the empirical gap in the existing literature to investigate the impact of

different corporate ownership structures on the agency cost of listed firms in Sri Lanka. To the best of the authors' knowledge, this is one of the early studies that have made an attempt to point out the corporate ownership structure of listed firms in Sri Lanka related to agency cost and thus contributes greatly to the extant corporate governance literature.

The remainder of this paper is prepared as follows. It begins with reviewing prior literature on agency costs and the role of ownership structures. In Section 2, the research methodology and method are discussed. After which, the empirical results and discussion are presented in section 3 and 4. At last, concludes the study.

1.1 Review of Literature and Hypothesis development

Agency Theory is proposed by Jensen and Meckling (1976). Accordingly, an agency relationship is there when a principal (Owner) engages another person (Agent) to perform some activities on their behalf, which involves providing the decision-making authority to the agent. Further, in 1986, Jensen added that when firms generate substantial free cash flows, agency conflict between principal-agent becomes severe. While the purpose of agency theory is to minimize principals' agency costs by establishing internal controls that maintain the agent's self-servicing actions in check (Jensen & Meckling, 1976). Moreover, Agency theorists recommend numerous governance mechanisms to protect shareholder interest, diminish agency cost and ensure agent-principal interest

configuration. Thus, separation of ownership and control has resulted in agency conflict between shareholders and management of the company. Shareholders of organizations with widely dispersed ownership appoint managers to manage the organizational activities on their behalf of themselves because all of them cannot be engaged in the management of the organization. Owners of an entity appoint management to look after owners' funds invested, thus managers should act to maximize shareholder wealth. However, in the real-world, managers can prioritize their goals instead of achieving shareholders' goals. These two parties have a conflict of interest; due to that, agency cost arises.

Further, the firms incur a high amount of agency cost to mitigate the agency problem, which can be effectively allocated to the furtherance of organizational results. Agency cost comprises monitoring costs, bonding costs, and residual loss (Jensen & Meckling, 1976). These agency costs originate from the detachment of firm ownership and control. Magnitudes of these agency costs depend upon how well the owners and other delegated third parties monitor the actions of the managers (Ang, Cole & Lin, 2000). Moreover, agency problems contrast over firms in different industries and probably different cultures (Kole, 1995; Himmelberg, Hubbard & Palia, 1999). Therefore, an effective control and monitoring mechanism should exist to minimize agency costs and maximize the firm value. Different approaches are discussed in the prior literature. Accordingly, some internal methods are available in the firms.

One of the potential methods is to have relevant ownership structures for a specific firm, and its context would facilitate reducing agency costs. In the extensive prior literature, agency cost and ownership structure have been empirically examined together by scholars, and mixed pieces of evidence are reported in a different context.

1.2 Ownership structure and Agency cost

Jensen and Meckling (1976) describe the ownership structure as the proportion of equity held by the managers, other outsiders, and debt owned by anyone outside the firm. In Asia, most firms are controlled by a family-based ownership structure. Controlling power can be explained as having more than 50% of ownership shares. Sri Lanka is not an exception to this scenario. In most Sri Lankan companies, family ownership, institutional ownership, and managerial ownership are present (Kulathunga & Azeez, 2016). The following section discusses the important corporate ownership structure variables and their relationship to agency cost.

1.2.1. Managerial Ownership and agency cost

Managerial ownership includes shares owned by the corporate board members, the CEO, and top management (Demsetz & Villalonga, 2001). In 1976, Jensen and Meckling proved that a firm's value and performance increase with the level of insider ownership through their 'Convergence of Interest' hypothesis. Besides, managerial ownership can align the interest between two parties and minimize the firm's agency cost.

Their model depicts a linear relationship between managerial ownership and agency cost. The existence of the linear relationship between managerial ownership and agency cost is endorsed by some authors (Jensen, 1993, Ang et al.; 2000 & Singh and Davidson III; 2003). In contrast, entrench hypothesis explains that managers have more power and interest, leading to higher agency costs. Consistent with the entrenchment hypothesis, some studies (Florackis & Ozkan; 2009, Morck et al.; 1988, among others) propose a non-linear relationship between managerial ownership and agency cost. Therefore, previous studies depict mixed results for the relationship between managerial Ownership and Agency cost. Following the above discussion, the hypothesis of this study is proposed and given below.

H1: Managerial ownership is positively related to agency cost.

1.2.2 Ownership Concentration and agency cost

Ownership concentration is another type that generates agency problems for firms. Initially, Shleifer and Vishny (1986) discussed the value of a large shareholder. They explained that when there are large shareholders, they have the motivation to monitor the firm to protect their interests. It was recognized as ownership concentration later by many researchers (Wellalage & Locke, 2012; Hamadi & Heinen, 2015; Singh & Davidson III, 2003). When a firm has concentrated ownership, shareholders with a high stake try to supervise the management and monitor their behaviours to carry out

its operations more effectively. The high amounts of investments that they hold become an incentive for shareholders to monitor appropriately to protect their investment (Shleifer&Vishny, 1997). On the other hand, larger shareholders' control might create conflict with minority shareholders, which would produce some other costs. Accordingly, the hypothesis is formulated as follows.

H2: Ownership concentration is negatively related to agency cost.

1.2.3 Institutional Ownership and agency cost

Institutional ownership means that the shares owned by institutions include banks, insurance companies, pension funds, and mutual funds. Institutional shareholders are large, and they can monitor and control management more than other shareholders (Shleifer & Vishny, 1997). Findings related to institutional investors and agency costs are mixed in the review. Institutional investors like pension funds have a more professional way of monitoring the firms and attaining profits from their investments. Equally, institutional shareholders, like financial institutions, have a business interest in the firm and primarily support management's desires (Brickley et al., 1988). Cornett et al. (2007) also reported that higher institutional shareholders on the board would force managers to implement good decisions and reduce agency costs. Understanding the different characteristics of institutional investors on firm performance is essential to mitigate agency costs. Therefore, a hypothesis is developed as follows.

H3: Institutional ownership is

positively related to agency cost.

1.2.4 Foreign Ownership and agency cost

Foreign ownership means the shares owned by foreign investors. Firms were holding foreign ownership help firm to more active and proper monitoring actions, which could lower the agency cost. Many prior studies (Desender et al., 2016 & Jeon et al., 2011) explored that foreign investors can improve the corporate governance of countries with weak shareholder protection. They can control managers in a better way with their international experience in investments. In addition, foreign ownership improves a firm's quality by reducing information asymmetry (Lin & shiu, 2003). Also, firms with greater foreign investment reduce the overinvestment problem. Moreover, most of them are institutional foreign investors in the context of Sri Lanka and can enhance the cash flow while dipping costs by effective way of monitoring (Aggarwal et al., 2011). Therefore, foreign ownership plays a vital role in extenuating agency costs in a firm and hypothesizes

H4: Foreign ownership is positively related to agency cost.

2. METHODS

2.1 Conceptual model

Based on the above discussion of the literature review, the following conceptual model is proposed in the study, which shows the relationship between dependent, independent, and control variables in figure 1.

2.2 Data and sample

This research is based on purely

secondary data. They are extracted from the published annual reports of the listed companies. The population for this study is all companies registered in the CSE. The sample selection criteria are;

- The availability of ownership structure information will be the basis of the selection of samples. Entities that do not provide proper notes regarding the ownership structures will be omitted from the sample.
- Listed companies in the financial sector will be omitted due to high regulations.
- Companies listed after 1st April 2012 and companies with a year ending other than 31st March were also excluded from the sample.

After analyzing the secondary data from the CSE database under the above exceptions, 70 companies (350 firm years) representing 17 business sectors were selected for the study. Data were collected from 2015 to 2019, recent financial years (5 years) before the influence of Covid 19.

2.2.1 Measurement of variables

The measurement of variables of the study is based on the prior studies and shown in the following table1.

2.3 Method of analysis

This empirical study examines the impact of ownership structure on agency cost using quantitative data. Panel regression would be constructed to test the impact of ownership structures (i.e. independent variables) on agency cost proxies (i.e. dependent variables). This study also

employed the Hausman test (1978) to determine which estimation model, either fixed or a random effect, best explains our empirical results.

The following panel OLS regression model is used to examine the study objective.

$$AC(AU)_{it} = \alpha + \beta_1 OWNCON_{it} + \beta_2 MGROWN_{it} + \beta_3 INSTOWN_{it} + \beta_4 FOROWN_{it} + \beta_5 FSIZE_{it} + \beta_6 LEV_{it} + \varepsilon_i \quad (\text{Model 1})$$

Where AC is for Agency cost, OWNCON is for ownership concentration, MGROWN is for managerial ownership, INSTOWN is for institutional ownership, FOROWN is for foreign ownership, FSIZE is for firm size, and LEV is for financial leverage. *i* stands for the firm and varies from 1 to *n*; *t* is the year; β_1 is the constant that does not vary over time; β_1 to β_6 are the coefficients in the regression; $\varepsilon_{i,t}$ it is the residual variable that varies with time; and natural log firm size is used.

Furthermore, companies divided into two based on a median of the total assets as large and small firms. The regression model runs separately for a group of larger firms as model 2 and smaller firms as model 3.

3. RESULTS

3.1 Descriptive statistics

Table 2 shows the descriptive statistics of the study. The mean value of the agency cost was 0.647, which indicates a positive value of less than 1 that Sri Lankan companies have a middle level of asset utilization. Maximum and minimum values are

3.394 and 0.032, respectively. The mean value of ownership concentration is marked as 78.3%, which proves that the top 5 % of shareholders have concentrated ownership in Sri Lankan companies. The maximum, minimum, and standard deviation are 98.4%, 43.69% and 12.04, respectively. The mean managerial ownership in listed Sri Lankan companies is 9.78%, which is more incredible than the UK results are reported by Sudha et al. (2016). The maximum is 70.6%, the minimum is 0%, and the standard deviation is 17.81. The mean value of institutional ownership in Sri Lanka is 98.18%, whereas this result is higher than the UK results at 34.14 % (Sudha et al., 2016). The mean value of foreign ownership is 13.19%, while maximum and minimum values are 92 % and 0.02 %.

3.2 Correlation analysis

Table 3 indicates the relationship between study variables, notably ownership variables and agency costs. All the correlation values show less than 0.8, which explains the less possibility of multicollinearity (Gujarati, 1995). Further, Agency Cost (Asset Utilization Ratio) shows positive relationships with foreign ownership and institutional ownership. At the same time, there is a negative relationship between managerial ownership and concentrated ownership.

3.3 Diagnostic tests

The sample data were tested for stationarity by using Levin-Lin-Chu (LLC) test (Levin, Lin, & Chu, 2002) and displayed in table 4. Besides, multicollinearity VIF less than 10

confirms before estimating the coefficients of the model. Results are presented in table 6. All the variables are found to be stationary, ensuring the residual normality and also free from multicollinearity. Further, the panel effect of the data set is tested by the Breusch-Pagan Lagrange Multiplier test. Table 5 summarizes the results of the Chi-Square Statistic and P-value. Accordingly, the chi-square Statistic indicates a high and statistically significant (p -value < 0.01) at 1% level. Therefore, it is concluded that each model has a panel regression effect.

3.4 Empirical findings of the impact of ownership structure on agency costs

According to Table 5, Hausman test results show a significant chi-square value for models 1 and 2 indicating, that the fixed effect model is suitable. On the other hand, in model 3, an insignificant chi-square value explains the appropriateness of the random effect model. Further, R-squared values are significant and show an amount of variation of nearly 86%, 66% and 22% in the dependent variable is explained by the independent variables in the model 1, 2 and 3, respectively. In addition, the VIF value and Durban Watson values are within the expected range and prove the absence of multicollinearity and serial correlation in all models.

4. DISCUSSION

In Table 6, the result reveals that managerial ownership is only positively significant at 5%. In line with this finding, hypothesis (H1) is supported in the study. This evidence suggests that the more extensive

managerial ownership aligns the interest of the shareholders and management and that reduces the agency costs in the companies by reflecting better decisions on maximizing the firm value. Also, this result discovered that the greater the managerial ownership, the higher alignment of interest between shareholders and management, which would minimize the agency costs. This finding supports Jensen and Meckling's (1976) argument that managerial ownership solves agency conflicts and lowers agency costs. It is also consistent with the agency theory. Moreover, the result of this study aligns with the findings of Ang et al. (2000) and Singh and Davidson III (2003). However, other types of ownership structures, viz, ownership concentration, foreign ownership and institutional ownership, do not significantly influence agency cost, but they positively affect agency cost. These findings proved that hypotheses H2, H3 and H4 cannot be supported by this study and they do not have a significant relationship with agency cost in the Sri Lankan setting. In larger companies, ownership concentration and institutional ownership have a significant negative impact on agency costs. These findings clearly explain that larger firms have more effect on the asset utilization of the companies. Ownership is concentrated; shareholders can closely monitor the managers and save their investments in larger firms, ultimately reducing agency costs.

A negative relationship between concentrated ownership and agency cost is evidenced by a few studies

(Jensen & Meckling, 1976, Li et al.; 2017 & Sajid et al.; 2012). Similarly, a high condition of institution ownership in large firms contributes to reducing agency conflict and agency cost, as the negative relationship explored in the study. On the other hand, foreign ownership indicates a significant positive impact on agency costs in smaller firms. This empirical result explains that foreign ownership improves asset utilization and lowers agency costs by aligning more with corporate governance and financial transparency. However, findings are mixed in the existing literature since agency theory would result in inconsistent shreds of evidence in an inefficient market (Sundaramurthy & Lewis, 2003).

Furthermore, the control variable of firm size significantly negatively influences agency cost in the overall sample. However, it positively affects larger firms due to efficient asset utilization. At the same time, leverage positively affects agency costs except in larger firms. Since greater leverage generates a higher agency cost of debt would result in a negative impact on the agency cost of bigger firms.

5. CONCLUSION

This study focused on analyzing the impact of ownership structure on agency cost in Sri Lankan listed companies. Insights generated by this study will enrich the understanding of the importance of corporate ownership structures and their influence over minimizing a firm's agency costs. Particularly, managerial ownership among the different structures can help to lower

the agency costs for Sri Lankan firms while avoiding the entrenchment problem. Moreover, the firms with large and smaller sizes were investigated separately to see the unique concerns and deliberations. Accordingly, institutional or concentrated ownership is the practical mechanism in larger firms, while foreign ownership prefers smaller firms to lower agency cost. Finally, the current study provides valuable inputs to managers, owners and investors on minimizing agency costs by making appropriate decisions aligned with the firm's ownership pattern and size. Moreover, the findings of this study have managerial implications that agency cost mitigation depends on the ownership structure mechanism to work more effectively in a firm operating in a country with an explicit corporate governance setting.

This study has a few limitations. Restrictions related to the secondary data are constraints to the study. Further, the study is limited to seventy companies and the recent five years from 2015 to 2019. In addition, high regulated sector of financials is excluded from the study. Regarding the direction for further studies, similar work can be extended to various industries from other south Asian countries. Future work can also enrich by incorporating other types of ownership, viz, percentage of ownership and family ownership with the association of agency cost by using an alternative proxy.

APPENDIX

Independent Variables

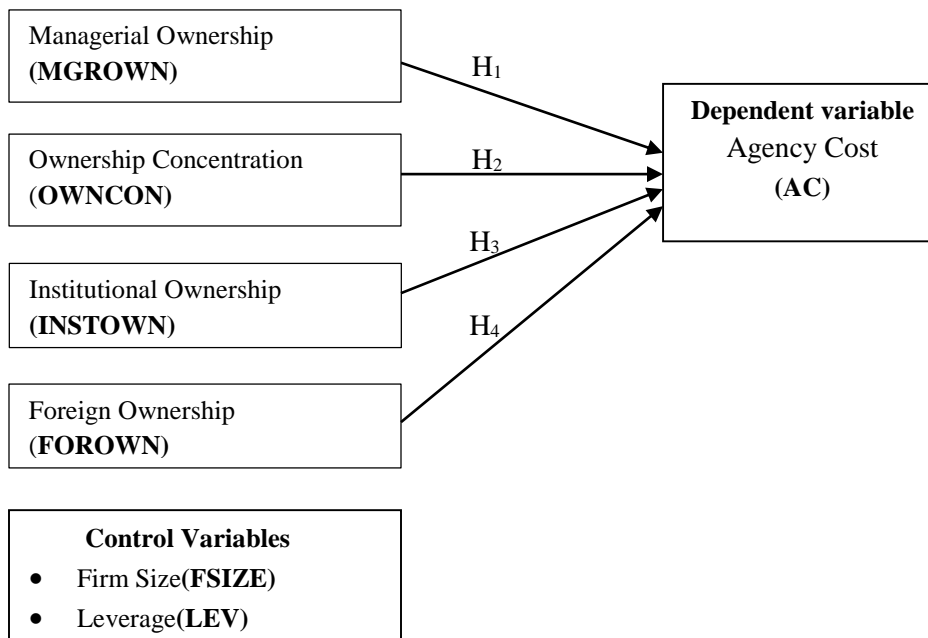


Figure 1: Conceptual Framework

Table1: Measurement of variables

Variable	Definition	Evidence
Independent Variable		
Agency cost (AC)	Agency cost is a sum of the monitoring expenditure by the principal, the bonding expenditure by the agent and the residual loss. It is measured using a proxy of the asset utilization ratio (AU) of a firm.	Ang, Cole and Lin (2000); Singha & Davidson III (2003)
Dependent Variables		
Ownership Concentration (OWNCON)	The total percentage of common stock is owned by the top five largest shareholders.	Guo and Ma (2015)
Managerial Ownership (MGROWN)	The total percentage of common stock is directly owned by a board of directors and their family.	Singh and Davidson III (2003); Guo and Ma (2015)
Institutional Ownership (INSTOWN)	Total percentage of common stock held by Institutional Shareholders	Wellalage and Locke (2012) ;Guo and Ma (2015)

Foreign Ownership (FOROWN)	The total percentage of common stock is owned by Foreign (Non – Resident) Shareholders.	Wellalage and Locke (2012)
Control Variables		
Firm Size (FSIZE)	Natural logarithm of total assets	Singh and Davidson III (2003); Ang et al.(2000)
Firm Leverage (LEV)	The ratio of Total Liabilities to total asset	Singh & Davidson III, 2003); Wellalage and Locke (2012)

Source: Authors' compiled

Table 2: Descriptive statistics of dependent and independent variables

Variables	Mean	Median	Maximum	Minimum	Standard Deviation
Agency Cost	0.647	0.553	3.394	0.032	21.73
Ownership Concentration	78.3	79.86	98.40	43.69	12.04
Managerial Ownership	9.78	0.640	70.600	0.00	17.81
Institutional Ownership	73.06	83.27	98.18	0.91	25.01
Foreign Ownership	13.19	2.70	92.000	0.020	21.73
Firm Size (Ln)	15.88	15.81	19.261	12.65	1.42
Leverage (Ratio)	39.63	38.34	96.740	0.87	22.26
Observations 350					

Table 3: Correlation Analysis

	Agency cost	Foreign ownership	Institutional ownership	Managerial ownership	Ownership concentration	Firm size	Leverage
Agency cost	1.000						
Foreign ownership	0.292	1.000					
Institutional ownership	0.0005	-0.054	1.000				
Managerial ownership	-0.101	0.089	-0.704	1.000			
Ownership concentration	-0.004	0.022	0.272	-0.189	1.000		
Firm size	0.153	0.334	0.035	0.050	0.002	1.000	
Leverage	0.208	0.072	-0.052	0.014	-0.162	0.289	1.000

Table 4: Unit Root Test of LLC

Variable	Statistic (LLC)
Agency Cost	-11.3604*** (0.0000)
Ownership Concentration	-521.81*** (0.0000)
Managerial Ownership	-72.9567*** (0.0000)
Institutional Ownership	-32.7237*** (0.0000)
Foreign Ownership	-491.203*** (0.0000)
Firm Size	-9.3157*** (0.0000)
Leverage (Ratio)	-14.0282*** (0.0000)

*** denotes the 1% significant level; ** denotes the 5% significant level

Table 5: Breusch-Pagan Lagrange Multiplier test

	Model 1	Model 2	Model 3
Chi-square value	602.5603*** (0.000)	84.882*** (0.000)	157.567*** (0.000)

*** denotes 1% significant level; ** denotes the 5% significant level

Table 6: Panel OLS regression analysis of impact of agency cost of ownership structure variables

Explanatory Variables	Model 1 (Total firms) Fixed effect		Model 2 (Larger firms) Fixed effect		Model 3 (Smaller firms) Random effect	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
C	4.848***	0.4978	1.562	1.618	-0.961	0.580
Ownership Concentration	0.0008	0.0021	-0.012**	0.005	0.003	0.003
Foreign Ownership	0.001	0.001	0.062	0.07	0.003**	0.002
Managerial Ownership	0.0024**	0.0011	-0.0001	0.004	-0.003	0.002
Institutional Ownership	0.0007	0.0006	-0.008**	0.003	-0.002	0.002
Firm Size	-0.283***	0.0315	0.019	0.057	0.079**	0.04
Leverage	0.0039***	0.0009	-0.014***	0.003	0.008***	0.001
R-squared	0.8718		0.739		0.246	

Adjusted R-squared	0.864	0.661	0.218
S.E. of regression	0.0978	0.329	0.226
F-statistic	125.7*** (0.000)	9.421*** (0.000)	9.015*** (0.000)
Durbin-Watson stat	1.83	1.306	1.111
VIF	7.142	2.947	1.279
Hausman test – chi square value	45.980***	27.921**	9.089
No of observation	350	175	175

*** denotes the 1% significant level; ** denotes the 5% significant level

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Dynamic Linkages among South Asian Stock Markets with Special Reference to Sri Lanka, Pakistan and India

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Abstract

This paper aims to examine the dynamic nature of equity market integration of key South Asian stock markets to determine and spotlight diversification potential by analyzing the linkages among three major South Asian Equity Markets; Karachi Stock Exchange (KSE), Bombay Stock Exchange (BSE), Colombo Stock Exchange (CSE). Ten years of monthly equity market index data were analyzed for long and short-term relationships through correlation, co-integration, granger causality, VAR model, Variance decomposition, and Impulse response analysis. It was found that the key South Asian stock markets are closely linked with each other depicting a long-run relationship. Also, it shows that the impact of shocks on regional markets, requires around two to five weeks for the shocks to be adjusted. There are diminishing diversification benefits for international investors by diversifying their portfolio among South Asian stock markets. But from tracking market indices can result in arbitrage or speculative profit, owing to weak adjustments in markets between the countries. South Asian stock markets are rapidly evolving and considered as a lucrative avenue by global investors owing to their immense growth and weak correlation with international markets.

Keywords: Correlation, Equity markets, Integration, Stock Exchanges, South Asia

1. INTRODUCTION

In recent years, international investment has been flourishing among private and institutional investors due to the benefits of global portfolio diversification. Capital flows are considered beneficial for both the source country and the host country.

International portfolio diversification was identified by (Grubel, 1968) as a form of economic advantage from global economic connections. Many investors would prefer international portfolio diversity over domestic portfolio diversification since investment returns in the domestic stock market is impacted by natural

and artificial variables, economic cycles, and government regulations whose effects are limited to the domestic stock market. Hence, it was discovered that investment portfolios limited to one country have individual security returns that tend to move in a highly synchronized way, resulting in minimal Diversification benefits. Accordingly, the importance of international portfolio diversification was highlighted which is conditional upon the degree of interlinkage among these stock markets (Grubel, 1968). Studying the interdependence of international stock

markets became wide popular among scholars as it determines the extent of diversification benefits for investors. Apart from stock investors, managers would need to assess capital investment in various countries. If capital markets are subdivided, investment projects with comparable risks must be managed differently. (Shahzad, 2016). On the other hand, integrated financial markets advantage via efficient capital allocation, a lower likelihood of asymmetric shocks, increased opportunities for risk diversification and more robust market frameworks (Fung et al., 2008). Furthermore, a foreign investor from outside the region would find it simpler to invest in a regional stock exchange that is interconnected (Shahzad, 2016).

Many scholars have highlighted the importance of understanding the level of co-integration among international equity markets (Engle and Yoo, 1987) (Clements and Hendry, 1995). A possible correlation of stock markets suggests that the markets imply a long-run equilibrium connection that prohibits anyone from deviating too far from the norm, at least for a prolonged period of time. Despite early empirical findings indicating a minimal link between stock market returns (Hilliard, 1979), recent literature shows that the correlation among international markets has been improving since the mid-1990s. (Beirne et al, 2010); (Kizys and Pierdzioch, 2006); (Reid and Click, 2005). According to a study done by (Lucey and Zhang, 2010), there is a notable increase in stock market co-movement among geographically concentrated countries.

Despite the fact that many research has concentrated on developed and European markets (Reilly & Brown, 2005), the studies on interdependence among Asian stock markets are scarce. Several studies on financial convergence in Asia's capital markets focused primarily on Japan and the so-called Asian tigers or emerging Hong Kong, Singapore, Taiwan, and Korea. Some of these researches are; (Eun & Shim, 1989), (Hung, B. and Y.L. Cheung, 1995), (Kwan, Sim, & Cotsomitis, 1995). Very few inquiries, though, target equity markets in South Asia like Sri Lanka. For Sri Lankan investors, the field of South Asia is much more relevant for their domestic and global stock markets and for their diversification of foreign resources.

Different studies have extensively studied the correlation between national stock markets. But there is still confusion about national equity markets correlation since mixed results have been produced from empirical studies. (Eduardo and Selvanathan, 2001) and the convergence of share price fluctuations between countries was found far less prevalent than within a country. In addition, this research shows that these equity markets are not substantially linked in the long term. Nevertheless, all ASEAN equity markets have substantially connected with each other in the short term except for Indonesia.

There is an increased importance of further studying the south Asian stock markets as it is considered as an important source of investment for international investors owing to their massive growth and weak correlation

with international stock markets. Furthermore, the interconnection of stock markets influences regional stock market responses to shared shocks impacting markets within the region. Moreover, this study was conducted considering the major emerging stock markets of south Asia, i.e., Sri Lanka, India, and Pakistan in terms of size in the region. The motive for the South Asian region is due to the geographical proximity of these regional equity markets and the close economic, political, and social connection among these countries. These verdicts of the research will be vital for Sri Lankan investors such as Banks, Institutional investors, Pension funds like Employees' Provident Fund (EPF), Employee Trust Fund (ETF) and other high net worth individuals. Given the importance and expansion of these markets, this study aims to estimate both the static and dynamic integration of south Asian equity markets and the effect of one equity market movement to another.

This paper extends and enhances the current body of work on stock market integration. Specifically, this study adds to the literature by concentrating solely on stock market integration in the South Asian region. At the same time, this finding contributes to the limited body of studies on emerging markets (Berger et al, 2011). Also, past studies have focused on examining the integration of developed markets and its impact to emerging and frontier markets whereas this study will purely examine the dynamic linkages of south Asian emerging stock markets in both the short term and long term.

The remainder of this study is organized as follows. Section 2 summarizes the extant literature on stock market integration. Section 3 is about data and methodology. The results and discussion of findings are presented in section 4. The last section concludes the paper with implications.

2. REVIEW OF LITERATURE

Most of the economist, policy decision makers, politicians and portfolio managers are highly concerned about the interdependency of the national economies. The main reason for this concern is that the economic movement of one country will affect the other regional economies due to the close relationship of regional countries. Initially, the close relationship among the economies can be examined through their stock markets. In 1997, we could see this situation in East Asian Region countries. Due to the East Asian financial crisis, most of the equity market was crashed and spread to other regional markets.

Accordingly, many researchers have conducted studies on the independence of markets, interdependency of markets, correlation among the markets, comovements of the markets, short term, and long-term relationship of the markets and linkages of national equity markets in a broader context. Most of this research covered on East Asian region, Europe, and other developed markets. However, very few of these researches have concentrated on the South Asian stock markets.

2.1 Inter – Linkages among the stock markets

Research findings on the integration and interdependence of stock markets began with Grubel's landmark study in 1968. (Grubel, 1968) empirical research was concerned with the spectrum of possible advantages that US investors may obtain through international diversification. Later, the topic caught interest of many researchers worldwide. (Lessard, 1974), (Hilliard, 1979), (Hamao et al, 2006) and (Becker et al, 1990) did some of the initial foundation works on the subject. They concentrated on the stock markets of developed countries such as the United States, the United Kingdom, Germany, and Japan. (Lamba, 2004) investigated the markets of India, Pakistan, and Sri Lanka in South Asia, as well as the main developed markets, and concluded that the Indian market was not the leader among South Asian nations. (Narayan, Smyth, & Nandha, 2004), as well as (Prakash & Kumar, 2014), attempted to investigate the amount of links between the stock markets of South Asian nations, indicating the presence of long- run relationships as well as the prevalence of short-run linkages. (Khan and Aslam, 2014) researched the co-integration of Pakistan's stock exchange with the other major stock exchanges in South Asia and found evidence of co-integration between Pakistan's stock exchange and the markets of India, Indonesia, Malaysia, and Singapore. (Mukherjee and Bose, 2006) assessed the integration of Asian stock markets with developed-country stock markets and reported the existence of information

leadership flowing from the US market towards Asian markets. (Dahl, 2009) attempted to capture the influence of the 2008 global financial crisis on market integration and discovered that the global crisis had a strong moderating effect on the long-run coefficients relevant to regional and worldwide market integration. (Tripathi & Sethi, 2010) discovered Indian stock market to be integrated with the US stock market and in their other paper, they discovered that both the short run and long run integration of the Indian stock market with advanced emerging markets has enhanced over the period of study. (Tripathi, Seth, & Kumar, 2013) performed a research in which they discovered spillover effects on the Indian economy while evaluating the short run inter-linkages and long run co-integration among India and some of the world's major economies, namely, the United States, Europe, other emerging markets, and the global economy.

2.2 Are the ASEAN Equity Markets Interdependent?

Eduardo, Antony, and William (1998) use co-integration methods depend on the Johansen (1988) process, granger causality and variance decomposition, and impulse response analysis to discover the degree and structure of price linkages among five Southeast Asian Nations (ASEAN) markets (Malaysia, Singapore, Philippines, Indonesia, and Thailand) in the long and short run. According to the analysis, these markets are not significantly linked in the long run. Nevertheless, with the exception of Indonesia, all ASEAN markets are inextricably intertwined

in the near run. Malaysia is the most significant market, while Singapore and Thailand have the greatest connections to other markets. Indonesia has no ties to any of the other ASEAN markets. As a result, the ASEAN markets provide excellent opportunities for long-term portfolio diversification. Due to the obvious leads and lags impacts of these markets, such markets provide a chance for arbitrage investors in the short term. Co-integration relationships between these markets have been discovered by (Azman-Saini, Azali, Habibullah, & Matthews, 2002) and (Liew, Lee, & Lim, 2009). (Chien, Lee, Hu, & Hu, 2015) and (Click & Plummer, 2005) both highlighted that ASEAN economies are moving toward financial integration. (Thiam, 2002), on the other hand, said that there was no long-term link between ASEAN members from 1988 to 1997. It is clear from the literature that there is conflicting data on stock market integration. This might be because separate research looked at different marketplaces over different time periods and used different methodology.

2.3 South Asian Stock Market Linkages

(Daly, 2003) explores the steady and transient interconnectedness of the stock markets of Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Australia, Germany, and the United States. The study utilizes both correlation and co-integration analysis to examine the behavior of the aforementioned markets following the initial 1997 Asian Financial Crisis, employing data from 1990 to

2001. Applying correlation analysis, assessing stock returns demonstrates a rise in interdependence across South Asian financial markets in the aftermath of the crisis. For all of the aforesaid stocks, multivariate and bilateral co-integration tests were performed. Since there is evidence of integration across South Asian stock markets, the findings show that there has been no major growth in integration between South Asian stock markets over the post-crisis period. With a few outliers, there is minimal evidence to suggest the presence of any co-integrating vectors in either the multivariate or pairwise co-integration tests.

From the literature presented above, following conclusions can be drawn. Most of the above studies utilized weekly stock market data from different markets over a period of five years or more and analyzed the data using econometric models. Increased investor attention in the South Asian region calls for a comprehensive assessment of equity market integration. Also, limited research has been done on South Asian emerging markets with contradictory findings. An insight into the static and dynamic linkages among these south Asian emerging markets will provide valuable inputs to local as well as international investors to create an optimal investment portfolio.

3. METHODS

This study is an empirical analysis of the short and long-run relationship among south Asian stock markets. The study includes stock market indices of three main stock markets in the south Asian region representing

Sri Lanka (CSE), India (BSE) and Pakistan (KSE). Monthly closing stock price indices are used which were gathered from Bloomberg. The aim of using monthly data is to prevent some of the non-synchronicity of high-frequency data. According to Warren et al, 1990, high frequency data appear to contain "too much noise". The indexes are expressed in US dollars since the majority of global investors utilize the US dollar as their base currency (Click & Plummer, 2005); (Driessen & Laeven, 2007). This research spans the years January 2009 to December 2018. Period after 2019 is excluded from the sample to isolate the significant market shocks happened in the CSE during 2019 to 2021. Before any tests are run, all indices are transformed to natural logs.

This study adopted quantitative research methods. Before analyzing the data, the variables had to be checked for stationarity while deciding the respective lag rates. Two accepted test methods, Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) test, were used to measure the stationarity of the data. Further testing was carried out based on the results of the unit root test. A correlation analysis was conducted to analyze the direct correlation between the equity markets while the long-term relationships were observed based on the results of co-integration analysis. Results were then scrutinized for granger causality, Vector Auto Correlation (VAR), variance decomposition and impulse response analysis. The results from the VAR model were used to perform the study of the decomposition of

variances and the reaction of impulses.

3.1 Unit Root Testing

Before analyzing a data series in an econometric model, it is required to assess its comparability. The most common tests for determining series stationarity are the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. This study employed ADF and PP to determine whether or not the data is stationary in the same order. The ADF assumption is that the variance of the error term is constant, and that the error term is the independent variable. ADF has been generalized into PP.

3.2 Correlation Coefficient

Base objective of this research is to identify the correlation between South Asian equity markets. Accordingly, the study should test the hypothesis "South Asian equity markets have a high correlation". In a matrix type, the correlation displays only the association of different variables. The fundamental association measured in this study is based without making any changes on the raw data. Nonetheless, association does not indicate sector causality and trends when analysing South Asian equity market integration.

The coefficient of correlation calculates the degree and magnitude of statistical interaction between two variables. A coefficient of significance can be of a maximum value of 1 and a minimum value of -1. A coefficient of association greater than zero indicates a strong causal relationship between the two variables. A zero-correlation coefficient means that the two

variables do not have a linear association. Correlation is a linear association test between two factors, although it may not always be effective. Two variables may have a strong relationship between variables, but the relationship cannot be proven in the actual situation.

3.3 Cointegration

The Engle-Granger's two-step test was conducted to examine the long-term relationship of south Asian stock markets. Market indexes were transformed into log form to get the residual series of a regression and created a new regression equation. This regression equation was constructed by taking CSE as the dependent variable, and other two markets as the independent variables. Following which, it checks the unit root of the residual series of the regression.

3.4 Granger Causality Test

The Granger Causality Test was used to investigate the causal links between the variables of the research. The study's time series variables may have unidirectional or bidirectional interactions with one another [Chen et al. (2002), Gilmore and McManus (2012), Gurcharan and Pritam (2016)]. This test is designed to investigate the bidirectional and unidirectional lead and lag connection to identify the effect of one stock market on the other.

3.5 Vector Auto Regression (VAR)

VAR model essentially checks whether a change of one market can influence the movement of another market by using different levels of

lags. VAR model is therefore useful in checking the link between markets and in determining the leader and followers in regional equity markets

3.6 Variance Decomposition

The Variance Decomposition is used to compare equities market movements caused by its own shocks to movements caused by other market shocks. It depicts the Variance Decomposition for each stock market under consideration in this study. The study's dynamic changes in the stock markets were examined using Variance Decomposition analysis, which determined if the dynamic changes in the stock markets were caused by their movements or by other stock markets. This method allows to examine the movements of dependent variables due to their own shocks, as opposed to shocks due to the other variables. All other assessment techniques, however, do not provide this own shock analysis, so this is a good evaluation technique to identify the resilience of the individual markets. Variance decompositions estimate how much of the a-step-ahead forecast error variance for a particular variable is explained by variances.

3.7 Impulse Response Analysis

The impulse response function is used to examine the dependent variable's reaction to dynamic changes in each variable under consideration. Therefore, it provides very valuable information to determine the regional market leaders, and the time it takes to disperse these shocks to other markets.

4. RESULTS AND DISCUSSION

4.1 Descriptive Statistics

Table 1 summarizes several descriptive statistics for the countries' stock markets under investigation. In the table, the Mean comprises the average monthly return, maximum and minimum indicates maximum and minimum monthly return, standard deviation specifies the risk, and skewness suggests that the data is positively or negatively skewed. Therefore, the countries stock markets with higher average monthly returns and low standard deviation are fruitful for investments. Here in table 1, Pakistan and India indicates higher maximum return of 10.83% and 10.56% respectively. Sri Lanka (CSE) displays a lower maximum return of 8.96% and a risk of 0.33%. The stock indices under study all the stock indices are negatively skewed.

4.2 Correlation Matrix

The research employed a correlation matrix to identify the relationship in the South Asian Stock market indices. Depending on the linear strength of the variables the correlation varies from -1 to 1. The correlation between the two stock markets may be positive or negative. The positive relationship shows that when one variable return increases, the other will also increase, and the negative relationship depicts vice versa. If the result is 1, it explains that the two variables will have a higher positive correlation. If it is closer to zero, there will be no correlation between the two variables. If it is closer to -1, there will be a higher negative correlation between the two variables. The results of the

correlation metrics are presented in table 2. This table summarizes the correlation coefficients among the main South Asian markets' monthly share prices for the period of 10 years from 2009- 2018. A strong relationship is witnessed between India and Pakistan.

According to the results shown in Table 2 following conclusions can be made about the correlation of the South Asian markets. First, there is a higher positive correlation between KSE and BSE markets, the estimated figure is around 0.92. Secondly, a positive correlation was found between BSE and CSE, however it is not a very high positive correlation as prevailed between KSE and BSE. The estimated correlation coefficient between these two countries were observed at 0.68. Finally, CSE and KSE markets also demonstrated a positive correlation, but this is the lowest correlation when compared with the other two correlations in the region. The calculated correlation value of CSE and KSE was observed at 0.65.

In conclusion, it appears that BSE and KSE have a more positive correlation than CSE and BSE. However, perhaps these results may not depict the correct picture due to the simplicity of the model. Nevertheless, the regression results give more credible outcomes than this. The correlation matrix shows a point-to-point relationship of the markets. However, in a realistic market, it takes some time to adjust to the trend of the regional market indexes according to the other market movement. Therefore, this is not a good estimator to interpret the correlation among the

countries. Instead of point-to-point correlation, it gives more predictive values if it would have taken a lag value.

4.3 Unit Root Test

The co-integration test is used to explore the long-run and short-run relationship among stock markets. The co-integration test requires that the data be non-stationary and of the same order of integration. This study applies two tests to determine whether or not the data is steady in the same sequence. Moon (2001), Chen et al (2002), Gilmore and McManus (2002), Fernández & Sosvilla (2002) performed the Augmented Ducky Fuller (ADF) and Philips Parron (PP) tests. The findings of the Unit Root Tests are summarized in Table 3. The table comprises two sections, Augmented Dicky Fuller test (ADF) And Philips Peron test (P.P.), to identify that the data is stationary at level or maybe at 1st difference for the eight emerging and developed stock markets. This indicates that the information is stationary at 1st difference from both the tests. The results of the ADF and PP tests indicate that all of the variable data is non-stationary in the first difference. As a result, it is obvious that the cointegration test may be used to analyze the long-run relationship.

According to the results, unit root for variables indicates that all variables have less than the critical table value of 2.86 (at significant level of 5 percent), therefore it must accept the unit root test hypothesis. It can thus conclude that all of these series are as non-stationary series. Furthermore, all variables become

stationary at the 1st difference as the level variables values are higher than the critical table value of 2.86.

4.4 Cointegration

Cointegration between south Asia equity markets will be analyzed using Engle-Granger's two-step approach to measure the long-term relationship of South Asian equity markets. Market indexes were transformed into log form to get the residual series of a regression and created a new regression equation. This regression equation was constructed by taking CSE as a dependent variable, and other two markets as independent variables. Following this, it checks the unit root of the residual series of the regression. After running this cointegration equation, a separate residual series was created and tested the stationary and non-stationary characteristics of the residual series. If the residual series becomes constant, then this means that the variables have a long-term relationship. ADF unit root test was performed on the residual series to check the unit root position. The result of ADF is given in Table 4, and the residual series is shown in Figure 1 as a graphical presentation. The results depicted that the residual series of the regression are stationary as the calculated ADF unit root value is greater than the critical value of 2.86. Therefore, the unit root hypothesis was rejected as the residual series of these variables were stationary. Thus, it provides evidence of a long-term relationship between BSE, CSE and KSE stock markets. The stationarity of the variables can also be witnessed in the graph's residual line as it crosses the mean value quite often.

Therefore, it is evident that there is no strong cointegration between the regional equity markets. However, this clearly shows some positive long-term relationships among the equity markets in South Asia.

4.5 Granger Causality Test

The Granger causality test was used in the research study to assess the unidirectional or bidirectional links between the time series variables under consideration. Previous research suggested that unidirectional or bidirectional interactions might exist [Chen et al. (2002), Gilmore and McManus (2012), Gurcharan and Pritam (2018)]. If the estimated value (F) is greater than 2.60, then we can reject the null hypothesis of the variables not possessing causality. Usually, if the measured "F" value is greater than 2.6, the variables have a granger causality. The test results are provided for the second lag, in Table 5.

According to Table 5, we come to the following decisions based on the Granger causality test.

1. Hypothesis of "CSE does not granger cause BSE" has to be accepted since the value of "F" is less than the critical value of 2.60. Therefore, it implies that the Colombo market is not granger caused to the BSE market, there is no effect of the CSE Index on the BSE index. However, BSE does not granger cause CSE and the hypothesis has to be rejected since "F" value is greater than the critical value of 2.60. Thus, it is evident that the BSE index has a major impact on the CSE index.

2. As per the analysis on the granger causality between KSE and BSE, the BSE index does not granger cause the KSE index, and there is no granger cause from KSE to BSE as well. Therefore, it is evident that the KSE market is not affected by the BSE market.
3. There is a granger cause from KSE to CSE since the "F" value is lesser than the critical value of 2.60, however, there is no granger cause from the CSE to KSE since F value is less.

4.6 Vector Autocorrelation (VAR)

This section looks at two main research hypotheses. First, regional market correlation, second, market correlation with leading market and lag markets or follower markets. Using VAR, 1st hypothesis is tested. Two tests are conducted under the VAR model. Namely, the test of variance decomposition and the analysis of impulse response. Variance decomposition measures the proportion of the movements in the dependent variable due to its own shock from other variables. Evaluation of the impulse response assesses the second hypothesis about identifying regional market leaders and market followers. It tracks the dependent variable's sensitivity due to a shock from other factors and the time it takes to react. The determination of the appropriate lag length for the variable was done using Akaike and Schwarz model to perform the VAR test. VAR model calculates and gives the data in terms of "t" value, if the calculated "t" value is higher than 1.96, it implies a significant variable. The results of the

VAR estimation are given in the Table 6. These results were taken by lagging the variables two times.

According to the results of the VAR the following conclusions were obtained.

1. CSE market movement was highly depended upon its own market movements in the first lag, yet the dependency tends to decrease after the second lag. In the first lag, CSE is does not affect BSE or KSE since the calculated "t" values are less than the critical value of 1.96. However, in second lag it affects the KSE market.
2. For BSE, calculated "t" value for CSE and KSE is 1.37 and 0.09 respectively. Therefore, these variables are not significant at 5% confidence interval, or it is not greater than the critical value of 1.96. Hence, it can be concluded that the BSE market movements does not directly affect other two markets.
3. Evaluation of the VAR results of the KSE market shows that it also does not affect the BSE and CSE markets, since the calculated "t" value is lower than the critical "t" value of 1.96. Therefore, there is a no correlation and interdependency between the BSE and KSE stock markets.

4.7 Variance Decomposition

The equity market movements will be evaluated through their own shocks versus movement due to other market shocks. To check the primary hypothesis of "if one market shock affects other markets" and to

determine the "regional market leader" Variance decomposition analysis was used. It determines how much of a given variable's step-ahead forecast error variance is explained to each explanatory variable by variances for $s = 1, 2$. In practice, it is generally observed that own series of shocks explain most of the series of error variables in a VAR. The full details of the variance decomposition are given in Table 7. The results are shown for different lag levels for 10 weeks. As per the results of Table 7, the following conclusions on the variance decomposition analysis were made.

1. BSE and KSE market shocks do not exert major effects on the CSE market, 99% of the BSE market movement is affected by its own shocks even at 10th step it remains at 96%. CSE's market movements were highly depended upon its own shocks at initial stages as well as at latter stages. BSE and KSE market shocks are affected by only 3.39% and 0.15% respectively. Therefore, it was concluded that the BSE and KSE market shocks do not affect the CSE market. Instead of other market shocks, the movement of the CSE market highly depends upon its own shocks.
2. In the BSE market context, 95% of the variance comes from its own shock at the first step. However, at the 10th step, it decreases to 79%. At this stage, CSE and KSE market shocks affect the BSE market by 8.4 % and 12.1%. This result implies that BSE is sensitive to the KSE and CSE

market shocks, but it takes some time to adjust to the market movements according to the other markets movements.

3. At initial stage, other markets shocks do not affect much on the KSE market. However, at the 10th stage, 93% of variance were due its own shocks and 4.41% is due to CSE market shock and remaining 1.63% is attributable to the BSE.

4.8 Impulse Response Analysis

The impulse analysis often tests the theory of "whether a shock in one stock market impacts the other two markets" The other important aspect of a study of the impulse response is assessing the length of the time taken to disperse a shock to other markets. Very often, the same results are given by the Impulse response and the decomposition of variance. Therefore, impulse response test is used to examine the time taken by other markets to witness the impact of these shocks. The data was converted to stationary series by taking the 1st difference of the variables to evaluate the length of the impulse response period.

The results of impulse response analysis are presented graphically in Figure 2. These graphs show how market shocks affect the movements of its own market and the other markets. The diagonal of the graphs shows each country shock for their own response.

The findings of the impulse response analysis have been divided into four major sections.

- i. Market response for its own shocks

When a shock in BSE occurs more than 95 percent of the shock will be self-corrected within 1st week and will not extend into the future. Shocks in the CSE and KSE markets are, however, in complete opposition to the BSE market. When a shock occurs in CSE, in the next week around 60 per cent of the shocks will be corrected but the effect will prevail for another 4 to 6 weeks. A similar pattern occurs also in the KSE market, but the dominant duration is less than the CSE (about 4 weeks).

- ii. Reactions of CSE and KSE to shocks in BSE market

When there is a shock in the BSE market, both CSE and KSE respond to that shock immediately. This effect prevails in the CSE for about 5-6 weeks but there is no significant movement in CSE. However, the effect reaches the maximum in the second week on the KSE market but disappears after 5 weeks.

- iii. Reactions of BSE and CSE for shock of KSE market

The findings will have no impact on CSE or BSE when there is a shock in KSE, but some effect prevails in both BSE and CSE markets for about 2-3 weeks. Also in this situation, in the second week the effect is increased, and it will be minimized and disappeared within 2-3 weeks afterwards.

- iv. Reactions of BSE and KSE to Shock in CSE market

A CSE shock slightly impacts both exist for two weeks.

4.9 Hypotheses

To achieve the objectives of the study, a variety of standard models were used from the published literature. Several important results concerning the correlation of South Asian equity markets emerged as a result of these models. Table 8 summarizes the results of the set hypotheses of the study.

5. CONCLUSION

The study is based on time series secondary data of South Asian stock market indices represented by Pakistan (KSE 100), Sri Lanka (ASPI), India (BSE 200). The sample size is based on monthly data of stock market indices from 2009 to 2018. By employing the econometric tools, this study achieved the objectives of finding short-run, long-run and causal relationships among stock market indices. This study finds a positive correlation between south Asian markets along with a more prominent long-term relationship.

BSE and KSE, but it doesn't even About causality and market movements among south Asian markets, there was a unidirectional relationship between BSE and CSE, while KSE and CSE neither affected the other two markets. Overall, the conclusion is that the diversification benefits in these stock markets under investigation are limited for international investors, while short-run diversification benefits may exist.

As the current study is only focused on three south Asian stock markets future researchers can investigate stock market integration for all the South Asian markets. The sample period of this study was also bound to ten years due to time constraint and the future researchers can perform the analysis for much longer which would provide more reliability to the results. Further, this study can also be performed using different tests like Arch and Garch to evaluate the risk during portfolio selection and minimize risk in portfolio diversification.

APPENDIX

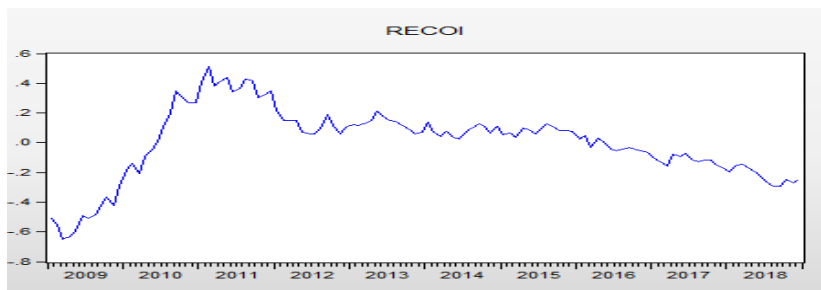


Figure 1: Graphical presentation of the Residual series of the Co integration test

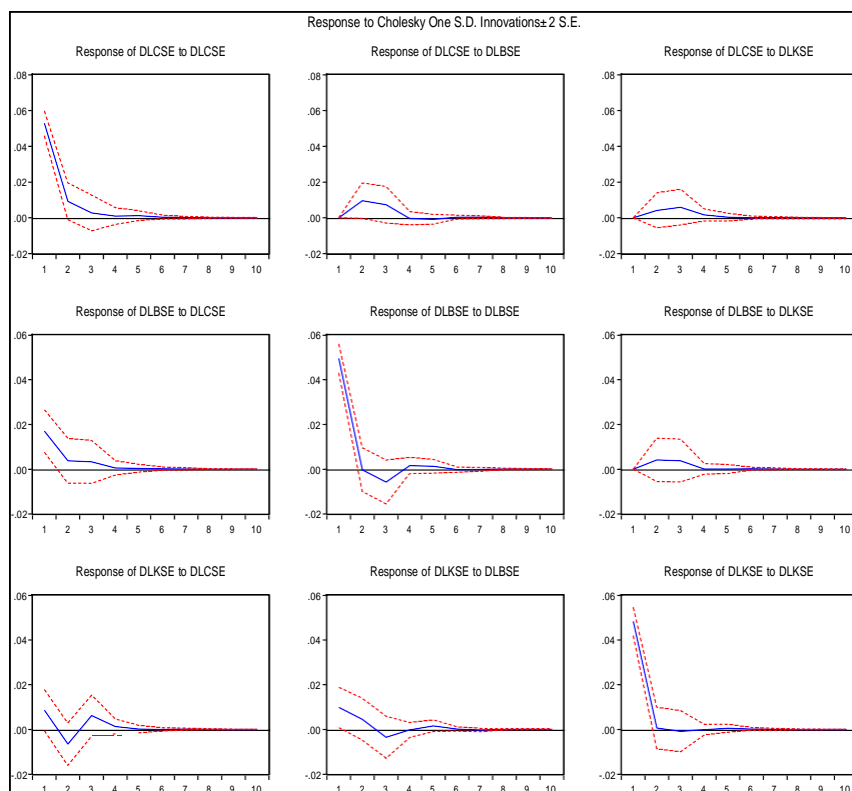


Figure 2: Graphical presentation of the impulse response analysis

Table 1: Summary descriptive statistics of the monthly index returns of each stock market

Distributional Properties	LBSE	LCSE	LKSE
Mean	10.01	8.63	9.97
Median	9.96	8.74	10.15
Maximum	10.56	8.96	10.83
Minimum	9.09	7.40	8.59
Std. Dev.	0.30	0.33	0.62
Skewness	-0.35	-2.22	-0.33
Kurtosis	3.02	7.36	1.74
Jarque-Bera	2.41	193.44*	10.20*
N	120	120	120

Table 2: Summary results of the correlation metrics

Country	BSE	CSE	KSE
BSE	1.0000	0.6833	0.9260
CSE	0.6833	1.0000	0.6559
KSE	0.9260	0.6559	1.0000

Table 3: Summary Results of the unit root test based on ADF and PP

Variables	Augmented Ducky Fuller		Philips Parron	
	Level	1st diff	Level	1st diff
	T Stat	T Stat	T Stat	T Stat
CSE	-4.44	-8.86	-4.30	-9.26
BSE	-2.49	-8.13	-2.50	-10.75
KSE	-2.82	-10.46	-2.82	-10.45

Table 4: Engel and Granger's two Step Cointegration Residual Test Result

ADF Test Statistic		-3.013748	5% critical value	2.8666
Variable	Coefficient	Std. Error	t-Statistic	Prob.
RECOI (-1)	-0.065334	0.021679	-3.013748	0.0032
D (RECOI (-1))	0.03304	0.089122	0.370727	0.7116
D (RECOI (-2))	-0.090469	0.088312	-1.024427	0.3079
D (RECOI (-3))	0.142304	0.087192	1.63207	0.1056
D (RECOI (-4))	0.264213	0.088043	3.000966	0.0033
C	0.003857	0.004704	0.819905	0.4141
R-squared	0.169968	Mean dependent var		0.002982
Adjusted R-squared	0.131893	S.D. dependent var		0.053579
S.E. of regression	0.04992	Akaike info criterion		-3.106008
Sum squared resid	0.271634	Schwarz criterion		-2.962794
Log likelihood	184.5955	Hannan-Quinn criter.		-3.047878
F-statistic	4.464054	Durbin-Watson stat		2.036304
Prob(F-statistic)	0.000972			

Table 5: Results of the granger causality test

Pairwise Granger Causality Tests			
Date: 12/18/19 Time: 04:51			
Sample: 2009M01 2018M12			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
DLCSE does not Granger Cause DLBSE	117	0.78845	0.4571
DLBSE does not Granger Cause DLCSE		2.78539	0.066
DLKSE does not Granger Cause DLBSE	117	0.55611	0.575
DLBSE does not Granger Cause DLKSE		0.21985	0.803
DLKSE does not Granger Cause DLCSE	117	1.73704	0.1808
DLCSE does not Granger Cause DLKSE		2.13466	0.1231

Table 6: Result of VAR calculation

Vector Autoregression Estimates			
Date: 12/10/19 Time: 22:07			
Sample (adjusted): 2009M03 2018M12			
Included observations: 118 after adjustments			
Standard errors in () & t-statistics in []			
	LCSE	LBSE	LKSE
LCSE (-1)	0.987277	-0.005221	-0.229192
	-0.09418	-0.09047	-0.09519
	[10.4828]	[-0.05772]	[-2.40772]
LCSE (-2)	-0.061128	-0.061089	0.207743
	-0.09093	-0.08734	-0.0919
	[-0.67226]	[-0.69940]	[2.26042]
LBSE (-1)	0.136138	0.802167	-0.00904
	-0.09927	-0.09536	-0.10034
	[1.37135]	[8.41202]	[-0.09010]
LBSE (-2)	-0.089129	0.055504	-0.061358
	-0.09697	-0.09315	-0.09801
	[-0.91910]	[0.59585]	[-0.62602]
LKSE (-1)	0.006383	-0.008417	0.926124
	-0.09391	-0.09021	-0.09492
	[0.06797]	[-0.09331]	[9.75713]
LKSE (-2)	-0.026631	0.080736	0.086151
	-0.09658	-0.09278	-0.09762
	[-0.27573]	[0.87023]	[0.88252]

C	0.37799	1.290322	0.786655
	-0.25879	-0.24859	-0.26157
	[1.46059]	[5.19054]	[3.00745]
R-squared	0.973979	0.973942	0.993588
Adj. R-squared	0.972573	0.972533	0.993241
Sum sq. resids	0.265351	0.244841	0.271073
S.E. equation	0.048893	0.046966	0.049418
F-statistic	692.466	691.4504	2866.514
Log likelihood	192.311	197.0572	191.0523
Akaike AIC	-3.140865	-3.221309	-3.119531
Schwarz SC	-2.976502	-3.056946	-2.955168
Mean dependent	8.651584	10.02753	9.991576
S.D. dependent	0.295227	0.283385	0.601088
Determinant resid covariance (dof adj.)		0.0000000118	
Determinant resid covariance		0.00000000982	
Log likelihood		585.5827	
Akaike information criterion		-9.569199	
Schwarz criterion		-9.076111	

Table 7: Results of the variance decomposition test

Variance Decomposition of LCSE:				
Period	S.E.	LCSE	LBSE	LKSE
1	0.04889	100.0000	0.0000	0.0000
2	0.07003	99.1932	0.80488	0.00196
3	0.08417	98.756	1.23462	0.00942
4	0.09461	98.3819	1.5946	0.02347
5	0.10265	98.0265	1.93053	0.04293
6	0.10897	97.684	2.2505	0.06555
7	0.11401	97.3533	2.55726	0.0894
8	0.11805	97.0365	2.85052	0.11301
9	0.12132	96.7356	3.12915	0.13525
10	0.12395	96.4528	3.39185	0.15531
Variance Decomposition of LBSE:				
Period	S.E.	LCSE	LBSE	LKSE
1	0.04697	5.15205	94.848	0.0000
2	0.06013	5.03711	94.9583	0.00462
3	0.06857	4.26087	95.516	0.22316
4	0.0744	3.61901	95.5866	0.7944

5	0.07877	3.43095	94.7829	1.78616
6	0.08233	3.74947	93.0442	3.20637
7	0.08546	4.52441	90.4534	5.02224
8	0.08839	5.65203	87.1767	7.17124
9	0.09123	7.00726	83.4208	9.57192
10	0.09406	8.46676	79.3965	12.1368
Variance Decomposition of LKSE:				
Period	S.E.	LCSE	LBSE	LKSE
1	0.04942	0.27832	3.12241	96.5993
2	0.06785	1.86365	2.93563	95.2007
3	0.08252	2.72213	2.14281	95.1351
4	0.09534	3.32287	1.61376	95.0634
5	0.10685	3.76147	1.3025	94.936
6	0.11738	4.06811	1.16497	94.7669
7	0.12711	4.26843	1.16043	94.5711
8	0.13616	4.38177	1.25497	94.3633
9	0.1446	4.42459	1.42127	94.1541
10	0.15249	4.41125	1.63778	93.951

Table 8: Summary Results of the Hypothesis Testing

Hypothesis	Conclusion	Testing method
CSE is significantly correlated with BSE	✓	Correlation
BSE is significantly correlated with KSE	✓	Correlation
KSE is significantly correlated with CSE	✓	Correlation
As a regional giant, BSE drives other two markets and other two markets follow the BSE market	×	VAR Granger Causality Impulse Response Variance decomposition
Granger causality among the markets	×	Granger Causality
CSE granger cause to BSE	×	
CSE granger cause to KSE	✓	
BSE granger cause to CSE	×	
BSE granger cause to KSE	×	
KSE granger cause to BSE	×	
KSE granger cause to CSE	×	

Long run relationship among South Asian markets	✓	Cointegration
Effects of one market shock on the other		
BSE market shock on KSE	12.1%	Variance decomposition
BSE market shock on CSE	8.4%	
CSE market shock on BSE	3.4%	
CSE market shock on KSE	Minimal	
KSE market shock on BSE	1.6%	
KSE market shock on CSE	4.4%	

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Impact of Strategic Self-Management Practices on Academic Success with the Moderating Effects of Self-Leadership and Time Management Practices: A Study Based on Management Undergraduates of the Selected State Universities in Sri Lanka

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Abstract

Even though Strategic self-management, Self-leadership and Time management are prominent topics in the global context, it is hard to identify specific academic courses to promote those concepts in Sri Lanka. Hence, this study aims to investigate the impact of Strategic self-management practices, Self-leadership and Time management practices on the Academic success of undergraduates. The respondents of the study were 480 Management undergraduates in the selected state universities in Sri Lanka. Data collection was conducted using a structured questionnaire. Analysis of data was performed following a Statistical Package for Social Sciences (SPSS). The results of the study revealed that there is a positive impact of Strategic self-management practices on Academic success with the moderating effects of Self-leadership and Time management practices. The findings of the study may be useful for the academics and authorities of universities as well as undergraduates to get insights from the recommendations of the analyzed problem.

Keywords: Academic success, Self-leadership, Strategic self-management practices, Time management practices.

1. INTRODUCTION

One of the main objectives of university education is to create and groom high-quality graduates who shoulder the sustainable development of a country. According to Garkaz et al. (2011), the higher education system is still required to research factors that affect academic performance in the case of producing the best human capital. To hit that particular target, all the governing bodies of universities have always been trying to develop and implement strategies to attain the desired academic success

of undergraduates. Typically, undergraduates are supposed to manage themselves properly to achieve their life goals. Going through their list of goals, academic success might be labeled as the most prioritized goal. At present, a considerable amount of undergraduates has not planned their future since they do not practice self-management. On the other hand, undergraduates hardly or do not practice self-discipline, time management and self-leadership.

Khurshid et al. (2014) have observed that most undergraduates do not have an exact purpose and a well-thought-out answer for their purpose of getting a higher education. The reason behind those flat answers is the fuzzy goals (Khurshid et al., 2014). Hence, goals can be identified as a fundamental link to how an individual translates his great ideas into actions in his life and his academic, personal, or professional relationships. Hence, to achieve the best academic performance undergraduates must be aware and practice strategic self-management along with self-leadership and time management.

Ali et al. (2009) have observed that the academic success of undergraduates plays a major role in creating quality graduates who will shoulder the economic and social development of the country. Therefore, measurements and factors affecting students' academic success have been taken into account by several researchers in the research literature to achieve the academic excellence of students. Grave et al. (2010) have stated that completing higher studies with a higher GPA is one of the best paths to achieve a higher level of academic performance by investigating time management practices and their impact on grades. Kelly (2004) has stated that "Efficient utilization of time is directly associated with increased academic performance". As per the above studies, it is clear to make undergraduates aware of the benefits of using time management to increase academic performance.

In the Sri Lankan context, most of the state university undergraduates

possess very high academic performances in their secondary education. However, when they enroll in the university, a limited number of undergraduates continue their studies as before. The majority pay less attention compared to their secondary education. The most critical problem is that some undergraduates do not consider their academic activities. Unfortunately, some of them are unable to attain at least a general pass at the desired time. The reason behind this situation is they do not have a clear life plan.

Researching how strategic self-management practices affect the academic success of undergraduates in the Sri Lankan context, is very critical before promoting the concept among undergraduates. Therefore, the principal investigator conducted face-to-face interviews with undergraduates regarding their strategic life plans and ended up with the fact that the majority of interviewees did not have a clear life plan. Unfortunately, some undergraduates cannot perform as they expected. Also, some undergraduates mislead at the university, engaging in unethical behaviors, which are very seriously harmful to their success, university success and country success, and ultimately affect global success. Hence, this study aims to identify the importance of strategic self-management, self-leadership and time management practices for academic success.

Even though self-mastering and self-leadership are prominent topics in the global platform, it is very hard to find formal education on self-mastering,

self-leadership and even Time management in Sri Lanka. Moreover, it is very critical to identify the importance of time, punctuality and the importance of prioritization. The impact of managing our time to achieve academic success is a globally accepted matter. However, in the Sri Lankan context, there are no such studies or evidence. Furthermore, this study will justify the moderating impact of self-leadership and time management on the relationship between strategic self-management and academic success.

For this study, the authors considered the final-year management undergraduates in the selected four state universities in Sri Lanka. Especially, final year students have been identified as respondents, the main reason they have achieved certain successes in university life.

The general objective of the study is to investigate the impact of strategic self-management practices, self-leadership and time management practices of the undergraduates of selected state universities in Sri Lanka on their academic success. Hence, the research problem of this study was “What is the impact of strategic self-management, self-leadership and time management practices on the academic success of undergraduates of the selected state universities in Sri Lanka?”. Furthermore, this study addresses some theoretical and empirical gaps in the area of strategic self-management practices, strategic leadership, and time management practices. In the Sri Lankan context, it is very hard to find the research literature related to the impact of strategic self-management practices

on the academic success of undergraduates. Especially, there is a lack of research studies based on the moderating effects of self-leadership and time management practices on the relationship between strategic self-management practices on the academic success of undergraduates. Furthermore, this study is important to identify the importance of promoting strategic self-management practices, self-leadership and time management practices among students at the university level and to enhance the academic success of undergraduate students through developing and practicing strategic self-management, self-leadership and time management. When those concepts are promoted among undergraduates they’ll be able to apply those competencies within them to achieve their desired academic success and overall success in their lives as well.

2. LITERATURE REVIEW

2.1. Strategic self-management practices

Self-management skills develop one’s ability to accomplish goals by controlling thoughts, emotions and actions. Self-management can be defined based on its components or importance or involvement in different contexts. Hughes and Lloyd (1993) have defined self-management as “a process that begins with monitoring and evaluating one’s behavior followed by reinforcing improvements in one’s performance”. Simply, self-management can be defined as a self-development skill that empowers one’s ability to be the highest version. Goldfried and Merbaum (1973) have defined self-

management as “a personal decision arrived at through conscious deliberation to integrate action which is designed to achieve certain desired outcomes or goals as determined by the individual himself” (p. 12). Strategic self-management is an advanced development of the concept of “Self-management”. But, it is hard to find a precise definition of strategic self-management within the research literature. Therefore, strategic self-management can be defined as the deliberate process of controlling and utilization of one’s attitudes, behaviors and actions to achieve one’s desired goals.

2.2. Self-leadership

Napolitano and Henderson (1998) recognized self-leadership as the foundation of leadership. As mentioned by Manz & Sims (1980), this concept originally appeared in a practitioner-oriented book which was an extension of self-management. Manz and Sims (2001) have defined self-leadership as “the process by which an individual controls behavior, makes influences and leads himself using specific behavioral and cognitive strategies”. They further define self-leadership as “a self-influential process that incorporates behavioral and cognitive strategies”. These behavioral and cognitive strategies are designed to assist individuals to address not only what they need to do but also why and how they should do it (Manz & Sims, 1986; Neck et al., 2017). Manz (1986) has defined self-leadership as “a process of personal development that aims at developing personal a professional effectiveness, through utilizing mental, cognitive and

behavioral strategies”.

According to Kazan (1999), self-leadership incurs by an individual and it aims at personal fulfillment. In other words, self-leadership is internally motivated as it is motivated by the desire an individual has to feel more efficient and effective. Flores (2020) has observed that “when undergraduates are actively engaged in leading organizations in a university, these activities empower them to positively develop their constructive thoughtpatterns”.

2.3. Time-management practices

It is hard to find a universally accepted definition of time management in the research literature. Lakein (1973) has defined time management as “the process consists of identifying one’s needs, setting goals to achieve these needs, prioritizing and planning tasks to achieve these goals”. Time management can be further defined as: “a technique that can be followed to use time and have sufficient time to complete many tasks required” (Orpen, 1994; Woolfolk & Woolfolk, 1986); “a technique that can be used to increase the time available to accomplish activities” (King et al., 1986) “planning and allocating time” (Burt & Kemp, 1994); “the use of procedures that are designed to help the individual to achieve his or her desired goals” (Hall & Hursch, 1982) “the degree to which individuals perceive their use of time to be structured and purposive” (Bond & Feather, 1988); “a way of getting insight into time use” (Koolhaas et al., 1992); “practices intended to maximize intellectual productivity”

(Britton & Tesser, 1991);. According to Agormedah et al. (2021), quality time management is an imperative tool that leads to greater academic performance and reduces depression, anxiety and stress among students. Their findings showed that college students with poor time management behaviors will have low grades. Therefore, time management skills can be defined as the deliberate process of determining desired goals/results, identifying techniques to manage time to achieve those goals/results, deciding tasks to accomplish desired goals/results, prioritizing identified tasks, executing prioritization plans using identified tools to achieve desired goals/results. Ramona et al. (2018) have identified different terminologies for time management such as prioritization and respecting those priorities (Soucie, 1986) spontaneity, balance, flexibility and control of time (Lakein, 1973), the process in which an individual achieves tasks and objectives (Schuler, 1979) prioritization and planning activities (Jordan et al., 1989), the process in which an individual obtains control over time and his actions (Oncken & Wass, 1985). Furthermore, there are three factors of time management short-term planning, long-term planning and attitudes (Tesser, 1991).

2.4. Academic success

Scholars have defined academic success using different aspects but it is hard to find a universally accepted definition for academic success. Scholars have conducted several studies to identify factors that determine the quality of academic success considering the highly

increased competitive pressure on the higher education system plus the responsibility of higher educational institutions to produce a high-quality workforce. Existing literature reveals the role of internal psychological factors affecting students' academic behavior and performance. Reynolds (1998) observed five factors affecting the performance of students in educational institutions: teaching basic learning skills, a safe institutional environment formative assessment activities, students' positive expectations and dynamic institutional leadership. An analysis of related literature shows that academic staff is one of the major determinants that can execute professional academic practices and different strategies that would change learners' behavior, would motivate learners to attain success. Higher academic performance can be achieved with good intellectual ability, professional academic staff, a conducive learning environment, quality feedback, proper measurement of outcomes of the educational process, teaching essential management and learning skills, effective application of that management learning skills and a good socioeconomic background.

Researchers have used the terms 'student success' and 'academic success' interchangeably. Kuh et al. (2006) have defined student success as "undergraduate's academic achievement, engagement in educational activities, satisfaction, acquisition of knowledge, skills and competencies, the persistence of undergraduate, accomplishment of educational outcomes, and post-

college performance” (p. 5).

3. METHODS

Sekaran and Bougie (2013) have stated that “a research study is aimed at identifying the remedies for a specific problem in a methodological manner and the quality of research depends on how the research design alternatives are selected carefully. The principal investigator developed a model to conceptualize the theoretical framework of this research, as shown in Figure 1 (Please see Figure 1) and used the quantitative approach considering the objectives of the study. The rationale behind the selection was, quantitative research studies use structured questions with multiple response options and a large number of participants (Welman, 2005). The study was descriptive since the researchers expected to collect data describing the characteristics of persons; undergraduates (Sekaran & Bougie, 2013). Also, as the main objective of the study is to investigate the impact of strategic self-management practices, self-leadership and time management practices on academic success, the descriptive type suits best to conduct the study. Based on the time of the study, cross-sectional studies were used since the data were collected at only one point in time or within the specified week and no repeated collection of data (Sekaran and Bougie, 2013). Considering the general objective of the study, the type of investigation of this study was experimental. In this study, strategic self-management practices were identified as the independent variable, self-leadership and time management practices were identified as the

moderating variables while academic success was identified as the dependent variable.

According to Sekaran (1992), correlation studies are typically conducted with minimal researcher interference and in a non-contrived field setting. Since the study examined the impact of strategic self-management practices, self-leadership and time management practices of undergraduates on their academic success, the study can be identified as a field study. Further, there are no controlled or manipulated variables. The research setting was non-contrived as this study was conducted in the same environment. That means without controlling the original environment. No synthetic or contrived setting was created for the study.

A unit of analysis is the most fundamental element of scientific research. Sekeran (1992) defines the unit of analysis as the extent of aggregation of the variables and collected data during the subsequent analysis stage. Therefore, the unit of analysis, (which was the major entity that was being analyzed in the study), was individuals i.e., undergraduates. Population refers to “the entire group of people, events, or things of interest that the researcher pursues to investigate” (Sekaran and Bougie, 2013). The population concerned for the study was management faculty final year undergraduates in the University of Sri Jayewardenepura, University of Colombo, University of Sabaragamuwa and the University of Rajarata. According to Sekaran (1992), the sample is defined as “the subset of a population”. Therefore,

the sample is selected from the population. At the same time, the sample represents the selected target population. Hence, it needs to be adequate to warrant the generalization of the findings of the population and appropriate sample selection is critical. It ensures that the selected sample reflects the accurate behavior, awareness and opinions of the total population. For the study, the stratified random sampling method was used to select management undergraduates representing students from each university. The rationale behind the selection of management undergraduates of the selected state universities as the sample was the personal experience of the principal investigator regarding the evaluation of strategic life plans of the interviewed undergraduates. Many of the undergraduates didn't have a clear life plan with them. Some of the undergraduates couldn't achieve the academic performances they expected. However, state university undergraduates enroll in universities with high performances in their Advanced Level examinations. Hence the authors decided to consider state university undergraduates as the sample to recognize the importance of strategic self-management, self-leadership and time management practices in their academic success at the university level. The total sample size was 480 undergraduate students.

According to Sekaran and Bougie (2013), the decision of collecting primary data that involves the selection of the technique(s) for obtaining the information needed is interrelated with the alternative steps in the research process. Considering

the objectives of the study, the research questions, and the research strategy, the data collection method(s) are to be selected. Facilities available, the extent of accuracy needed, the form of data required, the duration of the study, the expertise of the reviewer, and other chargers and resources associated with and available for data accumulating may also affect the choice of method(s) (Sekaran and Bougie, 2013). They have further stated that problems researched with the use of appropriate methods greatly upgrade the value of the study.

The questionnaire survey was used to gather data for the study for several reasons extraordinary to this study. Easiness in administration and accessibility, cost-effectiveness and familiarity with most of the respondents are some of them. Since undergraduates are engaged in their academic activities, the questionnaire method was chosen as the most suitable technique for collecting data from the respondents. The questionnaire was comprised of 60 statements that have high reliability and validity. Due to the pandemic situation of Covid-19, 480 Google form questionnaires were distributed among undergraduates to collect primary data. Responses were taken into two types of five-point Likert scales such as "Very low extent, Low extent, Moderate Extent, High extent and Very high extent; Very poor, Poor, Satisfactory, Very good an Excellent". According to Sekaran and Bougie (2013), an open-ended question could be included at the end of the questionnaire, allowing

respondents to comment upon any component they pick. Hence, questions number 45-60 in the questionnaire have been allocated to identify personal reviews and experiences of the respondents related to strategic self- management practices, self- leadership and time management practices. The anonymity of the respondents can be considered to be very essential. Then, the author-developed questionnaire method was the simplest feasible approach to collect greater reliable facts while at the same time assuming the anonymity of the respondents.

Sekaran and Bougie (2013) have stated that validity is the test to find out the truth or accuracy. Validity comprises three steps. Further, they have stated that construct validity refers to how well the results can be obtained from the measures and fit the theories based on which the test is designed. The construct validity of the variables was confirmed by the fact that regression analysis aids the hypothesis formulated for the impact of strategic self- management practices, self- leadership and time management practices on the academic success of undergraduates. "Content validity considers how well the items developed to operationalize a construct and provides a sufficient and representative sample of all the items that might evaluate the construct of interest" Sekaran (1992). Content validity of the instrument was ensured by the conceptualization and operationalization of the variables in the research literature and indirectly by higher internal consistency reliability of the instruments as denoted by Alpha.

Reliability can be defined as an indication of the stability and consistency with which the instruments are used to evaluate the concepts and it also assists to evaluate the goodness of a measure. (Sekaran & Bougie, 2013). Reliability can be tested statistically by finding out Cronbach's alpha value. Cronbach's alpha coefficients typically range from 0.00 to 1.00 and higher coefficients indicate higher levels of reliability. Nunnaly (1978) stated that, a score of 0.7 is an acceptable level. As shown in Table 1, (Please see Table 1), when the Cronbach's Alpha values of the variables are greater than 0.7, the reliability of the questions is said to be high. Furthermore, it indicates that all instruments have high external reliability. The responses were analyzed following Statistical Package for Social Sciences (SPSS) Analysis tool version 23.

4. RESULTS

As per the demographic data analysis shown in Table 2 (Please see Table 2), the majority of undergraduates in the sample represented the field of Human Resource Management which is 62.7% (301 undergraduates). In the selected sample, the majority of undergraduates were females which was a 75% representation of the total. According to the survey data, the majority of undergraduates in the sample belong to the age group of fewer than 25 years, which represents 52% (252 undergraduates) of the total. The majority of undergraduates in the sample were from the Colombo district which represents 28% (132 undergraduates) of the total. As per the survey data,

undergraduates who belong to families with below Rs.50, 000 represent the majority of the sample which is 40% (192undergraduates).

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 3 (Please see Table 3). 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 Cronbach's alpha for all variables is greater than 0.7 , indicating that the study's reliability is established.

4.1. Correlation analysis

A Pearson correlation matrix will indicate the direction, strength, and importance of the bivariate relationships among all the variables that were measured at an interval or ratio level. The correlation is stemmed from evaluating the variations in one variable as another variable also varies (Sekaran, 2006). Pearson's product-moment correlation with a one-tailed test of significance was used to investigate the strength of the relationship between the following set of variables.

Table 4 (Please see Table 4) represents correlation values between the independent variables as strategic self-management practices, self-leadership and time management practices and the dependent variable as academic success. According to Table 4, there is a strong positive correlation between strategic self-management practices and academic

success, self-leadership and academic success and time- management practices and academic success of undergraduates in the selected state universities in Sri Lanka.

4.2. Regression analysis

Simple regression analysis is followed in a situation where one independent variable is hypothesized to affect one dependent variable (Sekaran, 2006). Therefore, Simple Regression Analysis was used to identify the impact of independent variables on the dependent variable.

According to the findings of Table 5 (Please see Table 5), it is substantial that there is a positive impact of strategic self- management practices of undergraduates on their academic success. Strategic self-management practices (Independent variable) have resulted in an 88.1% impact on the academic success (Dependent variable) of undergraduates in the selected Sri Lankan state universities. Secondly, the survey data has proved that there is a positive impact of self-leadership of undergraduate students on their academic success since self-leadership (Independent variable) has resulted in an 84.4% impact on academic success (Dependent variable) of undergraduates in the selected Sri Lankan state universities. Furthermore, as per the survey data it has been proved that there is a positive impact of time management practices of undergraduate students on their academic success. Time management practices (Independent variable) have resulted in a 90.5% impact on the academic success (Dependent variable) of

undergraduates in the selected Sri Lankan state universities.

4.3. Moderator analysis

A moderating variable can be defined as “a variable that modifies the authentic relationship between an independent variable and the dependent variable. Such interactions are involved as the product of two variables in a regression model (Sekaran, 2006).

According to Fairchild and Mackinnon (2009), the moderation model measures whether the forecast of a dependent variable Y from an independent variable, X differs across levels of a third variable, Z. As Fairchild and Mackinnon explained moderator variable influences the strength and/or direction of the relationship between a predictor and an outcome: improving, decreasing, or modifying the influence of the predictor. As mentioned in chapter three, there are two moderating variables in the conceptual model. Self-leadership and time management practices are the moderating variables that moderate the relationship between strategic self-management and academic success. To analyze the moderating effect, Baron et al. (1986) have cited the requirement of measuring the impact of predictor, moderator, and the interaction or product of these two on the outcome variable. They have also stated that the moderator hypothesis is supported if the interaction is significant. Furthermore, they have recognized that there may also be important major effects for the predictor and the moderator however these are not directly related conceptually to test

the moderator hypothesis (Baron et al., 1986, p. 1174). According to the findings of Tables 6 and 7 (Please see Table 6 and 7), there is a moderating effect of self-leadership on the relationship between strategic self-management practices of undergraduate students on their academic success. The fourth hypothesis of the study has been accepted. The interaction variable of self-leadership is significant at a 99% level which is highly aligned with Baron et al. (1986, P.1174) as mentioned “The moderator hypothesis is supported if the interaction is significant”. According to the findings of Tables 8 and 9, (Please see Tables 8 and 9), The results of the moderation analysis have proved that there is a moderating effect of time management practices on the relationship between strategic self-management practices of undergraduate students on their academic success. Therefore, the fifth hypothesis of the study has been accepted. The interaction variable of time management practices is significant at a 99% level which is highly aligned with Baron et al. (1986, P.1174) as mentioned previously.

4.4. Results of hypothesis testing

The hypothesis testing was executed using the results of Pearson’s product moment correlation analysis and the Regression analysis. All the Null hypotheses were evaluated using those results. As all the hypotheses were concerned with a positive relationship ($H_A > 0$), a one-tailed test was used in the correlation analysis.

H1: There is an impact of Strategic self-management practices of undergraduates on their academic success.

Based on the results of Pearson's Product Movement correlation analysis between strategic self-management practices and academic success, the correlation coefficient is 0.939, which is significant at 1% ($p=0.000$). According to the results of the simple regression analysis between the two variables the regression coefficient (b) is 1.203, which is significant at 1% (Sig. T=0.000). Concerning table 5.12 standardized coefficients, the Beta value is 0.939, and it shows that there is a positive impact of strategic self-management practices on academic success. When the strategic self-management practices of undergraduates increase by 1%, their academic success increases by 88.1%. And also significant value is 0.000. (Sig: value 0.000 which is less than 0.05 level). Hence, concerning the above statistics impact of strategic self-management practices on academic success is statistically significant.

Therefore, according to the results of both tests, the Null hypothesis is rejected and the alternative hypothesis is accepted, as $r= 0.988 > 0$ and $b= 0.988 > 0$. Hence, the data support the hypothesis that there is a positive impact of strategic self-management practices on academic success.

H2: There is an impact of Self-leadership of undergraduates on their academic success.

Peculiar to the results of Pearson's

Product Movement correlation analysis between self-leadership and academic success, the correlation coefficient is 0.919, which is significant at 1% ($p=0.000$). As per the results of the simple regression analysis between the two variables the regression coefficient (b) is 1.222, which is significant at 1% (Sig. T=0.000). According to table 5.15, the standardized coefficients Beta value is 0.919, and it shows that there is a positive impact of self-leadership on academic success. When self-leadership increased by 1%, their academic success increased by 84.4%. And also significant value is 0.000. (Sig: value 0.000 which is less than 0.05 level). Hence, based on the above statistics impact of self-leadership on academic success is statistically significant.

Therefore, according to the results of both tests, the Null hypothesis is rejected and the alternative hypothesis is accepted, as $r= 0.988 > 0$ and $b=0.988 > 0$. Hence, the data support the hypothesis that there is a positive impact of self-leadership on academic success.

H3: There is an impact of Time management practices of undergraduates on their academic success.

With the results of Pearson's Product Movement correlation analysis between time management practices and academic success, the correlation coefficient is 0.951, which is significant at 1% ($p=0.000$). As per the results of the simple regression analysis between the two variables the regression coefficient (b) is 1.177, which is

significant at 1% (Sig. T=0.000). Concerning table 5.18, the standardized coefficients Beta value is 0.951, and it shows that there is a positive impact of time management practices on academic success. When the time management practices of undergraduates increase by 1%, their academic success increases by 90.5%. And also significant value is 0.000. (Sig: value 0.000 which is less than 0.05 level). Hence, with the above statistics impact of time management practices on academic success is statistically significant.

Therefore, according to the results of both tests, the Null hypothesis is rejected and the alternative hypothesis is accepted, as $r = 0.988 > 0$ and $b = 0.988 > 0$. Hence, the data support the hypothesis that there is a positive impact of time management practices on academic success.

H4: There is a moderating effect of Self-leadership on the relationship between Strategic self-management practices of undergraduates on their academic success.

Depending on the results of the study, the main effect of self-leadership on academic success is statistically significant (Please see Table 5.18.). The interaction variable is significant at a 99% level which is highly aligned with Baron et al. (1986, P1174) as they mentioned “The moderator hypothesis is supported if the interaction is significant”. Thus there is statistical evidence to conclude that there is a moderating effect of self-leadership on the relationship between strategic self-management practices on academic success.

H5: There is a moderating effect of

Time management practices on the relationship between Strategic self-management practices of undergraduates on their academic success.

The results stemming from the study ensure the main effect of time management practices on academic success is statistically significant (Please see Table 5.21.). Furthermore, the interaction variable is significant at a 99% level which is highly aligned with Baron et al. (1986, P1174) as they mentioned “The moderator hypothesis is supported if the interaction is significant”. Thus there is statistical evidence to conclude that there is a moderating effect of time management practices on the relationship between strategic self-management practices on academic success.

5. DISCUSSION

Strategic self-management, self-leadership and time management skills empower undergraduates to more concentrate on their academic goals. The purpose of the study was to investigate the impact of strategic self-management practices, self-leadership and time management practices of undergraduates on their academic success. Five hypotheses were developed based on the conceptual framework to accomplish the purpose of the study (Please see Figure 1). Furthermore, all the developed alternative hypotheses were accepted while rejecting the developed null hypotheses based on the results of the current study.

The findings of the study showcase that, there is a positive impact of strategic self-management practices

on academic success (Pearson correlation 0.939 and Adjusted R square = 0.881). The results of the study are tallying with these other context findings. Research studies on potential employability and academic performance of undergraduates concluded interesting findings; According to Jackson and Wilton (2016), Improvement of self-efficacy and self-confidence within undergraduates increases their ability to manage themselves effectively which is beneficial for their careers; produces more positive insights towards their ability to get employment in their field; Youths do not challenge the competition but identify it as fair and they deal with this challenge by practicing strategic self- management (Morch et al., 2017). The practice of self-management strategies along with suitable skills is necessary to gain the required vitality (Cheung W. & Cheung Y., (1997).

As per the findings of the study, there is a positive impact of self- leadership on academic success (Pearson correlation 0.919 and Adjusted R square = 0.843). Though the literature related to exploring the relationship between self-leadership and academic success is not in abundance the results of the study are tallying with some facts in other context findings. Individual performance positively correlates with self-leadership strategies (Neck & Manz, 1992; Neck et al., 2003; Stewart et al., 1996). Furthermore, the development of self-leadership can be identified as an essential requirement for all individuals (Ross, 2015). Megheirkouni (2018) has observed

that self-efficacy may act as the primary mechanism through which self-leadership strategies have positive outcomes.

According to the findings of the study, there is a positive impact of time management practices on academic success (Pearson correlation 0.951 and Adjusted R square = 0.905). The results of the study are tallying with these other context findings. As stated by Shazia and Muhammad (2015), every undergraduate should possess time management skills that include setting appropriate goals and priorities, using time management techniques and being organized in utilizing time. Past empirical studies have demonstrated the fact that time management practices have an impact on the results of students. It is also discovered that the undergraduates had advanced overall academic achievements when accounted for using goal-oriented time management practices. There is an underlying assumption that undergraduates with good time management skills can manage time effectively even after they enter into professional life. In literature studies, it has been monitored that positive time management behaviors empower the Grade Point Average, whereas negative time management behaviors lower academic performance (Indreica et al., 2011; Saketi & Taheri, 2010; Britton & Tesser, 1991; Mpofu et al., 1996; Tanriogen & Iscan, 2009; Sevari & Kandy, 2011). Researchers have conducted a great number of studies based on the relationship between time management and GPA (Swart et al., 2010; Indreica et al.,

2011; Britton & Tesser, 1991; Mpofu et al., 1996; Saketi & Taheri, 2010; Macan et al., 1990; Sevari & Kandy, 2011; Tanriogen & Iscan, 2009). The study conducted by Saketi and Taheri (2010) investigated the relationship between time management and academic achievement of master's and bachelor's students and revealed that there is no significant difference between male and female students regarding time management skills. However, female students scored higher than males in academic performance. According to the research findings, time management skills corresponded to differences in academic achievement scores. Therefore, as suggested researchers have recommended implementing a plan for training students' time management skills to enhance their accomplishments (Saketi & Taheri, 2010).

In compliance with the findings of the moderation analysis, there is a moderating effect of self-leadership on the relationship between strategic self-management practices and academic success. The interaction variable of self-leadership is significant at a 99% level which is highly aligned with Baron et al. (1986, P.1174) as mentioned "The moderator hypothesis is supported if the interaction is significant".

Furthermore, the results of the moderation analysis have proved that there is a moderating effect of time management practices on the relationship between strategic self-management practices and academic success. The interaction variable of time management practices is significant at a 99% level which is

highly aligned with Baron et al. (1986, P.1174) as they mentioned "The moderator hypothesis is supported if the interaction is significant".

6. CONCLUSION

Practicing strategic self-management makes undergraduates smarter and more focused. Not only that but also strategic self-management practices, self-leadership and time management practices are good general indicators of the employability of an undergraduate to play a greater role in his job performance in the future. Having good strategic self-management practices, self-leadership and time management practices are kinds of matching with the qualifying criteria for a job. Therefore, the development and continuous practice of strategic self-management, self-leadership and time management are vital not only for academic success but for overall success.

Hence, all the hypotheses were accepted in the study. As per the survey data, it was found that there is a positive impact of strategic self-management practices on academic success. Strategic self-management practices (Independent variable) have resulted in an 88.1% impact on the academic success (Dependent variable) of undergraduates in the selected state universities. Secondly, the survey data has proved that there is a positive impact of self-leadership on academic success since self-leadership (Independent variable) has resulted in an 84.4% impact on academic success (Dependent variable) of undergraduates. Furthermore, the survey data has

proved that there is a positive impact of time management practices on academic success. Time management practices (Independent variable) have resulted in a 90.5% impact on the academic success (Dependent variable) of undergraduates. Not only that but also the study has proved that there is a moderating effect of self-leadership and time management practices on the relationship between strategic self-management practices and the academic success of undergraduates in the selected state universities in Sri Lanka. The results of the study are important to identify the importance of promoting strategic self-management practices, self-leadership and time management practices among students at the university level. Since the results revealed that there are moderating effects of self-leadership and time management practices on the relationship between strategic self-management and academic success of undergraduates, it is beneficial to develop self-leadership and time management skills simultaneously. When the students are provided with formal education on strategic self-management, self-leadership and time management they will be capable of applying those competencies to achieve the desired academic success. In addition to that, the findings of the study may be useful for the academics and authorities of universities to get insights from the recommendations of the analyzed problem. To conclude, the findings of the study showcase that strategic self-management practices, self-leadership and time management practices play a vital role in the academic success of undergraduates.

6.1. The practical implications of the study

Based on the findings and the conclusion, the researcher derived the following recommendations: State universities in Sri Lanka should promote strategic self-management, self-leadership and time management practices among undergraduates. The government should fund educational efforts in improving the facilities. Apart from that students are recommended to practice strategic self-management, self-leadership and time management practices. As per the results obtained through the study the researcher has found it is vital to develop and practice strategic self-management, self-leadership and time management by students for higher academic performance.

6.2. Limitations of the study

The first limitation found in the study is the population for the survey was limited to a single academic faculty of the universities. A larger sample including undergraduates of other academic faculties could provide more input on the research variables. Furthermore, the study was limited to investigating only three factors that affect the academic success of undergraduates. But, these are not only the factors that affect the academic success of undergraduates as per the research literature.

Another important limitation arises since this study was cross-sectional. Additional research can be suggested to conduct longitudinally to evaluate the impact of the independent variables on the dependent variable

over time. Longitudinal studies using quantitative and qualitative techniques are required to understand the changes in the three variables over time. The cross-sectional studies lead to avoiding the correct perception of undergraduates. Therefore, the real feelings of the respondents may not be received during the cross-sectional period. Another limitation of the study is the time constraint. Even though the objectives of this study have been achieved, the accuracy and quality of the study can be improved if the study can be carried out for a longer time to collect the data. When the sample size is getting larger, more valid and representative data can be collected.

Another limitation of the study is the data may be low accurate as it depends on the understanding ability of undergraduates who are engaged in the sample. Since the concepts of strategic self- management and self-leadership are not very familiar to the considerable amount of undergraduates in Sri Lanka. A Google form questionnaire was used as the data collection method in the study.

In addition, this study has also collected the demographic data of the respondents which include academic field, gender, age, residential district and monthly family income. The influence of demographic factors has not been considered. However, different family income backgrounds of the undergraduates might have different influences on practicing strategic self-management, self-leadership and time management. The demographic profile might have an impact on the psychological and physiological behaviors, needs and

knowledge that affect the result of the individual perception regarding strategic self-management, self-leadership and time management and then academic success.

The final limitation is that this study has tested the moderating effect of self-leadership, time management practices on the relationship between strategic self-management and academic success of undergraduates in the Sri Lankan context, there is a lack of research studies on the moderating effect of self-leadership, time management practices on the relationship between strategic self-management and academic success of undergraduates.

6.3. Recommendations for future studies

This study focused to investigate the impact of strategic self- management practices, self-leadership and time management practices on the academic success of undergraduates in Sri Lanka. However, the study could be expanded to private universities in Sri Lanka to have a comparative picture of how strategic self-management practices, self-leadership and time management practices of undergraduates in private and state universities affect their academic success. Although the study is aimed at final-year management undergraduates, future research studies can be extended to other faculties in a university. The data collected from different faculties may differ in the relative significance of the independent variables (Strategic self- management practices, Self-leadership, Time management practices).

Furthermore, future research studies can be conducted to identify the impact of strategic self-management practices, self-leadership and time management practices of undergraduates in different academic years on their academic success. Finally, since there is a gap in research studies focusing on the moderating effect of self-leadership

and time management practices on the relationship between Strategic self-management practices and academic success in the global context, future studies can be conducted considering the directions of the moderating effects of self-leadership and time management practices in different educational contexts.

APPENDIX

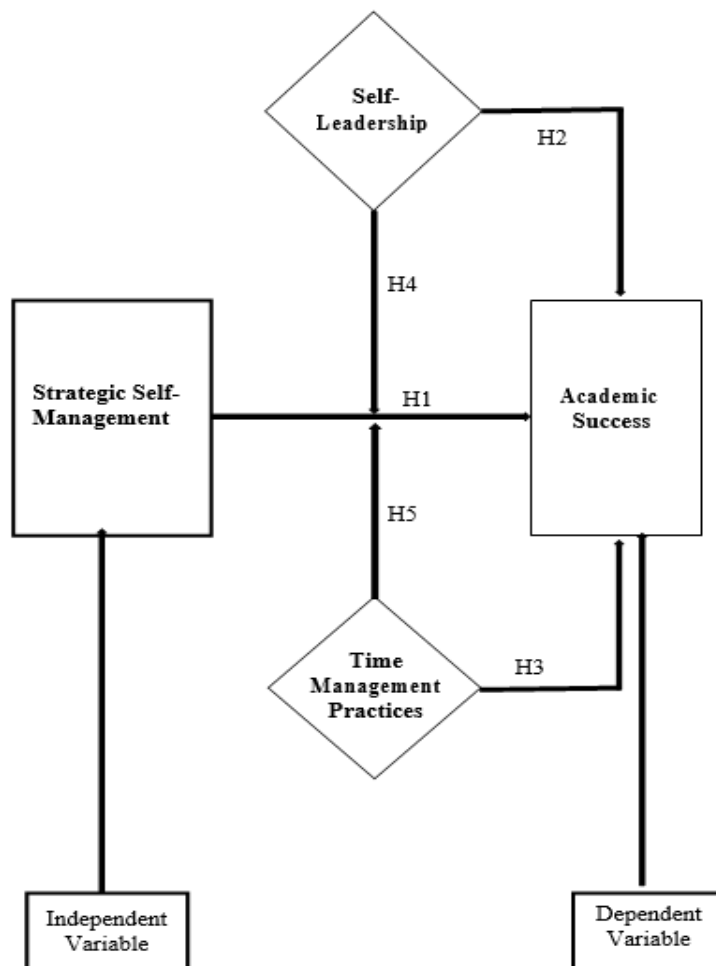


Figure 1: The conceptual framework
Source: Authors developed

Table 1: Normality tests for variables

Variables	Skewness	Kurtosis
Strategic self-management	-0.263	-0.307
Self-leadership	-0.281	-0.306
Time-management practices	-0.151	-0.310
Academic success	-0.260	-0.717

Source: Survey data, 2022

Table 2: Frequency of responses

	Frequency	Percentage
Academic field		
Accountancy	09	1.9%
Business Administration	78	16.3%
Economics	33	6.9%
Human Resource Management	301	62.7%
Marketing	54	11.3%
Other	05	1%
Gender		
Male	120	25%
Female	360	75%
Age		
Less than 25 years	252	52%
25 years	84	18%
26 years	120	25%
27 years	24	5%
District of residence		
Anuradhapura	12	3%
Badulla	12	3%
Batticaloa	12	3%
Colombo	132	28%
Galle	72	15%
Gampaha	24	5%
Hambantota	24	5%
Kalutara	12	3%
Kandy	48	10%
Kurunegala	48	10%
Matale	12	3%
Matara	12	3%
Nuwara Eliya	12	3%
Puttalam	12	3%
Ratnapura	36	8%
Family income level (Monthly)		
Below Rs. 50,000	192	40%
Between Rs. 50,000-60,000	36	8%
Between Rs. 60,000-70,000	84	18%
Between Rs. 70,000-80,000	72	15%

Source: Survey data, 2022

Table 3: Reliability analysis

Variables	Cronbach's Alpha Value
Strategic self-management	0.983
Self-leadership	0.947
Time-management practices	0.973

Source: Survey data, 2022

Table 4: Correlation analysis

Variables	Pearson Correlation Coefficient	Sig. Value
Strategic self-management	0.939	0.000
Self-leadership	0.919	0.000
Time-management practices	0.951	0.000

Source: Survey data, 2022

Table 5: Regression analysis

Variables	Coefficients (Beta)	Sig. Value	The decision for the Hypothesis
Strategic self-management	0.731	0.000	Accepted
Self-leadership	0.735	0.000	Accepted
Time-management practices	0.606	0.000	Accepted

Source: Survey data, 2022

Table 6: ANOVA (moderating variable - self-leadership)

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	464.976	1	464.976	3543.457	0.000 ^b
	Residual	62.724	478	0.131		
	Total	527.700	479			
2	Regression	466.202	2	233.101	1808.021	0.000 ^c
	Residual	61.498	477	0.129		
	Total	527.700	479			

Source: Survey data, 2022

Table 7: Coefficients (moderating variable - self-leadership)

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.731	0.073		-10.075	0.000
	Total_SSM	1.203	0.020	0.939	59.527	0.000
2	(Constant)	-0.558	0.091		-6.115	0.000
	Total_SSM	1.142	0.028	0.891	40.496	0.000

Source: Survey data, 2022

Table 8: ANOVA (moderating variable – time management practices)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	464.976	1	464.976	3543.457	0.000 ^b
	Residual	62.724	478	0.131		
	Total	527.700	479			
2	Regression	466.881	2	233.440	1830.851	0.000 ^c
	Residual	60.819	477	0.128		
	Total	527.700	479			

Source: Survey data, 2022

Table 9: Coefficients (moderating variable - time management practices)

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-0.731	0.073		-10.075	0.000
	Total_SSM	1.203	0.020	0.939	59.527	0.000
2	(Constant)	-0.510	0.092		-5.568	0.000
	Total_SSM	1.123	0.029	0.876	39.061	0.000

Source: Survey data, 2022

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Pricing Strategy and Customer Retention in Nigeria National Petroleum Corporation Retail Outlets, South-West, Nigeria

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Abstract

Given that today's consumers are more informed about what they want and how to obtain it cheaply, managers must be more strategic and pro-active while making decisions relating to price system. In a selected South-West retail outlets of the Nigerian National Petroleum Corporation (NNPC), this study investigates pricing strategy and its relative effect on customer retention. Questionnaire was used to collect primary data from a sample of 384 customers drawn from six mega stations and twelve affiliate stations located in the region. Multiple regression analysis was used to test the hypotheses formulated. Results indicated that pricing strategy has a significant impact on customers' retention. The study concluded that pricing strategy adopted in NNPC retail units must be in tune in determining customer retention, thus, it was recommended that management of NNPC retail outlets must consider pricing system as an integral part of their marketing strategy.

Keywords: Competition-based Pricing System, Cost-based Pricing System, Customer Satisfaction, NNPC Retail Outlets, Value-based Pricing System

1. INTRODUCTION

Globally, pricing strategy is witnessing dynamic changes as a result of massive improvement in technology and the fact that current consumers are more educated and more certain of what they want and know how to get it at low cost (Kanini, 2021). Pricing strategy must be viewed as an integral component of company strategies since it directly promotes competitive advantage and is a prerequisite for achieving corporate objectives and goals (Mattos, Oyadomari & Zatta, 2021). The focus of this study is on the downstream sector of Nigeria oil and

gas industry, with NNPC playing a prominent role.

1.1 Background to the Study

Petroleum products such automobile gas oil (AGO), household kerosene (HHK), liquefied petroleum gas (LPG), lower-pour fuel oil (LPFO) and premium motor spirit (PMS) are imported, exported, sold, and distributed as part of downstream activities. Majority of people in Nigeria utilize these items on a regular basis, with an average consumption of more than 60 million litres per day. As a result, it is critical

that organizations in this sector get their pricing strategies entirely right. This supports the statement that *"if good product creation and distribution plant the seeds of corporate success, efficient pricing is the harvest platform"* (Kotler, 2010). Nevertheless, managements of business operations in the sector must recognize that any price assigned to a product will undoubtedly impact consumers' perceptions of the product, influencing their propensity to acquire and repurchase it.

Nigerian National Petroleum Corporation retail outlets is a NNPC subsidiary that was founded in 2002 as a major marketer and began operating fully in 2004 in order to address the issue of an unreliable price system that was harming the nation's petroleum supply chain system. Many big marketers were in operation prior to the activities of Nigerian National Petroleum Corporation retail shops in Nigeria, developing techniques to satisfy customers, but all of their efforts in producing utility in the targeted market proved End-users of petroleum products are now dissatisfied with the activities of petroleum marketers in Nigeria as a result of arbitrary pricing set by various marketers at various periods (Odipe, Lawal, Adio & Karani, 2018).

It is critical to note that the items in the oil and gas business are generic, and hence may be obtained at the next accessible station outlet. Therefore, it is not uncommon to see customers go from one retail outlet to another in quest of better treatment,

particularly in relation to better price and suitable quantity, as a result of the inappropriate and anticompetitive pricing strategy being utilized by some retail outlets. Due to intense competition in the market and daily variations in consumer demand, a highly typical method employed by marketers of petroleum-related products to enhance customer retention while guaranteeing competitive advantage is the pricing strategy used to dispense finished products to end-users.

Obviously, different price tactics used by marketers of petroleum and related goods represent different things to different customers. Therefore, there has been discussion on the best price approach to utilize in various scenarios, with the primary goal of securing better customer patronage.

Price as a major purchase stimulating element is significant in business management because it not only determines how prices are viewed and appreciated by customers, but it also impacts customer's purchase decisions, ultimately impacting their retention (Kanini, 2021; Rondan, 2014).

Generally, pricing strategy is formulated majorly on the basis of cost, perceived customers' value and competition (Mattos, et al, 2021; Amaral & Guerreiro, 2018). These three pricing strategies have been used for new and existing products, as well as to determine new products development (Ingenbleek et al., 2013). Imperatively, due to the conflicting arguments regarding the

viability of pricing strategy, it is important to ascertain and clarify the most appropriate pricing strategy amongst the various alternatives available in the marketing of petroleum related products in Nigeria, with particular reference to the NNPC retail outlets in the South-West. The region had the record of the highest commercial and consumption region of petroleum products in Nigeria with 39.52% out of the out of six geo-political regions and FCT zone in the country.

It has been determined that just a few managers strategically consider product pricing while pro-actively managing their prices in order to produce favorable conditions that lead to profitability (De-Tonia, Milan, Sacilotob, & Larentis, 2017). Taking this into account, Liozu and Hinterhuber (2012) stated that additional study on pricing strategy is needed because they discovered that fewer than 2% of published publications in marketing journals focused on price. Consequently, this study investigates pricing strategy and customer retention in Nigeria National Petroleum Corporation retail outlets in South-West, Nigeria.

Furthermore, a lack of attention to pricing strategy as a practical approach to business strategy may have a detrimental impact on the competitive edge and hence the overall success of business organizations (Kawira, 2021; Intiedukoba & Onuoha, 2020). As the leading marketer in Nigeria's downstream industry, NNPC must devise a sustainable pricing strategy that would allow it to reach out to a wider number of customers for

patronage and for them to make favorable repurchasing decisions, thereby leading to gaining competitive advantage. This is due to the assumption that a successful pricing strategy would result in improved performance in terms of profitable customer retention and favorable word of mouth.

1.1.1 Objectives of the Study

The specific objectives of the study include:

- i. To investigate the extent to which a cost based pricing strategy significantly influences customer retention.
- ii. To examine the extent to which a customer based pricing strategy significantly influences customer retention.
- iii. To determine the extent to which a competition based pricing strategy significantly influences customer retention.

1.2 Literature Review and Hypotheses formulation

1.2.1 Concept of Pricing Strategy

Price is the total of the amount a consumer pays for a product or in exchange for the advantages of having a product or service (Kanini, 2021; Bearden, Ingram & Lafforge, 2014). Price is a term that describes the value that is assigned to a commodity or service and results from a complex interaction between costs, research, and a thorough grasp of the perceived value of customers (Kelly & Willam, 2014). It is commonly seen as a method for increasing sales volume and, as a result, increasing an organization's

profitability (Lasoi & Robert, 2020); and it is regarded as one of the most essential aspects of the marketing mix that organizations can easily influence. Pricing products, according to Kanini (2021), is a strategic activity that must be done correctly since it is done with commercial and financial goals in mind. Thus, there is a need for a price strategy geared to match certain product values, which will necessarily impact customers' perceptions of the product's worth. Therefore, for all pricing-related operations, a successful pricing strategy must direct both the organization's primary behavior and secondary communiqué toward the target market (Kawira, 2021). According to Mattos et al. (2021), strategic pricing entails realizing that not all pricing challenges require adjusting the price as the optimum answer.

By extension, therefore, Kotler and Armstrong (2008) described pricing as the process of deciding how much money a customer must pay in exchange for a product or service. According to Dolgui and Proth (2010), pricing strategy is a method of adjusting prices with the sole aim of maintaining optimal price stability while optimizing profit and quantity of sales. Notably, when the quality of items from different organizations becomes increasingly comparable, pricing becomes one of the most crucial criteria for attracting and maintaining customers, as well as gaining their loyalty (Mohammad & Mojtaba, 2015).

Pricing is a marketing component that has a substantial influence on the competitiveness of the firm (Lasoi &

Robert, 2020; Kotler & Armstrong, 2008). This necessitates the need for organizations to evaluate key areas and make firm decisions based on the valid findings of their investigation that aligned with organizational objectives as well as other functional policies and structures that should be adaptive, flexible, reactive, and carefully observed for a firm to remain competitive (Kawira, 2021).

A pricing strategy that is efficient and successful is a core competency that demonstrates a consistent price structure that assures the attainment of company's objectives by enabling the value of a product or service offering in contrast to the value offered by competitors (Kawira, 2021; Sven et.al, 2019). Geographic location, discounts, price discrimination and sensitivity, which impacts customers' bargaining power due to substitute awareness, total expenditure, shared cost, end-benefit effects, and sunk investment effects are the primary determinants of pricing strategy (Lasoi & Robert, 2020).

Pricing strategy, according to Hinterhuber (2008), may be classified into three types: cost-based, competition-based, and customer value-based pricing strategies. This implies that pricing methods vary greatly between customers, industries, and countries. Choosing pricing targets and related strategies is a key function of business management and an integral component of business planning process (Dudu & Agwu, 2014).

1.2.2 Concept of Customer Retention

According to Johnson and Isibor (2019), customers are critical to an organization's effectiveness in a market-driven economy. Thus, a firm's capacity to keep profitable customers is perceived as a competitive advantage for the organization (Kotler, et al, 2010). According to Lawrence, Alexander, Oghojafor, Ladipo, Ighomereho, and Odunewu (2014), current marketing activities are therefore aimed towards addressing consumers' requirements and assuring customers' satisfaction, as well as planning on how to keep such customers. To compete in a competitive market environment, businesses must focus on customer retention through the supply of high-quality and competitive products (Nwulu & Nwokah, 2018).

Customer retention is commonly defined as a customer's loyalty to a certain organization and its products over time as demonstrated by repeat purchases and a proclivity to promote positive word of mouth among their social circle (Jeng & Bailey, 2012). Audu and Umar (2019) explained customer retention as a measure of sustainability of customers' patronage for a product or service of an organization over an extended period of time. Customer retention ability, according to Limiri and Gichuru (2017), is described as an organization's capacity to keep lucrative customers based on product evaluation.

Invariably, customer retention occurs when customers abandon competitors' products and choose to continue using goods and services from a certain source or firm (Shammah, 2016). It is the future estimate of

customers who determine to continue using the product of a particular organization (Audu & Umar, 2019).

According to Ibojo (2014), customer retention is possibly one of the most effective weapons that firms may deploy to acquire a strategic edge and survive in today's more competitive environment. It is therefore imperative for NNPC retail outlets to vigorously pursue customer retention strategy because competitors are always on the lookout to gain more customers in the market (Fluss, 2010). This is in line with the assertion of Oghojafor, et al (2014) that it is more lucrative to retain existing customer who is more likely to re-purchase and re-use the company's products and maybe recommend them to others than courting a new customer.

Therefore, this study conceptualizes customer retention as the frequency of repeat purchase behavior of a customer using a mix of cognitive and attitudinal variables (Mushtaq & Pratibha, 2013). Repeat purchase intention is assumed to be customer's choice to repurchase a selected product from the same source, taking into account the customer's current status and other prospective events.

1.2.3 Approaches to Pricing Strategy

According to Hinterhuber and Liozu (2012), even though organizations' pricing tactics varied substantially, most companies utilize one of the cost, competitiveness, or customer value based approaches (Kotler & Armstrong, 2008; Nagle & Holden, 2003). Nagle and Holden (2003)

contend that in order to arrive at the best pricing decision, the knowledge, perception, and inherent behavior of the 3C's of this process (Cost, Competition, and Customers) must be balanced. For the pricing definition approach and the price settlement to be successful, the management of this information is crucial. Additionally, even though each of these methods has drawbacks, they may all be used with both current and future products (Mattos, et al, 2021).

1.2.3.1 Cost-Based Pricing Strategy

In this pricing strategy, which is the most basic pricing method, price is established by adding a standard number to cost-price (Mohammad & Mojtaba, 2015). Cost-based pricing issues must be resolved entirely by turning the process around, beginning with the consumers (Mattos, et al, 2021). According to Indounas (2006), this pricing strategy may be applied in any form of price decision, independent of consumer type. However, the target price is based on value estimations and the amount of customer retention that the business may expect. Thus, the first hypothesis: ***H₀1: Cost based pricing strategy significantly influences customer retention in NNPC retail outlets in South-West, Nigeria.***

1.2.3.2 Competition-Based Pricing Strategy

This pricing strategy uses market prices as a baseline, often among a specific set of rivals (Mattos, et al, 2021); and it is defined by the market's current price (Mohammad & Mojtaba, 2015). By managing its resources to satisfy demand, cutting

expenses, and raising productivity, a firm may assess its profit level in comparison to other prices and make it more enticing to customers than the competition. Typically, product prices are determined by competition, which has a big impact on the business's performance (Mattos, et al, 2021; De-Vargas & Scarpin, 2014).

Unless a company has solid reason to assume that its competitors would be unable to match a price cut, the long-term costs of using price as a competitive weapon usually outweigh any short-term gains. However, in order to implement this approach to establish customer retention, a company must evaluate its management activities (Pohland & Kesgin, 2017); perform a complete study of market conditions and possibilities; monitor rivals' pricing practices; and accurately define what consumers' requirements and demands are (Aalto-Setälä, 2005). Thus, the second hypothesis: ***H₀2: Competition based pricing strategy has significant effect on customer retention in NNPC retail outlets in South-West, Nigeria.***

1.2.3.3 Customer-Value Pricing Strategy

This pricing strategy is based on the perceived value of a good or service among the target customers. Value establishment entails providing benefits that are at least as valuable as the sacrifices customers make in exchange for a good or service (De-Tonia, et al., 2017). The value-based strategy is also founded on customer perceptions of product's worth. (Mohammad & Mojtaba, 2015). It entails striking a balance between the

customer's desire to get a good deal and the company's requirement to cover costs and make profits (Micu & Micu, 2006). The sole goal of customer value based pricing is to price more economically by capturing more customer value, not necessarily by increasing sales (Mattos, et al, 2021). The superior value proposition is an offer to customers that adds more value or solves a problem more effectively than similar rivals (Payne & Frow, 2014). Therefore, adopting this method, the firm bases its product's price on the perception of value supplied to its customers with the aim of retaining profitable customers (Mattos, et al, 2021). Thus, the third hypothesis: ***H₃: Customer based pricing strategy has significant effect on customer retention in NNPC retail outlets in South-West, Nigeria.***

1.3 Theoretical Review: Resource-Based View (RBV) Theory

The resource-based view of the firm (RBV) is a theoretical paradigm that aims to describe, explain, and forecast how organizations might attain long-term competitive advantage via the acquisition and management of definite resources (Arifin & Baihaqi, 2012). Organizational resources may be divided into three categories: physical, human, and organizational assets (Shamsuddinet al., 2013). The RBV explains variances in performance of firms within an industry in greater detail. In the context of product dispensing procedures, RBV may be utilized to explore the relationship between strategic management of petroleum

retailing outlets and performance measures such as customer retention in establishing a competitive advantage through organizational competencies.

Applying the theory to this study reveals that NNPC retail outlets' pricing strategies in the form of cost-based, customer-value-based, or competition-based pricing were thought to be strategic weapon that may be utilized to strategically affect the amount of customer retention. These pricing strategies indicate managerial skill and may be developed to establish a competitive edge in an industry that sells generic products to customers.

1.4 Empirical Review

Given its strategic relevance as a supply chain management construct, several empirical studies have been done to highlight the impact of pricing strategy on organizational outcomes such as customer retention.

Kanini (2021) investigates the relationship between commodity pricing and the financial performance of selected Kenyan manufacturing firms. Secondary data from the previous 10 years used and analyzed. As proxies for commodity price, the sales growth ratio and tax were utilized. Long run and dynamic models were applied in the analysis of the data. The study found that both sales growth ratio and tax paid have significant impact on the financial performance of Kenyan manufacturing firms when measured using both EBITs and ROA. The study concluded that commodity price has a substantial association with financial performance of the

selected manufacturing firms in Kenya.

Enemuo and Carim (2021) investigate consumers' perceptions of the quality of service at NNPC retail outlets in Enugu City, Nigeria. The convenience sampling approach was used to choose 304 retail customers who frequent fuel filling stations. Factor analysis and Analysis of Variance (ANOVA) were used to analyze the data. Findings showed that while age, gender, and occupation have no significant influence on customer impression of service quality, income and qualification, on the other hand, differ dramatically.

Abiodun et al. (2020) explore the impact of strategic marketing on competitive advantage and the role of resource capacities in extenuating the effect. A cross-sectional survey research design was employed. Cochran's technique was employed to choose 564 management workers from a total population of 1568, selected from petroleum products marketing enterprises in Lagos State, Nigeria. Data collected were analysed using multiple regression analysis. According to the findings, strategic marketing has a positive and significant influence on competitive advantage ($R = 0.594$, $\text{Adj. } R^2 = 0.627$, $F(4, 491) = 208.685$, $p = 0.000$ 0.05), and that resource capability has no significant moderation on strategic marketing of the selected petroleum marketing companies in Lagos State, Nigeria. The study concludes that strategic marketing has a positive and substantial influence on competitive advantage, but resource capability has

no significant moderating effect on strategic marketing.

Bello, Bannah, Isah, Umar, and Ali (2020) explore the impact of price and product strategy on the success of small and medium-sized businesses in Kaduna State, Nigeria. The study utilized cross sectional survey method and a survey questionnaire was used to collect primary data from 75 managers. The measurement and structural models were tested using Smart PLS 3.0. Findings indicated that service pricing and service product are substantially connected to the success of small and medium-sized businesses.

De-Tonia et al. (2017) investigated the effects of pricing strategy on corporate profitability. 150 metal-mechanic companies in the North-East of Rio Grande-do-Sul State, Brazil, were researched. The study incorporates customer value-based, competition-based, and cost-based pricing strategies with price levels (high and low) and performance with regards to profitability. The results revealed that value-based pricing strategy and high price levels favorably influence profitability of the selected companies; whereas low price levels negatively affect it. The study concludes that pricing strategies have significant impact on organizational profitability, and hence a more strategic look at the pricing process may be one area that managers should not neglect.

The impact of pricing strategies on corporate performance of the brewery business in Nigeria from 2005 to 2013 was researched by Michael, Odunayo, and Ebiwonjumi (2016).

The study used a descriptive research approach, and panel data regression was used to analyze secondary data obtained from the selected brewing companies. The findings demonstrated that pricing strategies had a significant impact on brewery success, with pricing methods explaining 91 percent of the industry's performance. However, the implemented sales approach was shown to be negatively associated to the success of the Nigerian brewery business, as evidenced by the amount of net revenue of the industries. The study concluded that the brewery sector could employ value-based communication to overcome communication gaps between the sales and marketing units, which caused the negative impact of sales growth on net revenue.

Review of empirical studies, with particular reference to some of the above cited signify that there have been few studies that had been done on the issue of pricing strategy and its effect on customer retention at NNPC retail outlets in Nigeria. This is a gap that this study attempted to fill. Moreover, when policies that could help build organizations are to be made, outcomes of studies of this nature are of great significant and considering the gaps observed in previous studies, there is need to look into the identified variables of pricing strategy could significantly influence organizational outcomes, with special reference to customer retention. The relationship between the dependent and independent variables for the

study is conceptualized using input-process-output parameters (Figure 1).

2. METHODOLOGY

The study used a descriptive survey research design technique, which gives an acceptable and valid representation of the variables that were important to the research objectives. The population of the study included all customers of NNPC retail outlets who were end-users of petroleum-related items in Nigeria's South West Region.

The South-West area was chosen because it has the highest commercial and consumption of petroleum products in Nigeria, accounting for 39.52% of the country's six geopolitical zones and FCT zone. The South-West region consumed around 3,240,116,090 liters (39.52%) of petroleum-related products every year (NNPC Statistical bulletin 2018). NNPC also owns 61 retail locations in the South-West; 6 Mega stations (one in each state capital), and 55 floating and associate stations (NNPC Statistical bulletin 2020). As a result, the study's population was confined to consumers of petroleum-related items at the six mega stations and fifty-five affiliate filling stations. Premium Motor Spirit (PMS, also known as gasoline or petrol), Automotive Gas Oil (AGO, also known as diesel), Dual Purpose Kerosene (DPK), Liquefied Petroleum Gas (LPG), Aviation Turbine Kerosene (ATK, also known as jet-A1), Industry Fuel, Bitumen, and Base Oil were the main petroleum-related products available in these outlets. However, the three most popular items at the filling

stations, Premium Motor Spirit (PMS), Automotive Gas Oil (AGO), and Dual Purpose Kerosene, were the only ones included in this survey (DPK). These products were considered for the study because they had the highest demand from the stations that were selected. However, the actual number of these product clients was unknown, implying that it was an infinite population.

As a result, the statistical method of Cochran (1977) was used to determine the sample size of consumers for this investigation. This supported Babalola's (1998) claim that the method is useful for estimating the lowest sample size when the population is infinite. As a result, the sample for the study was determined as described below:

$$n_0 = \frac{Z^2 pq}{e^2}$$

Where:

Z= the selected critical value of the desired level of confidence (1.96)

p= the estimated fraction of an attribute that is available in the population (0.5)

q= 1- p, e is the desired level of exactitude (0.5)

e= Degree of accuracy desired (0.5)

Therefore,

$$n_0 = Z^2 pq = \frac{(1.96)^2 (0.5) (1-0.5)}{0.05^2}$$

$$n_0 = 384 \text{ Respondents}$$

As a result, 384 samples were regarded as the number of customers who would be approached for responses. The proportional distribution of the customers consists of 24 customers to each of the six mega stations (i.e a sub-total of 144)

and twenty customers to each of the purposely selected affiliate stations (i.e a sub-total of 240) making a total of 384 customers. This was done on the basis that patronage in the mega station is higher than that of the affiliates (DPR, 2020).

The study employed a multistage sampling strategy that included purposive, simple random, and convenience procedures. First, the multistage sampling was used to divide NNPC retail outlets into clusters (i.e. regions), from which South-West region was selected as the base for the study. The outlets were further classified as mega and affiliate stations to facilitate primary data collecting on a proportionate basis. Second, purposive sampling was utilized to select the six mega-stations in the region that were included in the study. Third, simple random approach was used to choose twelve affiliate stations (i.e. 2 in each of the six states). Finally, convenience sampling approach was utilized to distribute questionnaires to respondents at the selected retail outlets.

The study used primary source of data and the data were collected using a standardized questionnaire that was created to collect information in respect to issues relating to pricing strategy and customer retention. The items on the questionnaire were designed to offer solutions to the research objectives. A five-point Likert scale was used, allowing respondents to rate each item on a scale from strongly agree (5 points) to strongly disagree (1 point). This led to the distribution of 384 copies of the questionnaire to the responders.

With the assistance of six research assistants—one for each state—the instrument was self-administered.

Using Cronbach's Alpha with a threshold of 0.7, the reliability of the research instrument was evaluated. Cronbach's alpha reliability analysis, as shown in table 1, revealed that the scale's overall measure's coefficient was 0.798, which suggested strong reliability and that the scale's overall measure was very reliable since it exceeded 0.70.

Additionally, the questionnaire was distributed to management specialists at the University of Ilorin's Department of Business Administration. The questionnaire's final draft was updated to reflect their comments and suggestions.

With the use of the Statistical Package for Social Sciences, data that were collected were processed to test hypotheses using the statistical method of multiple regression analysis. Multiple regression analysis was used because it is useful for determining the degree of variability or changes in the level of the dependent variable as a result of independent variable-related factors(s).

2.1 Hypothetical Model Specification

The model to achieve test of hypotheses was specified below;

$$\text{CusRent} = \beta_0 + \beta_i \text{CoBaPriStra} + \beta_{ii} \text{CusBaPriStra} + \beta_{iii} \text{ComBaPriStra} + \epsilon$$

Where:

CusRent=Customer Retention (Dependent variable)

CoBaPriStra= Cost Based Pricing Strategy (Independent variable)

CusBaPriStra= Customer Based Pricing Strategy (Independent variable)

ComBaPriStra= Competition Based Pricing Strategy (Independent variable)

β_0 = Intersection point

ϵ = Error term

3. RESULTS

According to the questionnaire's response presented in table 2, out of a total of three hundred and eighty-four copies, two hundred and ninety-four copies (76.56%) were returned and considered eligible for the study. This indicates that the majority of respondents responded positively to the questionnaire, making it relevant for the research.

Multiple regression analysis was utilized to determine the impact of pricing strategy on customer retention, as shown in table 3-5. According to the model summary in table 3, pricing strategy has a significant and positive effect on customer retention. A significant and positive association between pricing strategy and customer retention is suggested by the multiple correlation coefficient (R) value of 0.819 (81.9%).

The R-square value of 0.690 (69.0%) reveals that independent variables of cost based pricing strategy (CoBaPriStra), customer based pricing strategy (CusBaPriStra) and competition based pricing strategy (ComBaPriStra) had a combined influence of 0.690 (69.0%) on

dependent variable of customer retention (CusRent).

The adjusted R² value of 0.680 (68.0%) suggests that cost-based pricing strategy (CoBaPriStra), customer-based pricing strategy (CusBaPriStra), and competition-based pricing strategy (ComBaPriStra) all contribute to variation in the level of customer retention (CusRent). This is adequate for establishing the model's goodness of fit. As a result, the regression model proved to be quite beneficial for forecasting.

The overall diagnostic test of significance utilizing Analysis of Variance (ANOVA) between pricing strategy and customer retention was given in Table 4. The ANOVA results for regression coefficients indicate that the significant value of the F-statistics at $F=214.789 > F_{table}=4.29$ at a degree of freedom of (3, 290) with $p\text{-value}=0.00$ which is less than 0.05 or 5% error term. This posits pricing strategy constructs significantly influence customer retention and therefore represent a good fit for the model. Therefore, pricing strategy could be used to predict variation in the level of customer retention.

Table 5 shows that when all other factors are maintained constant, customer retention (CusRent) equals 1.486. When there is a unit increase in the pricing strategy constructs identified in the study, which include cost-based pricing strategy (CoBaPriStra), customer-based pricing strategy (CusBaPriStra), and competition-based pricing strategy (ComBaPriStra), it increases by

0.197, 0.703, and 0.206, respectively, while other variables remain constant.

Table 5 shows that the standardized beta coefficient for cost-based pricing strategy (CoBaPriStra) is 0.204, with a t-test value of 3.329 at the 5% level of significance. This proves the relevance and significance of cost-based pricing strategy (CoBaPriStra) in forecasting customer retention (CusRent). As a result, the alternative hypothesis, which established that cost based pricing strategy significantly influences customer retention in NNPC retail outlets in South-West, Nigeria is accepted.

The standardized beta coefficient for customer-based pricing strategy (CusBaPriStra) is 0.767, with a t-test value of 11.954 at 5% significance level. This suggests that customer-based pricing strategy (CusBaPriStra) is significantly important in forecasting customer retention. As a result, the second alternative hypothesis, which states that customer based pricing strategy has significant influence on customer retention in NNPC retail outlets in South-West, Nigeria is accepted.

The standardized beta coefficient for competition-based pricing strategy (ComBaPriStra) is 0.307, with a t-test value of 4.794 at 5% significance. This suggests that a pricing strategy based on competition (ComBaPriStra) is highly useful in forecasting customer retention. As a consequence, the third hypothesis, which established a competition-based pricing strategy have a major impact on customer retention at NNPC retail outlets in Nigeria's South-West is accepted.

4. DISCUSSION

This study focused on pricing strategy and its relative impact on customer retention, with particular focus on NNPC retail outlets in South-West Nigeria. Three constructs were utilized as proxies for pricing strategy, with customer retention serving as the dependent variable, and the degree of effect was established by testing three hypotheses developed in accordance with the study's specific objectives.

Findings from hypotheses testing revealed that the three constructs relating to pricing strategy described in the study's model are significant predictors of customer retention. This signifies that the management of NNPC retail outlets, Nigeria should deliberately focus more effort and resources on promoting a viable pricing system that will help gain and secure customer trust. This corroborates the view of Mattos et al, (2021). Essentially, a company's price strategy is viewed as a kind of communication with its customers, "a language that may convey more meaning and credence than a thousand words" (Docters et al., 2003).

Additionally, the analysis indicates that among the three constructs of pricing strategy in influencing customer retention, customer based pricing strategy (CusBaPriStra) ($\beta_1=0.703$; $t\text{-value}=11.954$; $p<0.005$) contributed mostly to customer retention. It was followed by the competition based pricing strategy (ComBaPriStra) ($\beta_1=0.307$, $t\text{-value}=4.794$, $p<0.005$), then cost based pricing strategy (CoBaPriStra)

($\beta_1=0.204$, $t\text{-value}=3.329$, $p<0.005$) was found to contributed less significantly to customer retention. These findings are in congruent with several scholars such as Deonir, Ricardo and Gabriel (2021); Kawira (2021); De-Tonia, et al., (2017), which established that value-based pricing strategy has the most direct and positive effect on market performance of enterprises and significantly moderates organizations' profitability.

5. CONCLUSION

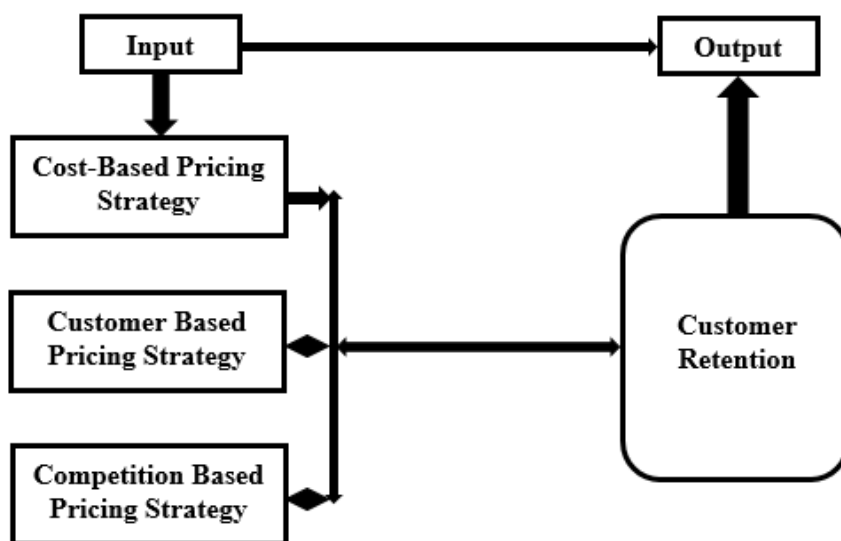
This study signifies that pricing strategy is a crucial aspect of marketing and it an essential element to organization's success or otherwise. Based on the empirical findings, the study concludes that pricing strategy adopted by NNPC retail business units is significantly relevant in determining customer retention. Thus, the study established that pricing system has significant impact on the customers' decisions to continue doing business with a retail outlet. Furthermore, NNPC retail outlets should use more of a value-based pricing approach rather than a cost-based pricing plan to increase customers' patronage, resulting in increased sales and revenue creation. Therefore, the following recommendations must be considered for NNPC retail outlets to improve their business performance outcomes, with particular reference to customer retention. The marketing strategy employed by the management of the business units of NNPC to promote and improve the level of customers' retention must employ appropriate pricing strategy, with strong emphasis on adoption of more of value-based

and less of cost-based pricing strategy. This is supposed to assist management in creating the proper response to the Nigeria downstream sector's competitive issue and developing viable competence toward a better knowledge of the dynamic of customer expectations and demands.

Moreover, to further improve customer perception of value, the

management of NNPC outlets must ensure that customer questions and concerns on pricing related issues are answered promptly and efficiently. This would enable them to gain customers' trust and accurately forecast demand, thereby increasing sales volume and thereby increase organizational profit margin.

APPENDIX



Source: Author's Design (2022)

Figure 1: Study Conceptualization

Table 1: Cronbach Alpha Reliability for the Instrument

Cronbach's Alpha	Cronbach's Standardized Items	Alpha	N of Items
.801	798		12

Source: Author's Computation, 2022

Table 2: Analysis of Responses to Questionnaire

Description	Frequency	Percentage
Administered	384	100
Returned	294	76.56
Un-Returned	090	23.44

Source: Field Survey, 2022

Table 3: Regression Model Summary of Effect of Pricing Strategy on Customer Retention

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.819 ^a	.690	.686	.691

a. Predictors: (Constant), ComBaPriStra (Competition Based Pricing Strategy) , CoBaPriStra (Cost Based Pricing Strategy), CusBaPriStra (Customer Based Pricing Strategy)

Source: Field Survey, SPSS, Printout 2022

Table 4: Analysis of Variance (ANOVA^a) of Mean, F-statistics and Significant Value

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	307.603	3	102.534	214.789	.000 ^b
	Residual	138.438	290	.477		
	Total	446.041	293			

a. Dependent Variable: CusRent (Customer Retention)

b. Predictors: (Constant), ComBaPriStra (Competition Based Pricing Strategy) , CoBaPriStra (Cost Based Pricing Strategy), CusBaPriStra (Customer Based Pricing Strategy)

Source: Field Survey, SPSS, Printout 2022

Table 5: Regression Coefficients^a of Beta and t-test statistics

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.486	.132		11.295	.000
	CoBaPriStra	.197	.059	.204	3.329	.001
	CusBaPriStra	.703	.059	.767	11.954	.000
	ComBaPriStra	.206	.041	.307	4.794	.000

a. Dependent Variable: CusRent (Customer Retention)

Source: Field Survey, SPSS, Printout 2022

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Impact of Economic Crisis and Way Forward for the Survival of SMEs: A Sri Lankan Perspective

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Abstract

The small and medium scaled Enterprises (SME) sector in any country including Sri Lanka is considered a vital sector for a country's economic growth. However, past research evidenced that despite the large number of business establishments that occur every year in Sri Lanka, a high SME failure rate, a low growth rate, and survival rates were reported comparatively with other countries. The prevailing economic crisis in Sri Lanka further creates a vulnerable situation for the SME sector and it affects highly the growth and performance of most of the SMEs. This effect may continue for a long period and affects seriously hamper the country's economic growth further. Therefore, it requires identifying the impact of the prevailing economic crisis on SMEs in Sri Lanka and ways for ensuring the SMEs' survival. Hence, this research aims to reveal the key problems encountered by SMEs during this economic crisis and determine which factors affect the business survival even if the crisis brings many negative impacts. This study was based mainly on the positivism paradigm followed by the quantitative approach. The study sample included 172 manufacturing SMEs which were located in the Southern and Western Provinces of Sri Lanka. The Independent variable of this study was entrepreneur-specific factors and two sub-dimensions including dynamic capabilities and entrepreneurial orientation of the entrepreneur were used to measure the independent variable. The dependent variable was the business survival. As data analysis techniques, the factor ranking method was applied to identify the key problems faced by the SMEs due to the prevailing economic crisis, and multiple regression technique was applied to reveal the most persuasive determinants of SME survival during the economic crisis. Key problems faced by the SMEs included: high cost of production and demand decline due to inflation, shortage of required raw materials, continuous power cuts, working capital and liquidity problems, and breakdown of their supply chain due to fuel issues. All these key issues affect diminish the capacity utilization rate and lower the business performance of many SMEs. This research found that several SMEs were capable to protect as survivors even during the economic crisis period due to their dynamic capabilities and entrepreneurial orientation possessed with them. Among the two factors that were considered as owner-specific factors in this study, dynamic capabilities possessed by the owner-manager work as the most persuasive determinant of the business survival than the entrepreneurial orientation during the economic crisis.

Keywords: Business Survival, Dynamic Capabilities, Economic Crisis, Entrepreneurial Orientation, Small and Medium scaled Entrepreneurs

1. INTRODUCTION

An economic crisis creates a sudden downturn in a country's economy, its aggregate output, or gross domestic product (Tambunan, 2019). The past studies gave concerned mostly with the impact of the Asian financial crisis (1997–1998) and the global financial crisis (2008–2009). The ongoing island-wide economic crisis is considered as country's worst economic crisis in Sri Lanka since its independence in 1948. This was created by multiple compounding factors starting from the Easter Sunday attack in 2019, the COVID-19 pandemic in 2020, short-sighted policymaking, an overall lack of good governance, unplanned external borrowings, insufficient foreign reserves at the Central Bank of Sri Lanka, and loss of access to foreign debt for the first time in its history, etc. (Lakshila, 2022; Akmal, 2022). The Sri Lankan economy has been hammered by the COVID-19 pandemic and lucrative tourism revenues dropped from \$5.6 billion in 2019 to \$1.08 billion in 2020 (Akmal, 2022). Also, three key foreign exchange earning sources of the country including foreign remittance, tourism income, and apparel and tea exports collapsed drastically.

In general, many researchers (Bourletidis & Triantafyllopoulos, 2014; Robinson & Kengatharan, 2020; Akmal, 2022) affirm that micro, small, and medium scaled enterprises (MSMEs) are the most affected victims of such lengthy economic crisis. The COVID-19

pandemic has created a devastating impact on the SME sector in Sri Lanka from 2020 to 2021 (Akmal, 2022). Due to this tragedy, many SMEs had to face severe problems like shortage of inputs, import restrictions, imposed health guidelines, demand decline for products and services, cancellation of orders, delivery issues, labor utilization issues, difficulties in repaying loans and interest, awful cash deficit and lack of savings, etc. (Robinson & Kengatharan, 2020; Gunawardana, 2020). These problems create many permanent shutting down of businesses and reduce the level of operations with grave drops in production and sales volume and thousands of jobs (Gunawardana, 2020, Akmal, 2022). Nevertheless, of such graving issues, gradually several SMEs were capable to protect as survivors due to the talents and capabilities possessed with them, quick adaptations to the challenge by moving to e-business practices, new technologies, innovations, etc. as well as rapid changes in consumer buying habits and buying behaviour, and assistance received from the business development service (BDS) organizations created a blessing environment for the MSMEs. However, unfortunately, before the problems of COVID impact on MSMEs subsidies and back to become normal, since the beginning of 2022, the prevailing economic crisis of the country creates multiple challenges and a massive drawback in the economic growth of the country as

well as a serious threat on the MSME sector in Sri Lanka (Lakshila, 2022; Akmal, 2022). This crisis can be considered a massive wave which affects swept out hundreds of MSMEs from their economic activities and the remaining businesses are extremely vulnerable and seeking ways to survive.

Even though assistance was received from the government and policy decisions to uplift the SME victims of COVID-19 impact, such a helping hand and sustainable mechanism cannot be seen still for assisting the MSMEs who are particularly vulnerable to economic downturns to ride through this crisis (Lakshila, 2022). Akmal (2022) stated that until an adequate macroeconomic policy framework is in place, the business environment in the country may not be apparent as good for the business community and the general public. However, by utilizing their talents and capabilities as well as the experience that most of the SMEs gained through the COVID-19 pandemic challenge, they try to combat the challenges created by the prevailing economic crisis for ensuring business survival. Bourletidis & Triantafyllopoulos, (2014) show that even though several sectors are there which affected a lot, meanwhile several SMEs show a remarkable yield by getting benefits from the crisis. Kottika, et al., (2020) explained a similar experience during the Greek economic crisis about creating SMEs learning opportunities and exceptional business lessons to move the business to success. Even though many of the past studies emphasized the factors behind a

country's economic crisis and its impact on the SME sector, so far, research evidence on exploring the factors that determine the SMEs' survival during the crisis or/and post-crisis context is still vague (Karadag, 2016; OECD, 2021; Kose et al., 2020; Steinerowska-Streb et al., 2022).

Therefore, by considering the existing research gap, this study aims to reveal the key problems encountered by SMEs in times of prevailing economic crisis, as well as to reveal the most persuasive determinants of SME survival during the economic crisis. Revealing the key problems created for the SMEs due to the economic crisis and the uncertainty associated with the crisis will assist in developing platforms and dialogues to discuss the key issues and the root causes as well as developing a mechanism to ensure the survival of the MSME sector. Further, having an understanding of the factors which affect protection as survivors even during the economic crisis period might be useful for the MSMEs to face successfully such massive challenges and ensure business success.

2. LITERATURE REVIEW

2.1 Status of SMEs in the Economic Structure in Sri Lanka

The definitions for SMEs are varied from country to country based on the criteria used such as the number of employees, turnover, investment, etc. SMEs in most countries are defined as organizations with less than 250 employees (OECD, 2005). In Sri Lanka, National Policy Framework for Small and Medium Enterprise

(SME) Development (2016) defined “small-scale enterprises as entities of employees between 11-50 and annual turnover between 16mn-250mn, and entities of employees between 51-300 and annual turnover between 251mn-750mn as medium scale enterprises”. The development of the SME sector is vital for the economic development of any country because it contributes to employment generation, growth of Gross Domestic Production (GDP), contributing on innovations and value additions, and stimulating other economic activities (Sriyani, 2020). In Sri Lanka, the SME sector accounts for more than 75% of the total number of enterprises, 45% of employment, and 52% of the GDP contribution (National Policy Framework for SME Development, 2016). Also, SMEs' provide an extensive role in expanding local development in terms of eradicating poverty, inequality, and unemployment in rural sectors (Gamage, et al., 2020; Kumara, et al., 2020). This massive role is very significant in Sri Lanka because the highest percentage of MSME establishments were reported in the rural sector. About 75% of MSMEs are located in the rural sector (Gunawardana, 2020). Gamage, et al., (2020) mentioned that SMEs provide an immense role in the utilization of local resources such as the local raw materials, disadvantaged poor people, uneducated youth, etc. and this role is appreciable in local economic development in rural areas where exist inequity in resource sharing.

2.2 Problems encountered by SMEs in times of on-going economic crisis

In general, SMEs are the most vulnerable group in a prolonged economic crisis and suffer excessively because of their limited potential for downsizing, business diversification, poor financial structure, limited market, and technology access, and being heavily dependent on external financing (Karadag, 2016). The literature is available relating to the impact of the Asian financial crisis in 1997–1998 and the global financial crisis in 2008–2009 on MSMEs. However, limited literature is available on the impact of the prevailing economic crisis in Sri Lanka and it added a new experience because it is a result of multiple effects including the Easter Sunday attack, the Covid-19 pandemic situation, mismanagement and poor decision-making by the government, decline in foreign reserves by 70%, depreciation sharply the Sri Lankan currency, etc. All these create either direct or indirect impacts on the SMEs' continuation of business activities.

The major industries such as tourism, textile, food processing, etc. have been badly affected as a result of this worst economic crisis that the country has ever faced (Akmal, 2022; United Nations, 2022, Lakshila, 2022; Hovan George, et al., 2022). The countries which reported many tourist arrivals to Sri Lanka like the United Kingdom, Canada, and India issued travel warnings and advised their citizens to consider the ongoing economic uncertainty in Sri Lanka. Hovan George, et al., (2022) mentioned that due to the current economic situation in Sri Lanka, leading textile companies, including

Zara, Mango, and H&M, have shifted their attention from Lanka to Asian countries. Furthermore, the SMEs that link with the value chain of such industries were severely affected due to the loss of input supplies, sub-contracts, complementary services, etc.

Robinson and Kengatharan (2020) emphasized that the COVID-19 pandemic gravely damaged the SMEs in Sri Lanka. SMEs face the same set of problems due to the unending economic crisis (Lakshila, 2022). Akturk (2014) identified the impact of the Global Financial Crisis in 2008 on SMEs in two ways: impact on the functions of production, marketing, finance, and administration of the business of SMEs by putting them under pressure; and under various indicators such as financial difficulties and working capital problems, reduce the capacity utilization rate, increase in production costs, and laying off employees. These problems in the global, as well as Sri Lankan context, can be incorporated as three key challenges that the SMEs have experienced with economic crises such as high inflation affected by the decline in the demand for the products and services; low utilization rate of production capacity; and financial difficulties, working capital and liquidity problems.

High inflation affected to decline in the demand for products and services: Declining the disposable income of the people due to high inflation affected seriously to demand decline for the products and services of SMEs (Akturk, 2014). For the first time in its history, Sri Lanka became

the third highest overall rate of inflation in the world (CBSL, 2022-August) by reporting an increase in Colombo Consumer Price Index from 60.8% in July 2022 to 64.3% in August 2022 while increasing the the the food inflation to 81%. All these causes to resulting basic goods to be more expensive and many low-income Sri Lankans have become unable to afford adequate food because of skyrocketing prices during the year 2022. Also, the reduction of operating hours, increase in input prices, shortage of inputs, etc. affect to rise of the cost of production and thereby increase the price of final products (Akmal, 2022). All these work as a vicious cycle that generates massive threats and challenges to SMEs. Moreover, the rapid depreciation of the Sri Lankan Rupee, inflation has gone up at an unbearable level with no increase in wages drastically affecting to decrease the purchasing power and standard of living of the people. Price hike-ups, shortages in cooking gas and kerosene oil, lengthy power cuts, and shortages in the supply of many products create changes in people's consumption patterns and force many families to reduce their consumption and non-consumption expenditure (Lakshila, 2022).

The low utilization rate of production capacity: Akturk (2014) found that, in Turkey, during the crisis, a drastic decline in the utilization rate of production capacity happened because of a lack of raw materials, financial difficulties of the SMEs as well as lack of demand. It caused the removal of employees to face the reduction of capacity utilization rate.

Akmal (2022) mentioned that the fall of foreign currency reserves in Sri Lanka by 75% in 2022 created difficulties in importing fuel and other essential commodities. Then, shortage of fuel, cooking gas, imported raw materials, lengthy queues in fuel stations, lengthy daily power cuts, etc. affect the SMEs to reduce the utilization rate of production capacity. George, et al., (2022) found that nearly 1000 bakeries were closed due to a shortage of cooking gas. Daily power cuts to conserve energy, shortage, and increase in the price of fuel cause to limit the factory and workplace operating hours (Lakshila, 2022; ACAPS, 2022).

Financial difficulties, working capital, and liquidity problems: SMEs face hardships mostly in the financial area in a crisis due to an increase in interest rates, a decrease in re-borrowing facilities, difficulties in collecting their receivables and paying their debts, and a worsening of credit conditions (Akturk, 2014); Karadag, 2016). Piette & Zachary (2015) show that SMEs face higher risk and tighter credit conditions during the crisis. OECD (2009) stated that declining sales cause delays in the payments on receivables, and this leads to SMEs' working capital and liquidity problems as well as the increase in reported defaults, insolvencies, and bankruptcies. The working capital problem also causes to collapse of the short-term creditworthiness of SMEs (Akturk, 2014; Lakshila, 2022).

2.3 Factors affecting SME survival during or post-economic crises

As discussed above, though many negative impacts or threats created by economic crises on the performance of SMEs, some experiences were reported in the research literature about the SMEs converted challenges into opportunities with the right decisions and by applying amazing survival strategies (Kottika et al., 2020; Lim et al., 2020; Akturk, 2014). They focused on the questions of why and how, as well as looked at the process of how some SMEs can sustain and even accelerate growth through an economic crisis. With such positive perspectives, and rather negative, several researchers focused their research studies to reveal the factors that determine survival and back to normal. These factors include the Nature of the business; Adaptation of new technology and e-commerce for the business operations; Abilities and skills of the Entrepreneur; Dynamic capabilities of the entrepreneur; and Entrepreneurial Orientation (EO) and Market Orientation (MO).

Nature of the business: By taking into account the prevailing literature on the post-economic crisis, Steinerowska-Streb et al., (2022) studied after the post-economic crisis whether the size of the firm, types of business activity and market range (internationalization) create differences in the probability of SMEs' survival. The results evidenced that firm size and business type were not good predictors for business survival and internationalized firms were capable to achieve a high level of survival compared with the firms which operate in the domestic market and

SMEs could reduce their risks of failure by expanding into foreign markets. It further emphasized that larger companies may struggle with some diseconomies of scale due to scale inefficiencies while smaller firms are facing the obstacle of resource scarcity at the local level. KEPE (2015) presented a similar view of medium-scale firms affected seriously that the small scale firms because of high operation costs and less flexibility (cited by Kottika et al., 2020). Steinerowska-Streb et al., (2022) found that SMEs' survival does not vary with the business type as manufacturing, service, trade, etc., and all firms, regardless of the type of business, have to with the challenge of changes in demand and supply. On the other hand, Steinerowska-Streb et al., (2022) highlighted that, indeed, many emerging economies reached back to their pre-crisis position faster than developed countries due to influencing a wide range of institutional differences, fiscal and monetary policies, level of private investment, diverse technology levels and infrastructure, domestic and external demand, availability of raw materials and labour force, etc. which determine the country's economic growth potential. However, such a conducive business environment cannot be seen in many developing countries, especially in Sri Lanka.

Adaptation of new technology and e-commerce for business operations: Also, much evidence was reported from several countries including Sri Lanka relating to the adaptation of new technology and e-commerce for business operations as survival

strategies for the problems created by the economic crisis resulting due to Covid-19 pandemic (DAI Final Report, 2022; IFC Report, 2020). The findings of the DAI Report (2022) show that digital tools like social media played a big role in the promotion and selling of goods and services during the pandemic when in-person transactions fell sharply and the same is applied by the SMEs as a solution in the economic crisis for the delivery difficulties due to hiking the price and shortages of fuel. Gregory et al. (2002) say that during the Asian economic crisis of 1997, Korean SMEs could be strengthening themselves through marketing activities and technological innovation. This adaptation helped SMEs to connect with the big ties (cited by Bourletidis and Triantafyllopoulos, 2014).

Abilities and skills of the Entrepreneur: Good decision-making skills of the entrepreneur in such crises have been argued as a strong defense to win the challenges. Bourletidis and Triantafyllopoulos (2014) argued that SME owners have to face the challenge of managing the trade-off between the benefits and costs when choosing the measures to cope with the crisis. Also, Auzzir et al., (2018) pointed out that an entrepreneur's expertise in crisis management helps in navigating challenging times. Remarkably, several researchers (Simon-Moya et al., 2016; Cowling et al., 2018) found that young firms have a greater likelihood of surviving during crisis periods.

Dynamic capabilities of the entrepreneur: Dynamic capabilities

(DCs) have been identified as crucial for entrepreneurs to face strategic challenges in the turbulent business environment (Samsudin and Ismail, 2019; Collis and Anand, 2018; Carayannis and Stewart, 2013). DCs are considered "higher-level competencies that determine the firm's ability to integrate, build, and reconfigure internal and external resources and competencies to address, and possibly shape rapidly changing business environments" (Teece, 2007, P.1319). The DC theory suggested that rather than following the prior market position and just doing the same thing in better ways, a firm instead identifies and exploits a new source of competitive advantage by acquiring or building a new combination of resources by doing the right thing. This is the Schumpeterian view on the ability to recombine, reconfigure and create new assets to realize an entrepreneurial opportunity even in stormy situations. Acikdilli et al., (2013) pointed out that in unstable situations, DCs may reconfigure the firm's idle resources or recombine them in novel ways like developing new products or introducing new uses for existing products, etc. Also, Samsudin & Ismail (2019) pointed out that innovation plays a dominant role, especially in crises. It was emphasized that in exploiting opportunities that arise within the turbulent business environment, an entrepreneur needs to use their DCs in an innovative-oriented manner to achieve success. A proper understanding of such capabilities is provided safeguards for SMEs to secure their competitive positioning, particularly during a period of market

shocks that requires strategic change (Borch and Madsen, 2007). Gunawardena (2020) pointed out that the COVID-19 pandemic situation created a ground for SMEs to convert even threats into opportunities by properly utilizing the DCs and innovative orientation possessed by them.

Entrepreneurial Orientation (EO) and Market Orientation (MO): EO generally refers to a firm's propensity to be innovative, to be proactive, and take risks (Soininen, et al., 2013). Simon-Moya et al., (2016) found that ventures which started based on market opportunity have better survival chances during times of crisis because these are associated with the concept of entrepreneurial orientation, with the dimensions of innovativeness, proactiveness, and willingness to take risks than those were started based on necessity motive. Sriyani et al., (2020) also argued that the EO plays a crucial role in directing the business toward success. Soininen et al., (2012) found that, during and after a crisis, SMEs with higher EO have better chances of survival. They further found that among the dimensions of EO, innovativeness, and proactiveness have a positive effect on performance while risk-taking has a negative effect. Eggers (2020) also argued that a time of crisis can create market opportunities by utilizing properly the innovative and proactive postures. Petzold et al., (2019) also highlighted the important roles of MO and EO and their positive effects on firm performance even during periods of a financial crisis. They explained that during economic downturns due to

the SMEs' MO and EO, they are capable of catering to a customer's immediate needs and proactive approaches that go beyond these needs. Regarding the *ways* of survival, Kottika et al., (2020) highlighted the importance of EO and MO specifically for pricing and downsizing decisions, building new market and input linkages, and offering new products to the market and these are identified as essential decisions in a crisis.

3. METHODS

This study focused on understanding the social setting by recognizing the individual constituents of a phenomenon of business survival during the economic crisis and hence a large sample of SMEs has to be selected. Therefore, the positivism paradigm followed by the quantitative approach was applied in this study. Whenever necessary, qualitative views were also used. The target population is SMEs who are registered in at least one of the BDS organizations in Sri Lanka. The sample of 175 manufacturing SMEs was selected from Southern and Western Provinces by using the simple random sampling technique based on the membership lists from the district offices of the Small Enterprise Development Division, National Enterprise Development Authority, Industrial Development Board, and Vidatha. In selecting the sample, SMEs were defined based on the number of employees of the entity as 11 – 300 as per the definition presented by the National Policy Framework for SME Development (2016). Further, five present SMEs from each list who have at least 5

years of experience in their business were considered to select for the study sample. The hybrid method: a semi-structured questionnaire, as well as an interview method, was applied in collecting primary data. The first part of the questionnaire focused on the basic profile of the respondents and the business. The second part included the ranking question to identify the most critical problems faced during the crisis and five-point Likert-scale questions to reveal the most persuasive determinants for SME survival during the economic crisis. Among 175 SMEs, only 172 properly responded to the questionnaire, and the data analysis proceeded with these 172 SMEs.

Focusing on the first research objective, the researcher used the factor ranking method to identify the most affecting problems for their business operations due to the prevailing economic crisis in Sri Lanka. 12 number statements were produced in this regard as shown in Table 1. For this, respondents were asked to rank the problems listed in the given table as per the severity of affection for their business operations. The second research objective is to reveal the most persuasive determinants of SME survival during the economic crisis. Among the determinants of SME survival during the economic crisis that was discussed in the research literature, only the *entrepreneur-specific factors* were considered as the independent variable of this study and two sub-dimensions including i) dynamic capabilities of the entrepreneur (DCs); and ii) entrepreneurial orientation (EO) were

used to measure the independent variable and tested two hypotheses accordingly. In defining dynamic capability, the definition presented by Teece et al., (1997, P. 517) was used and it is defined as "the ability to integrate, build, and reconfigure internal and external competencies to address rapidly-changing environments". In measuring the dynamic capabilities, three dimensions such as sensing & seizing the environment (DC₁), innovative capabilities (DC₂), and learning capabilities (DC₃) were used. Entrepreneurial orientation is defined as the strategic orientation of the business which demonstrates proactiveness (EO₁), innovativeness (EO₂), and risk-taking (EO₃), by taking into account the definition presented by Covin and Slevin (1989) and Miller (1983). The dependent variable of this study is the business survival and it was defined as the successful continuation of the business with a satisfactory level of production (BS₁) and sales (BS₂) from the entrepreneur's perspective. Cronbach's alpha value was used to test the reliability of the data set and multiple regression analysis was applied to test the two research hypotheses as depicted below. Multiple regression analysis was applied to determine the most persuasive determinant of business survival that was considered in this study.

H₁: Prudently use of dynamic capabilities of the entrepreneur during the economic crisis affects significantly the survival of the business.

H₂: Entrepreneurial orientation (EO) affects significantly the survival of the business.

4. RESULTS

The basic profile of the SMEs in the sample revealed that the majority (89%) was in the age group of year 30-50, 51 % was male and 49% was female, 81% was married, 63% has at least senior secondary level education and 24% has tertiary level education. As per findings, SMEs involved in the industrial sectors such as food processing, garment, shoe and leather products, batik and handloom are the highly affected sectors due to this economic crisis. The food processing industry was mainly affected due to transport issues. During the lockdown and curfew period due to Covid pandemic situation in the country, people were encouraged to do home gardening and cultivation. Even though this created new opportunities for agro-based value-addition processes, the fuel crisis of the country and continuous power cuts affected the production process and delivery of inputs and outputs. Due to the perishable nature of fruits and vegetables, severe post-harvest losses were there and hence the shortage of inputs occurred in the food processing industry. SMEs involved in garment, shoe and leather products, batik, and handloom manufacturing were affected mainly due to shortages in raw materials such as fabric yarn, fabric, dyes, machine parts, etc. with the import restriction decision of the government, shortfall of foreign reserve and devalue of the rupee.

4.1 Key problems faced by the SMEs in Sri Lanka during the Economic crisis period:

In identifying the key problems faced by SMEs due to the prevailing economic crisis, the factor ranking method was used. The 12 most critical factors were presented as per the knowledge gathered through the research literature and the personal experience of the researcher. In Table 1 (under the Annexes), the problems are presented from the highest to the least ranks as per the respondents' replies on each problem. Accordingly, the six most critical problems faced by SMEs include an increase in the cost of production due to high inflation; diminish production runs due to continuous power cuts and fuel issues; shortage of required raw materials; decline the consumer demand due to inflation of the country; working capital and liquidity problems; and breakdown of their supply chain due to fuel issue. Because of the prevailing economic crisis, the majority of the SMEs in the study sample have to face difficulties in receiving the required raw materials for their production processes. This implies that all the most critical factors revealed through this study directly affect to diminish the production volume of SMEs.

The general opinion revealed through the interview with the selected 10 SMEs was that shortage of local and imported raw materials, fuel, cooking gas, lengthy queues in fuel stations and daily power cuts affect to reduce the utilization rate of production capacity and this created multiple effects for them including stop the operations for many hours of the day,

losing the economies of scale benefits, cancellation of orders, cut down employments, rise-up the cost of production and price increases for final products. They further said that these happen as a cyclical process. Several of them mentioned that the fuel issue causes the breakdown of their supply chain even. Because all imports, exports, storage, and the entire logistic operations are centered on and around Colombo, fuel issues created delivery issues for the SMEs located far away from Colombo peripheral area. One of the respondents detailed what he felt due to this crisis "*The rise in transport costs and overcrowded public transport has left workers struggling to travel to work and hence increases labour absenteeism, poor labour productivity, etc. Due to high living costs and insecurity of employment, as well as the government's encouragement, most of the skilled youth employees migrate for foreign jobs. Then, lack of skilled labour, shortage of raw materials, regular long hours power cuts, fuel shortages, etc. cause to worsen the capacity utilization problem further for them. So, due to under capacity in operational activities, the cost of production has further gone up*".

Very high inflation in the country without any salary increases for the general public causes a serious decline in the disposable income of the people and hence a decline in the demand for the products and services of SMEs. People looked at the high inflation rate and price hike-ups as a double-edged sword that the people have to face concurrently.

In the interview, most of the SMEs explain why they said the lack of working capital was one of the critical issues. As they explained, serious price fluctuations and high prices of raw materials; demand declines; government decisions on stopping to provide lending facilities for SMEs; delays in account receivables, and decline of other income sources affect to weaken the working capital position of the SMEs. Likewise, the working capital problem cause to collapse of the short-term creditworthiness of most of them as well as unable to purchase the required amount of raw materials and which leads to reduce the production volume further.

4.2 Determinants of SME survival during the economic crisis

The second research objective of this study is to reveal the most persuasive determinants of SME survival during the economic crisis. For this purpose, the two hypotheses were developed to test the impact of the two dimensions of the independent variable of “entrepreneur-specific factors” on business survival. The reliability test results relating to the independent and dependent variables are depicted in Table 2. Accordingly, all constructs reported a value of greater than 0.6 and this fulfills the rule of thumb of internal consistency described by Zikmund (2013) and the scales deemed reliable for further analyses. Table 3 shows the group statistics of business survival. The mean values relating to DC and EO were reported as greater than 3.0 and this indicates that the SMEs in the sample agreed upon the 2 dimensions leading to the business survival during the crisis

period. Multiple regression analysis was applied to test the two hypotheses of this study and the model summary of the impact of owner-specific factors on business survival during the economic crisis is depicted in Table 4. Accordingly, it was reported a high positive correlation (0.693) between the owner-specific factors and the business survival. Also, the R^2 value of the model is 0.480 and it says that the overall model explains a 48% variation in business survival. Then, findings imply that owner-specific factors considered in this study have a strong power to determine the business survival during the economic crisis period. The ANOVA results depicted in Table 5 show the overall model fit by reporting the F value of 13.916 with a *p-value* of less than 0.05.

Table 6 depicted the coefficient values of the predictors (DC and EO) that were used to test the two hypotheses of this study. The two hypotheses of this study were respectively: “H₁: Prudently use of dynamic capabilities of the entrepreneur during the crisis affects significantly for the survival of the business” and “H₂: Entrepreneurial orientation (EO) affects significantly for the survival of the business”. The beta value relating to Dynamic capabilities is 0.420 and the *p-value* is 0.016. It was reported the beta value for Entrepreneurial Orientation was 0.336 and the *p-value* is 0.007. As per Table 6, both *p-values* are significant at the 0.01 significance level and *t-values* are also greater than 2 indicating that both hypotheses of the study can be accepted. Out of

the two predictors, dynamic capabilities affect highly on determining business survival during the economic crisis among SMEs more than the entrepreneurial orientation because DC reports a comparatively high beta value.

The discussion with the SMEs in the study sample helped to reveal how the selected SMEs use dynamic capabilities and entrepreneurial orientation characteristics for surviving during this economic crisis. Several SME owners revealed that continuous sensing of environmental happenings and seizing the opportunities created, specifically focusing on new product developments and modifying the products to offer affordable prices to the customers and match with their income, the technology improvements, more focus on the export market, consider customer demand changes and new requirements, competitors' reactions, and government policy decisions gain benefits for their survival. Also, two women entrepreneurs who are in the Western Province mentioned that “designing new packages and testing new materials such as eco-friendly packaging is used as solutions for the restrictions of importing several inputs”. Moreover, the Learning capabilities of several SME owners about what to combat during the Covid pandemic period and how to survive are used as good lessons for the impacts due to crisis. Also, sharing their knowledge with the employees and together creating new and low-cost products as well as input creating process assist them to utilize

the employees properly for surviving from this struggle.

More evidence was revealed through the interviews regarding together with the capability of environmental sensing and seizing, they used the proactiveness behaviour also. For example, it was revealed that SMEs work hard and do research and development to find the necessary inputs on their own and seek substitutes. As practiced during the Covid pandemic situation, several SMEs in the study sample have utilized the idle time of their employees for growing the necessary inputs on their own without laying off the employees as done by many SMEs. This can be identified as a very sustainable solution for the shortage and high price of raw materials. Moreover, together with the assistance of research and development institutions like VIDATHA and University research teams, several SMEs find substitute inputs for the imported ones and high-priced ones. Accordingly, they are capable to retain their customers while attracting competitors' customers and fulfilling the customer demand until uplifting the living condition of the people. Also, they practice *Product Reengineering* at their level and this was a good example to show their innovativeness. As the crisis lowered the level of people's real income, rather than depending on luxuries and new goods further, most of the SMEs in the study sample produce low-cost products by using alternative inputs at affordable prices. Regarding the EOs of SMEs, evidence is available relating to their proactiveness and

risk-taking behaviour. Interviews with SMEs revealed that rather than long-term investments, they wisely select the short-term investments which require for catering to the customer demand changes during this crisis including product testing, product and package modifications, market re-positioning, etc.

One of the most popular adaptations to environmental sensing is "*use social media and e-business platforms for marketing*". Facebook apps and Instagram are the most frequently used digital tools by the majority of SMEs in the study sample. This strategy is most beneficial for the entrepreneur as well as the customer due to many reasons including the ability to avoid the intermediary and the final price to the customer becomes comparatively low, able to provide customized orders, and thereby create good relationships and trust with customers, create loyal customer groups, cash on delivery and digital payment tools help them to solve the long delays in accounts receivables and hence solve the working capital problem to some extent. However, as revealed in this study, during Covid Pandemic period, through many SMEs adopted e-business practices and use e-business platforms like online marketing, participate in online training and knowledge sharing programs, webinars, etc., it is difficult to continuation for the high transportation cost and fuel issue. It deprives the use of such e-business practices due to the continuous power cuts, rise of the telecommunication charges, and high prices and unavailability of device.

5. DISCUSSION

As revealed in this study, similar findings were reported by several researchers relating to the most affecting problems for SMEs due to economic crises in the global context as well as in the Sri Lankan context. The present study found that high inflation due to the prevailing economic crisis created a multiplier effect on SMEs' performance. It affected increasing the cost of production, declining consumer demand, and operating under capacity by the SMEs. Shortage of required raw materials, continuous power cuts, and fuel issue affect to diminish the capacity utilization rate; working capital, and liquidity problems; and fuel issue causes the breakdown of their supply chain. Akturk (2014), Akturk (2014), Lakshila (2022), and Akmal (2022) presented a similar set of problems like decreases in capacity utilization rates, increases in costs and shortage of raw material, working capital in times of crisis faced by the SMEs in global level as well as in Sri Lankan context.

As pointed out by several past studies (for example, Kottika et al., Lim et al., 2020; Akturk, 2014), this study also argued that turbulent times like economic crises generate learning opportunities and provide rare business lessons for SMEs and thereby they can use their unique characteristics, skills, traits, and capabilities to protect as survivors during the crisis period. As found in this study, Kottika et al., (2020) explained that due to the innovativeness and proactiveness of the SMEs, they are capable to introduce new products with better

quality as well as with new initiatives and this ability help SMEs to survive in the financial crisis. Even though positive opinions were found in past literature (for example, Kottika et al., 2020; Simon-Moya et al., 2016; Soinen et al., 2012; Petzold et al., 2019; Acikdilli et al., 2013; Gunawardana, 2020; Samsudin and Ismail, 2019; Collis and Anand, 2018; Carayannis and Stewart, 2013) relating to the support of DCs and EOs of the SMEs for the business survival during the economic crisis and turbulent times, it is rare the studies that focused on the comparison of which one either DCs or EO of the entrepreneur affect highly on their business survival. However, this study focused on this research gap and revealed though both DCs and EOs significantly affect the SMEs' business survival, dynamic capabilities affect more highly than entrepreneurial orientation.

6. CONCLUSION

This study focused on two main objectives. Revealing the key problems faced by SMEs in Sri Lanka due to the prevailing economic crisis was the first objective. Based on the findings, it can be concluded that high inflation in the country and price hikes in raw materials, fuel, and other supplies affect to limit the of production runs, increase the cost of production and thereby increase the final price of products to the customer. Inflation also affected to decrease the purchasing power of the customers and together with the price increases caused to decline in the demand for the products. This happens as a cyclical process and hampers the business activities of

SMEs. On the other hand, the working capital problem that was created as a result of the economic crisis directly affected the diminishing of the production volume of SMEs. So, decreasing the volume of operation of SMEs is a serious threat to the country's economic development because this reduces the ability to contribute to GDP, create employment, poverty reduction, etc. Therefore, the government and other responsible authorities require taking immediate action to ensure the production efficiency of the SMEs by assisting them to solve the above mentioned key problems Destination wise clustering the MSMEs, employing an effective supply chain management system, and developing a regional value chain might be good solutions for ensuring the the availability of raw materials and other inputs at low prices without affecting delivery issues due to high prices and shortage of fuel. This might be a good solution for the working capital issue and the capacity issue of SMEs.

The second objective of this study is to reveal the most persuasive determinants of business survival during an economic crisis. As per the findings, it can be concluded that the dynamic capabilities, as well as the entrepreneurial orientation, possessed the SMEs affected significantly to protect as survivors during the prevailing economic crisis period. Comparatively, with entrepreneurial orientation, dynamic capabilities assist SMEs in ensuring business survival, and hence, the SMEs, business development service providers, and the other stakeholder groups need to concern more on developing dynamic

capabilities such as sensing & seizing the environment, innovative capabilities, and learning capabilities of the entrepreneurs. Also, working cooperatively with their employees as an entrepreneurial family, and sharing the owner's learning capabilities to come up with innovative solutions

have shown remarkable solutions for such a crisis rather than laying-off employees to cope with limited demands. This can be considered a win-win-win approach for all three parties including the owner-manager, employees, and the national level policy planners

APPENDIX

Table 1: Key problems faced by the SMEs during the economic crisis period

	Key problems	Rank
1	High inflation affect to increase the cost of production	1
2	Continuous power cuts and fuel issue affect to diminish production runs	2
3	Shortage of required raw materials to continue business operations	3
4	Decline the consumer demand due to inflation in the country	4
5	Working capital and liquidity problems	5
6	Fuel issue causes the breakdown of their supply chain	6
7	The difficulty of paying the salaries of their employees	7
8	Difficulties in sourcing inputs from abroad due to dollar shortage	8
9	Difficult to obtain lending facilities from financial institutions	9
10	Loss of sub-contracts previously received from large-scale firms	10
11	Difficult to retain skilled people due to migration for foreign employment	11
12	Difficult to repay loan installments	12

Source: Author Survey-2022

Table 2: Reliability Test Results

Construct	Indicators	Cronbach's Alpha
Dynamic Capabilities	DC ₁ , DC ₂ , DC ₃	0.831
Entrepreneurial Orientation	EO ₁ , EO ₂ , EO ₃	0.762
Business Survival	BS ₁ , BS ₂	0.815

Source: Author Survey-2022

Table 3: Descriptive Statistics Results

Dimension	N	Mean	Std. Deviation
Dynamic Capabilities	172	3.9067	.69217
Entrepreneurial Orientation	172	3.6933	.72361
Business Survival	172	3.3131	.49331

Source: Author Survey- 2022

Table 4: Model summary of the impact of Owner-specific factors on Business Survival

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.693 ^a	.480	.432	.59071

a. Predictors: (Constant), DC, EO

Table 5: ANOVA Results of the impact of Owner-specific factors on Business Survival

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.920	3	4.207	13.916	.000 ^b
	Residual	14.989	169	.326		
	Total	27.602	172			

a. Dependent Variable: BS
b. Predictors: (Constant), DC, EO

Table 6: Coefficients of the impact of Owner-specific factors on Business Survival

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.265	.729		7.087	.000
	DC	.436	.148	.420	2.498	.016
	EO	.365	.136	.336	2.139	.007

a. Dependent Variable: BS

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Promoting Employee Engagement: Concept Paper for the Development of a Conceptual Framework

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Abstract

This study aimed to examine how employee engagement can be increased through the perceived desirability of disruptive Human Resource Management (HRM) technologies where sociological phenomena like gender stereotype change and work realities as work- family conflicts derive lower employee engagement. This study is a literature review in which employee engagement, gender stereotype change, work-family conflicts, and disruptive HRM technologies literature were surveyed and reviewed from two perspectives. Both perspectives developed a conceptual framework that focuses on three impacts. The first is the role of work-family conflicts in mediating the impact of changing gender stereotypes on employee engagement. Second, the perceived desirability of disruptive HRM technologies has a direct impact on increasing employee engagement. The third effect is that the perceived desirability of disruptive HRM technologies has a moderating effect on the impact of work-family conflicts on employee engagement. The paper provides directions for empirical research based on the predicted impacts.

Keywords: Disruptive HRM Technologies, Employee Engagement, Gender stereotypes, Work-Family Conflict

1. INTRODUCTION

Employee engagement involves energy, dedication, and work absorption (Bakker & Schaufeli, 2008). It has more benefits like improved financial performance, customer satisfaction, retention, and well-being (Macey & Schneider, 2008; Rana et al. 2014; Schaufeli et al., 2002). Moreover, it predicts organizational performance and strategic benefits (Turner, 2020). Thus, employee engagement is a

detrimental factor to the success of any organization. However, global employee engagement is currently at only 20% (Gallup, 2021), indicating that eighty percent of workers are disengaged from their jobs. Which means they mentally quit while physically remaining at work (Turner, 2020). It is detrimental to the firm (Purcell, 2014) because employees are paid and receive benefits despite their

energy not being available to the organization (Osborne & Hammoud, 2017; Pech & Slade, 2006).

Among many factors, the nature of contemporary work realities creates many factors that can inhibit employee engagement. Notably, the contemporary work realities reveal more complexities due to employees' extensive work hours (Poelmans et al., 2008) and more diversities due to an increase in the number of women in the workplace, dual-career families, single-parent families, and an aging population (Brough & Kelling, 2002; Frone & Yardley, 1996). Such complexities and diversities have changed the family structures where the stereotypes of traditional gender roles have been changed (Blau & Kahn, 2006; De Vaus & Wolcott, 1997). Thus, people engage in different role performances than expected in traditional gender-biased activities (Eagly et al., 2020; Haines et al., 2016; Priyashantha et al., 2021a, 2021b). Those different role performances create multiple roles within both work and family domains. As all those roles must be fulfilled in a limited time and energy, participation in one role makes participation in another more complicated and strains the worker (Greenhaus & Beutell, 1985). Such a strain is known as work-family conflict. Work-family conflicts positively impact employee burnout (Bowen et al., 2018; Huyghebaert et al., 2018; Molina, 2021; Taylor et al., 2019) or job exhaustion (Hill et

al., 2006). As employee burnout feelings reduce the employees' level of engagement (Bakker & Schaufeli, 2008; Turner, 2020), researchers treat employee burnout as the opposite reaction of employee engagement (Bakker & Schaufeli, 2008; Kular et al., 2008; Maslach et al., 2001). As a result, work-family conflicts limit employees' ability to engage in their jobs (Kengatharan & Kunatilakam, 2020; Wayne et al., 2017).

Furthermore, changing gender stereotypes produce normative role expectations based on job needs, job descriptions, social identity, rules, and regulations that make employees feel obligated to perform them (Biddle, 1986; Eagly et al., 2020; Goffman, 1961). As a result, changing gender stereotypes can positively influence employee engagement (Artz et al., 2021; García-Arroyo et al., 2019; Li et al., 2021; Ushiro & Nakayama, 2010).

In this context, employee engagement is critical. One implication is that HRM activities increase employee engagement (Albrecht et al., 2015; Guest, 1997, 2011; Turner, 2020). Another is that technology increases employee engagement (Turner, 2020; Waddill, 2018). Thus the combined effect of both HRM and technology, known in reality as Electronic HRM (EHRM) (Oswal & Narayanappa, 2015) Digital HRM or Disruptive HRM Technologies (Bersin, 2017; Waddill, 2018), would positively impact employee engagement. It creates boundless

opportunities to increase employee engagement innovatively (Bersin, 2017; Turner, 2020; Waddill, 2018). Disruptive HRM technologies are web-based technologies that use computers and smartphones to automate HRM operations. (Bersin, 2017; Jazdi, 2014; Sareen & Subramanian, 2012). It includes social media, cloud computing, big data/data analytics, IoT, and mobile technologies. (Waddill, 2018). They give employees greater autonomy and flexibility in making decisions and managing their workload (Garibaldo & Rebecchi, 2018; Jazdi, 2014). They increase employee engagement using user engagement models and behavioral modeling capabilities (Golestani et al., 2018; Jha et al., 2019; Turner, 2020). They also help integrate work and family, creating more permeable transitions between the two domains (Allen et al., 2014; Carlson et al., 2018; Turner, 2020) and well-being (Macey & Schneider, 2008; Rana et al., 2014; Schaufeli et al., 2002). Thus employees would be desirable to adopt such technologies (Bersin, 2017). It is known as the perceived desirability of disruptive HRM technologies. It is defined as a belief that individual desires disruptive HRM technologies that automate and streamline HRM processes, which are more efficient and worthwhile than existing technologies (Buhalis et al., 2019). The scholarly thoughts highlight that the perceived desirability of disruptive HRM technology

positively impacts employee engagement (Ginac, 2018; Kossek et al., 2014; Waddill, 2018).

The main goal of this concept paper was to spot unexplored factors to promote employee engagement. To address that, we highlight the possibility of the perceived desirability of disruptive HRM technologies' capacity to increase employee engagement in the context of changing gender stereotypes' impact on employee engagement through work- family conflicts. Separate systematic literature reviews on gender stereotypes changes (Priyashantha et al., 2021b, 2021a, 2021c, 2021d), work- family conflicts (Priyashantha et al., 2022b), and disruptive HRM technologies (Priyashantha, 2022; Priyashantha et al., 2022a) were conducted based on the empirical publications. They revealed that researchers had not investigated these variables with employee engagement in a holistic model. Thus, this idea is presented in a conceptual framework, and underlined theoretical grounds for such a framework are explained from two perspectives. In the first perspective, we provide literature to support the impact of changing gender stereotypes on employee engagement through the mediation impact of work-family conflicts. Researchers have found that gender stereotype has changed in every region of the world in contemporary societies (Mergaert, 2012) due to females entering the labor force activities (World Bank, 2011).

Thus, our review found that changing gender stereotypes impact work-family conflicts (Duxbury et al., 2018; Michel et al., 2011), reducing employee engagement (Bakker & Schaufeli, 2008). The impact of changing gender stereotypes on work-family conflict is explained by the organization role theory and role conflict theory (Biddle, 1986). Furthermore, the impact of work-family conflict on employee engagement is grounded in the job demands resource model (JD-R), as it explains that providing resources can mitigate work-family conflicts and increase employee engagement (Haines et al., 2020; Wayne et al., 2020). Given these foundations, we predicted a mediation role of work-family conflicts of the impact of changing gender stereotypes on employee engagement.

The second perspective highlights two impacts. The first is the impact of the perceived desirability of disruptive HRM technologies on employee engagement. It is supported by similar studies (Ginac, 2018; Parvari et al., 2015; Waddill, 2018). The second is the moderation impact of the perceived desirability of disruptive HRM technologies' capacity to strengthen the work impact of work-family conflicts on employee engagement. This impact is supported by other similar studies' theoretical groundings (Opie & Henn, 2013). Besides, the two impacts predicted are supported by the JD-R model (Demerit et al., 2001; Bakker &

Demerouti, 2007).

2. LITERATURE REVIEW

Employee engagement was initially known as personal engagement. It was defined as the simultaneous employment and expression of a person's 'preferred self' in task behaviors that promote connections to work and others, personal presence, and active full-role performances" (Kahn, 1990). People engage in work for three reasons; Meaningfulness, Safety, and Availability (Kahn, 1990). Meaningfulness is the return on self-investments in role performance (p. 705). Safety is showing oneself "without fear or negative consequences to self-image, status, or career" (p. 705). Availability was defined as the "sense of possessing the physical, emotional, and psychological resources necessary" (p.705). All these are required to complete the work. Once they are provided, the employees will fully engage in their work. Apart from this definition, researchers have given various other definitions for employee engagement and some important of which are mentioned in the following Table 1.

Concerning the definitions in Table 1, they seem to highlight Kahn's argument that employees increase their physical, cognitive, and emotional engagement by being authentically involved. It includes satisfaction, enthusiasm, involvement, and commitment, the simultaneous employment and expression of one's preferred self (Turner, 2020). Moreover,

considering the definitions of employee engagement, Kruse (2012) noted that employee engagement is a commitment and care the employee has to the work, organization, and its goals. They do not work just for a paycheck or the next promotion but on behalf of the organization's goals. Therefore, engagement refers to a more persistent and pervasive affective–cognitive state that is not focused on any particular object, event, individual, or behavior' (Schaufeli et al.2002).

2.1. Antecedents of employee engagement

The antecedents are the factors that promote employee engagement. Studies have found that employee engagement can vary daily and is influenced by various factors (Turner, 2020). Most of the researchers have organized those factors under common categories as individual factors, job factors, and organizational factors (Harter et al., 2002; W. A. Kahn, 1990; Langelaan et al., 2006; May et al., 2004; Turner, 2020; Wollard & Shuck, 2011; Yi-wen & Yi-qun, 2005). Thus in this research, the antecedents were categorized under the same categories shown in Table 2.

When carefully analyzing each main category of antecedents, more attention has been given by the researchers to organizational and individual factors other than job-related factors. However, concerning the individual factors, our survey found gaps in individual

factors like religiosity (Nwachukwu et al., 2021), individual character (Iddagoda & Opatha, 2017), and attitudes toward gender roles (Iyer, 2016; Ushiro & Nakayama, 2010). The emphasis on the attitudes toward gender roles and their impact on employee engagement is critical since employee engagement is in a crisis worldwide (Gallup, 2021), and gender role attitudes worldwide are changing (Brown, 1991; van de Vijver, 2007). Even though few studies on the work-family interface and employee engagement have been conducted (Lieke et al., 2010; Peeters et al., 2005; Shuck et al., 2011a), we discovered gaps in which gender role attitude changes impact work-family conflicts, resulting in lower employee engagement. More on this will be explained in the *perspective one* of this paper that will provide future research directions.

Additionally, the implications of technology (Turner, 2020) and HRM activities on increasing employee engagement (Albrecht et al., 2015; Guest, 1997, 2011; Turner, 2020) are essential.

This idea makes the rationality of the combined effect of those two, known as Electronic HRM (EHRM) (Oswal & Narayanappa, 2015), Digital HRM, or Disruptive HRM Technologies (Bersin, 2017; Waddill, 2018), would positively impact employee engagement. It has gaps in the empirical literature, and the idea is discussed under *perspective two* of the article that

will provide future research directions.

3. METHODOLOGY

The article is designed as a conceptual paper. The conceptual articles include literature rather than data (Gilson & Goldberg, 2015; Rana et al., 2020). We intend to follow this pattern to establish a conceptual framework to promote employee engagement. The arguments are structured and developed by complying with the notions in framework development indicated by the literature (MacInnis, 2011) and then provide future research directions. As non-empirical studies suffer from a lack of universally accepted samples, we took the methodology provided by (Jaakkola, 2020) for this conceptual article development. The goal was to spot unexplored factors to promote employee engagement. In achieving that, we have incorporated concepts from social psychology, technology adoption, and human resource management in our investigation to justify the theoretical contribution of the present research.

Moreover, numerous examples are provided to review the present phenomenon and the need for the subject to be presented more clearly. The journal articles on gender stereotypes, work-family conflicts, and employee engagement published between 1970 and 2022 were considered. The articles were accessed through Scopus, Web of Science Ebscohost, Lens.org, and Google Scholar. This

paper considered 15 articles for gender stereotypes change, 420 for work-family conflicts, 62 for disruptive HRM technologies, and 260 for employee engagement for reviewing.

The paper is organized into two phases: the first phase attempts to investigate the current knowledge on factors promoting employee engagement. The second phase is developing a conceptual framework with unexplored factors in gender stereotype change, work-family conflicts, and disruptive HRM technologies. The impacts predicted in the conceptual framework are explained with example justifications presented as perspectives. It required formal reasoning and was supported by research from several areas and real-world applications (Huang & Rust, 2018; Jaakkola, 2020). In other words, the authors employ method theories and deductive reasoning to explain the effects of key variables and are aided by the theories in use (MacInnis, 2011). In each perspective, future research directions are also provided that can contribute to more effective promotion in employee engagement.

3.1. A conceptual framework for promoting employee engagement

In this article, among other factors unexplored in promoting employee engagement, we highlight the possibility of the perceived desirability of disruptive HRM technologies' capacity to increase employee engagement in the context

of changing gender stereotypes' impact on employee engagement through work-family conflicts. This idea is presented in the conceptual framework shown in Figure 1. This paper presents two perspectives on promoting employee engagement to address the research objectives.

Perspective 1: Do work-family conflicts mediate the impact of gender stereotype change on employee engagement?

Gender role attitudes (Davis & Greenstein, 2009) or gender stereotypes (Berridge et al., 2009; De Silva & Priyashantha, 2014; Eagly et al., 2020; Priyashantha et al., 2021a, 2021b) are society's perceptions about the suitable roles for men and women in the division of paid jobs, domestic work, and care for children. According to social psychologists, such gender stereotypes stem from men's and women's assumed characteristics (Eagly & Karau, 2002). Thus, men are assertive, independent, rational, competitive, and decisive, while women are assumed to show concern for others, warmth, helpfulness, and nurturing (Hoyt et al., 2009). Most studies label such distinct characteristics as the agency/masculine (male stereotype) and feminine/communion (female stereotype) (Bakan, 1966; Eagly et al., 2020; Priyashantha et al., 2020). Based on these assumed characteristics, there is a typical neo-traditional labor division in which women perform most domestic work, accounting for the caregiver

role, and men, accounting for the breadwinner role (Bianchi et al., 2014).

The females entering into the labor force activities in the contemporary world of work in every region of the world (World Bank, 2011) has resulted in people having multiple roles as employers, employees, volunteers, friends, spouses, and siblings (Najeema, 2010). Thus, men's and women's traditional roles have become far more complicated than ever, resulting in changing gender stereotypes over the past 50 years (Mergaert, 2012).

Such a change in gender stereotypes refers to egalitarian gender attitudes (Boehnke, 2011), where men and women share equally the division of paid jobs, domestic work, and care for children. Thus, gender stereotype change is people's attitudes toward engagement in different activities while engaging in traditional social roles (Eagly et al., 2020). Organization role theory proposes roles in organizations formed by preplanned, hierarchical, and task-oriented social systems (Biddle, 1986). In those, the normative expectations and job demands determine the scope of the roles (Biddle, 1986). These roles may vary among the individuals depending on their positions in the organization (Kahn et al., 1964). Since each role is associated with social positions, the social role expectations, organizational normative role expectations, and job demands create multiple roles (Biddle, 1986;

Colombo & Ghislieri, 2008). These multiple roles are subject to role conflicts, opposing role expectations from organizations, and social positions (Biddle, 1986). Such role conflicts are said to produce strains (Biddle, 1986). This theory has been used as role conflict theory concerning work-family conflicts (Biddle, 1986). The role conflicts defined in theory represent the various work-family conflicts and have been widely used in research (Madsen & Hammond, 2013). Thus the roles conflict theory states that experiencing ambiguity or conflict within a role (e.g., whether performing this duty or that duty) results in an undesirable state (Carlson & Kacmar, 2000) that leads to a personal conflict (Grandey & Cropanzano, 1999). This idea has been examined as gender stereotype change impacts work-family conflicts (De Silva & Priyashantha, 2014; Duxbury et al., 2018; Michel et al., 2011; Priyashantha et al., 2021c, 2021d; Theunissen et al., 2003).

The work-family conflicts can be mitigated by producing resources (Haines et al., 2020; Wayne et al., 2020). Otherwise, that can harm employee engagement (Kengatharan & Kunatilakam, 2020; Wayne et al., 2017). It is grounded in the job demands resource model (JD-R). Job demands represent role overload, unfavorable environmental conditions, emotional demands, time constraints, and high work pressures (Bakker &

Demerouti, 2007). They can be managed by providing more job resources such as social, psychological, personal, physical, and organizational resources (Bakker & Demerouti, 2007; Demerouti & Bakker, 2011; Schaufeli & Bakker, 2004). The JD-R highlights two psychological processes; motivation and job strain (Bakker & Demerouti, 2007). Job resources provide motivational potential that leads to positive outcomes such as employee engagement (Bakker & Demerouti, 2007). Extensive job demands may result in adverse outcomes such as depletion of psychological resources and cause more strain (Lorente Prieto et al., 2008), like work-family conflicts (Bakker et al., 2010; Derks et al., 2016). This idea is examined in studies as the impact of work-family conflicts on employee engagement (Kengatharan & Kunatilakam, 2020; Wayne et al., 2017). Moreover, work-family conflicts positively impact employee burnout (Molina, 2021; Taylor et al., 2019), emotional exhaustion (Bande et al., 2019; Boles et al., 1997), or job exhaustion (Hill et al., 2006). Since job burnout and emotional exhaustion are the exact antitheses of employee engagement (Bakker & Schaufeli, 2008), thus, those facts prove that work-family conflicts lower employee engagement.

Other than that, people define gender roles based on their gender identity (Haines et al., 2016). The social role theory highlight that

gender identity is derived based on socially defined roles (e.g., mother, employee, wife) (Biddle, 1986; Eagly & Wood, 2012; Skelly & Johnson, 2011). Scholars confirm that the changing nature of gender stereotypes is also explained in social role theory because modern societies have transformed traditional gender stereotypes into changing gender stereotypes (Haines et al., 2016; Priyashantha et al., 2021a). As a result, almost all employees believe men and women should have an equal share of socially defined traditional gender roles. Accordingly, people may perform any role regardless of socially segregated roles (Priyashantha et al., 2021b, 2021c). In other words, men and women are willing to work in employment and household activities. In terms of employment, job descriptions define the work demands, regulations, and normative expectations (Biddle, 1986). As a result, job engagement increases (Goffman, 1961). This idea is also examined in studies as the positive impact of changing gender stereotypes on employee engagement (Artz et al., 2021; García-Arroyo et al., 2019; Li et al., 2021; Ushiro & Nakayama, 2010).

In sum, the first perspective highlights that changing gender stereotypes impacts work-family conflicts that result in lower employee engagement. Additionally, the changing gender

stereotype impacts employee engagement to rise. Thus, these effects prove that there is a theoretical rationale for having a mediation impact on work-family conflict to the impact of changing gender stereotypes on employee engagement. Future researchers must consider this effect for empirical investigations to verify this proposition. It will contribute to promoting the employee engagement

Perspective 2: Do the perceived desirability of disruptive HRM technologies impact employee engagement and weaken the effect of work-family conflicts on reducing employee engagement?

The perceived desirability of disruptive HRM technologies is the perception of somebody who wants technologies that automate and streamline processes of Human Resource Management that are more efficient and worthwhile than the existing technologies (Buhalis et al., 2019). Major disruptive HRM technologies are Social Media, Cloud Computing, Big Data/Data Analytics, and Mobile Technologies (Priyashantha et al., 2022a; Waddill, 2018), which facilitate employee management and work activities more than ever before. Job resources include social, psychological, personal, physical, and organizational resources that aid in meeting job demands or lowering job-related costs (Bakker & Demerouti, 2007; Demerouti & Bakker, 2011; Schaufeli & Bakker, 2004). Any job resource can

motivate employees, leading to positive outcomes such as employee engagement (Bakker & Demerouti, 2007). Thus, the technology provided is a resource that facilitates employee engagement. Besides, the belief is that receiving technology resources or the perceived desirability of disruptive HRM technologies can be treated as a psychological resource that can increase employee engagement. Related findings and viewpoints support this idea, including the positive impact of attitude toward information technology (IT) on employee commitment (Parvari et al., 2015) and the intention for technology disruptions in HRM will help employee engagement (Ginac, 2018; Waddill, 2018).

Additionally, perceived ICT resources reduce employee burnout (Ninaus et al., 2021). Attitude toward IT, the intention for technology disruptions in HRM, and the Perceived ICT resources are related to the perceived desirability of disruptive HRM technologies. Employee commitment is reflected as dedication in employee engagement (Kahn, 1990). Employee Burnout and engagement are the opposites of a single continuum that a single instrument can fully cover (Maslach et al., 1997). Accordingly, burnout and employee engagement are overlapping concepts (Bakker & Schaufeli, 2008; Taris et al., 2017). Thus, decreasing burnout will result in increased employee engagement.

Accordingly, the perceived desirability of disruptive HRM technologies increases employee engagement.

Moreover, as per the JD-R model, work-family conflicts arise due to work demands (Bakker et al., 2010; Demerouti et al., 2001; Mauno et al., 2006). Providing physical, emotional, or mental resources can reduce such work-family conflicts and promote employee engagement (Bakker & Demerouti, 2008b; Demerouti & Bakker, 2011) or reduce employee burnout (Bakker et al., 2014). The JD-R postulates an interaction effect between job demands and job resources, affecting employee motivation and job strain (Bakker & Demerouti, 2007; Demerouti et al., 2001). Specifically, job resources will buffer the effects of job demands on job strain (Bakker & Demerouti, 2007). In other words, if job resources are not provided, extensive job demands may deplete psychological resources and cause more strain outcomes (Lorente Prieto et al., 2008). One such strain outcome is the work-family conflicts (Bakker et al., 2010; Derks et al., 2016) that can reduce employee engagement (Halbesleben et al., 2009; Kengatharan & Kunatilakam, 2020; Wayne et al., 2017). This idea can be the foundation for the impact of the perceived desirability of disruptive HRM technologies to dampen the negative impact of work-family conflicts on employee engagement. It is a moderation effect of the

perceived desirability of disruptive HRM technologies on the impact of work-family conflicts on employee engagement.

Prior empirical research on this type of moderation effect is limited, specifically on technology-related interaction effects (Mauno et al., 2006; Poelmans et al., 2005). However, other studies can be the foundation for this perspective. For example, job autonomy and less job control (as job resources) moderate the relationship between work-family conflicts and stress (Opie & Henn, 2013). It means that the stress due to work-family conflicts can be minimized by providing resources like more autonomy or less job control. Moreover, contemporary arguments on the JDR approach postulate that more psychological resources like mental energies or characteristics can reduce the adverse effects of job demands (for example, Work-family conflicts) on employee well-being outcomes (for example, burnout and employee engagement) (Demerouti & Bakker, 2011). Without such resources, work-family conflicts can reduce engagement (Mauno et al., 2006). Consistent with that, employees' demand for technology resources is the perceived desirability for disruptive HRM technologies (a psychological resource), which can exist due to increased work-family conflicts resulting from changing gender stereotypes. Such a demand on the employees' side means psychological energy, which can be treated as a psychological resource.

As a result, having psychological resources will diminish employee burnout (Bakker et al., 2014). As burnout is treated as the antithesis of employee engagement (Bakker & Schaufeli, 2008; Kular et al., 2008; Maslach et al., 2001), the reduction in burnout can be treated as increasing employee engagement on the other hand. In other words, the decreasing employee engagement due to work-family conflicts derived from the changing gender stereotypes can be increased by the perceived desirability of disruptive HRM technologies.

In summary, this perspective highlights mainly two impacts. Firstly, the impact of the perceived desirability of disruptive HRM technologies on employee engagement. Secondly, the perceived desirability of disruptive HRM technologies strengthens the impact of work-family conflicts on reducing employee engagement. Those two impacts suggested have not been empirically tested. Thus, future research must verify this proposition, which will promote employee engagement.

4. DISCUSSION

The present conceptual paper aims to develop a conceptual framework that postulates the perceived desirability for disruptive HR technologies' ability to strengthen the reduction of employee engagement due to work-family conflicts derived from changing gender stereotypes. It emphasized that employee engagement is further reduced due to the perceived

desirability for disruptive HR technologies. It may be paradoxical for an average reader to introduce a moderating effect of the perceived desirability of disruptive HRM technologies to strengthen the reduction in employee engagement due to the work-family conflicts derived from changing gender stereotypes. We wanted to introduce disruptive HRM technologies and discuss the possibility of increasing employee engagement through a theoretical lens. However, we took the perceived desirability of disruptive HRM technologies rather than disruptive HRM technologies. The reason for that is the general application of this model to any context. For example, not all organizations have adopted disruptive HRM technologies; such organizations may exist, particularly in developing nations. The employees in those organizations do not have any experience with the benefits of such technologies. At the same time, if disruptive HRM technologies were incorporated into the proposed framework, the model could not be tested in those nations as there is no employee experience with such technologies. Thus we used the perceived desirability of disruptive HRM technologies, which denotes the intention rather than the adoption of disruptive HRM technologies. According to the innovation diffusion theory (Rogers, 1962), media or prior adopters provide their perceived benefits of those

technologies. Thus, whether they adopt disruptive HRM technologies, almost all employees are desirable of such technologies (Bhattacharjee, 2012; Rogers, 1962). Thus taking the perceived desirability for disruptive HR technologies is reasonable.

It then introduces the perceived desirability of disruptive HRM technologies that positively impact employee engagement. Additionally, the changing gender stereotypes have positively impacted employee engagement through theoretical lenses. However, as far as the moderation effect is concerned, the perceived desirability of disruptive HRM technologies dampens the reduction of employee engagement due to work-family conflicts that derive from the changing gender stereotypes. It can happen as the perceived desirability of disruptive HRM technologies are a psychological resource according to the JDR approach, so the negative impact of work-family conflict on employee engagement can dampen. This notion is developed as empirical investigations show that providing psychological resources can reduce the adverse effects of high work demands on positive work outcomes (Bakker & Demerouti, 2008b; Demerouti & Bakker, 2011).

5. CONCLUSION

Employee engagement is acritical factor in any organization's success. However, global surveys (Gallup, 2021) state that engagement is a crisis, with a meager percentage of

employees engaged. Thus, research is needed to find how engagement can be promoted. This study aimed to examine how employee engagement can be increased through perceived desirability of disruptive HRM technologies where sociological phenomena like gender stereotypes change and work realities as work-family conflicts derive lower employee engagement. The literature on employee engagement, gender stereotype change, work-family conflicts, and disruptive HRM technologies was surveyed.

The literature was reviewed from two perspectives. In the first perspective, the impact of changing gender stereotypes on work-family conflicts that decrease employee engagement and the impacts of gender stereotypes change on employee engagement are highlighted. Similarly, the second perspective highlights the impact of perceived desirability for disruptive HRM technologies on increasing employee engagement. Further, in the second perspective, the moderation effect of the perceived desirability of disruptive HRM technologies on the impact of work-family conflict derived from the change in gender stereotypes on employee engagement is highlighted. Both these two perspectives developed a conceptual framework (Figure 1) that future research can empirically test. In addition, managerial and academic implications are also provided from the study findings.

6. IMPLICATIONS OF THE STUDY

6.1. Managerial implications

The present study shows how employee engagement can be increased through disruptive HRM technologies. The idea is vital for HR practitioners as it provides a novel way to incorporate HRM technology to increase employee engagement. The present study's findings commonly imply that practitioners assess employee engagement levels and find remedies. Particularly the first perspectives in this study convince HR practitioners about the contemporary nature of employee engagement. At the same time, the second perspective implies that managers adopt disruptive HRM technologies. Some HR practices must alter due to the deployment of disruptive HR technology. For example, flexible working patterns, remote working, and changes in labor regulations (Bersin, 2017a; Schwab, 2016; Waddill, 2018), the study's findings can encourage the applicable authorities and institutions to do so. Furthermore, the findings suggest that managers should be aware of preparing staff to aid in such technology adoption and vendor businesses releasing more disruptive HRM technology solutions.

6.2. Academic and research implications

This study contributes substantially to our understanding of disruptive HR technologies' perceived

desirability to promote employee engagement. Further, the study revealed that work- family conflicts reduce employee engagement, whereas changing gender stereotypes drive increased employee engagement. Further, the moderated mediation model proposed in the present study is the other implication for academia. It is new knowledge to understand and improve employee engagement.

Additionally, three domain theories, namely Organization Role Theory (Biddle, 1986; R. L. Kahn et al., 1964), Social Role Theory (Eagly et al., 2020; Goffman, 1961), and the Job Demand Resource Model (Bakker & Demerouti, 2007; Demerouti et al., 2001; Schaufeli & Bakker, 2004) were used to ground the phenomenon of the present study. The Organization Role Theory, in particular, shows the impact of changing gender stereotypes on work-family conflicts. The Social Role Theory supports the impact of changing gender stereotypes on employee engagement. The Job Demands Resource Model illustrates the impact of work- family conflicts on employee engagement and the perceived desirability of disruptive HR technologies on employee engagement. Furthermore, the Job Demands Resource Model supports the moderating impact of perceived desirability for disruptive HR technology on the negative impact of work- family conflicts on employee engagement (the moderated mediation impact). The

underlying assumption of all three theories is that the negative consequences (work- family conflicts) of role attitude changes (gender roles) can be minimized by providing resources (disruptive HR technologies).

Aside from that, the perceived desirability of disruptive HR technology is a newly established construct. The concept explicitly refers to disruptive HR technologies' desirability rather than the desirability of conventional technology. Only the term technology intention can be found in the existing literature (Davis & Davis, 1989; Moghavvemi, 2017). However, contemporary human resource management technologies are disruptive HR technology (Bersin, 2017b, Bersin 2019; Dharmasiri, 2017; Ginac, 2018; Khanna, 2019; Sivathanu & Pillai, 2018; Ulrich, 2017; Waddill, 2018). As a result, the construct is contemporary, relevant, and specific.

Concerning future research directions, the proposed model was presented in terms of two perspectives that future researchers can empirically test. In the exercise of empirical investigations, establishing measurement scales is vital. Thus, changing the gender stereotype and work-family conflicts can be measured through prevailing scales, as there is much in the literature. However, as the newly established variable, the perceived desirability of disruptive HRM technologies lacks a comprehensive measure; future

researchers can develop a measurement scale using the items in the technology acceptance theories in the literature. Thus the findings of the study imply that

future researchers to empirically test and validate the measurements of the variables proposed in this study.

APPENDIX

Table 1: Definitions of Employee Engagement

Definition	Author
High levels of activation and pleasure characterize employees' persistent, positive affective-motivational state of fulfillment."	(Maslach et al., 2001)
Individual's involvement and satisfaction with as well as enthusiasm for work."	(Harter et al., 2002)
Simultaneous employment and expression of a person's "preferred self" in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional), and active, full-role performance	(Saks, 2006)
An employee's cognitive, emotional, and behavioral state is directed toward desired organizational outcomes.	(Shuck & Wollard, 2010)
"a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption." Vigor is characterized by being energetic and resilient at work, investing one's effort, and being persistent during difficulties. Dedication refers to feeling valued, inspired, proud, and passionate at work. Absorption is regarded as having high levels of concentration and focus at work or energetic involvement with fulfilling activities that enhance the person's sense of professional efficacy.	(Albrecht et al., 2015; Bakker, 2011; Harter et al., 2002; Maslach & Leiter, 2008; May et al., 2004; Schaufeli et al., 2002; Schaufeli & Bakker, 2004; Turner, 2020)

Source: Authors Construct, (2022)

Table 2: Antecedents of Employee Engagement

Antecedents, Authors, and Year of Publication
Job factors: task characteristics, role characteristics, work interaction (Kahn, 1990), work environment (Harter et al., 2002), job enrichment (May et al., 2004), job characteristics (Saks, 2006), Job Fit (Shuck et al., 2011b), Co-Employee Support (Andrew & Sofian, 2012) Job Design and Characteristics (Rana et al., 2014)

Organizational Factors: group and inter-group dynamics, management style and process, organizational norms (Kahn,1990), direct supervisor, senior management team, colleagues (Harter et al., 2002), work role fit, rewarding co-workers, supportive supervisor (May et al., 2004), support, sense of fairness, interpersonal consumption, and conflict (Yi-wen & Yi- qun, 2005),: available job resources (Bakker & Demerouti, 2008a; Montgomery et al., 2003; Salanova & Schaufeli, 2008; Schaufeli & Bakker, 2004), Job Control, Job Participation, Job Feedback, Job Rewards, Job Security, Supervisor Support (Salanova & Schaufeli, 2008), Autonomy, Performance Feedback, Social Support, Supervisory Coaching (Bakker & Demerouti, 2008a) corporate culture (Brunetto et al., 2014), clear expectations, corporate social responsibility, encouragement, feedback, hygiene factors, job characteristics, job control, Job Fit, Leadership, Level of Task Challenge, Manager Expectation, Manager Self-Efficacy, Mission and Vision, Opportunities for Learning, Perception of Workplace Safety, Positive Workplace Climate, Rewards, Supportive Organizational Culture, Talent Management, Use of Strength (Wollard & Shuck, 2011), Strategy, Talent Management and Culture (Turner, 2020), Job Demands, Work Home Interference (Montgomery et al., 2003; Peeters et al., 2005),rewards and recognition, procedural justice, distributive justice (Saks, 2006), Supervisor and Co-Worker Relationships, Workplace Environment, HRD Practices (Kura et al., 2019; Memon et al., 2021; Rana et al., 2014), Internal Communication (Tkalac Verčič, 2021), participation in CSR activities (Nazir et al., 2021), Transformational Leadership (Edelbroek et al., 2019), opputunities for creativity(Ghosh et al., 2020), Organizational identification (sense of belongingness) (Men et al., 2020) Trust:Senior Management (Holland et al., 2017), Supervisor (Mohanty & Arunprasad, 2021), Co- Worker (Mohanty & Arunprasad, 2021).

Individual factors: physical energies, emotional energies, insecurity, outside life (Kahn,1990), Family Work Interference (Lieke et al., 2010), Home Demands, Home Work Interference (Peeters et al., 2005), Home Resources (Montgomery et al., 2003),self-consciousness (May et al., 2004), neuroticism, extraversion and mobility (Langelaan et al., 2006) resilience (Bakker et al., 2006) Optimism, Self-Efficacy, Resilience, Self Esteem (Bakker & Demerouti, 2008) Absorption, Available to Change, Coping Style, Curiosity, Dedication, Emotional Fit, Employee Motivation, Employee Work-Family Status, Feelings of Choice and Control, Higher Levels of Corporate Citizenship, Involvement in Meaningful Work, Link Individual, Organizational Goals, Optimism, Perceived Organizational Support, Self-Esteem, Self-Efficacy, Vigor, Willingness to Direct Personal Energies, Work-Life Balance, Core Self-Evaluation, Value Congruence (Wollard & Shuck, 2011) Affective Commitment, Psychological climate (Shuck et al., 2011b), Team Relationships, Positive events, Empowerment, Opportunity to Voice Ideas or Concerns, Employee Welfare, Recognition of Individual Contribution, Career and Professional Development, Reward and Recognition (Turner, 2020),perceived organizational support (Bentley et al., 2019; Saks, 2006; Sihag, 2021), perceived supervisor support (Saks, 2006), Psychological capital (Chen & Peng, 2021; Y. Li et al., 2018; Sihag, 2021), Job Satisfaction (Hameduddin & Lee, 2021), Continuance Commitments (Ibrahim & Al Falasi, 2014)

Source: Author conception, (2022)

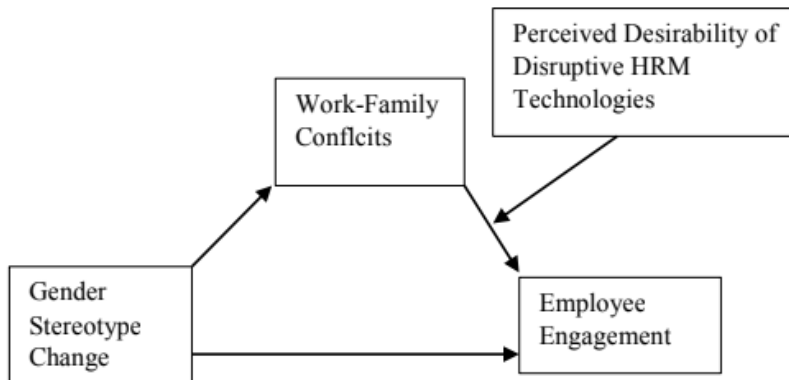


Figure 1. Conceptual Framework

Source: Authors' compilation (2022)

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Beyond The Pandemic: Human Resource Management Insights for Navigating Through Global Crises

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Abstract

The COVID-19 pandemic impacted individuals, corporations, and society as a whole. Due to the global health crisis, businesses were obliged to redefine Human Resources Management (HRM) to recruit and engage the finest personnel to achieve organizational goals. The epidemic brought forth a slew of hitherto unforeseen job circumstances. Thus, we explored the obstacles that HR managers faced and how they capitalized on the possibilities presented by the crisis. We adopted a qualitative method to learn about HR practitioners' experiences managing HR during the pandemic. The thematic analysis evaluated the data from 17 in-depth interviews. The resultant themes showed that switching from commuting to telecommuting, bridging the digital divide, driving through the uncertainty, managing the infodemic, remaining vigilant, hunting, engaging, and enriching the talent, sizing up the elbow grease, and nurturing trust are all challenging. Participants disclosed the opportunities for embracing e-HRM and the forefront of technology, bolstering the wrinkles, and flourishing the talents. The paper's theoretical contribution was to uncover newly emerging HR issues and possibilities. These insights will be crucial for HR practitioners in capitalizing on the positive aspects of the crisis while confronting the constraints.

Keywords: Challenges, COVID – 19, Crisis, HRM, Opportunities

1. INTRODUCTION

The pandemic had a massive effect on businesses, economies, and society. The outbreak spotted the significance of HRM more than ever as businesses require HR to continue operations while coping with crises. Resultantly, HR professionals' scope was broadened into more different roles to bring employee performance to its best.

HRM is one of the most important functions in an organization, and it plays a huge part in fostering talent, delivering service, and strengthening

the organization. HR leaders have to play a vital role in managing the workforce while balancing both organizational and employee demands. Efforts to rise to these challenges have often been heroic (Mark & Andy, 2021). The importance of HRM has been elevated recently, especially with the outbreak of coronavirus. The pandemic challenged the conventional HRM practices of most businesses (Mala, 2020). Across the globe, companies are mandating or encouraging

employees to Work From Home [WFH] (Meister, 2020).

The pandemic has paved the way for businesses to look for a new way of managing people. As the pandemic is still illusionary, businesses have to be agile and initiate remedial actions (Meister, 2020). Many views that the coronavirus could be an opportunity to re-think assumptions about their products, services, and business model. It is also discussed how the COVID - 19 pandemic is changing people's and organizations' lifestyles, hastening the Industrial Revolution 4.0 driven by artificial intelligence. It is primarily distinguished by robotics and mobile supercomputing. All of these have presented enormous challenges to human resource professionals. However, it has also created opportunities worth knowing about and comprehending, which can help organizations direct their future actions (Hamouche, 2021).

A crisis can act as a driving force for rapid innovation, resulting in rapid technological advances, policies, and procedures. According to Demirkaya (2006), a crisis can provide organizations with unexpected opportunities. COVID - 19 also drove many industrial resolutions to achieve corporate objectives, with HRM taking the lead. HRM practitioners will find such knowledge useful in confronting the challenges their organizations face. Most organizations are generally unprepared for crises (Wang *et al.*, 2009). The study aimed to explore the challenges and opportunities of the HRM that have emerged due to the pandemic, which will aid

organizations in better preparing for a similar future crisis.

HRM is defined as the efficient and effective utilization of HR to achieve the goals of an organization (Opatha, 2019). It is about how people are employed, managed, and developed in organizations (Armstrong & Taylor, 2020).

Conventional HRM practices are being significantly affected by COVID - 19 (Campello *et al.*, 2020). Its impact on businesses is reported as asymmetric across industries (Giupponi & Landais, 2020). Some industries (e.g., hospitality, leisure & recreational, retail, publishing) were experiencing a sharp decline in their business (Giupponi & Landais, 2020), leading to a temporarily shut down of operations (Bartik *et al.*, 2020). In contrast, surprisingly, some industries have been flourishing (e.g., education, healthcare, ICT) despite the setback of the pandemic (Giupponi & Landais, 2020). Organizations facing financial difficulties due to the pandemic have adopted down skilling by cutting back on recruitment of high-skill jobs instead of low-skill jobs. The aim was to reduce the recruitment costs to preserve the liquidity to remain in the business (Campello *et al.*, 2020). They have frozen or cut back all their recruitment or laid off their employees (Campello *et al.*, 2020; Giupponi & Landais, 2020). Indeed, millions of people found themselves unemployed due to the COVID-19 outbreak (Blustein *et al.*, 2020; Elsafty & Ragheb, 2020). On the contrary, organizations that experienced expansions during the pandemic have faced other types of staffing challenges.

The COVID-19 outbreak has influenced organizational performance management (Aguinis & Burgi-Tian, 2020). Most organizations have reduced performance management due to difficulties measuring employees' performance and disrupting performance-based pay. Excellent employee performance is more critical than ever to sustain businesses during a crisis (Sembiring *et al.*, 2020). Despite the impediment, employees were pressed to maintain high levels of performance.

Employee retention was not an exception but a daily operational challenge during COVID-19 (Elsafty & Ragheb, 2020; Major and Machin, 2020). Studies found that financial benefits such as bonuses were significantly associated with employee retention (Safuan & Kurnia, 2021; Sembiring *et al.*, 2020; Hamouche, 2021). As a preventative measure, some countries have implemented government policies that provide financial assistance to employees and organizations during this health crisis.

Training is critical in a crisis, notably a pandemic (Devyania *et al.*, 2020; Hamouche, 2020). It aids in the development of necessary skills for employees (Akkermans *et al.*, 2020). Organizations must reskill and upskill their workforce to deal with the new context of the 'distance economy' (Quaedackers *et al.*, 2020; Przytua *et al.*, 2020). They must ensure that there are no hazards in the workplace that could endanger their physical or psychological well-being.

COVID-19 has created a new workplace hazard, causing significant stress for employees and challenging managers (Hecker, 2020). The health impact of this hazard on employees varies depending on the working environment and their occupational role (Brooks *et al.*, 2018). The World Health Organization (WHO) has provided guidelines for organizations to protect their employees (WHO, 2020a), which is hard to internalize due to employee resistance (Gourinchas, 2020).

COVID-19's challenges have altered the traditional employee-employer relationship (Leighton & McKeown, 2020; Spurk & Straub, 2020; Sagan & Schüller, 2020). WFH has become the preferred option in many countries and thus in many businesses. As a result, the traditional boundaries of the workplace have vanished. Both parties could not meet their contractual obligations due to the lockdown and mandatory business closure (Biasi, 2020).

In summary, the shape and pace of HR activities are broadly challenged by COVID – 19, which makes HR managers' roles even bustling. Traditional HR methods have been overtaken by several new pandemic issues and possibilities that are still being investigated. We aimed to unveil them for a better understanding of the role of HRM in an age of a global crisis.

2. METHODS

We used a qualitative technique and a theme analysis to achieve our goals. The Human Resource Professionals (HRPs) who led the people managing duties throughout the epidemic were

the study's unit of analysis. They were obligated to ensure the availability of human resources, notwithstanding the circumstances. The profiles of the respondents are presented in Table 1. After conducting 14 interviews, we felt that new themes are absent. We realized that the phenomenon is adequately explored based on Yin's (2018) recommendation on data saturation. Nevertheless, we continue three more interviews to ensure that the research problem is not under-explored.

The data analysis approach of our study was inductive as we did not follow a predetermined structure. We went through all the recordings for a second time before they were transcribed. Data were organized according to the research objectives using a tableau format. Categorizing data into concepts/patterns was the next step in using both derived and emerged codes. Once coded, we started generating themes to better interpret the patterns.

The validity in the qualitative domain is a contingent construct, but we tried to ensure the study's rigor through data triangulation, providing a detailed description of the research, and creating an audit trail. As the search for disconfirming evidence results in nothing, we believe that the objectivity of the findings is established.

3. RESULTS

The participants were senior HRPs in 17 Sri Lankan organizations. Table 1 summarizes their demographic profiles.

We scanned the transcriptions sentence by sentence to find HRPs' shared experiences with challenges, opportunities, and strategies during the pandemic. As a result, we identified the following themes (See Annexures: Figure 1 & Figure 2) and described them in the following sections. We were mindful of the study's objectives during transcribing and subsequent data coding.

3.1. HRM challenges

Theme 1: Commuting to telecommuting and bridging the digital divide

Many companies have shifted to the WFH strategy to offer alternative work arrangements as remedial action (Gajendran & Harrison, 2007; Grant *et al.*, 2019). The WFH is often known as "remote work", "flexible workplace", "telework", "e-working", and "remote working" (Vyas & Butakhieo, 2021). Nilles (1988) initiated the WHF concept, where employees work in flexible workplaces, especially at home, using technology to execute duties (Messenger and Gschwind, 2016).

WFH is traditionally intended to benefit employees and employers by reducing travel time, avoiding office politics, using less office space, and saving significantly on utilities (Vyas & Butakhieo, 2021). However, we discovered that many people encountered difficulties transitioning from commuting to telecommuting.

A female head of HR at a stationery manufacturing company, for example, described how difficult it was to get everyone on board with the WFH arrangement.

She stated;

"The challenge that we face was, in-office they work from 8.30 am-5.00 pm, when they are working at home, they have more repercussions to them. Many mothers have kids".

Similarly, a Group HR/Admin Manager with over 15 years of people management experience was surprised by how difficult it was to persuade employees of their role in ensuring the smooth operation of WFH's flexible working arrangement.

The digital divide is the disparity between who does and does not benefit from the digital age. Access to advanced technologies increases digital literacy, whereas limited access leads to poor digital literacy. Different employees demonstrate varying levels of digital literacy within the same organization. A uniform WFH arrangement with a high demand for digital literacy would be difficult for employees with limited digital literacy. Employers find it difficult to bring everyone into a single virtual platform at the same time in order to avoid operational bottlenecks. Transitioning from commuting to telecommuting is not simple, as both parties have spent their entire working lives commuting to and from work.

As such, a participant from a major automobile manufacturer described it as;

"Challenge was the virtual arrangement."

Remote working is not always detrimental to staff well-being, according to Caligiuri *et al.* (2020). Not having to commute can make it easier to achieve a work-life balance

and have more control over schedules (Chung *et al.*, 2020). During a prolonged "lockdown," presenteeism, stress, loneliness, and burnout are serious issues (Moyo *et al.*, 2022).

The digital crisis has accelerated companies' digital adoption, with experimentation and investment in digital technologies playing a key role in assisting companies in successfully navigating the problem. The participants expressed how difficult it was to make the digital transition concrete within the working lives of their subordinates.

Employees did not have access to physical resources and equipment at home as they used to. At a time, at least 62 percent of the workforce was working remotely (Brenan, 2020). Furthermore, teleworking reduces spontaneous interpersonal communication; organizations had to rely on informal communication networks to disseminate knowledge, facilitate innovation, and increase productivity (Nonaka, 1994; Rogers, 1983). Nonetheless, despite the difficulties encountered in implementing WFH strategies, they recognized the positive outcomes of WFH, such as lower absenteeism and turnover, higher talent retention, job satisfaction, and higher productivity (Mello 2007; Robertson *et al.*, 2003).

Theme 2: Drive-thru the uncertainty

The sudden pandemic hit challenged managers to implement their plans as expected. The coronavirus disease was fundamentally a physical health crisis (CIPD, 2020; Bundy & Pfarrer, 2015). However, its wide-ranging impact on society and business has multiple implications for mental

health. HR professionals have become ever more critical in supporting the management of disruption (Ulrich, 2020).

According to the HR Manager of a leading apparel company who took part in the study;

“When this COVID – 19 situations affected us in March, last year, so when we lockdown nearly one year, one-month period of March to April, we couldn’t forecast what would happen to the business. So, during this pandemic situation, we faced many difficulties in forecasting HR planning. When we were in March & April 2020, we didn’t have any idea, whether we can continue the business at this level. Without forecasting that one, we couldn’t come to conclusion that, whether we need to recruit people, or to terminate people..... likewise.”

The COVID-19 crisis had called into question most of the traditional planning cycle's assumptions. Existing operational models no longer assisted managers in effectively addressing the challenges presented by this crisis (Finn & Minsore, 2020). Most businesses were significantly disrupted by the ever-changing and loosely defined health guidelines, resulting in routine operational inconsistencies. Managers had to change the Personal Hygiene Guidelines (PHG) and Common Health Policies on a regular basis, which was difficult. One participant from the Stationary industry expressed her views on this as;

“Main challenge was the government. They were not sticking to one decision, and as well their

guidelines were not clear at any time. The government didn’t give proper instructions, so it was a huge challenge.”

This was demonstrated when the HR Manager for a large IT company stated that employees were more likely to follow PHG at work when the government announced them as public health guidelines rather than when the company imposed them. He noted;

“They always wished health guidelines to come from the side of the government. When the health guidelines were issued by the government, we felt much easy in imposing them at the workplace than the implementation of our own PHGs.”

The pandemic period was a black hole for all HR leaders. Nonetheless, they had to keep the business running in order to avoid failure. People who were concerned about the pandemic's spread began stockpiling essential foods and medicines. As a result, there was an increase in demand for these items, which was appealing to suppliers. Businesses were struggling to cope with the number of people coming to work as they couldn't keep a fixed number of staff on board. The uncertainty in both the business and general environment made it difficult to get started or set up.

This was summed up by one of the participants as;

“We were like driving a car in the mist”.

We recognized that the driving - uncertainty was a common challenge faced by the HR managers during the pandemic.

Theme 3: Managing the Infodemic & remain vigilant

During a disease outbreak, an infodemic is defined as an abundance of information, including false or misleading information, in both digital and physical environments. It may exacerbate outbreaks when people are unsure what they need to do to protect their own and their colleagues' health. Increased digitization (i.e., increased use of social media and the internet) can help fill information gaps faster while also amplifying harmful messages (WHO, 2021).

Effective communication became a critical requirement for businesses in order to keep people informed about the disease and pandemic. The novel COVID - 19 virus was an alien concept that had not been researched or generalized prior to its appearance, so it was associated with a lot of misinformation. People were concerned about their health, the future, or job changes. It was critical to coordinate people who were isolated in remote locations. The views of a participant attached to the garment industry confirmed this.

“The main barrier of HR in the pandemic was, the distance with the employees, and the difficulty to have live conversations with them. So, you know how important that, when it comes to HR matters, such as grievances, performance matters...”

Managers relied heavily on up-to-date and real-time employee data to make sound decisions, but dealing with outdated and unavailable employee databases appeared to be a headache for many businesses. Understanding workers' concerns and suggestions

from the staff had a significant impact on how quickly and effectively we addressed the crisis.

“The main thing was to keep the most accurate and up-to-date database.

Some phone numbers were not working. There was no way to contact employees. There were different residential addresses. Getting accurate information from employees was extremely a challenge.”

The pandemic was an emergency in which businesses had to do everything possible to ensure the health and safety of their employees. Traditional health and safety policies and practices had to be modified in order to successfully deal with the crisis. It was difficult, especially for managers in charge of large teams.

“During the pandemic period, it was a challenge to keep our people safe.

With this situation, the company adopted that anybody who joined the company has to undergo the Rapid Antigen Test, prior to employment. It was a huge cost to the company as well, but to make sure that the people were infected or not, we had to do it.”

That's how Strategic HR personnel from a large conglomerate expressed how vigilant they were during this life-critical period. He added,

“As per the guidelines of the Medical Officer of Health (MOH), if somebody got detected inside the factory, we couldn't send them out. Then we had to manage that also. We had to take care of people as well.

You know, that was really challenging as we were not either

well aware or experienced in dealing with this type of situation.”

When developing crisis plans, HR professionals should prioritize the safety and wellness of employees' physical, mental, and psychological health, according to Vardarlier (2016) Contingency planning should consider both short-term and long-term goals in areas such as resourcing, talent management, reward, performance, and learning and development. However, balancing employee care with accountability has proven difficult (Ulrich, 2020), despite the fact that it is widely acknowledged that safety and well-being are critical strategic aspects of crisis management (Nizamidou, 2019).

To prevent the virus from spreading among workers, management had to closely monitor every single employee's behavior. Maintaining worker discipline, for example, appeared to be the most difficult task ever.

“To get the right discipline at work, in terms of safety, that was a real challenge as we had to protect our staff from getting affected.”

Employers had only a minor impact on the pandemic's control, but their managerial approach could help to prevent the virus's spread. Employee health, resilience, and well-being became increasingly difficult as businesses began to operate in pandemic situations. Effective information management and vigilance during and after a pandemic were critical.

Theme 4: Hunting for and engaging talents

The ensuing "Great Resignation" prompted employees across industries to rethink their careers, prioritize their well-being, and, in many cases, make major life changes (Rajapakshe, 2021). Talent acquisition may be the most difficult challenge confronting HR today. Aside from supporting advanced technologies like virtual reality and artificial intelligence, finding the right talent is extremely difficult. The virus spread among employees in an unpredictable pattern, making optimal talent engagement difficult. Similarly, a closer look at the facts and what we heard from participants suggests that the truth was more painful. For instance, the group HR manager of an automobile company stated that;

“Our biggest challenge was to fill the vacancies with the selected candidates as many who were selected and informed to report did not turn around.”

As per the shared experiences, most companies had forgone the induction process due to WFH arrangements. It was witnessed by many HR leaders when one stated;

“A kind of challenge that came along with the recruitment was induction.

When we recruit a person, they started WFH, and the orientation and familiarization became puzzling for us as they were staying at home, and were not reporting to work physically to meet each other. Even the physical reporting teams were confined to a roster, so the familiarization became unachievable.”

Most businesses had already begun to hire talent, and contingent labor was on the rise as businesses assessed how the economy would recover. Tim Sackett, SHRM-SCP, president of HRU Technical Resources (2021), stated that 2021 was not the time to make a decision about building talent. Before adding permanent staff in 2021, organizations wanted to ensure that they could sustain themselves in the long term.

Theme 5: Enriching the talent & sizing the elbow grease

Employee training has unquestionably been a higher focus in recent years. The unexpected global health crisis caused work routines to be interrupted in enterprises worldwide. Employee learning and development has been one of the most affected work areas. In-person, classroom-based skills training has become unfeasible due to the obligation to shift employees to WFH. With the transition to online platforms, there was serious concern on how to handle the training programs effectively while getting the interaction and engagement of the participants. This has become a considerable challenge for many business organizations. An informant from the agriculture sector stated that;

“Challenge was completing the training plan. And how effectively we can get used to the virtual training plan. Some staff members were not familiar with the zoom or any other digital platforms. Therefore, conducting training programs & awareness sessions was a great challenge we had.”

The value of performance evaluation is particularly questioned during a

crisis like COVID-19. Time becomes one of the most valuable resources as employees at all levels are pulled in different directions and tasked with doing more with less. Under normal circumstances, completing performance appraisal tasks takes a significant amount of time, which is frequently regarded as an additional layer of burden to employees and managers on top of their numerous existing obligations (Aguinis & Burgi-Tian, 2021). Performance evaluation was not immune to the pandemic, as companies struggled to track employee performance, particularly after switching to WFH. Anna Tavis, an NYU professor of human capital management, noted in an interview with Harvard Business Review how the company's treatment of its employees in this situation made or broke the culture. She hypothesized that performance evaluations during the pandemic reinforced corporate culture. The answers of the study participants ratified it.;

“We couldn't perform performance appraisals from March to September as we had to call 100, 200 workers for duty on an abnormal pattern.

After September, we were able to conduct performance appraisals. We scheduled it online and performed it.

However, we couldn't monitor previous performance. E.g., If today we identify a positive case, then we had to send him home and arrange a replacement. Therefore, giving increments based on performance, we had to think twice, because we couldn't monitor performance properly.”

Companies, like most activities nowadays, most likely review

performance remotely. However, due to technological constraints, effectiveness remains questionable. As a result, systematic, fair, and timely performance evaluation felt like the most difficult challenge. Surprisingly, most WFH settings made it impossible to witness employees' physical exertion. Many participants reported that not every employee was equipped with sophisticated tools. As a result, measuring effort against predetermined standards appeared unfair and unrealistic. As a result, we identified talent enrichment and measuring physical performance as the next challenges employers faced during the COVID - 19 pandemic.

Theme 6: Nurturing the trust

The impact of COVID-19 on organizations was of many forms. One of the immediate consequences of the disruption was the challenge faced by supervisors to lead their staff who were out of sight by the life-threatening global disaster. The sudden shift from having workers work in the office to having them work remotely had revealed an unpleasant truth: that most businesses fail to develop trusting mutual relationships with their employees. The pandemic itself created a hard time for everyone where companies had put their every effort to support employees to make them comfortable, secure, and motivated. The majority of our participants evidenced it as quoted below.

"Another thing is sometimes the morale was also down from our employees during the curfew and lockdown situations and the people were under stress. You know, they

couldn't go out for any reason. They couldn't go to any outlet. They couldn't have what they wanted...I mean the consumable items."

"The HR team and the management team had to convince the employees to report to work despite the ongoing health hazard. There, trust played a big role. We happen to get down our CEO, and higher management to talk to them personally."

Moreover, another HR leader from a large finance company expressed that;

We had to earn their trust to reach us regardless of the risk of being affected. We used many methods to showcase the safe side we provided at work. But getting them back to work was difficult. We added an insurance cover immediately to persuade them."

An innovative family-based social media platform had been utilized by one of the leading automobile manufacturers to nourish employees' trust. Through and among the workers' family members' encouragement, the company influenced the workers to return to work.

Physical interactions count a lot in developing trust. Juichi Yamagiwa, primatologist, and president of Kyoto University, once at an interview (2019) with Kintopia, stated that building trust requires real-life physical connections. Lack of trust has been detected as the governing reason for the collapse of many virtual businesses. As such, trust is nurtured in the presence of physical interactions, which was far-reaching during the pandemic.

However, it was said more easily than done. Participants noted that the

rumors were the main barrier. Many added that terrifying false information was circulating mainly through social media, weakening the efforts to develop employees' trust to continue their work.

Hence, everyone admitted that it was challenging to develop trust. One participant stated it as;

"The dark part of the pandemic was you need to convince them in a certain ethical manner."

Thus, we evidenced that the employers encountered problems establishing trust in their employees. Developing trusting working relationships improves company performance over time and even outperforms organizations without a strong trust culture.

Concludingly, respondents stressed six main themes, namely, "commuting to telecommuting & bridging the digital divide", "drive-thru the uncertainty", "managing the infodemic & remain vigilant", and "hunting for and engaging talents", and "nurturing the trust". Apart from them, few participants were signaling about the uncertainty on the part of governmental decisions and regulations. They expressed the hardship they underwent when honoring the political turmoil. In general, we witnessed that the participants find many of the challenges are anomalous; thus, unpredictable to be addressed by contingency plans as usual.

Next, we dug for hidden blessings, the opportunities associated with COVID - 19 pandemic.

3.2. HRM opportunities

On the surface, the pandemic was disruptive. Yet, a deeper examination of the practical experience of combatting it by the corporate world showed ample opportunities brought forward by it. We next inquired about the pandemic's white side, which was advantageous to the HRPs.

Many companies grabbed the opportunities derived from the crisis, and they have paved new paths to respond to the problem more effectively. The following opportunities were identified in the analysis of the experiences shared by the HR professionals (See Annexure: Figure 2).

Theme 1: Embrace e-HRM & forefront of technology

In the wake of the pandemic, many companies were forced to rely on technology platforms with resources to continue operations (Poulsen & Ipsen, 2017). While telework was typically used for short periods of time (e.g., one or two days per week), many workers were forced to telework full-time in order to prevent the virus from spreading (Chung & Lippe, 2020). Others have used it to build more personal relationships with colleagues through virtual windows and cross-organizational teams.

"During the COVID – 19, we had to circulate an email saying that there would be an online training session and all have to connect with this. Our participation ratio was very high. That was the good side of it." (R3)

"For executives and above category, we had all the interviews online. We set up an online facility for us. We

started to get used to, even for meetings and all we used to work with online. That's the great opportunity we realized." (R11)

"The good thing I saw in crisis and the pandemic was virtual means of working. We learned to do training online. To share messages to employees, we used Microsoft forms/Teams, Imo. like systems. We could get immediate responses and analyze data very quickly using these tools. Data analysis was pretty simple." (R5)

"The processes were easier than the earlier method. We managed around 40 recruitments last year. Our induction program usually runs for two days. During the pandemic, we conducted the induction, the full program at a lower /zero cost than earlier. I also believe if we could go for physical induction, that is fine, but there seems no way that we can do it so far. So, we continued with the virtual one. It gives us a new way of thinking and virtual working and all.

We optimized our resources for working online and adopted new techniques, and digitalization all came up. We invested in e-learning, e-commerce, and all. So, all were opportunities rather than challenges." (R16)

As COVID-19 infections spread around the world between January and March 2020, countries ordered employers to shut down operations and, if possible, implement full-time teleworking for their employees. Because of its valuable opportunities, E-HRM, which was supposed to be a temporary, short-term fix, lasted months. For many businesses, this was

a hidden blessing, as these technological transformations frequently fail due to employee resistance.

Theme 2: Bolster the wrinkles

The pandemic is an eye-opening era for the vast majority who could unearth their creative and novel ideas to come up with marvel innovations. As per the views of our participants, it is interesting to report how the pandemic has bolstered wrinkles.

"Several innovations came in. Some people produced new machines. Yes, a lot of creative ideas came up, especially on the production floor. There were activities to which 5-10 people contributed, but due to innovation of small machines, it was reduced to 2 -3 people, which was aided in gaining huge saving in the cadre." (R2)

"To prevent the spread of disease, they came up with their own suggestions. So will do this, will do this way.... like that we got lots of suggestions too. Many who were not involved earlier got involved by giving suggestions." (R4)

"Every week, on Tuesdays the COVID – 19 operation team met shop floor workers, they came up with beautiful ideas even we couldn't think of. Because their awareness about the situation was greater than ours." (R1)

Under certain conditions, crises can facilitate people's efforts toward creativity and innovation (Tan *et al.*, 2020). As a result, the pandemic changed how people thought and acted. It provided numerous opportunities for organizations in terms of new product development,

cost efficiencies, simplified procedures, increased employee involvement, and new, quick, and effective communication channels.

Theme 3 Flourishing the talents

The management teams have taken regular awareness sessions, and thereby the employees had a good understanding of the impact of the pandemic on the overall business performance. Hence everyone performed above their average to usefully respond to the critical phenomena. This was evidenced by the experiences of our participants as presented below.

"One thing was teamwork. Our HR team and the management were highly boosted. After the pandemic, we were able to produce more than 200 metric tons with about 800 employees. It was a huge jump. We wondered how it happened. Because everybody was working towards a goal. Even the engineering, and technical, everybody was on the floor. Managers, executives, and everybody were on the floor. Since we didn't have an additional cadre, even the HR people were also working on the floor."(R4).

He further added that;

"Another thing was, even the managing director, directors, senior managers, and everybody got together, we conducted sunrise meetings. That was not there earlier. Those were the good side of the pandemic. Furthermore, even the senior managers and also the general manager was given the responsibility to achieve the target to contribute to the overall mission." (R4)

"The pandemic was the best opportunity given to the HR people. It was a show time for their talents to get the best out of their team regardless of their norms towards pandemics. The best practice you can do in a pandemic is to maintain a very good understanding and have good relationships with people and retain them". (R12)

Alternatively, some participants highlighted how they were refining organizational talents by letting go of the rotten apples. For instance, R8 stated,

"Pandemic was a good weapon to get rid of the unwanted people." (R8)

R14, R 3, & R 7 also commented on how helpful the pandemic was to let go of people without the right attitude and skills. Hence, it is proved that the corporates' talents started flourishing during the pandemic period.

"It was a common goal. We didn't maintain the gap, designation, standards, or anything, everybody was working towards one goal. We were also involved. That was a good opportunity that we got through it collectively." (R15)

It's no secret that COVID - 19 has caused problems for numerous businesses worldwide. Many companies struggled to stay afloat during this pandemic, with significant declines in revenue and fewer sales. Given the current economic climate, business leaders must celebrate corporate and employee successes when they occur.

"Even if the wins were minor, try to share them with your team regularly. Examples may be a new sale, a great

story, a comment from a consumer, and a new partnership with another company.” (R7)

Employers have understood that there are still possibilities and triumphs available throughout this crisis. That is essential for keeping their employees' morale and motivation high during this period.

4. DISCUSSION

The present study highlights the HRM challenges and opportunities in the era of the COVID - 19 pandemic. Based on the views of HR professionals, it is clear that many companies have undergone a hard time managing their workforce and gradually converted challenges into opportunities by identifying the white side of the crisis. It is also vital to note that the crisis is not only about danger, chaos, or disaster. It can also provide opportunities for change and growth if handled well (Przytuła *et al.*, 2020; Kraus *et al.*, 2020; Will, 2021). WFH arrangements, digital literacy of employees, business uncertainty, communication and coordination, staffing, conducting effective training, employee health and safety, government decisions, performance evaluation, and convincing employees are identified as the major challenges experienced by HR managers. Among the emerging opportunities is the promotion of virtual HR functions, innovative thinking, adoption of new technologies, a transformation of leadership role, and talent identification. Overall, the HR managers have played a more forefront and strategic role during the crisis by managing employees to continue the operations. The

arrangements of new health protocols, shifting to virtual platforms, and uplifting employee morale were critical areas HR managers had to deal with.

5. CONCLUSION

The pandemic's effects have vastly challenged how people and businesses continue, and we still hold out a small hope for getting released from these types of crises in the future. This risk thrived because the COVID-19 pandemic was unseen and had zero predictability.

Navigating through extreme events such as COVID-19, thus, mandates identifying their challenges and opportunities in advance. Furthermore, because of the strategic importance of human resources, it will assure the survival and sustainability of organizations of any size. The novelty of the challenges has made the existing literature less applicable. There, we attempted to generate a notable contribution to unearthing the crisis management strategies from an HR perspective. Similarly, the current study has the theoretical significance of identifying HRM-specific challenges and opportunities during a crisis: the COVID-19 pandemic. The empirical contribution provides HRPs with insights to successfully develop crisis management strategies. As a result, possible HR interventions can be identified to respond to and be resilient in a similar crisis.

ANNEXURES

Table 1: Profiles of the Respondents

Respondent	Position	Gender	Educational & Professional Qualifications	Experience in the field of HR	Business Organization	
					Size	Nature
R1	Group Head of HR & Administration	Male	Degree Master	12	Large	Automobile
R2	Group HR/Admin Manager	Male	Degree Doctoral candidate	15	Large	Confectionary
R3	Group Head of Human Resources & Sustainability	Male	Degree Master	02	Large	Construction
R4	Head of HR	Female	National Diploma in Talent Development Degree	13	Medium	Stationary
R5	Head of HR	Male	Degree	05	Medium	Apparel
R6	Deputy General Manager- Employee Engagement & Transformation	Male	Degree	14		Agriculture
R7	Group HR/Admin Manager	Male	Degree	10	Large	Telecommunication

			Doctoral candidate			
R8	Head of HR	Female	Degree Master	08	Medium	Education
R9	Group Head of HR	Female	Degree Master	11	Large	Finance
R10	Head of HR	Male	Degree	12	Medium	Agriculture
R11	Head of HR	Male	Degree	06	Medium	Transportation
R12	Head of HR	Male	Degree Master DBA	10	Large	Information Technology
R13	Group HR/Admin Manager	Male	Degree Doctoral candidate	10	Large	Agriculture
R14	Group HR/Admin Manager	Male	Degree MBA	15	Large	Confectionary
R15	Head of HR	Male	Degree	06	Large	Transportation
R16	Head of Admin	Female	Advanced level	10	Small	Agriculture
R17	Head of Admin	Female	Degree	08	Small	Apparel

Source: Author Generated (2021)

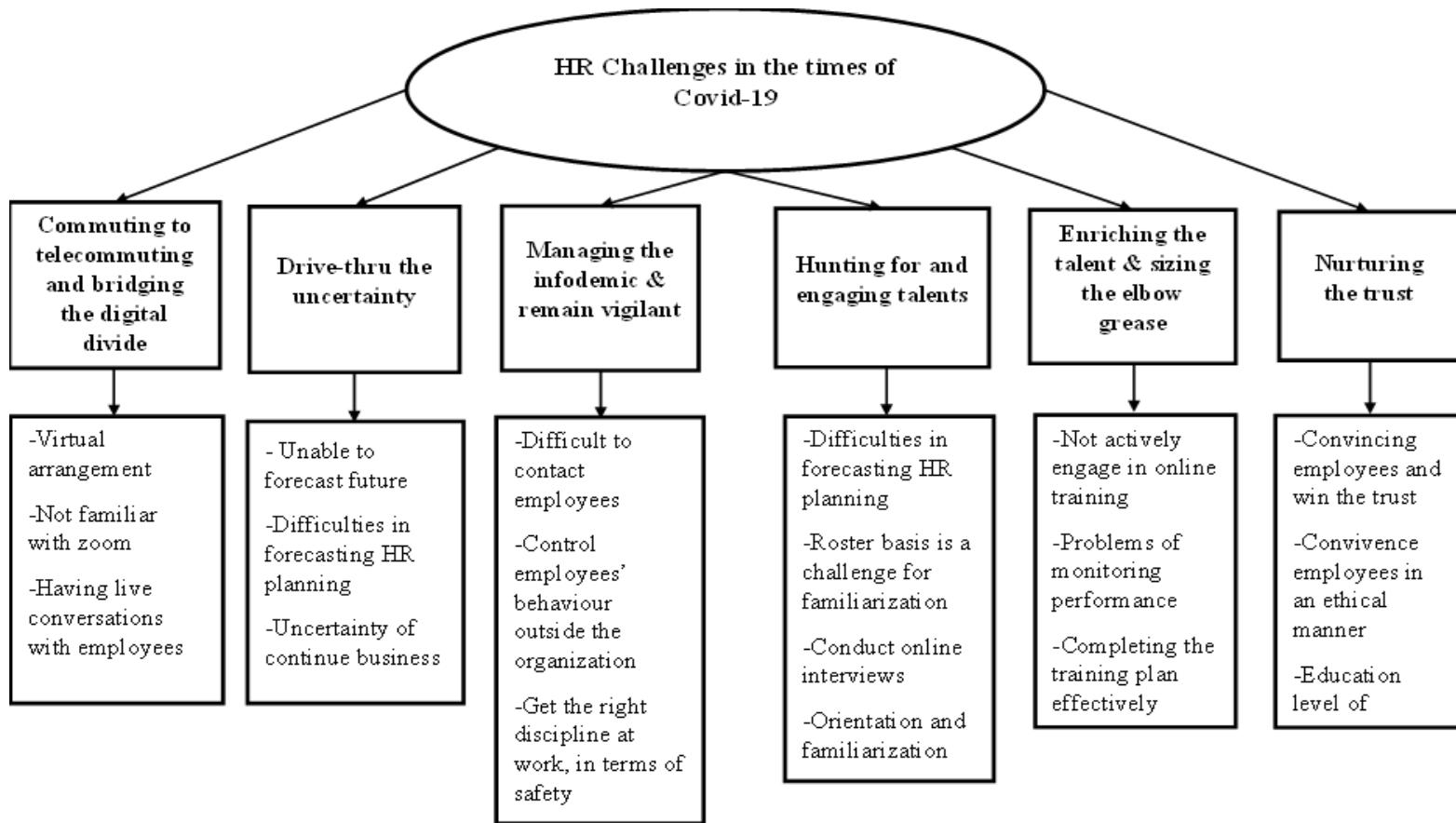


Figure 1: Themes for HR Challenges

Note. Developed by the Authors based on the Interview Data (2021)

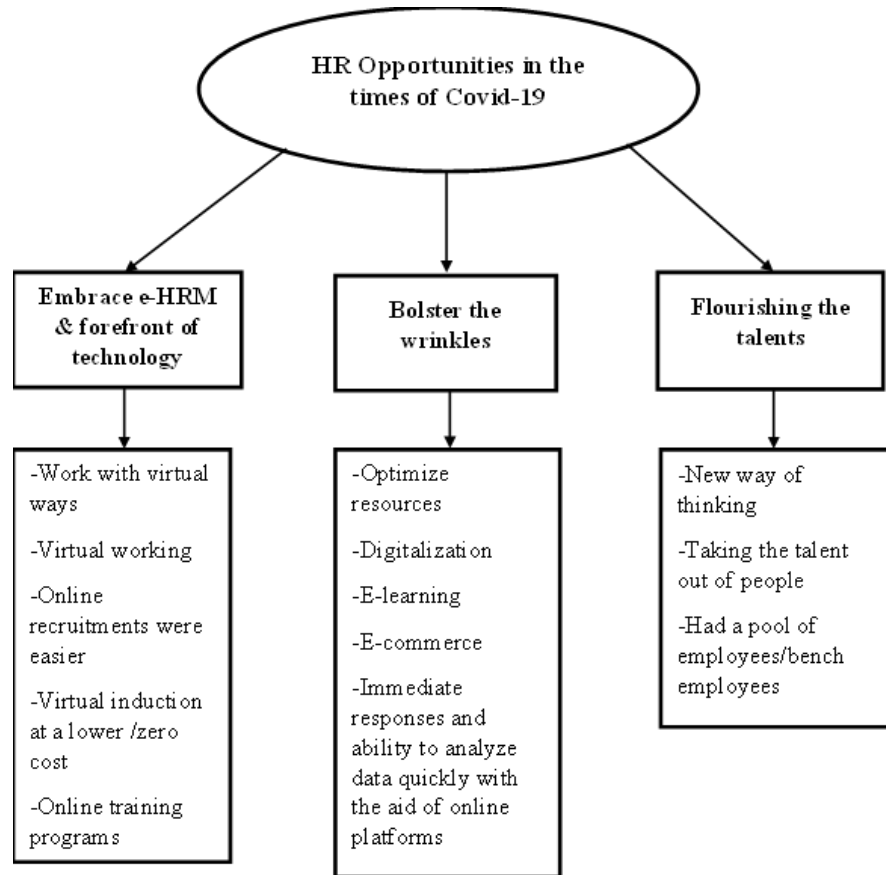


Figure 2: Themes for HR Opportunities

Note. Developed by the Authors based on the Interview Data (2021)

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Perceived Security of E-Payment System and Reduction in Incidence of Fraud in Kwara State Internal Revenue Service, Nigeria

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Abstract

Globally, governments have been embracing e-payment system to fast-track revenue collection, and to equally minimize incidence of fraud. However, a major threat to the smooth operation of e-payment in Nigeria is security related issues. Therefore, this study examined perceived security and incidence of fraud, with particular reference to Kwara State Internal Revenue Service (KWIRS), Nigeria. The study obtained a sample of 285 from a population of 996. The findings demonstrated that perceived security dimensions strongly contributed to reduction in incidence of fraud. The study concludes that improvements in e-payment system security, particularly with regard to trust issues, have a significant impact on the amount of fraud reduction in KWIRS. It is recommended that the government ensure the expansion of the country's e-payment system, which necessitates adequate collaboration with the private sector in expanding the existing internet facilities, in order to improve the convenience of use and safety for users.

Keywords-: Incidence of fraud, Perceived Level of Confidentiality, Perceived Level of Risk, Perceived Security, Perceived Trust

1. INTRODUCTION

Collection of revenue remains an important statutory activity for every government in the world that aims at developing her economy as it helps in the acquisition of resources not liable to debts (Ngotho & Kerongo, 2014). Past studies have however shown that most government face serious challenges in their revenue collection performance exercise (Balunywa, et al., 2014); which consequently result in government's inability to garner in sufficient funds to meet up with performing their statutory obligations. One of the major reasons for this is fraud, which is evidence, in that for

several years, revenue collection officials, have not been channeling all the amount of money collected to the government treasury (Ngotho & Kerongo, 2014).

Additionally, there have been cases of revenue collection officials conniving with tax payers to avoid the prescribed official charges and instead bribe their way to enable the collectors shield them against paying the correct amount to the government treasury. The resultant effect of such acts do dovetailed into a huge loss on the part of government, consequently

hampering economic development and improved service delivery. This therefore require the burning needs to eliminate or at least significantly reduce the incidence of fraud and corruption, by developing sound and simplify payment system that promote sure accountability for government establishments. Consequently, this has led to the adoption of electronic payment system (EPS) in public establishments, so as to facilitate critical changes in revenue transaction system (Njanja, 2014).

Essentially, adoption of e-payment system has been on the significant increase in the public institutions and business establishments. However, even with all the benefits associated with the system, fear of security breach, inadequate know-how among users, coupled with concerns over trust issues related to e-payment method of transaction remain serious concerns to individuals, organizations and experts in determining users' readiness to use e-payment. Nigeria is not an exempted from the aforementioned challenges.

In Nigeria, there are fundamental discouraging factors associated with adoption and successful operation of e-payment system as medium of basic transactions for government institutions. One of such threats is the fear of insecurity and trust. Obviously, using electronic payment system as a medium of basic transactions is subjected to security infringements such as stealing of commercially sensitive information; denial of service as a result of system errors, internet related frauds; leading to security infringements.

Government officials equally use the porous security system by conniving with computer hackers to steal from the coven of government treasury, thereby reducing the validity of the system, and consequently people's trust in government as an institution of change. Therefore, it is required that more attention be paid to the payment methods being provided to users (Antinoja & Scherling, 2019). This is pertinent because providing adequate security for e-payment process being used by government institutions is not only essential to the consumers who are revealing private and sensitive information about themselves on transaction but also to the institutions (Antinoja & Scherling, 2019; Fianyi, 2015).

Interestingly, across various countries and business organizations, e-payment system has been researched with increasing interest among many scholars and practitioners (Oney, Guven, & Rizvi, 2017). Nigeria with particular reference to Kwara State specifically provides an interesting case for the exploration of perceptions of field employees' in relation to perceived security of e-payment system. This is because the state is currently incorporating its governmental agencies, organisations and establishments, to an electronic system and, more importantly, an increasing number of Nigerian businesses are integrating EPS to their daily transactions.

The individual experiences of e-payment system' users in Nigeria are essential as they provide insights which, besides enriching the relevant literature, would offer a lucid perspective for practitioners such

government ministries, agencies and parastatals, as well as businesses and financial institutions that are currently using e-payment methods for basic transactions. Unlike the majority of the extant literature, this study primarily examines the nexus between fundamental factors associated with the issue of trust and security of e-payment system usage, from the standpoint of public employees, and its attendant effect on reduction in incidence of fraud, with the aim of providing a platform for enhancing public sector performance.

In the light of the foregoing, the specific objectives were to;

- (i) Determine the extent to which social recognition and reputation of the company providing the e-service significantly influence incidence of fraud in Kwara State Internal Revenue Service (KWIRS);
- (ii) Evaluate the effect of perceived level of risk-security in e-payment system on incidence of fraud in Kwara State Internal Revenue Service (KWIRS);
- (iii) Examine the effect of perceived level of confidentiality on incidence of fraud in Kwara State Internal Revenue Service (KWIRS); and
- iv) Investigate the extent to which perceived level of trust significantly influence incidence of fraud in Kwara State Internal Revenue Service (KWIRS).

1.2 Literature Review

1.2.1 Perceived Security of E-Payment System

Tsiakis and Sthephanides (2005) described system security as ‘a set of

procedures, mechanisms and computer programmes to authenticate the source of information and guarantee the integrity and privacy of the data. The essence of this is to abstain from circumstance that could lead to mismanagement (economic) of data resources’ (Oney, et al., 2017). According to Hartini, et.al (2020), security of e-payment system is the relevant procedures put in place to ensure prevention against an unauthorized or unlawful modification or destruction of information, which includes accidental and deliberately exposition of protected data. Thus, Fang, Chan, Brzezinski and Xu (2005) refer to perceived security “as the degree to which a user believes that using a particular application will be risk-free”.

Invariably, perceived security e-payment system refers to the user personal view on the protection or safeness of a system (Hartini, et.al 2020; Hassan, Shukur & Hasan, 2020; Kim, Tao, Shin, & Kim, 2010). Flavian et al., (2006) described perceived security as a subjective probability with which users believe that their personal information (private and monetary) would not be viewed, stored, or manipulated during transit and storage by inappropriate parties in a manner consistent with their confident expectations. This translates to the technical aspects that ensure the integrity, confidentiality, authentication and non-fraudulent of transactions (Aziza, 2019).

According to Adeyinka (2012), the security dimension applies to issues relating to the security breach of the e-payment system, such as data theft,

which could increase in proportion to the number of users storing their personnel files on the system portal. In general, people would not be encouraged to use e-payment system if there were security or data breaches (Hartini, et.al 2020), and in which they perceived that the level of perceived security is too low (Masihuddin, Khan, Mattoo & Olanrewaju, 2017). Thus, it is imperative for system developer to provide detailed security policy statements, data protection, and privacy statements in order to assure users of their safety (Barkhordari et al., 2017).

1.2.2 Incidence of Fraud

Fraud has been one of the most challenging and unsolvable issues for many organized institutions all over the world. Thus, there have been much more attention and research dedicated to the topic, particularly, after the scandals such as Enron, WorldCom and host of others (Olaoye & Dada, 2017). Relating this to Nigeria, Almajir and Usaini (2020); Gbegi and Adebisi (2014) lamented that the level of fraud in the present day Nigeria has assumed an epidemic dimension. According to Ogbeide (2018), fraud is a social malady; keeping its perpetrators enriched and sometimes elevated in the inter-temporal period it occurs. It however often causes pains and frustration through losses and economic retrogression to the victims, be it individual, corporate bodies, or nations at large (Odukoya & Samsudin, 2021; Ogbeide, 2018).

Contextually, there is no universal definition of the term 'fraud' (Enofe,

et.al., 2015; Olaoye & Dada, 2017). However, looking at fraud from the legal point of view indicates that it is a generic term which involves different means human inventiveness can devise and which are resorted to by one individual or group of individuals to get an undue advantage over another by false pretences (Nigerian Criminal Code, 1990).

Economic and Financial Crime Commission (EFCC) Act (2004) defines fraud as illegal act that violates existing legislation and these include any form of fraud, trafficking narcotic drug, money laundering, bribery, embezzlement, looting and any form of corrupt malpractices and child labor, illegal oil bunkering and illegal mining, tax evasion, foreign exchange malpractices including counterfeiting currency, theft of intellectual property and piracy, open market abuse, dumping of toxic wastes and prohibited good, etc. The EFCC definition of fraud is all encompassing as it gives operational definition of fraud in corporate organizations and beyond (Udeh & Ugwu, 2018). Thus, necessary elements of fraud include unlawfulness, misrepresentation (which could be in the form of words, conduct, or failure to disclose); prejudice (which could either be actual or potential), and intention (Zachariah, et al., 2014).

Consequently, the common denominator of almost all the definitions point to the fact that fraud vary widely in nature, character, degree, and method of perpetration. Thus, the underlining and unique issue to the definitions is that the concept has been associated with

financial misappropriation and misstatement, political and economic corruption, identity theft, network hacking, concealment of material fact for personal gains, false representation of a material nature that is either misstatement or omission of a material fact, embezzlement, discount of truth, illegal amassing of wealth through dubious means, extortion, act of deception, bribery, theft, false representation and the person receiving the representation has reasonably and understandably relied on it, and host of others and the fact that the receiving party has sustained financial damages from all or any of the above (Albrecht, 2008; Enofe, et.al., 2015; Enofe & Okpako, 2013; Olaoye & Dada, 2017; Udeh & Ugwu, 2018; Zachariah, et al., 2014).

On the basis of different methods used in carrying out fraud, it had been classified into asset misappropriation, corruption and financial misappropriation. The focus of this study is on financial fraud, which is the deviation of an institution's financial resources for satisfaction of selfish desires, using deception techniques, which are identified to include defalcation by way of misappropriation of money or goods or manipulation of accounts (Zachariah, et al., 2014). Crumbley in Osisoma (2012) presented the 3ms of financial reporting fraud which includes: manipulation, falsification or alteration of accounting records or supporting documents from which financial statements are prepared; misrepresentation in or intentional omission from the financial statements of events, transactions, or

other significant information; and intentional misapplication of accounting principles relating to amounts, classification, manner of presentation, or disclosure. From the foregoing, this study's scope only borders on financial fraud, which is defined as misrepresentation of a material fact, made intentionally with the intent to deceive so as to gain undue financial resources' from established public institution.

To properly manage the alarming rate of fraud in a certain institution, Almajir and Usaini (2020) point out the need to set up and implement effective and efficient control system that could adequately monitor the daily activities of the institution without leaving any gap for fraudulent activity. Thus, the need for adoption of e-payment system in public institutions to enable people pays bills such as taxes and transfer funds without using cash. On this premise, it is therefore anticipated that e-payment system would significantly reduce the rate of fraud and thereby promote the ability of government institutions to generate more revenue, as it would encourage tax inclusion for larger proportion of the society. However, this could only be possible where the e-payments system is perceived safe and secure by the users.

1.2.3 Dimensions of Perceived Security of E-Payment System and Hypotheses Formulation

Romdhane (2005) reviewed the existing literature and stated that a secure e-payment system must exhibit certain elements, which include confidentiality, authentication,

fraud's prevention, transferability, payment privacy, divisibility, duplicate spending prevention, payer traceability and payment anonymity. However, Hartono, Holsapple, Kim, Na, and Simpson (2014) denoted that the researchers have shown inconsistencies "between the conceptualization of security and the operationalization of the measures of perceived security in empirical studies" (Antinoja & Scherling, 2019). Additionally, the dimensions of confidentiality, recognition and reputation, integrity, availability, and non-repudiation have been acknowledged to be important to the concept of perceived security, although studies tend to capture only one or few of the dimensions at the time (Antinoja & Scherling, 2019). This study operationalized perceived security using four constructs including social recognition and reputation, level of risk-security, level of confidentiality, and perceived trust in the system (Hassan, et al., 2020; Antinoja & Scherling, 2019; Barkhordari et al., 2017; Hartono, et al., 2014).

i Social Recognition and Reputation of the Company Providing the E-Service

The size and reputation of the e-payment system and the e-payment provider (in this case, the KWIRS) played a key role in the perception of security as well as the social factor that most users are familiarized with in respect to using e-payment system, which increases the social acceptance (Antinoja & Scherling, 2019; Bauman & Bachmann, 2017). It has been established that a big well-known company could be more

trustworthy and that social influences increase trust for certain payment providers (Aziza, 2019). This is in congruent with the claim of Järvenpää et al. (2000) that reputation and the size of the merchant are significant to perceived security by the e-payment users. Thus, first hypothesis:

H₀₁: Social recognition and reputation of the company providing the e-service as a construct of security of the e-payment system does not significantly influence incidence of fraud in Kwara State Internal Revenue Service (KWIRS).

ii. Perceived Level of Risk-Security in E-payment System

Perceived risk as a determinant of system security refers to the extent to which users perceived that a system's portal posed minimal risk, particularly, financial risk in the course of transactions (Sanghita & Indrajit, 2014). Invariably, since security breaches were seen as a threat, the level of associated risks involved in using e-payment system significantly affects users' perception of online security and significantly determines level of user's acceptability of the system (Antinoja & Scherling 2019). Thus, it becomes essential for e-payment provider or merchant (in this case the KWIRS) to provide lucid information on what happens to users' data, in terms of usage and storage, which could help customers to feel more secure about filling in their personal information on the e-payment portals, and to also know how the risk is distributed. Therefore, perceived level of risk is an essential factor that must be

considered as element of system security (Wong & Mo, 2019). Thus, second hypothesis:

H₀₂: Perceived level of risk-security in e-payment system has no significant effect on incidence of fraud in Kwara State Internal Revenue Service (KWIRS).

iii. Perceived Level of Confidentiality

Confidentiality involves the data being seen by authorized individuals then authentication allows a certain operation to be carried out only after identification, or if there are guarantees of the identity of the party one is dealing with (Aziza, 2019). According to Marlien (2010), perceived security of the system is an essential factor affecting the adoption and operation of e-payment system such as buyer and seller data being kept confidential while being transmitted electronically. Hence, it has been affirmed that the transactions on e-payment systems operation should be confidential, which reassure the customers of privacy-safety (Hartini, et.al, 2020). Since e-payment system of transaction is frail for intrusion, organizations using it are expected to provide extensive privacy and anonymity (Raja & Velmurgan, 2008). This facilitates ease of use of e-payment platform and ensures that customers have more trust in the system for safe transactions. Perceived level of confidentiality is considered a vital factor in enhancing system security (Aziza, 2019; Wong & Mo, 2019). Thus, the third hypothesis:

H₀₃: Perceived level of confidentiality as a construct of

security of the e-payment system has no significant effect on incidence of fraud in Kwara State Internal Revenue Service (KWIRS).

iv. Perceived Level Trust in the System

Generally, trust refers to a form of confidence in platform acting as a partner and in its reliability and integrity (Liao, Liu, & Chen, 2011; Maqableh, Masa'deh, Shannak & Nahar, 2015); Oney, et al., 2017). Aziza (2019) avers that with the increasing adoption of online services, e-payment has become more trustworthy. This comes along with the expansion of the range of suppliers and the size of their delivery networks (Li, Miroso, & Bremer, 2020).

Online payments have no human interaction, it is based on a computer system but it still incorporates characteristics of trust that can be found in human interactions (Aziza, 2019). Sullivan and Kim (2018) note that users' intention to rely on using an e-payment system may increase by increasing trust through low perceived risk that the users have on the system. Artha (2011) opined that trust is a vital factor in promoting online transactions. Trust is the belief of particular party to others in conducting transaction relationships based on a belief that the person they trust will fulfill all their obligations appropriately and in accordance with expectations (Aziza, 2019).

According to Kim, Kim and Park (2017), perceived trust has a crucial role in predicting user's intention by reducing perceived risk during the transaction. Reichheld and Scheffer

(2000) asserted that trust is essential in transactional relationships, particularly those involving high risk such as online transactions. Trust is perceived to be crucial for the success of e-payment system (Zhang, Luximon & Song, 2019; Oney, et al., 2017). Invariably, perceived level of trust towards an e-payment system is a fundamental factor in increasing system security (Wong & Mo, 2019). Thus, the fourth hypothesis:

H₀₄: Perceived level of trust as a construct of security of the e-payment system has no significant influence on incidence of fraud in Kwara State Internal Revenue Service (KWIRS).

1.2.4 Theoretical Framework

Theoretical literatures that explain e-payment system depict that there are several extant theories and different approaches that help explain the understanding of the concept. However, theory of innovation translation (TIT) provides suitable theoretical background for the study.

Theory of Innovation Translation

The theory of innovation translation was propounded in 1990 by Arthur Tatnall and it represents an alternative view of the theory of innovation diffusion; which propounded that instead of using an innovation in the form in which it is designed and agreed upon, every potential adopter can translate it into a form that suits their needs. In other words, the potential users of the innovation could decide to modify the innovation in a way that best fits its current system instead of adopting the innovation in the exact way in which

it was proposed. Relating this to this study implies that the innovation here is e-payment system, while the adopter is KWIRS. It is therefore expected that KWIRS adopts e-tax payment system in Nigeria, not in the way it was adopted in other institutions, states, or in other part of the world, rather it should be modified in such a way that best suits both the economic and technological development in the state, so as to definitely reflect appropriate security of the system in which customers can trust.

1.2.5 Empirical Framework

There are a number of studies that discussed e-payment system and organization outcomes.

The study of Yang, et al (2021) examine effect of perceived usefulness, perceived ease of use, social influence, facilitating condition, lifestyle compatibility, and perceived trust on both the intention to use an e-wallet and the adoption of an e-wallet among adults by using the unified theory of acceptance and use of technology (UTAUT). The study employed cross-sectional research design to collect data from 501 respondents using a Google Form. The data were analyzed using partial least square structural equation modelling (PLS-SEM). The results shown that perceived usefulness, perceived ease of use, social influence, lifestyle compatibility, and perceived trust displayed a significant positive effect on both intentions to use an e-wallet and adoption of an e-wallet. The study concluded that managers and policy makers should continuously devise effective

strategies that capture consumers' intention to use and experience of using an e-wallet in the midst of a turbulent market.

Zhang, et al., (2019) determine the role of consumers' perceived security, perceived control, interface design features, and conscientiousness in continuous use of mobile payment services. Primary data was collected from 252 participants using questionnaire, and the data were analysed with structural equation modeling. Findings posit that the perception of interface design features was influenced by conscientiousness. Perceived security was found to be affected by perceived control, the perception of interface design features, and conscientiousness. Moreover, perceived security was identified to have a strong impact on continuous intention to use mobile payment.

Antinoja and Scherling (2019) sought to understand how Swedish millennial consumers' perceptions of online security and online trust of e-payment methods influence online purchasing cancellation. The study was carried out in a qualitative manner by conducting a series of semi-structured face-to-face interviews. 15 Swedish millennials (respondents) were interviewed to collect primary data, which were analyzed using descriptive analysis. The study found that both online trust and online security are perceived as significant determinants when evaluating whether or not the e-payment method could be used.

Aziza (2019) examined the influence of perceived usefulness, ease of use,

behavioral control, security and trust to students on accounting in Universitas Brawijaya towards behavioral intention to use GoPay on GOJEK application. Quantitative approach was used, hence, survey method was employed. The population was all accounting undergraduate students in the Faculty of Economics and Business, Universitas Brawijaya who were active in the period of 2018/2019 with total 1186 students. Outer and inner model with Partial Least Square (PLS) application were used to test the hypotheses. Findings indicate that perceived usefulness, perceived behavioral control, perceived security and perceived level of trust have significant influence on behavioral intention to use GoPay, while perceived ease of use was found to be insignificant in influencing consumers in using GoPay features.

Oney, et al (2017) developed a conceptual model to examine the determinants of perceived security and trust as well as the impact of perceived security and trust on the use of e-payment system (EPS). A randomly selected sample of 299 respondents were analysed through structural equation modelling (SEM). Findings indicate that both perceived security and trust have a significant influence on EPS use. More so, technical protection and past experience were found to be the common determinants of perceived security and trust.

The empirical literature reviewed showed that although many of the findings showed a connection between e-payment system adoption and organizational outcomes, there

were however, variances in their findings and these raise the question of universality of those findings and also if the results could be applied to public establishments within the Nigerian business environment. Additionally, in cases where previous studies revealed positive or significant effect of adoption of e-payment system on organizational performance, none have been conducted to determine the significance of the constructs of perceived security as a major determinant of adoption of e-payment, and subsequently in influencing incidence of fraud, which is the target of this study. Thus, establishing the empirical evidence on the connection underpinning security of e-payment system and incidence of fraud is therefore a timely intervention for policy makers, not only in Kwara State but in the entire country. The variables used in the study were conceptualized to reflect the operational relationship between the study's dependent and independent constructs using input-process-output parameters as shown in figure 1.

2. METHODS

Survey research design was considered appropriate for the study in determining and measuring the respondents' opinions and attitudes towards variables related to perceived security e-payment system and incidence of fraud. The two constructs underlining the study were qualitative in nature, hence, the adoption of survey method.

The population of the study consisted of all the employees of Kwara State Internal Revenue Service (KW-IRS). The total number equals 996

employees working in the headquarter (Ilorin) and across the 16 Local Government Areas of the state (Department of Research and Data Gathering, KW-IRS, 2020). This comprises of 954 staff, 37 management staff and 5 top management staff.

The sample size was determined using Taro Yamane (1967) sample size determination formula as displayed below:

$$n = \frac{N}{1 + N(e^2)}$$

Where;

n= the sample size

N= the population size

e= the acceptable error term

95% confidence level and p=0.5 are assumed

$$n = \frac{996}{1 + 996(0.05^2)}$$

$$n = \frac{996}{1 + 996(0.0025)}$$

$$n = \frac{996}{1 + 2.49}$$

$$n = \frac{996}{3.49}$$

$$n = 285.38$$

$$n = 285$$

Therefore, the sample size was 285 respondents.

Simple random sampling technique was employed for the selection of the respondents. This gave each of the

respective staff equal chance of being selected in the study.

The collection of primary data was done with the use of questionnaire. The questionnaire was structured into two main parts. The first part focused on the demographic characteristics of the respondents, while the second on questions related to constructs of security of e-payment system and incidence of fraud. These were formulated to provide guidance for proper attainment of the study specific objectives. Likert rating scale of five points was employed, which enabled the respondents to give their opinions to all items based on the scale ranging from strongly agreed (5 point) to strongly disagree (1 point).

The research instrument was subjected to both face and content validity done by at least three experts who are senior lecturers in the Department of Business Administration, University of Ilorin. Cronbach's alpha coefficient was used to analyze the reliability of the study. As depicted in table 1, the Cronbach's alpha (α) value result was 0.839 which signifies a sound reliability of study's instrument in carrying out the analysis.

The data were analysed using multiple regression analysis was used to test the hypotheses formulated for the study.

Hypothetical Model Specification

$$\text{IncFru} = \beta_0 + \beta_1 \text{SoRecRep}_i + \beta_2 \text{PerRiSe}_i + \beta_3 \text{PerCon}_i + \beta_4 \text{PerTru}_i + \varepsilon$$

Where:

IncFru= Incidence of Fraud
(Dependent variable)

SoRecRep=Social Recognition and Reputation of the Company
(Independent variable)

PerRiSe=Perceived Level of Risk-Security
(Independent variable)

PerConf =Perceived Level of Confidentiality
(Independent variable)

PerTru=Perceived Level of Trust
(Independent variable)

β_0 = Intercept of the model.

B_1 = Estimate of the parameter of the independent variable in the model.

ε = Error term.

3. RESULTS

The responses to questionnaires administered (table 2) depicts that 261 out of 285 copies of the questionnaire representing 91.6% were returned and considered suitable for the study. This connotes that majority of the respondents positively responded to the questionnaire.

The demographic data's analysis of respondents as displayed in table 3 illustrates that majority were males with 63.6%, females constitute 36.4% of the total respondents. The age distribution depicts that 17.6% were between 20-29 years; 43.7% were within the age range of 30-39 years; 32.5% were within 40-49 years; and 6.1% were 50-59 years. This implies that majority of the staff of the establishment is typically younger adults, who could appropriately understand the concepts under discourse. Marital status of the respondents revealed that 36.0% were singles; 62.8% which constitute the majority were married; and 1.1% of

the respondents were widowed. Educational qualification of the respondents revealed that 8.8% had NCE/OND; 73.9% had H.N.D/B.Sc./ or its equivalent; 16.9% had Masters or its equivalent; and 0.4% had Ph.D. This implies that a larger proportion of the respondents are well educated and could appropriately understand the concept of security of e-payment system and how its dimensions affect institutional performance. Distribution of the respondents by years of experience revealed that 15.3% had between 1-2 years' experience; 56.3% had between 3-4 years; and 28.4% had between 5-6yrs. Since KW-IRS as a government establishment was officially founded in 2015, it implies that majority of the respondents have considerable number of work experience with the establishment which would helped them understand the operational phenomenon of the establishment, thereby boosting their experience in contributing significantly to study.

As demonstrated in table 4-6, multiple regression analysis was used to test whether or not perceived security of e-payment significantly influence incidence of fraud in KW-IRS. The model summary as shown in table 4 reveals that the dimensions of perceived security of e-payment system are positive and significant predictors of incidence of fraud (IncFru). The multiple correlation coefficient (R) value of 0.781 (78.1%) signifies that there is significant relationship between incidence of fraud (IncFru) and perceived security of payment method, depicted by constructs of social recognition and reputation of

the company (SoRecRep); perceived level of risk-security (PerRiSe); perceived level of confidentiality (PerConf); and perceived level of trust (PerTru).

The R-square value of 0.609 (60.9%) indicates that the independent variables of social recognition and reputation of the company (SoRecRep); perceived level of risk-security (PerRiSe); perceived level of confidentiality (PerConf); and perceived level of trust (PerTru) have a combine effect of 0.609 (60.9%) on the dependent variable of incidence of fraud (IncFru).

The adjusted R² value of 0.603 (60.3%) depicts that social recognition and reputation of the company (SoRecRep); perceived level of risk-security (PerRiSe); perceived level of confidentiality (PerConf); and perceived level of trust (PerTru) as independent variables actually contribute to variation in the level of incidence of fraud (IncFru) in KW-IRS. This is good enough in determining the goodness of fit for the model, hence, the regression model proved to be very useful for making predictions.

Table 5 described the overall diagnostic test of significant using Analysis of Variance (ANOVA) between constructs of perceived security of e-payment method and incidence of fraud. The ANOVA results indicate that the significant value of the F-statistics is $F=99.859 > F\text{-table}=4.29$ at a degree of freedom of (4, 256) with $p\text{-value}=0.00$ which is less than 0.05 or 5% error term. This posits that the model of the study is well fitted.

Therefore, it is well established that perceived security of e-payment method is essential in influencing incidence of fraud in KW-IRS.

As portrayed in table 6, the estimated equation of the model could be expressed as $IncFru = \beta_0 + \beta_1 SoRecRep_i + \beta_2 PerRiSe_i + \beta_3 PerConf_i + \beta_4 PerTru_i + \epsilon$.

Table 6 equally described that incidence of fraud (IncFru) would be equal to 3.977 when all other variables remained constant. It would be however significantly influenced by 0.120, 0.193, 0.396, and 0.525 respectively when there is a unit increase in social recognition and reputation of the company (SoRecRep); perceived level of risk-security (PerRiSe); perceived level of confidentiality (PerConf); perceived level of trust (PerTru) respectively, while other variables remain constant.

Additionally, the table depicted that the standardized beta coefficient in respect to social recognition and reputation of the company (SoRecRep) was 0.249 with t-test value of 4.091 at 5% level of significance. This points out that the variable as a construct of perceived security is a positive predictor of incidence of fraud (IncFru) in KW-IRS. The standardized beta coefficient in respect to perceived level of risk-security (PerRiSe) was 0.346 with t-test value of 5.912 at 5% level of significance. This implies that the variable as a construct of security of e-payment system is significantly relevant in predicting incidence of fraud (IncFru) in KW-IRS.

The standardized beta coefficient in respect to perceived level of confidentiality (PerConf) was depicted to be 0.910 with t-test value of 7.767 at 5% level of significance. This indicates that the variable as a construct of perceived security could positively influence incidence of fraud (IncFru) in KW-IRS.

The standardized beta coefficient of perceived level of trust (PerTru) was 1.132, with t-test value of 12.665 at 5% significant level. This signifies that the variable as a construct of perceived security is statistically significant to predict incidence of fraud (IncFru) in KW-IRS.

The summary of the regression analysis results as shown in table 7, therefore, depicts that since the calculated p-value is less than the critical/tabulated p-value of 0.05, and that all the constructs of security of e-payment system positively predict incidence of fraud in KW-IRS, the null hypotheses were therefore rejected which gives room for the adoption of alternative hypotheses, thus, establishing the fact that perceived security of e-payment system has significant effect on incidence of fraud in KW-IRS.

4. DISCUSSION

This study examined perceived security of e-payment system and its relative effect on incidence of fraud, with particular reference to Kwara State Internal Revenue Service (KW-IRS), Nigeria. Security of e-payment system was sited to stand as the explorative variable and incidence of fraud as dependent variable, while the

degree of influence was determined by testing four hypotheses formulated in line with the study specific objectives, so as to arrive at conclusive findings. The connotation of the demographic characteristics of the respondents is that they cut across diverse age categories, gender, marital and have various years of experience, which helped the study gain assorted opinions on issues relating to perceived security of e-payment system and how its dimensions affect incidence of fraud.

Findings from hypotheses testing revealed that the four constructs of security of e-payment system hypothesized in the study's model are positive and significant predictors of incidence of fraud in KW-IRS. This posits that the management of Kwara State internal revenue (KW-IRS) service should concentrate more effort and resources on enhancing the security aspects of utilizing e-payment systems in order to further influence reduction in incidence of fraud and thereby promoting operational efficiency as a key performance parameter of the establishment (Aziza, 2019). The finding is in agreement with previous studies such as Antinoja and Scherling (2019); Aziza (2019); Kim et al, (2017); Oney, et al (2017); Wong and Mo (2019); Yang, et al (2021); Zhang, et al., (2019), which established that dimensions of security of e-payment system significantly influence perceived usefulness of the system, which invariably affect e-payment adoption. Thus, perceived security of e-payment system among users (in this case the tax payers in Kwara State, Nigeria) significantly influences

perceived usefulness of the system and then behavioral intent to use e-payment system among tax payers in Kwara State, which will further influence reduction in incidence of fraud.

The analysis further reveals that among the four enabling factors of security of e-payment system, perceived level of trust (PerTru) with the standardized beta coefficient of 1.132 and t-test value of 12.665 at 5% significant level contributed the most as a construct of perceived security in influencing changes in the level of incidence of fraud (IncFru). It was followed by perceived level of confidentiality (PerConf), then by perceived level of risk-security (PerRiSe), and lastly by social recognition and reputation of the company (SoRecRep), which was found to contribute the least.

Therefore, perceived level of trust (PerTru) dimension of security of e-payment system is more significantly important to users of KW-IRS' e-payment system than other three dimensions, which portrayed that users usually desire payment system that confirmed the element of trust as a crucial parameter in predicting users' intention to use the system and this promote a sense of confidence towards the payment process.

5. CONCLUSION AND RECOMMENDATIONS

Drawing implications from the findings, this study concludes that perceived security of e-payment system is a viable tool that can be essentially use in significantly influencing reduction in incidence of

fraud in public establishments, with particular reference to Kwara State Internal Revenue (KW-IRS) Nigeria. The implication of the foregoing is that proper implementation of e-payment systems in government establishments would help to fast track implementation of government policies of higher revenue generation and lower incidence of process in the system processes. This is made possible by eliminating delays in payment process and by making transaction medium more transparent, thereby ensuring proper accountability of the system. This will further reduce incidence of fraud and corruption by minimizing interaction of government officials with tax payers and promote accountability in order to ensure that public resources are directed towards the attainment of targeted objectives. A sound security system of e-payment would equally help to achieve effective and efficient government financial performance system, thereby facilitating enhancement of real-time reporting system and ensuring transparent financial reporting process in the public sector.

The following specific recommendations were made:

E-payment system in Nigeria has shown tremendous growth, but there are still a lot to be done to increase its usage. As extant literature shown that a larger proportion of transactions in Nigeria is still been done using cash basis, particularly in the public sector. Thus, it is requiring that more efforts are made by the government to widen the level of coverage of e-payment system in the country. These demands for high level of innovation, proper affiliation with private sector in expending the existing internet facilities, and establishing a better legal framework so as to enhance the ease of use and safety of the users.

Additionally, since it was established that perceived trust contributed most as a construct of perceived security, which is invariably significant to reduction in incidence of fraud, it is therefore essential for government and its agencies to partner with technocrats and financial institutions to organize free seminars and workshops, particularly for rural area's people, in order to further enlighten less educated people in respect to uses of e-payment system, and also give necessary information regarding security and privacy of their account.

APPENDIX

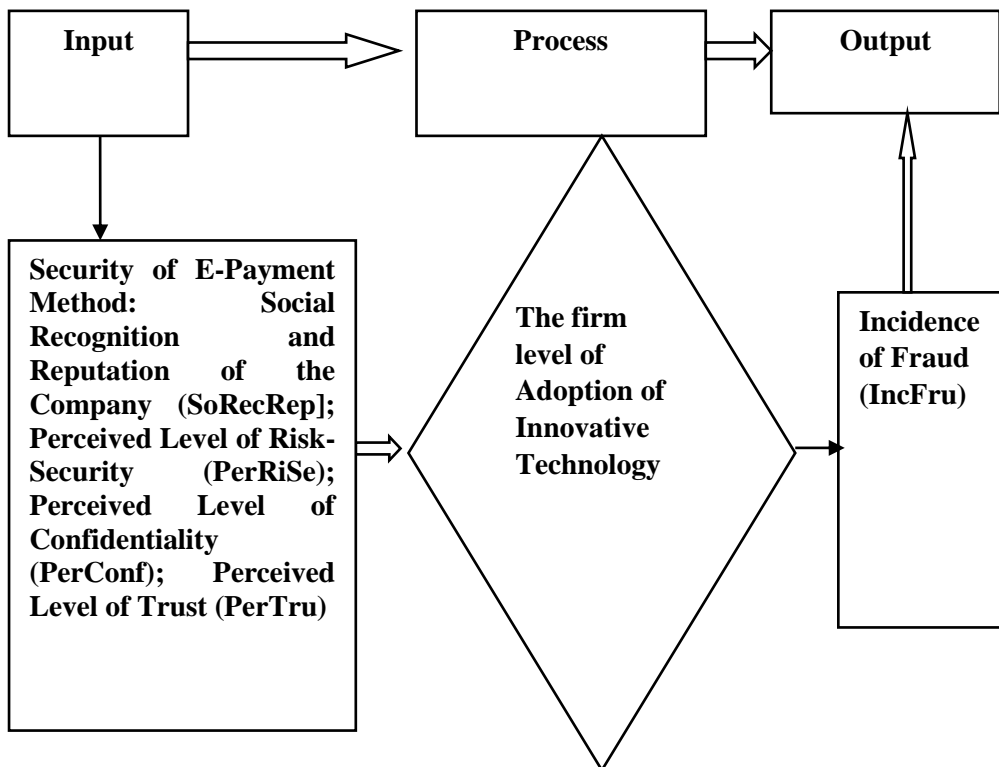


Figure 1: Study Conceptualization

Source: Author’s Design (2022)

Table 1: Cronbach’s Alpha Reliability Statistics

Cronbach’s Alpha	Cronbach’s Alpha based on standardized items	Number of items
0.839	0.839	20

Source: SPSS Printout, 2022

Table 2: Analysis of Responses to Questionnaire (Customers/tax payers)

Description	Frequency	Percentage
Administered	285	100.0
Returned	261	91.6
Not Returned	024	08.4

Source: Field Survey, 2022

Table 3: Analysis of Respondents Demographic Data

Demographic Characteristic	Frequency	Percentage
Gender: Male	166	63.6
Female	95	36.4
Total	261	100.0
AGE: 20-29yrs	46	17.6
30-39yrs	114	43.7
40-49yrs	85	32.5
50-59yrs	16	6.1
Total	261	100.0
Marital Status: Single	94	36.0
Married	164	62.8
Widowed	3	1.1
Total	261	100.0
Highest Educational Qualification: N.C.E/OND	23	8.8
H.N.D/ B.Sc.	193	73.9
M.Sc/MBA or Equivalent	44	16.9
Ph.D	1	.4
Total	261	100.0
Years of experience		
1-2yrs	40	15.3
3-4yrs	147	56.3
5-6yrs	74	28.4
Total	261	100.0

Source: Field Survey, 2022

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781 ^a	.609	.603	.424

a. Predictors: (Constant), PerTru, PerConf, PerRiSe, SoRecRep

Source: Author's Computation, 2022

Table 5: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71.790	4	17.948	99.859	.000 ^b
	Residual	46.011	256	.180		
	Total	117.801	260			

a. Dependent Variable: IncFru

b. Predictors: (Constant), PerTru, PerConf, PerRiSe, SoRecRep

Source: Author's Computation, 2022

Table 6: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.977	.122		32.636	.000
	SoRecRep	.120	.029	.249	4.091	.001
	PerRiSe	.193	.033	.346	5.912	.000
	PerConf	.396	.051	.910	7.767	.000
	PerTru	.525	.041	1.132	12.665	.000

a. Dependent Variable: IncFru

Source: Author's Computation, 2022

Table 7: Summary of Findings

Hypothesis	Beta Coefficients (β)	T	Sig. value	Remarks
H₀₁ : Social recognition and reputation of the company providing the e-service as a construct of security of the e-payment system does not significantly influence incidence of fraud in Kwara State Internal Revenue Service (KWIRS).	0.120	4.091	.001	Rejected
H₀₂ : Perceived level of risk-security in e-payment system has no significant effect on incidence of fraud in Kwara State Internal Revenue Service (KWIRS).	0.193	5.912	.000	Rejected
H₀₃ : Perceived level of confidentiality as a construct of security of the e-payment system has no significant effect on incidence of fraud in Kwara	0.396	7.767	.000	Rejected

State Internal Revenue Service (KWIRS).				
H₀₄: Perceived level of trust as a construct of security of the e-payment system has no significant influence on incidence of fraud in Kwara State Internal Revenue Service (KWIRS).	0.525	12.665	.000	Rejected

Source: Author's Computation, 2022

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Determinants of Financial Inclusion: A Review

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Abstract

Financial Inclusion (FI) is an evolving concept which has gained attention recently due to its role in enhancing economic growth. Numerous researches have been engaging in identifying factors affecting FI. These factors vary with countries and regions. Identifying these country-specific or region-specific determinants would pave the way to enhance FI in a country or a region at a greater level. The purpose of this paper is to review existing literature on the determinants of FI. By reviewing literatures on FI, and its determinants, the paper aims to clarify three important areas, i.e., investigate the most important determinants of FI, to find out whether such determinants vary from countries or the regions in relation to their development levels, and fill the literature gap regards to low level of finding out the FI determinants covering demand, supply, structural, and policy sides' factors. The finding of the research revealed that demand-side, supply-side, structural, and policy level factors determined the level of FI at the country level. Among those factors, financial literacy, income level, and the use of digital technologies for financial transactions are the most significant determinants that influence FI in individual country level. The findings of this study help to enhance the level of FI in an economy. If a country provides more avenues to a successful implementation of FI targets, the government and policy makers need to adopt policies targeting financial literacy improvements including digital finance and payments while strengthening the consumer protection policies considering demand and supply side factors as well as structural and policy level factors that will affect for FI improvements among the general public in a comprehensive manner.

Keywords: Demand-side Factors, Financial Access, Financial Inclusion, Financial Literacy, Supply-side Factors

1. INTRODUCTION

Financial Inclusion (FI) is an important economic factor for a country to achieve the growth and social objectives. Many countries in the world are promoting FI at present and do the investments for many activities while enhancing the existing strategies to fight against reducing unemployment, and inequality and eradicating poverty. In addition, FI expands the wealth of the people and finally achieves economic

growth if a country maintains financial system in a comprehensive manner. Umar (2017) highlighted that the high rate of FI continuously influences towards high investment rate, employment creation, enhancing income level and reducing poverty. This study further highlighted that the economic growth can only be a realistic one if high number of people in a country has greater access to the formal financial system.

Maintaining financially inclusive population and effective utilization of financial products and services in a comprehensive manner are main crucial factors to be achieved by many countries in the world and hence many investigations and research are evolving at present. Therefore, attention of governments, central banks, formal financial institutions, international organisations, researchers and all policy makers together with willingness parties are required to make efforts to identify main factors influencing towards FI, while giving answers to FI constraints continuously (World Bank, 2015, 2017a., 2018). Lack of accessibility and affordability of the financial system creates social destructions, inequality, poverty and lower economic growth (Rama & Pal, 2012; Sarma & Pais, 2010; Hussain & Chakraborty, 2012). A country having a low level of financially inclusive population, can observe highest disparities among low income and high income earners. Due to lack of accounts maintained at the formal financial system at an individual level may deviate from the formal savings and therefore lack of accessibility to formal financial sector products and services such as credits and insurance which create social distortions and low level of social well-being. Lacks of involvement with the formal financial system by majority of the people in a country tend to find out alternative ways to fulfill their financial requirements mainly through the informal sectors. High involvement of informal sectors by people creates social, physical and mental distrust which is costly to the

country and creates many issues in the society level.

FI improves the welfare of people while enhancing the activities of small and medium scale industries (SMEs), economic growth, creation of employment opportunities and also it helps to improve the social policies and development priorities in an effective manner (Abel et al., 2018). There are number of studies which have investigated and showed the results of determinants of FI in different aspects, some of those studies have focused on country level factors while some have considered regional level components, macro factors, demand-side factors and supply-side factors (Zins & Weill, 2016, Akudugu, 2013, Uddin et al, 2017). Cross-country analysis and supply-side information and data on FI have also been investigated in previous studies (Camara & Tuesta, 2014; Sarma & Pais, 2010). Only for taking supply-side factors, many decisions and investigations have been made and taking these decisions and establishments it is very crucial to take decisions by policy makers to convert financially excluded people into inclusive people (Beck et al, 2000; Tuest & Hidalgo, 2013).

Determinants of FI push a country to identify the areas to be considered in a country or the national level when taking initiatives to enhance the level of FI. There are two main sides of factors when determining FI i.e., demand-side and supply-side. Some scholars considered supply-side factors are the main important elements of improving FI in a country while some have argued that demand-side factors are the main factors that

require for improving FI. The growth of FI and its initiatives from country to country is varied and those variations are depending on factors that can be considered as micro, macro or both (Abel et. al., 2018).

Hence, the paper attempts to provide in-depth analysis of definitions relating to FI and while investigating the factors that affect for FI or considered as determinants of FI, and the applicability of those determinants in country level. To achieve the purpose, the paper reviewed 150 published research works in journals, books, and websites. Using a thematic approach, it carried out a comprehensive discussion after reviewing the research work.

The remainder of this paper is structured as follows. Section 2 of the paper describes definition of FI, and Section 3 provides a comprehensive review of both theoretical and empirical literature. Section 4 provides a discussion on key findings, while Section 5 discusses the importance of FI, following a conclusion in Section 6.

2. DEFINITION FOR FI

There is no unique definition to clearly define the FI and has accepted globally. The definition for FI referred in literatures vary from country to country, and study to study. However, some similarities can be observed when taking those definitions for a one single pool. Accordingly, the paper summarized definition of FI extracted from literatures (Table 1, Appendix). Among those definitions, the key

features of FI are given in Figure 1 (Appendix).

Many researchers have conducted their studies on FI and related topics in the past and still doing many researches on this topic as this is an evolving area around the world due to its importance and contributions toward achieving growth objectives of country level. In respect of FI determinants, many factors have been considered in the previous studies in different scale. Such common factors considered in various studies are level of income earn by individual, gross domestic product (GDP), population or density, level of deposit and credit, level of education, status of employment, branch network and Automated Teller Machines (ATMs) established/installed in numbers and as per density, mobile subscribers, usage of internet, gender, different age scales, status of religion, credit to deposit ratio, non-performing loan ratio (NPL), ratio of deposit to income, total assets of the bank which measures the size of a bank, area of residence, family size, distance to a formal financial institution (Sharma, 2016; Beck et al., 2017; Kumar, 2013; Kumar & Mohanty, 2011).

When discussing the FI and its initiatives together with determinant factors, it is important to investigate theories relating to FI. The next section described some interesting theories found through the literature survey and the empirical reviews regard to FI determinants.

3. LITERATURE REVIEW

3.1 Theories on Financial Inclusion

There are many literatures that have been discussed about FI and its importunacy for a country, state, economy or the society. Some scholars have targeted monetary policy implications and growth perspectives while some have focused on financial system stability and growth implications (Beck et al., 2015). Theory of FI revealed about some principles and frameworks which can be explained or described FI, achievements of FI targets, benefits of FI etc. Theories of FI identified as many ways such as theories of FI funding, delivery and beneficiaries. These theories help to achieve the objectives and outcomes of FI. Further, objectives, process, outcomes, and targets are clearly explained by these theories.

Many theories directly linked with and discussed about FI in the past. Financial intermediation theory, social learning theory, life cycle theory, Harrod-Domar model, credit creation theory, Modigliani Miller theory are some of the theories that have explained the concept of FI, its usage and implications.

3.1.1 Theory of Social Learning

Social learning theory (Bandura, 1986) assumes that people learn from others in the society mainly through observing, imitating, following and modeling. As per cultural and social settings of the people in an area or a country, the social learning theory says that people tend to be learned by observing others, and people

individually or collectively believe that those people are intelligent, knowledgeable and skillful, and observed people tend to follow those people gradually. This thinking is important when people transforming into a targeted thing mainly the FI aspect. Ramsden (1992) highlighted that as per the social learning theory, people attempt to change their behaviour, while understanding the social activities and solving the problems faced by them in their day today activities. FI is mainly targeting to cover the poor, under privilege and low income community who are excluded from the formal financial system, because that is the group to be transformed into formal financial system to take rational decisions and enhance their life style. This will help to achieve the growth objectives of a country while eradicating the poverty. Hence, this theory is important as people learn from the society about what are happening, what should be performed, pros and cons in the formal financial system, etc. This transformation mechanism may happen mainly through the financial literacy programmes, continuous awareness and skill development activities, knowledge transformations, sharing and other activities and initiatives related to FI (Stack, 2008). In this light, through the social community networks by utilizing financial literacy programmes, it can be argued that FI objectives may achieve positively. Low income communities acquire knowledge and skills regarding the formal financial system and related activities from the society, thereby taking good financial decisions in their day today life (Ramsden, 1992).

Hence, social learning theory is in an important and interesting theory regards to FI.

3.1.2 Harrod - Domar Growth Theory

This theory is mainly focusing on savings, investments, capital stock and economic growth which drive through the growth theories. According to the theory of growth, expansion of trade and production in an economy is directly correlated with savings. The model says more investments create more production and output in an economy which increase the scale of economic in those economies. In terms of the FI perspectives, formal financial system promotes savings and investments to be a financially inclusive country while giving access to formal financial system for all people in an equal manner. High level of FI in a country tend to be expanded access to formal financial system and provide more credit and savings that are easily accessible for people and expansion of savings and investments turn to high growth of the economy (Demirguc-Kunt & Klapper, 2013). Hence, this model directly linked with FI and its initiatives as both concepts are expected more savings and more investments.

3.1.3 Financial Intermediation Theory

Financial intermediation theory is also directly linked with the FI as this theory discuss the intermediary role played by the formal financial sector. As described in the Harrod-Domar growth theory, savings and investments deal with formal financial sector institution, which is

the intermediary part played in the financial system which explain in the intermediation theory and hence this theory plays a famous role with respect to FI (Gurley & Shaw, 1960). In this context, formal financial sector plays a critical role for collecting savings from the excess/surplus parties while doing lending activities to the needy/required sectors.

Financial intermediation theory grounded with the Agency model and relates to the information asymmetry. When consider the players of the financial sector and related industries, it discussed about lack of information, high transaction costs, complex documentation which hinders the engagement of formal financial system by low earning community. Asymmetric information discussed in the financial intermediation theory which should be understand when doing the financial transactions by all parties engaged into the financial transactions due to there are possibilities to discriminate the efficient market conditions. FI expects equal access to formal financial system for all people and do the transaction in a comprehensive and active manner and sharing all information by each other without any discrimination. Therefore, preventing from information asymmetry as explained in theories, financial intermediation theory is important to expand and enhance the FI in a country. Hence, financial intermediation theory eliminates the difficulties and barriers such as adverse selection, moral hazard which arise due to asymmetric

information in between people and the market.

3.1.4 Theory of Life Cycle

Life cycle theory discussed about wealth of people, savings and income of individuals (Modigliani, 1970). According to this theory, it assumes that people continue their life cycle with a long term vision in relation to consumption and savings which depend on income level or the revenue of people. When consider the savings of individuals, low income community would not tend to save money as they need to fulfill their day-to-day requirements. Hence, for the majority of developing countries, this theory is somewhat questionable. The prime objective of FI is increasing savings by people in their accounts which are maintaining in the formal financial institution and transform people to do the financial transactions through their accounts in an active manner, thereby a country can achieve its growth objectives eliminating some barriers. Hence, this theory directly discussed one of the main components of FI even though this theory has not concerned about poor people's savings. However, there are some theories relate with saving of poor people like precautionary savings model (Deaton, 1997).

3.1.5 Precautionary savings Theory

Precautionary savings model described income volatility and inability to borrow poor people or the low income community from the formal financial sectors and therefore, most of the time, these segments are penalizing. Majority of the modern savings theories support for the

smooth expenditure patterns of the people in overall (Rutherford, 2000), however, low income people can save their money accordingly and utilize these savings for their day to day requirements and also to achieve unexpected events that they face in their lives. Further, they can develop their businesses and efforts towards reaching the wealth. This theory argues that poor people are just like other people and also take good decisions, they create connections with formal financial institutions, open accounts, security, and then they save money (Rutherford, 2000). Hence, it should be investigated and identified the individual characteristics, constraints and policies influence on savings of every people. Thereby, saving is a compulsory matter for both rich and poor people due to individual ready for making payments that they have taken services from other parties (Ashraf et al., 2006).

As per FI agendas, savings of individuals play an important role while saving motivates investments, then borrowings and use of other financial services by the people. These services and products are provided by formal financial institutions. The life Cycle Theory and saving theories are also discussed the importance of savings by individuals and its relationship between individual savings and wealth. Hence, it can be observed that FI and these theories are correlated with each other as savings promote more investments, investments enhance the level of income or the earnings while expanding the level of wealth by individuals. Access to

formal financial sector is a common factor for every people in a country which is the main target of FI initiatives. However, there are many factors associated with access to formal financial institution where access to finance discuss the FI in an overall manner. These factors have categorized into two main parts i.e., demand-side and supply-side factors. The next section described the factors, or the determinants associated with FI using empirical literatures.

3.2 Empirical Literature on Determinants of Financial Inclusion

As discussed in the previous section determinants of FI has divided into two main categories, i.e., demand-side and supply-side factors. Socio-economic characteristics are considered as demand-side factors which include income of individuals and household level, level of education, different age groups and gender (Beak et al. 2017).

The supply-side factors mainly relate with access side or the financial institutions' side while demand-side factors relate to usage of the formal financial system (Khan et al., 2022). Access to the financial institutions depends on branch network of the formal financial system, depth of the financial system, costs of the financial services, trust of the financial system and activities and applicable legal framework of the financial system. All other demographic and socio-economic factors are primarily linked with demand-side factors which support for active use of formal financial

sector products and services by the population. Therefore, for an effective FI and to create inclusive economy and to maintain well established formal financial system, both demand-side and supply-side factors are playing an enormous role (Khan et al., 2022).

Uddin et al., (2017) explored the determinants of FI in Bangladesh covering the period from 2005-2014 using generalized method of moments and regression approach. The study considered some of the demand-side and few supply-side factors relating to FI. The investigation of this study revealed that both factors are positively and significantly correlated to FI in Bangladesh.

The study conducted by Zine & Weill (2016) taking the data from Global Findex data base covering 37 African countries showed that gender, age and level of education are the most influential factors of FI.

Soumaré et al., (2016) investigated how demand-side factors affect FI in Central and West Africa employing regression analysis extracting the data from Global Findex data base. The study observed that geographical factors such as gender, educational level, age, level of income, residence area, status of employment, marital status, size of a household are the main determinants of FI.

Chithra & Selvam (2013) conducted a study to see the inter-state variation in access to finance employing a composite FI index. The study observed that FI determined by socio-economic factors such as income,

literacy, population, deposit and credit penetration.

Tuesta et al., (2015) done a research to find out the factors affecting FI in Argentina adopting three dimensions of FI where supply-side factors, individual factors and perception factors. The results indicate that the level of income and age of people are the main factors affecting FI.

A comprehensive study conducted by Akudugu (2013) in Ghana found that age, level of literacy, wealth classes, trust, level of documentation, distance to the financial institutions, level of poverty and social networks are the main factors that determine the level of FI in Ghana.

Abel at al., (2018) undertook a study on reviewing determinants of FI Zimbabwe using both probit and logit models for the data obtained from Fin Scope Consumer Survey, 2014. For this study, it has been used mainly the socio-economic and institutional factors such as age, educational level, documentation, trust, income, distance and internet connectivity. The paper concludes that FI is driven by age, level of education, level of financial literacy, income level, documentation and internet connections are positively influence on FI.

Financial literacy is an important factor when investigating the FI due to financial literacy helps inculcating and enhancing the level of financial literacy in an economy. There are two categories of people, i.e., financially included and financially excluded. Financially excluded category can be observed as voluntarily excluded and involuntary excluded. Through a

better awareness and improving skills, knowledge, attitudes and behavior through financial literacy programmes, people enhance their financial literacy level. Khan et al., (2022) critically examined the role of financial literacy in achieving FI reviewing many literatures and concluded that through a comprehensive literacy modules and continuous training, illiterate and the excluded people in a society can be transformed into financially inclusive category.

4. KEY FINDINGS

Even though the two main categories determined the FI of a country i.e., demand-side and supply-side, when reviewing the literature, it could be observed that structural and policy related factors are also influenced to determine the FI.

4.1 Demand-side factors

Demand-side factors relating to FI mean the factors influencing people to choose financial sector products and services without any disturbance. Such factors help people to take effective decisions in an informed manner (Paramasivan & Ganeshkumar, 2013). Under demand side factors, personal characteristics such as education, level of financial literacy, income levels, number of family members, gender, age, expenditure level, trust are playing an important role. Geographical factors such as area of the residency which categorized as rural, estate, and urban, community size in an area, ownership of lands, and ownership of house have taken as factors affect for level of the FI.

4.2 Supply-side factors

The supply-side factors described the method, functions and activities relating to monetary system and also about designing of this system which directly facilitate for reducing financially excluded people in an economy (Kumar, 2013). For the supply-side factors, researchers have found that expansion of financial institutions are provided more access to finance for the people while providing expanded products and services that are available for utilization of the customers, expansion of digital financing, internet and mobile penetration, low distance to the closet financial institution or the bank, low or no documentation of the bank for access to financial services, low cost of financial services, positive and dedicated behavioral pattern of the bank staff are motivated for enhance the level of FI. Further, some studies revealed that several demand-side factors are also be considered as supply-side factors, for example age, level of educations, income, and occupation (Demirgüç-Kunt et al., 2015). The reason why these factors taken into supply-side is that when financial institutions ready for providing financial sector services to the people, always officers of the financial institutions motivated or more considered about individual's income level, job status, level of age, education etc., when delivering such services among individual.

4.3 Structural Factors

Except above two main categories of determinants relating to FI, there are some other factors identified as

factors affect for determining FI. One of such factors is the structural factors. Structural factors directly linked with the supply-side factors which cover costs of financial services and strategies which influence to the FI conditions (Evans & Adeoye, 2016). Factors relating to structural category cover the market size of the financial market. Accordingly, size of the population and the density of such area/s, informality of the economy, and per capita income are considered as structural factors (Naceur et al., 2015). Considering these factors, it is required to make policies and necessary tools towards enhancing the FI.

4.4 Policy-side Factors

To create financially inclusive country, the economy should be politically stabilized due to all sectors run its activities locally as well as internationally with the recognition of such country perspectives. In this regard, political influence and its path/movements are important. Institutional framework and the level of macroeconomic stability considered as factors relating to the policy level. Costs and risk factors of the financial system are basically determined by the institutional framework.

Table 1 (Appendix) summarized the determinants of FI, captured from the literatures.

In view of the above, FI affect both demand-side and supply-side factors including geographical and socio economic conditions. Some of the studies have been investigated only for the supply factors while some

studies on demand-side variables. However, there are lack of studies have been considered both demand and supply side factors in a comprehensive way (Demirguc-Kunt, & Levine, 2007; Beck et al., 2006).

5. IMPORTANCE OF FI

FI provides pre determinant factors to choose best financial product/service offered by formal financial system, and take financial decision in a rational way while utilizing money for proactive savings and investments activities by people. Inclusive financial system leads to achieve growth objectives of a country and to maintain financial system stability. Equal distribution of financial products and services, reduce income inequality, increase the access to finance, availability of such services, enhance the usage of financial products and services, facilitate entrepreneurship development among low income community, expansion of more benefits for rural people are some of the benefits that can be achieved when achieving the development goals together with FI objectives (Beck at al., 2007; Zhang & Naceur, 2019; Kim, 2016). Expectation of the FI is given in Figure 2 (Appendix).

Better financial system provides various financial sector services such as saving, borrowing, insurance, remittances, transfers, internet and mobile banking facilities, payments, and financial information (Zhang et al., 2018; Zhang and Posso, 2019). To achieve the goals of financially inclusive country, financial literacy plays an immense role. Financial literacy expands the awareness of

people on the formal financial system, to take good financial decisions, importance of having and maintaining a saving account, borrowings and utilization of money mainly for an income generating activity, importance of repaying the borrowed money as per scheduled time plan, interest rate, inflation movements, importance of using digital finance and payments, book keeping and basic accounting, project financing etc. Levine (2005) stated that through structured financial literacy programmes can produce and understand good information, allocation of funds for productive purposes, monitoring the investments, mobilizing and pooling the savings, and controlling and managing the risks. For the long run economic growth, Popov (2018), indicated by reviewing the cross-country analysis, enhancement of the capital accumulation and productivity, financial depth plays a bigger role where greater depth leads better outcome of the society. Through better FI, increases the entrepreneurship and related activities, scale up the businesses and income generating activities which leads to increase in income level of the people. Increasing the aggregate income level of the people tend to reduce level of poverty while increasing income inequality (Demirgüç-Kunt et al., 2017). The basic requirement of FI concept and the basic measurement of FI is the opening of an account in a formal financial institution by an individual or the institution (Allen et al., 2012; Beck et al., 2010; Zin & Weise, 2016). Opening of an account in a financial institution or a bank

encourages people to save their excess money for investment purposes, or utilisation of such saved money for future activities including for unexpected events they face in their lives. Further, extra savings or the excess savings by people are used by the financial institutions for lending purposes which enhance further access to finance by other required people or for the institutions.

For a better FI, it is required to fulfill more accessibility, availability and usage of formal financial services by people (Park & Mercado, 2018) which reduce income inequality thereby reduce poverty. Historically, people believe that branch penetration and spread of ATMs, Cash Deposit Machines (CDMs) play an immense role to improve the accessibility of financial services offered by the formal financial system. This aspect is important and valid for today as well. Further, digital mode of payments and mobile banking is a fast growing concept in all countries around the world and are also discussing more on this area in the FI topics. Through a better digital finance system, quick access to financial sector services by people avail while reducing transaction costs and saving time of the people. In globally, smart phone penetration showed more than 78 per cent in end 2020 (Statista, 2021) while South Asia accounted for nearly 33 per cent usage of smart phones (GSMA, 2019). Considering the increasing trends in smart phones and internet connections, Zhang at al., (2018) noted that FI through digital modes show a positive and large effect on household income such that major

influence on rural household's sector. Therefore, digital transitions and payments relating to FI are importance phenomena at present.

6. CONCLUSION

The paper reviewed the previous literatures on the determinants of FI, definitions and its importance for an economy. As per the literature survey it was showed that FI is an important element for any economy to reach a sustainable economic growth while maintaining stable financial system, and FI supports for mainly eradicating poverty, inequality while distributing financial products and services in an equal manner. With better FI initiatives and more investments on it, the level of FI can be enhanced. FI depends mostly on demand side factors, supply side factors, whereas some of the structural factors and policy factors are also help to enhance the level of FI. To leverage more financially inclusive country, it is required to pay attention on FI targets in the mandate of all policy makers including the Central Bank and the Government agencies. Doing research on FI and determinant factors of FI is timely valuable as this tool is mainly helping for reducing disparities among people with an effective implementation.

Eliminating more people from the informal financial sector by providing formal financial sector products and services at least for majority of the people in a country, tend to achieve more financially inclusive country while reaching the growth objectives. Income, education, age, financial literacy, occupation, gender are the important determinants and most

tested determinants by the researchers on the level of FI. Further, internet and mobile banking or the digital mode of transactions and usage of such products by individual are also play a tremendous role in achieving FI targets. Expansion of financial literacy among people in a country showed a bigger impact on FI because of through the financial inclusion literacy programmes people

are transforming into usage of formal financial sector products and services. Open of an account with a formal financial institution i.e., in a bank, there by more savings, more investments, transactions in an active manner together with insurance and other services and products offered by banks and finally reach the high growth level of a country have been proved in many literatures.

APPENDIX

Table 1: Definition of Financial Inclusion

Source/Author	Definition
International Monetary Fund (IMF); (2015)	“Access to and use of formal financial services by households and firms”
Gwalani & Parkhi; (2014)	“FI is a process of allocating appropriate financial products and services that required for every segment of the population at an affordable cost”
World Bank; (2018)	“Individual and businesses have access to useful and affordable financial services and products that meet the individual needs such as transactions, payments, savings, credit and insurance that should be delivered in a responsible and sustainable way”
Njanike, K.; (2021)	“The distribution of appropriate formal financial products and facilities to all people of the society to meet their savings and requited needs and while doing investments and fulfilling credit requirements at their level of financial literacy in a responsible and suitable way”
Shivani (2013)	“Availability of banking services at an affordable cost to the low-income earners and disadvantaged people in a country”
United Nations, (2016)	“The sustainable provision of affordable financial services that bring the poorest and excluded population into the formal economy”
Beck et al., (2007), Bruhn & Love, (2014)	“The use of formal financial services by the poor”
Ozili, (2018)	“FI involves increasing the number of individuals, mostly poor adults that have access to formal financial services mainly through having formal bank accounts, which contributes to poverty

	reduction and economic growth”
Sarma, (2012)	“The share of individuals and firms that use financial services”
Hayton, et al, (2007)	“Access for individuals to appropriate financial products and services”
Triki & Faye, (2013)	“All the initiatives that make formal financial services available, accessible, and affordable to all segments of the population”
Kumari, D.A.T. & Ferdous, A.S.M. (2019)	“Access to an intermediation process and use the products and available transaction facilities from formal financial intermediaries”
Chhabra, 2015	“The delivery of financial services, including banking services and credit, at an affordable cost to the vast section of disadvantaged and low-income groups who tend to be excluding”
Treasury Committee, House of Commons, UK (2004)	“Ability of individuals to appropriate financial products and services”
Awad and Eid (2018)	“FI as a convenient and reasonable cost delivery process of financial services for low-income groups”
Atkinson and Messy, (2013)	“FI should enhance financial awareness and financial education, while adding value to economic and social inclusion”
Lenka and Bariq (2018)	“A process that involves financial access to financially excluded groups in terms of financial services such as savings, payments, credit and internet banking”
CGAP	“Households and businesses have access and can effectively use appropriate financial services. Such services must be provided responsibility and sustainability, in a well regulated environment”
OECD	“The process of promoting affordable, timely and adequate access to regulated financial products and services and broadening their use by all segments of society through the implementation of tailored existing and innovative approaches, including financial awareness and education, with a view to promote financial wellbeing as well as economic and social inclusion”
Triki & Faye, (2012)	“All measures and strategies put in place to ensure the availability of the formal financial product at an affordable cost to all segment of the society”

Demirgüç-Kunt et al. (2015)	“Individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way”
Diniz, E., Birochi, R. and Pozzebon, M. (2012)	“The accessibility of services at a reasonable price for everyone as it has been recognized as major policy contributor to economic development and poverty reduction”
Kanwal, N., Raju, V., Zreen, A., Farooq, M. & Shehzadi, S. (2019)	“Accessibility, availability and usage of financial services by all, especially the less privileged people of the society”
Cámara, N. & Tuesta, D.	“A process that aims to ensure that everyone who wants to use financial services has access to them at affordable prices, provided for customers in a convenient and responsible fashion”
N. Yoshino and P. Morgan (2016)	The access of households and firms (in particular low income and SMEs to financial services
Allen et al. (2013a); Kumar and Mishra (2011); Park and Mercado (2018)	“A process of ensuring easy access, availability and usage of formal financial services for all members of an economy, promotes inclusive growth, a better livelihood and poverty reduction”
Sahay et al., (2015)	“The access and use of formal financial services by households and businesses, such as opening a bank account with a registered financial institution”
Olaniyi & Adeoye (2016)	“A situation in which most of the financial services reach a sufficiently large proportion of individuals and families, granting them timely and adequate access to credit and other financial products at affordable prices”
Sarma and Pais (2008)	“FI implies the process that ensures the ease of access, availability and usage of the formal financial system for all members of an economy”
Patel, A. (2016)	“The process of ensuring access to financial services and flow of timely and adequate credit to vulnerable groups [weaker sections and low income groups] at an affordable cost”
Varghese & Viswanathan, 2018	“Access to appropriate, low cost, fair and safe financial products and services from main-stream service providers”.
Gwalani and Parkhi (2014)	“The process of ensuring that timely and adequate credit financial services as needed by vulnerable groups (weaker sections and low income) are available at an affordable cost”

International Monetary Fund (IMF) (2015)	“The access to and use of formal financial services by households and firms”
Treasury Committee, House of Commons, UK (2004)	“Ability of individuals to access appropriate financial products and services”
United Nations (2006 b)	“A financial sector that provides access to credit for all bankable people and firms, to insurance for all insurable people and firms and to savings and payments services for everyone. Inclusive finance does not require that everyone who is eligible use each of the services, but they should be able to choose to use them if desired”
Ben Naceur, Barajas, & Massara (2015)	“The share of the population who use financial services”
Shahul (2014)	“Delivery of banking services of an affordable cost to the vast sections of disadvantaged and low income groups”
Nandru, P. & Rentala, S. (2019)	“Delivery of banking services at a reasonable cost to the huge sections of underprivileged and low-income groups”
Chibba, M. (2009)	“The ability to process financial information and make informed decisions about personal finance to achieve success of the life by involving in formal financial sector”

Source: Author’s Findings

Table 2: Determinants of FI

Author	Area/s	Factors	Method	Main Finding/s
Paramasivan & Ganeshkumar, (2013)	Demand-side	Culture, properties, accessibility, income	Correlation analysis	Accessibility had highest correlation
Altunbas et al., (2010)	Borrower characteristics	Education, gender, borrower type, employment, location (urban/ rural)	Probit Model	Females and indigenous borrowers more likely to be financially excluded and they are willing to borrow from informal sector
Adewale (2011)	Macro perspective (demand and supply)	Gender, age, educational level, type of the business, eligibility, affordability, cultural	Structural equation	Voluntary exclusion evolves due to lack of use of financial

		capital, financial satisfaction, religion		products and services rather than lack of access
King (2011)	Both demand and supply	Documentation, income, financial literacy, education, use of mobile banking, gender; number of ATMs, GDP per capita, branch network and accessibility, trust	Probit estimation	High documentation is the main barrier for FI
Zins & Weiss (2016)	Individual characteristics	Education, gender, income, education, age	Probit estimation	All factors significantly influenced FI
Allen et al., (2012)	Individual and country level characteristics	Education, income, marital status, employment, age	Probit estimation	High income earners, more educated and older aged population are more financially inclusive
Bapat & Bhattacharyay (2016)	Socio-economic characteristics and banking behaviour of households	Income, age, occupation, gender, expense, housing type, type of the family, number of members of a family, savings	Multiple regression	Income, gender, age, demographic profile, account ratio per household, occupation, source of loan, savings influenced FI
Clamara et al., (2014)	Macroeconomic and individual characteristics	Geographical area, gender, income, expenditure, employment, age, education, per capita income, GDP	Probit and multiple regression	Age, gender, education, income level are main determinants of FI
Vaid et al., (2020)	Supply-side	Penetration, financial literacy, trust, technology, accessibility, perceived benefits, availability, outreach	Factor analysis	Financial literacy, technology and income shows significant and positive impact on FI

Omar & Inaba (2020)	Macroeconomic	Per capita real GDP, rule of low, inflation rate, Gini coefficient, schooling, interest rate	Panel regression and Fixed Effect	Per capita real GDP and interest rate positively influenced on FI
Soumare, Tchana & Kengne (2016)	Geographical and socio-economic	Gender, marital status, employment status, income, level of education, geographical area, age, family size	Correlation analysis	Male, marital status and income level are positively correlated with FI
Johnson and Arnold (2012)	Socioeconomic, population features, terrestrial	Level of education, location, employment, age, gender	Correlation analysis	Education is strongly correlated with bank savings

Source: Author's Findings

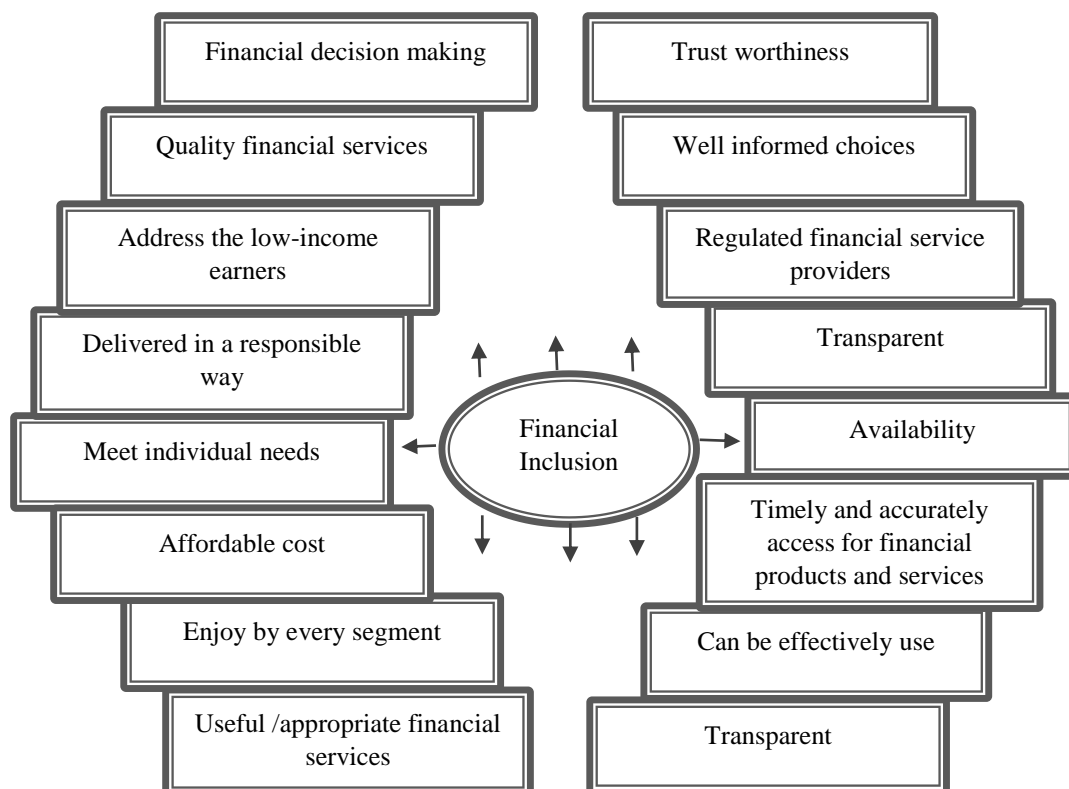


Figure 1: Features of the FI Definitions

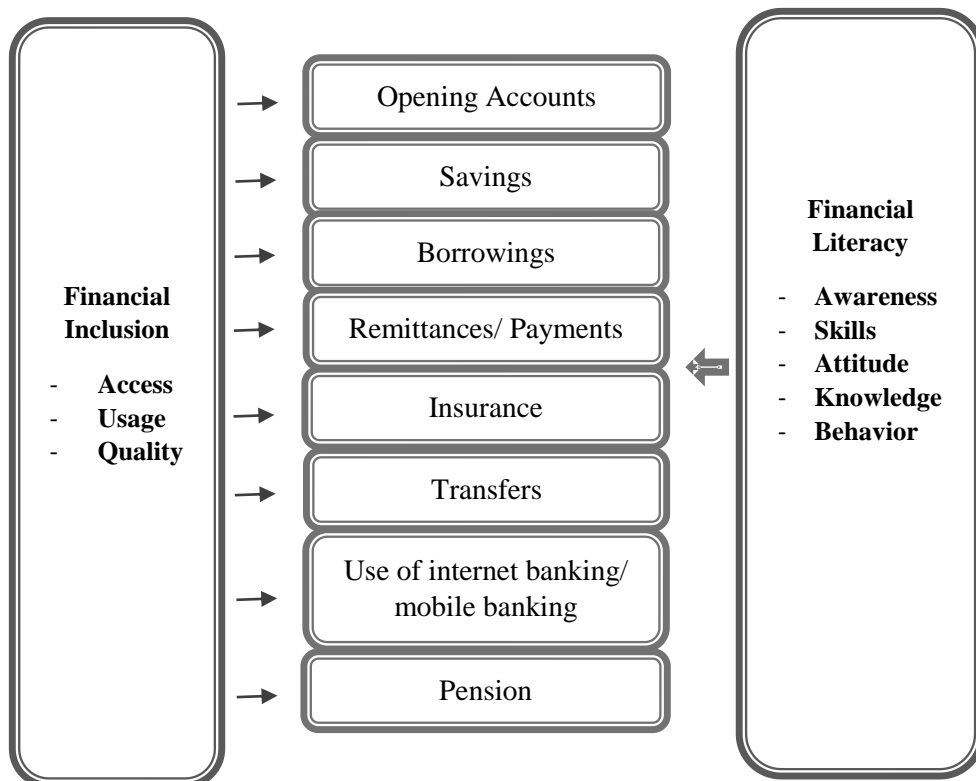


Figure 2: Expectation of FI

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The Role of Dynamic Capabilities, Digital Capabilities and Social Capital on Resilience and Recovery of SMEs during Covid-19 in Sri Lanka

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Abstract

The question of why some SMEs failed to withstand the COVID-19 crisis whereas some Sri Lankan SMEs survived remains unanswered. It demonstrated very clearly how frail the economy of Sri Lanka is and raised doubts about the resilience of Sri Lankan businesses. This research investigated the factors affecting resilience of SMEs in Sri Lanka. This research used a conceptual framework comprising of Dynamic Capabilities, Social Capital and Digital Capabilities to analyze the antecedents of resilience of SMEs in Sri Lanka. A randomly selected sample of 76 SMEs in Sri Lanka was analyzed using Partial Least Squares Structured Equation Modelling (PLS-SEM) method. Results indicate Dynamic Capabilities, Social Capital and Digital Capabilities have a significant positive influence on SME resilience. Dynamic Capabilities, Social Capital and Digital Capabilities together explained 29% of the variance in resilience of SMEs. Development of knowledge, both theoretical and empirical, has become critical in order to understand how endured SMEs adapted, managed the crisis, built resilience and ultimately how they recovered from the crisis. Such knowledge will become invaluable in a future crisis situation to protect SMEs of Sri Lanka.

Keywords: Digital Capabilities, Dynamic Capabilities, Resilience, Social Capital

1. INTRODUCTION

For Sri Lankan entrepreneurs and policymakers, COVID-19 may be considered as a “wake-up call”. It demonstrated very clearly how frail the economy of Sri Lanka is and raised doubts about the resilience of Sri Lankan businesses. More than anything else, COVID-19 demonstrated the interdependency of business, nature, government and society on each other for mutual survival during a crisis.

Currently the severity of the pandemic

looks to be diminishing in Sri Lanka. With a remission in sight and with the optimism that new variants are less harmful due to success of vaccination, business all over the world is looking forward to returning to normal. However, the post covid period seem to be more challenging for entrepreneurs in Sri Lanka. Pessimistic views are on the air and the economic indicators have worsened. Inflation soared to 54% in June 2022 (the highest ever recorded in Sri Lanka and highest in South

Asia). Foreign reserves stood at 10 million US dollars in January 2022 (lowest ever recorded), Foreign worker remittances fell to a 10-year low of \$ 5.5 billion in 2021. GDP growth rate is predicted to be around -1.6 to 0.5 in 2022 indicating a stagnant GDP. Within a decade, Sri Lankan rupee compared to US \$ has collapsed in a sequence of currency crises in 2012 (Rs. 131), 2016 (Rs. 151), 2018 (Rs. 182) and 2022 (Rs. 360) where parallel exchange rates are much more than the declared rate. It should be noted that recent depreciations are happening amid heavy import constraints and selling of gold reserves. There is little argument about the fact that business outlook is pessimistic.

Very little can be stated with confidence about the effect of COVID-19 on small business and entrepreneurs in Sri Lanka because of the lack of data released by the government. To add to this issue, trustworthiness of the data released is questioned by many researchers. The real losses to SMEs through the loss of business hours and customers (due to lockdown, limitations in number of customers which can be served and other health regulations), the losses due to customers' unwillingness to visit stores due to health concerns, losses due to supply chain interruptions are unprecedented. Many of SMEs may have been closed permanently because of the inability of owners to pay current expenses and survive the shutdown (Gourinchas, Kalemli-Özcan, Penciakova, & Sander, 2020). Opportunity costs in SMEs sectors are also large for the Sri Lankan economy. Many persons who

contemplated becoming an entrepreneur gave up or postponed the career transition due to pessimistic outlook.

Few research and surveys have attempted to assess the impact of COVID-19 on businesses around the world. The number of business owners in USA reduced from 15 million to 11.7 million in 2020 (Fairlie, 2020). Female entrepreneurs faced 35% higher cases of failure because women disproportionately work in industries that are more severely affected by the COVID-19 (Graeber et al., 2021). COVID-19 pandemic impact is more profound for minority community businesses (Fairlie & Foss, 2021) and for businesses in developing countries (Pereira & Patel, 2021). As a result of COVID-19 outbreak, nearly 80% of Indian companies have gone through cash flow issues and more than 50% of companies are confronting operations issues (Misra, 2021).

A large number of academic research on impact of COVID-19 on business are under construction and the results will be shared in the next few years (Alonso et al., 2021). The question why some SMEs failed to withstand the crisis whereas some SMEs survived remains unanswered. Development of knowledge, both theoretical and empirical, in order to understand how SMEs endured, adapted, managed the crisis, built resilience and ultimately how they recovered from crisis, has become critical. Such knowledge will become invaluable in future crisis situation to protect SMEs of the country.

In the most challenging times such as Covid-19 pandemic, resilience of

SMEs are influenced by dynamic capabilities (Mansour, Holmes, Butler, & Ananthram, 2019), social capital of entrepreneurs (Al-Omoush, Simón-Moya, & Sendra-García, 2020), and the digital capabilities of the entrepreneurs (Khlystova, Kalyuzhnova, & Belitski, 2022). The objective of this research is to uncover the antecedents of resilience and recovery capabilities of SMEs in Sri Lanka during and after Covid-19 pandemic. The specific objective are as follows.

1. To explicate the antecedents of resilience and recovery capability of SMEs in Sri Lanka in a crisis
2. To assess the influence of dynamic capabilities, social capital, and digital capabilities on resilience and recovery capability of SMEs in Sri Lanka

There is no single widely accepted definition of SMEs. The definition of an SME differs from country to country or region to region but is typically based on employment, level of assets, or a combination of the two criteria (Kumar, 2012). Many studies involving SMEs have greater preference on using number of employees as a proxy of firm size (Troilo, 2012). This research used the guidance of Sri Lanka Standards Institution (SLSI) and defined an SME as an organization with less than 250 employees.

2. LITERATURE REVIEW

In a crisis situation, most important factors of survival are management of change and possession of dynamic capabilities (Mansour, Holmes, Butler, & Ananthram, 2019). Covid-19 propelled SMEs to make

significant changes to them in terms of business models, product offerings and processes, customer and supplier base, reducing working hours and staff cuts, adopt to health regulations etc. within a short time. Those who possessed dynamic capabilities had the advantage in making these changes with minimum difficulty (Rashid, & Ratten, 2021). Successful crisis management in SMEs is associated with directly unobservable owner and organizational factors which are deep-rooted in dynamic capabilities (Pangerl, 2013). However, the role of dynamic capabilities for survival of SMEs in turbulent situations and crisis environment remains unanswered (Mansour, Holmes, Butler, & Ananthram, 2019).

Teece et al. (1997) argued that organizations rely on dynamic capabilities to build competitive advantage in regimes of rapid change. Teece et al. (1997, p516) define dynamic capabilities as "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments". Zahra et al. (2006) define as dynamic capabilities as "the abilities to re-configure a firm's resources and routines in the manner envisioned and deemed appropriate by its principal decisionmaker".

Teece (2007) argues that ambidexterity is a key dynamic capability. Ambidexterity is pursual of both exploration and exploitative capabilities. March (1991) in his seminal article presented the concepts of exploration capability (ability to innovate) and exploitative capability

(taking maximum use of existing knowledge and assets). Iborra, Safón, and Dolz, (2020) explain that SMEs attain resilience, by efficiently responding to the dynamic environments by developing ambidexterity and strategic consistency.

So, there is ample evidence to hypothesize that dynamic capabilities influence SME resilience and recovery.

H1: Dynamic capabilities influence resilience and recovery of SMEs

Social capital is defined as “*naturally occurring relationships to promote or aid the development of valued skills or characteristics*” (Loury, 1979, p248). In dynamic markets and turbulent times, there will be lot of uncertainty about customer characteristics, target markets, competitor behavior, macro-economic conditions etc. In such situations, where the external resources are rare and difficult to be received, entrepreneurs give up long term strategic planning and shift their focus to maximizing the use of internal resources such as knowledge and social networks for survival (Kalinic, Sarasvathy & Forza, 2014). Social networks support to accumulation the knowledge required to be proactive in crisis and to survive in crisis where other SMEs with less networking capacity need to rely on time consuming experimental knowledge.

Extant literature highlights the importance of social networking (social capital) for SMEs (Pinho & Prange, 2015). The social capital plays a key role in acquiring business

resources such as hiring competent employees, introduction of customers and suppliers, obtaining of intellectual resources and finance. Social networks both formal and informal are likely to amplify the effects of human capital (i.e knowledge, experience etc.). According to scholars, networks contribute to indirect learning in organizations (Apaydin, Thornberry & Sidani, 2020). Social networks facilitate SMEs to receive valuable information from sources of information quicker than their counterparts in crisis situation (Al-Omouh, Simón-Moya, & Sendra-García, 2020). Past studies recognized that formal and informal networks provide a buffer for small businesses in the face of crisis. These networks also offer opportunities for increased mobilization of knowledge, dissemination of innovative activities, which in turn increase the resilience of SMEs (Saad, Hagelaar, Velde & Omta, 2021).

So, the second hypothesis can be formed as follow.

H2: Social capital influence resilience and recovery of SMEs

Sharma and Rautela (2021) note that digitalization was considered as the main strategy in Covid-19 crisis for SMEs in India. In the past decades, SMEs have witnessed a drastic change in the technological environment, but few SMEs embraced digitalization to reach out to larger consumer groups (Perera, Mudalige, & Liyanage, 2011). In times of social distancing and quarantine due to Covid-19, such digitalization was mandatory and those who were ready and capable for a quick digital transformation grabbed

the advantage (Bloombergquint.com, 2020). With the arrival of the COVID-19 pandemic, SMEs, specially, those operating globally, acknowledged the significance of digital transformation and implementing digital knowledge management (Valk & Planojevic, 2021).

However, for some SMEs where consumption of the product (mainly services such as hotel stay) is restricted to the physical place, the digitalization of value opposition is harder. Clearly, they are the hardest hit in covid-19. Even them, need to make structural changes and adapt quickly to the new reality for their mere survival. For example, many hotels in down south of Sri Lanka, adopted booking engines, online payment gateways, digital inventory management systems, use of crowdfunding, partnering with OTAs such as booking.com and Agoda and use of social media for marketing (GoodlifeX, 2022). All SMEs need to think about how to address consumer needs in new digital ways and how to shift to digital work processes. Digital capabilities are at the heart of such efforts (Kronblad & Pregmark, 2021).

So, the third hypothesis can be formed as follow.

H3: Digitalization capabilities influence resilience and recovery of SMEs

3. METHODOLOGY

This study is explanatory in nature and quantitative research approach was adopted where primary data were collected using survey questionnaires. Survey questionnaire was developed based on measures used in previous

studies. Dynamic Capabilities, Social Capital and Digital Capabilities were the independent variable and Resilience, and Recovery of SMEs was the dependent variable.

Figure 01 shows the conceptual framework of the study.

3.1 Population and Sample

Population of the study is all SMEs in Western Province, Sri Lanka. The sampling frame used for this study is the yearly registration lists maintained by the Provincial Department of Business Names Registration, Western Province. A simple random sampling method was adopted in selecting the respondent from the sample frame. 100 business organizations were randomly selected from business registrations within the time period 2015-2020. Then the criteria of maximum 250 employees were tested in the questionnaire. But no organization was disqualified based on that criterion. For this research, due to its limitations, the desired sample size was 100.

3.2 Questionnaire Development and Data Collection

A structured non-disguised questionnaire was developed to test the conceptual framework. All structured questions were measured on a five (5) point Likert scale similar to the original scale.

Ates and Bititci (2011) defined SME resilience as “the capacity of SMEs to survive, adapt and grow in the face of turbulent change and crisis”. As per Rahman, Yaacob, & Radzi (2016), SME survival refers to the year of business operation, availability of

future plans and diversity of products range. It can be seen that SME survival/recovery has been measured using different scales as a single factor in addition to considering recovery as a single stage of a four- or three-stage process of resilience. Measurement of firm survival (for this research it was assumed survival represents resilience) and recovery was done using perceptual constructs developed by Naidoo (2010). These scales are subjective measures (perceptual constructs) and they were chosen over objective measures (financial data) given the lack of financial data and the resistance of owners to reveal actual values in SMEs. The interest of research is also in the perception of the owner of SME about survival/recovery of his/her firm in future not the actual data.

Literature indicates many different conceptualizations and scales to measure dynamic capabilities. This is usually in the initial period of a concept development. Most of these scales follow the operationalization of Teece et al. (1997) (Lin & Wu, 2014) or Teece (2007). Different scales adopt different number of dimensions of dynamic capabilities. This research used three dimensions dynamic capability scale (i.e. sensing, learning and transforming dimensions) suggested by Lin & Wu (2013).

A majority social capital scales measure the strength and extent of formal and informal networks such as business partners (suppliers, customers and distributors) and personal acquaintances. This research used the social capital measurement

scale developed, validated and tested by Che Senik et al. (2011).

Table 1 summarizes the variables and scales used for measurement.

Although the scales are selected based on a priori basis, before the actual distribution of questionnaires, a pilot study was conducted to determine the understanding of the items. Ten (10) SME owners were selected based on convenience basis for this pilot study. This was to ensure that the items in the questionnaire will be understood by the targeted group. No major revisions to the questionnaire were done after pilot study.

A total of 100 survey questionnaires were distributed using both online and physical methods. Questionnaires prepared using the Google Forms facility were distributed through email. Some questionnaires were also physically presented to the entrepreneur/owner or the SME manager. Respondents were promised anonymity for themselves and their organization, together with a guarantee of the confidentiality of data they provided. The final response is a total of 76 observations (A response rate of 76%). The conceptual framework and its hypothesis were tested using SPSS and SMARTPLS.

4. RESULTS

4.1 Demographic Profile

There are 76 usable questionnaires from respondents for this study. The demographic characteristics were analyzed by descriptive statistics by computing percentage of each group. Please refer to Table 2.

Analysis of demographic characteristics indicates that male entrepreneurs outnumber the female entrepreneurs easily in Sri Lanka. The Majority of entrepreneurs/ SME managers are from 20-40 years range. Only about 5% of the respondents had a degree or above qualification level.

4.2 Reliability Test

Table 3 summarizes the reliability test of all measures after factor analysis has been done (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). As shown, the Cronbach alphas of the measures were all comfortably above the lower limit of acceptability is $\alpha \geq .7$.

The histogram plots were scrutinized, and they indicate that although the data is not normal, there is no serious violation of the assumption of normal distribution.

Multicollinearity was tested for IVs by observing VIF values for all IVs as seen in Table 4. All VIF values are less than 5 and close to 1.

4.3 Analysis of Data Using PLS-SEM (SMARTPLS)

Minimum factor component loadings of 0.50 or higher are normally considered significant for outer measurement model. All the indicators of the outer measurement model of this research fulfilled this criterion of a minimum 0.5 (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014).

Fornell and Larcker (1981) stated that if the Average Variance Extracted (AVE) is greater than 0.5 that is a necessary and sufficient condition for convergent validity of the instrument.

All AVEs are above 0.5 for the constructs.

The number of bootstrap samples was set to 500 to run the SMART PLS program. Table 5 summarizes the findings.

R^2 is also called the coefficient of determination because it assesses the proportion (which is converted to percentage by multiplying by 100) of the variance of the endogenous construct that can be explained by its predictor constructs (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). Falk and Miller (1992) suggest 0.10 as a threshold to identify a minimum level of prediction that can be practical significance.

Dynamic capabilities, social capital and digital capabilities account for 29% of the variance of resilience and recovery of SMEs. This is a substantial significance in explaining the dependent variable.

5. DISCUSSION

There is a call for more comparative research on SMEs and crisis management (Alonso et al., 2021). Little resilience research has focused upon the context of SMEs in developing countries Saad et al., 2021).

The Results of this research indicate that digital capabilities have a substantial role in building resilience of SMEs. SMEs in Sri Lanka must be encouraged and supported to develop digital capabilities. Developing the digital capabilities of future entrepreneurs through a formal education system must be done as soon as possible. SMEs must embrace

digital technologies to enable major business improvements such as enhancing customer experience, streamlining operations and creating new business models or they will face annihilation (Fitzgerald et al., 2014). Many SMEs in developed countries use AI to identify what is trending among customers that support the organizations to customize their product offerings. For example, many retail organizations in South Korea allow persons to scan the codes of virtual groceries whilst waiting at train stations. The purchased items are delivered to the purchaser's homes even before they go home. This digital offering boosted the Tesco's online sales. Such digital innovations greatly supported SMEs in developed region to overcome disadvantages in crisis situation.

This research highlights the importance of social networks in managing crisis situation for SME sector. In the light of above, investments in programs that would develop domestic and international networks of SMEs would be beneficial in the long run. These programs can vary from symposiums, workshops, funded-foreign visits, trade fairs to facilitation of informal encounters between entrepreneurs. Improved informal networks can develop the confidence of international buyers and suppliers in order to overcome negative country of origin perception which is hindering the SME export sector amid a crisis (Francicevic & Bartlett, 2001). Given the owner centric nature of SMEs, development of personal networks may be the first step and the benefits of informal acquaintances would gradually flow to

organizational level. Facilitation of industry clusters may be more useful in crisis time as SMEs become vulnerable and the confidence of suppliers/customers on individual SME may dwindle. Clusters can provide that additional guarantee and confidence for sustained business as the risk of partnering with a single SME will be reduced.

Another suggestion for SMEs is to divest from unnecessarily diversified businesses as soon as possible. A substantial percentage of SMEs indicated that they are engaged in more than one core business. During COVID-19 managing a too-diversified portfolio seem to be disadvantageous as every strategic business unit needed special attention in crisis transitions (e.g moving to online platform from brick and motor type, layoffs to reduce cost etc.). Managing a diversified portfolio will make it more complex and difficult for an SME with entrepreneur centric decision-making style. Even MNCs followed divesting strategies from 1990s. Coca Cola divested from wine, movie and bottled water business and United Airlines divested from hotel business (Hilton) and car rental business (Hertz). With COVID-19 crisis, fundamental changes and new challenges take place in many aspects of business including customer behavior, liquidity challenges, global supply chain management and digitalization (Accenture, 2022). Flagship products and brands need to be protected while divesting from other business to make sure such changes and challenges can be given adequate attention.

As per the limitations, the research sample is comparatively small because the timing of the research was sample should be done with caution. With the gradual return to normalcy and lifting of restrictions, future studies could seek a larger sample of SMEs. Factors such as entrepreneurial self-efficacy (i.e. self-confidence of entrepreneur about his/her own skills and knowledge) and entrepreneurial bricolage (i.e. ability to use resources in a novel way in a resource scarce condition) are also linked to SME survival recently (Alonso et al., 2020). Future studies may take these into considerations and improve the conceptual model. Longitudinal studies which investigate how SMEs develop dynamic capabilities, social capital and digital capabilities (and of course, the other relevant factors) will become useful in policy planning aimed at developing resilience of SMEs. However, such studies demand a long duration and research effort.

6. CONCLUSION

The question why some SMEs failed to withstand the COVID-19 crisis whereas some Sri Lankan SMEs survived remains unanswered. It demonstrated very clearly how frail the economy of Sri Lanka is and raised doubts about the resilience of Sri Lankan businesses. This research investigated the factors affecting resilience of SMEs in Sri Lanka. This research used a conceptual framework comprising of Dynamic Capabilities, Social Capital and Digital Capabilities to analyze the antecedents of resilience of SMEs in Sri Lanka. A randomly selected sample of 76 SMEs in Sri Lanka was analyzed using

very challenging. Therefore, generalizability of the findings derived from this comparatively small

Partial Least Squares Structured Equation Modelling (PLS-SEM) method. Results indicate Dynamic Capabilities, Social Capital and Digital Capabilities have a significant positive influence on SME resilience. Dynamic Capabilities, Social Capital and Digital Capabilities together explained 29% of the variance in resilience of SMEs. This research is in line with past studies on SME recovery in a crisis such as Ates and Bititci (2011) and Alonso et al., 2021. Development of knowledge has become critical in order to understand how endured SMEs adapted, managed the crisis, built resilience and ultimately how they recovered from crisis. Such knowledge will become invaluable in future crisis situations to protect SMEs of Sri Lanka.

APPENDIX

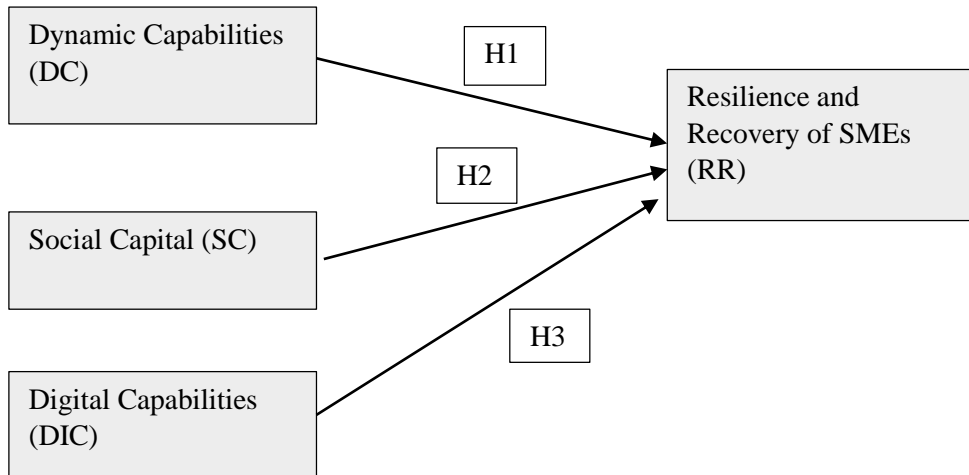


Figure 1. Conceptual Framework of the Research

Table 1: Scales of Measurement

Variable	Scale of Measurement
Dynamic Capabilities	Lin & Wu (2013)
Social Capital	Che Senik et al. (2011).
Digital Capabilities	Naidoo (2010)
SME Resilience	Naidoo (2010)

Table 2: Demographic characteristics

Variable		Percentage (%)
Gender	Male	82
	Female	18
Education Level	Passed A/L	87
	Have done a Vocational Qualification	7
	Have a Degree or Postgraduate	5
Age	20-26 years	16
	27-33 years	24
	34-40 years	36
	More than 40 years	24

Table 3: Reliability Coefficients for Variables in the Study

Variables	Reliability
Dependent Variable (DV)	
• Resilience and Recovery of SMEs	.872
Independent Variables (IV)	
• Dynamic Capabilities (DC)	0.711
• Social Capital (SC)	0.689
• Digital Capabilities (DIC)	0.705

Table 4: Collinearity Statistics (VIF)

Collinearity Statistics	
Construct	VIF
DC	1.506
SC	1.741
DIC	1.908

Table 5: Summary of structural model testing

Hypothesis	Path	Path Coefficient	Standard Error	t statistics	Significance
H1	DC>RR	0.4150	0.0563	7.718	Significant
H2	SC>RR	0.4210	0.0871	4.465	Significant
H3	DIC>RR	0.4350	0.0523	7.528	Significant

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Impact of Emotional Intelligence on Career Decision-Making of Management Undergraduates

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Abstract

Management undergraduates in Sri Lankan state universities have been facing huge challenges in making decisions related to their career. Hence, this article examines the impact of five dimensions of Emotional Intelligence (self-awareness, self-regulation, motivation, empathy, and social skills) on Career Decision-making. Data were collected from 280 management undergraduates of state universities in Sri Lanka. Simple regression analysis and Pearson correlation were used to test the study hypotheses. Analyzed results showed a positive impact of emotional intelligence on career decision-making. Further, the five dimensions of emotional intelligence had a strong positive relationship with career decision-making. The study results underlined that undergraduates could improve their career decision-making through their emotional intelligence. The present study would provide direction to HR managers, HR policy makers, career counselors, undergraduates and future researchers. The implications of the results and limitations of the study are also noted.

Keywords: Career Decision-making, Emotional Intelligence, Management Undergraduates

1. INTRODUCTION

Individuals pay more attention to the development of their careers which will lead to a fulfilling life. Indeed, many people build careers based on their views and the meaning of life (Hamzah et al., 2021). Emerging adults such as undergraduates have faced a lot of significant career-related decisions. As an example, they have to decide on post-secondary plans, career choices and securing employment (Prescod et al., 2019). Emotional intelligence is the capacity for a person to notice, comprehend, produce and control

emotions that foster both emotional and intellectual development (Kim et al., 2012). As stated by Kim, et al., (2012). Individuals with higher levels of emotional intelligence are better able to recognize and control their own emotions as well as those of others by developing their personal and social skills. Therefore, emotional intelligence is directly addressed to the individual's professional success (Mayer et al., 2000).

As stated by Goleman (1998), Emotional intelligence is the

capacity to recognize our feelings and the feelings of others. And they were motivating and managing emotions in ourselves and our relationships.

Emotional intelligence is recognized as to people's self-perceptions of their expressive abilities and skills, characteristics of personality and behavioral dispositions that influence their ability to manage successfully environmental demands and pressures (Platsidou and Salman, 2012). According to Platsidou & Salman (2012), emotional intelligence is related to better adjustment of success in an academic setting and career setting.

It has been identified in previous studies that most employees and undergraduates failed to make proper decisions about their careers (Caruso & Wolfe, 2001; Kariyawasam & Welmilla, 2020; Makuloluwa, 2015; Saranapala & Devadas, 2020; Suleman et al., 2019). Many young generations seeking employment could be avoided or postpone job searches or make the wrong decision (Mittal, 2020). Sri Lanka's education system provides less attention to emotional intelligence. Due to that reason, some undergraduates or even employees failed to manage their emotions and understand themselves. When they enter the workplace, they fail to manage their emotions and do their relative work properly. Therefore, the researcher can see a high unemployment rate in the graduates.

Emotional intelligence has mainly three models named performance model by Daniel Goleman, competencies model by Bar-on, and ability model by Mayer & Salovey. The model introduced by Goleman (1995) emphasizes emotional intelligence, a good set of skills and abilities that promote leadership performance. He presented five components which are the main competencies of emotional intelligence: self-awareness, self-regulation, self-motivation, empathy, and social skills. The ability-based model created by Mayer & Salovey has been the subject of most past studies among these three models. Researchers found this as a lack of theoretical knowledge gap. Past studies primarily have focused on self-efficacy (Hamzah et al., 2021; Ruschoff et al., 2018), Career commitment (Brown et al., 2003), Career planning courses (Freeman et al., 2017; Prescod et al., 2019), but ignored the impact of emotional intelligence on the career decision-making. There is a research gap in the Sri Lanka context in management faculty undergraduates, but there is some research on medicine undergraduates regarding Emotional Intelligence (Wijekoon et al., 2017). Most previous research was conducted based on other emotional intelligence models like ability and competencies models. Therefore, through this research, the researcher can contribute knowledge about the impact of emotional intelligence on career decision-making using

Goleman's model. Furthermore, the government can test candidates' EI scores in the government exams and then people with high emotional intelligence improve their work capacity and potential. And also, they can understand others easily. Because of that reason, it helps to reduce the ineffectiveness and inefficiency of government sector organizations. Most private sector organizations recruit new candidates by interview. In the interview, testing IQ is the most famous method. But having a high IQ score isn't enough for working in the competitive world. Candidates should have emotional intelligence also. Without emotional intelligence, they cannot adapt to the career environment and can impact anxiety and indecisiveness in facets of career development. Therefore, every organization has to test Emotional Intelligence. Due to the results of the EI test, employers can quickly identify a candidate's personality suits the relevant job or not. It is of huge importance for both organization and its employees.

The current study initiated by, 'What is the impact of Emotional Intelligence on career decision-making of management undergraduates. Past studies have focused on the impact of the emotional intelligence of undergraduates in different contexts. The researcher investigates how emotional intelligence impacts career decision-making in this current study. More specially, the objective of this study is to assess the impact of emotional intelligence

on the career decision-making of management undergraduates.

1. LITERATURE REVIEW

1.1. Career

A career can be defined in a variety of ways, and the phrase is used in a variety of contexts. According to Supper, as cited in Saranapala & Devadas (2020) a person's career is a collection of roles that they play during their lifetime of an individual. He characterized this role as a kid, student, citizen, worker, homemaker, husband, parent, pensioner and others. Baruch and Rosenstein (1992) developed the modern definition of a career as 'a development process along a path of work experience and employment in one or more organizations. According to their definition career should include experience in a relevant field and also want experience in different organizations. Therefore, in the modern era, many people as well as many organizations are concerned about the career path of themselves and their employees.

1.2. Career Decision Making (CDM)

Young adults' career choices have a substantial impact on their lifestyles and levels of personal and occupational fulfillment (Amir & Gati, 2006). Selecting a career among various careers is one of the most difficult decisions in one's life. Every person has different alternatives for careers. Although getting a decision about a career is a complex task, some people make

their decisions fairly easily, with no apparent difficulties. However, the majority of people encounter a variety of challenges before or during the decision-making process (Amir & Gati, 2006; Gati et al., 1996; J. D. Hess & Bacigalupo, 2011). Career choices have a long-term effect on an individual's career satisfaction (Gati, Gadassi, & Shemesh, 2006), well-being (Creed, Prideaux, & Patton, 2005), and level of living, (Sabates, Gutman, & Schoon, 2017).

The researchers named Gati, Krausz and Osipow (1996), designed a framework of individual experience when they make career decisions. That framework is named Career Decision-Making Difficulties (CDM). Concurring to this CDM system, there are three common sorts of troubles that happen to an individual when he/she makes career choices which begin from a lack of readiness, lack of information and inconsistent information. According to Gati, Amir, and Landman (2010), difficulties caused by external cognitive causes are typically more tangible and can benefit from a well-defined treatment (e.g., providing relevant information), whereas difficulties caused by internal emotional causes are more difficult to depict and thus require a different approach. Valach, Young, and Lynam (1996) suggest that emotional awareness is critical when choosing career choices for three reasons: (a) emotions motivate actions, (b) emotions modify actions and (c) emotions aid in the creation

of career narratives. Emotions are therefore critical to the career decision-making process, and as a result, the concept of emotional intelligence (EI) has developed as a critical variable within the literature on career decision-making. (Brown, George-Curran, and Smith, 2003; puffer, 2011; Di Fabio & Kenny, 2011; Di Fabio, 2012; Di Fabio, Palazzeschi, & Bar-On, 2012).

1.3. Models of Career Decision Making

According to Gati (2013); Gati & Tal (2008); Jepsen & Dilley (1974); Mitchell & Krumboltz, (1984) get an understanding of how the decision-making process prepares data and making a choice, models for understanding the method of career decision-making have been created. Normative, descriptive/behavioral, and prescriptive career decision-making strategies have been identified.

The normative model of decision-making is aimed at establishing procedures for making alternative decisions. According to Gati & Tal (2008), an individual should decide their career options based on maximum returns. As they predicated on the assumption that when it comes to making decisions, individuals are fully reasonable. Thus, these kinds of models presume that people have all the information they need to make a decision, that they can consider all potential consequences of the decision, can assess the value of each alternative and that they can merge these values into a combined

variable. Normative models work by comparing each potential arrangement to a set of two criteria. The primary is the arbitrary use of the results associated with each elective. The second variable is the estimated likelihood that a particular course of action will produce a particular outcome (Brown, 1990).

Descriptive decision-making model, a second type of decision theory-based model is investigates the ways people actually make decisions, and the gaps between the ideal, normative decision-making procedure and actual decision-making processes in real-life situations. According to Gati & Tal (2008) descriptive models are also commonly referred to as behavioral models. These models are frequently built on good-enough principles rather than ideal ones. Instead, than focusing on how individuals should make judgments, these models were built to describe how people make decisions. Individuals can use a variety of ways to make good judgments using descriptive decision-making models. Satisficing, quasi-satisficing, and incrementalism are examples of these tactics.

The purpose of the prescriptive decision-making model is to provide a framework for a methodical approach to making better decisions while acknowledging human rationality's limitations (Gati & Tal, 2008; Janis & Mann, 1977). Prescriptive models combine the benefits of normative and descriptive models while

minimizing the limitations of each. The Sequential Elimination Model (SEM) and the Prescreening In-depth Exploration of Choice (PIC) Model are two popular prescriptive decision-making frameworks. This model was proposed to show the practical value of making decision-making easier (Gati & Asher, 2001; Gati & Tal, 2008)

Although normative decision-making models explain techniques for optimal decision-making, they have been found to be inapplicable due to incomplete knowledge and limited cognitive resources of humans dealing with decision circumstances, as discussed above. Descriptive models, on the other hand, focus on understanding how people actually make decisions, revealing biases, inconsistencies, and limited rationality, resulting in less-than-optimal decisions. Prescriptive decision models combine the benefits of normative and descriptive decision models while avoiding or eliminating their drawbacks. They are intended to lay out a framework for making better decisions while taking into account human limitations and conforming to how people make decisions intuitively.

1.4. Career Decision-Making Process

Making a career decision is a complicated process, and some young teenagers may face challenges that prevent them from making a decision or cause them to choose a less-than-optimal selection (Saka et al., 2008). Hence, there are

six tasks taken in the career decision-making process; orientation to choose, Self-exploratory behavior, Broad exploratory behavior of the environment, In-depth exploratory behavior of the environment, decisional status and commitment (Gati & Asher, 2001). These decision-making tasks are not always considered to be sequential stages in a sequential decision-making process. Making a career decision is viewed as a dynamic and exciting process. Each of these decisional duties is expected to have an impact on the choice's implementation (Gati & Asher, 2001).

1.5. Emotional Intelligence

One's life is significantly impacted by emotions. The ability to motivate oneself, identify one's own feelings and those of others, and effectively manage one's own and other people's emotions is known as emotional intelligence. It is the capacity to keep track of one's own and other people's feelings and emotions, to distinguish between them, and to utilize this knowledge to inform one's decisions and behavior (Cherniss et al., 1998).

Emotion is linked to one's purpose, goals, plans, and wants, according to the author. As a result, they provided three explanations for the significance of emotion in describing and comprehending career development: a) Emotion energizes and inspires action. Given that some career acts are viewed as bothersome, challenging, or boring,

one needs to be motivated by emotion to start and keep up those efforts. b) Emotion directs and regulates behavior. That is, people make decisions regarding their activities based on their internal processes. c) Emotions have the ability to access, orient, and build career narratives. Emotion is used in the construction and development of career narratives since career is created from topics of concern in one's life (Brown et al., 2003).

1.6. Models of Emotional Intelligence

Emotional intelligence, according to Bar-On (2006), is a crucial factor in people's ability to be successful in life and is linked to spiritual well-being. According to Goleman, emotional intelligence is a type of intelligence that entails an awareness of one's emotions and applying that knowledge to appropriate decision-making in life. There is a link between emotional intelligence and career success (Akhtar et al., 2014) and emotional intelligence is a crucial criterion for success in personal relationships and family life (Salovey & Mayer, 1990). According to the Côté & Miners, (2006) in the corporate world, a high level of EI is linked to better connections.

There are 03 main models for emotional intelligence developed by Salovey and Mayer, Bar-On & Goleman.

The concept of emotional intelligence by Mayer and Salovey is based on an intelligence model

and makes an effort to define emotional intelligence within the confines of traditional specifications for a new intelligence. It asserts that emotional intelligence may be broken down into two types: experiential (the capacity to notice, react to, and control emotional information without necessarily understanding it) and strategic (the ability to understand and manage emotions without necessarily experiencing them fully). Each of these areas is further subdivided into two branches, ranging from basic psychological processes to more complicated processes involving emotion and cognition. The ability to be self-aware of emotions and to appropriately express feelings and emotional needs to others is the first branch, emotional perception. The ability to discriminate between honest and dishonest emotional displays is also part of emotional perception. The ability to discern between the various emotions one is experiencing and identify those that are impacting one's mental processes is the second branch, emotional absorption.

Bar-On's model of emotional intelligence is process-oriented rather than outcome-oriented, and it focuses on the potential for performance and success rather than the performance or success itself (Bar-On & Parker, 2000). It focuses on a variety of emotional and social abilities, such as the ability to recognize, understand, and express oneself, the ability to recognize, understand, and relate to others, the ability to cope with strong emotions,

and the ability to adapt to change and solve social or personal problems. Bar-On's approach divides emotional intelligence into five categories: intrapersonal, interpersonal, adaptability, stress management, and general mood.

Daniel Goleman, a psychologist and scientific journalist who previously covered brain and behavior research for the New York Times, discovered Salovey and Mayer's work in the 1990s. Inspired by their discoveries, he conducted his own research in the field, eventually writing *Emotional Intelligence* (1995), a seminal work that introduced the concept of emotional intelligence to both the public and private sectors. Five basic emotional intelligence constructs are outlined in Goleman's concept. The first, self-awareness is the ability to detect, trace, label an emotion as it occurs. Self-regulation, the second construct, involves the ability to keep emotions under check and manage disturbing emotions effectively. The third construct, self-motivation is the ability to remain hopeful and optimistic despite setbacks and failures. The fourth construct is empathy which is the ability to understand the emotional makeup of other people and get the true feel of their thought processes. And the fifth construct is social skills, which is proficiency in managing the relationship and building rapport and networks (Goleman, 1995).

Within each construct of emotional intelligence, Goleman includes a set of emotional competencies.

Emotional skills are learned capabilities that must be worked on and developed in order to reach exceptional performance. Individuals are born with general emotional intelligence, according to Goleman, which determines their ability to gain emotional competencies. The competencies under the various constructs are not randomly organized; they emerge in synergistic clusters or groups that assist and help one another (Boyatzis et al., 1999).

Figure 1: Illustrates Goleman's Conceptual Model of Emotional Intelligence

1.7. Variables of The Goleman's Emotional Intelligence Model

Understanding one's feelings, abilities, constraints, wants, and motives in great detail is self-awareness (also known as emotional awareness). High self-awareness individuals are neither extremely pessimistic nor overly pessimistic. Rather, they are straightforward with themselves and others. People with a high level of self-awareness are aware of how their emotions affect them, others, and their work performance (Goleman, 1995). According to Goleman (2000), under self-awareness following aspects also has been highlighted: Emotional self-awareness, Accurate self-awareness & Self-confidence.

Biological impulses are in charge of controlling our emotions. Although we won't be able to entirely get rid of them, there are many things we

can handle. Self-Regulation is the element of emotional intelligence that releases us from being prisoners of our emotions (self-regulation), which is similar to a continual inner conversation (Goleman, 2000). Further, Goleman highlighted the following related to Self-Regulation: Self-control, Trustworthiness, Conscientiousness, Adaptability, Achievement orientation & Initiative.

Self-motivation is the capacity to carry out tasks without being influenced by other people or external factors. Self-motivated people may find a reason and the strength to complete a goal, even in the face of adversity, without giving up or relying on others for encouragement (Mehta & Singh, 2013).

Empathy is the ability to sense, interpret, and respond to others' emotions while also feeling at ease in social situations. It entails understanding others' sentiments, thought patterns, perspectives, accomplishments, facial expressions, and other nonverbal signals. Individuals' interpersonal connections benefit greatly from a social understanding of emotions (Mehta & Singh, 2013).

Social skills are the ability to speak, persuade, and interact with other members of society without causing undue friction or discord. It refers to one's ability to convey both positive and negative emotions in a social setting. Social skills include the capacity to persuade others and the

ability to create a welcoming atmosphere in the workplace. It also emphasizes dealing tactfully with tough people and distressing situations (Mehta & Singh, 2013).

1.8. Relationship with Career Decision-Making and Emotional Intelligence

While a large portion of the literature on emotional intelligence has focused on its theoretical underpinnings, there is a significant gap in how these abilities can actually be used in career decision-making. If emotional intelligence is believed to bring value to the individual and/or group career decision-making process, the question then becomes how can it be actually implemented to reach the desired result. Problems that are challenging to solve and, in some cases, have unfavorable effects on some constituencies even after they have been determined to be solved commonly present themselves to those who make career decisions. As a result, thinking about how decisions affect others should be a key part of the decision-making process. While understanding "who" will be impacted by decisions may be a more pragmatic function requiring logic, determining "how" the decision will be interpreted and its impact on others requires emotional intelligence skills (Hess & Bacigalupo, 2013). According to Goleman (2001) and Boyatzis et al. (2000), emotional intelligence skills in career decision-making can be divided into two categories: those that are more about the individual,

such as self-awareness, self-regulation & self-motivation and those that are more about the individual's relationship and interaction with others, such as empathy & social skills.

Lerner & Tiedens (2006), stated the effects of residual anger on decision-making were studied, and it was discovered that decision-makers who were held accountable for their decisions were better at regulating their anger. Controlling the need to make each decision on its own can sometimes conflict with the need to demonstrate initiative and accomplishment. Additionally, in order to have moral authority over a matter, decision-makers must first earn the respect of those who will be impacted by their decision. Through a process of transparency and honesty in both communications and relationships, trust is earned over time. If decision-makers see persons affected by decisions as customers who may be retained or lost, they are more inclined to think about the outcomes and ramifications of those actions (Miller, 2009). As a result, decisions that are based on service results, such as customer happiness and retention, are more likely to be understood and justified inside the business. Finally, understanding the culture of the organization will assist decision-makers to make more rational decisions, as well as the methods by which they are made.

While most people would like to assume that the decision to make a change is made through a logical, rational process, this is not always

the case. Regardless of the original aim of the change, the execution of many desired improvements is laden with potential conflict. The ability to manage disagreement is critical to both the process and the outcome of decisions, requiring decision-makers to use emotional intelligence while seeking to guide essential changes.

2. METHODOLOGY

This research is designed to investigate the impact of emotional intelligence on the career decision-making of management undergraduates. Therefore, emotional intelligence can be identified as the independent variable. The independent variable affects the dependent variable negatively or positively (Sekaran & Bougie, 2016). For this research study, career decision-making can be identified as the dependent variable. The researcher's main objective is to understand and describe the dependent variable (Sekaran & Bougie, 2016).

Previous scholars have recognized five dimensions that include emotional intelligence. It includes self-awareness, Self-regulation, motivation, empathy, and social skills. Figure 2 shows the current model, which explains the determinants identified from the literature as independent variables. According to the model, identified determinants are taken as the dependent variables while career decision-making is taken as the problem variable of the study. Figure 2 depicts the variables and

the associations between such variables identified in the current study.

As given in the conceptual framework, career decision-making is considered the dependent variable whereas emotional intelligence; self-awareness, self-regulation, motivation, empathy, and social skills are considered the independent variable.

Several scholars such as Shiri et al. (2013), Fabio et al. (2011) emphasized that there is a significant correlation between emotional intelligence and career decision-making. According to the theoretical and empirical evidence, the following hypotheses advanced in order to realize the research objectives and to draw conclusions of the study. H1 : There is a significant impact between emotional intelligence and career decision making H2 : There is a significant relationship between self-awareness and career decision making H3 : There is a significant relationship between self-regulation and career decision-making H4 : There is a significant relationship between motivation and career decision making H5 : There is a significant relationship between empathy and career decision making H6 : There is a significant relationship between social skills and career decision making.

2.1. Measures

2.1.1. Measurement scale for career decision making

The career decision difficulties questionnaire (CDDQ) scale developed by Fabio et al. (2011) used to measure career decision-making among Italian high school students. The items of the scale represent three dimensions – lack of readiness. Lack of information and inconsistent information. CDDQ scale is composed of 09 items with responses on a 5-point Likert-type scale that consists as, 1-strongly disagree, 2-disagree, 3-neutral, 4-agree and 5- strongly agree. Sample items for each of the dimensions are “I know that I have to choose a career, but I don’t have the motivation to make the decision now”, “ I find it difficult to make a career decision because I don’t know how to combine the information I have about myself & about the different careers” and “I find it difficult to make a career decision because people who are important to me (such as family or friends) do not agree with the career options I am considering”(di Fabio & Kenny, 2011).

3.1.2. Measurement scales for emotional intelligence

Literature provides sample of instruments to measure the concept and impact of emotional intelligence by self-assessment emotional intelligence questionnaire by Daniel Goleman (1995), the scale consists of 25 items and uses a five-point Likert scale that consists of 1-never, 2-rarely, 3-sometimes, 4- often and 5-always.

2.2. Participants and Procedures

The population of the current study includes all the undergraduates of the Faculty of Commerce and Management studies of state universities in Sri Lanka. As of 2020, the total number of Management undergraduates affiliated to the above-mentioned 15 faculties was 23,276 (University Statistics-UGC,2020). As the total number of elements in the population is known to the current researcher, the most appropriate method is to refer to the Mogan table to determine the sample size of the current study. According to the Mogan table, the sample size would be 377, under the confidence interval of 95%. The researcher calculated the random number by dividing the population total by the sample total ($23276 \div 377$) and received it as 62. Accordingly, adopting the simple random sampling technique, the researcher distributed the questionnaire to every 62nd respondent (undergraduate) as listed in the attendance sheets collected from each university. Primary data was collected through a questionnaire survey with close-ended questions. Data was collected by occupying a self-administered, pre-tested, standard questionnaire that has met the accepted standard of validity and reliability. The used questionnaire was distributed among the sample as a google sheet, in the English language. The reliability and validity of the data were tested, and the descriptive statistic test was conducted to analyze sample composition. Furthermore,

regression analysis was conducted to analyze emotional intelligence's impact on career decision making and one-way ANOVA was used to analyze emotional intelligence impact on career decision-making.

3. DATA ANALYSIS AND RESULTS

Out of the 377 questionnaires distributed, 280 respondents returned the filled questionnaires. Therefore 280 fully completed responses (74.27%) were entered into SPSS and checked for missing values and outliers. The effective rate of response after discarding ineligible responses from the sample (Saunders, Lewis & Thornhill, 2011) was 74.27%. Hence, the final sample of the current study consisted of 280 observations. The composition of the study sample is depicted in table 01.

3.1. Reliability Statistics

To ensure the reliability of the measurement scales of the present study, Cronbach's Alpha coefficient was used. As per table 2, Cronbach's Alpha values of all variable's dimensions are greater than 0.5 which is the threshold value and including that the multi-item scales are reliable. The Cronbach's Alpha value of Career Decision Making is 0.828 and Emotional Intelligence is 0.905.

3.2. Validity Statistics

Saunders et al. (2009) defined content validity as the degree to which the measurement device of the research study provides adequate

coverage of the investigative questions. As per the validity statistics given in table 4.6, the cumulative percentage of the Extraction Sums of Squared Loading (ESS cum%) of two constructs are greater than 50%, and the item Factor Loading (FL) values are above the threshold limit of 0.5 (Hair et al., 2010). Hence, statistically, construct validity is ensured.

3.3. Descriptive Statistics

Descriptive statistics are presented in the form of means, median, standard deviations and variance. Further, it measured the skewness and the kurtosis of the data distribution. Descriptive statistics calculated for Career Decision Making and Emotional Intelligence and its variables. Table 4 has exhibited the distribution statistics.

3.4. Regression analysis

This section presents the hypothesis testing using simple regression analysis to test the hypothesis separately. According to Sekaran and Bougie (2016), in the current study simple regression was used to test the research model and develop the regression equation.

H1: There is a significant impact between emotional intelligence and career decision making

Table 5 depicted the R and R Square values of the computed research model. According to the model summary, R square is 0.863. It means 86.3% of the variation in career decision-making is explained

by the fitted regression model. Accordingly, it can conclude that emotional intelligence has 86.3% impact on career decision-making. According to the coefficient table (Table 6) the standardized coefficient beta value indicates 0.929 and it shows the positive relationship between emotional intelligence and career decision-making is accepted because the value of 0.929, which is greater than 0.7. However, since the sig value is 0.000 which is less than the level of significance, the impact is significant and there is enough evidence to accept hypothesis H1.

3.5. Correlation analysis.

Correlation refers extent to which two variables are related to each other (Saunders et al., 2009). To determine the strength and direction of that linear relationship between two variables, the correlation coefficient can range in value from -1 to +1. Therefore, to determine whether the correlation coefficient between variables is significant or not, compare the p-value with the significant value. Typical significance levels in business research are 5% (<0.05) and 1% (<0.01) (Sekaran & Bougie, 2016, p. 301). Therefore, if the significant value is less than 0.01 then only that relationship is statistically accepted. Table 7, 8,9,10,11 depicts the correlation analysis of the present study.

H2: There is a significant relationship between self-awareness and career decision making

H3: There is a significant relationship between self-regulation and career decision making

H4: There is a significant relationship between motivation and career decision making

H5: There is a significant relationship between empathy and career decision making

H6: There is a significant relationship between social skills and career decision making

As the significant value 0.000 (2-tailed) is smaller the desired level of significance (0.05) at 95% confidential level, the found correlation coefficient for self-awareness, self-regulation, motivation, empathy & social skills 0.684, 0.923, 0.858, 0.861 & 0.691 was statistically accepted. Therefore, Results indicated that there is a positive relationship between self-awareness, self-regulation, motivation, empathy, social skills and career decision-making.

4. CONCLUSION

The main objective of this study was to examine the impact of emotional intelligence in the career decision-making of management undergraduates. This empirical study provides a contribution to Sri Lankan literature context by emphasizing on Goleman's theory of emotional intelligence toward career decision-making. In reviewing the empirical literature of emotional intelligence: Goleman's five dimension model, researcher

found that there very few past studies on emotional intelligence in Sri Lanka and other domains. Most of studies done by ability-based model(di Fabio & Blustein, 2010; di Fabio & Kenny, 2012; di Fabio & Saklofske, 2014; Emmerling & Cherniss, 2003; Hamzah et al., 2021; Puffer, 2011). However, there were few studies, that have emphatically investigated emotional intelligence in Goleman's five dimension model in a different context such as undergraduates in UK, USA and China. Italy Thus, the current research reviewed the concept of emotional intelligence on career decision-making in Management undergraduates in state universities in Sri Lanka. By drawing from a rich scholarly history on career decision-making, the current study examined some determinants which affected to career decision-making: lack of readiness, lack of information and inconsistency information.

According to Santos et al. (2018) individuals who are emotionally intelligence have a better understanding of their emotions and are more capable of making decisions regarding their future careers. Expression & experience of emotions can be used advantageously to accomplish career-related tasks(Brown et al., 2003) And many researchers found there is a significant relationship between emotional intelligence and career decision making and strong emotional intelligence could well promote progress in career development(Ellis & Ryan, 2005).

Furthermore, as previous research finds higher levels of career decision led to lower levels of difficulty, implying that university undergraduates who are confident in their ability to successfully complete certain tasks involved in making career decisions are less likely to face difficulties in doing so, such as gathering relevant information (Amir & Gati, 2006; Creed et al., 2004; Gati et al., 1996; Nota et al., 2007; Santos et al., 2018). According to Caruso & Wolfe (2001) The way a person controls his or her emotions, as well as the emotions of others, can have a big impact on job satisfaction and performance. In the literature on career development, the importance of emotional awareness and abilities in managing emotions is becoming more widely recognized(Brown et al., 2003; di Fabio & Blustein, 2010; di Fabio & Kenny, 2011, 2012; Emmerling & Cherniss, 2003a; Fabio Di, 2012). Interestingly, the findings contradict the previous study, which found no significant link between EI and the career decision-making (Di Fabio & Saklofske, 2014).

Based on the result of Regression Analysis, it showed that there is a strong positive impact between emotional intelligence and career decision-making. Moreover, the researcher was able to find a strongly positive relationship between self-awareness, self-regulation, motivation, empathy and social skills with career decision-making based on the results of Pearson Correlation analysis.

Finally the findings can conclude as undergraduates can improve their career decision-making through improving their emotional intelligence, self-awareness, self-regulation, motivation, empathy and social skills.

5. IMPLICATIONS

Apparently, the professionals are dealing with undergraduates in a range of settings, such as academic counseling and career counseling. The study's findings would be helpful for them in a wide spectrum. Professional counselors may be better equipped to address undergraduates' wants and concerns in career decision-making and provide more relevant job advice that may lead undergraduates to a more desirable career choice if they are motivated by self-awareness and emotional intelligence. The results of the present study offer a wide range of potential applications because emotional intelligence and professional decision-making are skills that can be taught and cultivated. Career counselors may be able to pinpoint weaknesses in undergraduates' emotional intelligence and ability to make career decisions through appropriate assessments and develop interventions that concentrate on both the knowledge and skills needed to develop these abilities as well as their confidence to act on these abilities with regard to career decision-making. Both emotional intelligence and career decision-making are necessary for professional advancement,

emotional intelligence and career decision-making are connected. The aspects that address both of these principles would need to be included in interventions. Some undergraduates, for example, may require assistance in developing their knowledge and skills in appraising and using their emotions, whereas others who already have adequate levels of emotional intelligence may require assistance in developing their self-confidence beliefs in order to use those emotional abilities. Self-regulation, expression of emotions, and the efficient use of emotions to motivate goal achievement and the creation of future professional goals and plans should be the focus of interventions to build emotional intelligence qualities that are fundamental to career decision-making. To develop career decision-making skills, one must concentrate on the foundations of self-appraisal, self-evaluation, goal selection, career planning, and problem-solving. When these efforts are combined, undergraduates will be able to make better career judgments.

Emotional intelligence could be the (long-awaited) missing link that connects traditional "can do" ability and "will do" dispositional predictors of job performance. Learning and development that is specifically classified as "emotional intelligence" or "emotional competence" training is available to organizations. Their leaders provide assistance by creating and managing a work environment that emphasizes flexibility, accountability,

standards, rewards, clarity, and dedication. Also, as an employer, he or she may convey to his /her employees that he cares about them and will provide them with additional opportunities to advance their careers. As a result, businesses can increase employee loyalty and trustworthiness. On the other side, as a company, employer can save money on hiring, selection, training, and growth, as well as resolving grievances. In today's competitive environment, businesses strive to hire the best person for the job. They spend money on recruitment, selection, hiring, induction, and training and development at the start. However, if an employee leaves the company after a short period of time due to cultural shock, stress, anxiety, or inability to communicate effectively with coworkers, the company will incur additional costs in hiring a replacement. As a result, no organization wants to hire employees who will leave the company shortly. As a company, they are continually looking for more adaptable, communicative, and enthusiastic problem solvers. As a result, organizations can use this research study to implement these findings and measure emotional intelligence in their employees and newly hired prospects. Then, as an organization, may look for people with higher emotional intelligence and take the required steps.

6. LIMITATION

The researcher's main objective was to identify the impact of emotional

intelligence on career decision-making. Since this research study considered the Management undergraduates in state universities in Sri Lanka, the findings of this research could not be generalized to every state and private universities within the Sri Lankan context. Another limitation is in collecting data through google Forms with the effect of the Covid-19 pandemic situation. It resulted in fewer response rate compared to the sample size. responses were limited only to the 280 undergraduates. In many empirical studies, researchers use the ability model and competencies model for measure emotional intelligence. But in this current research study was focused on Goleman's five-dimension model for measuring emotional intelligence. Therefore, faced the difficulty of a lack of literature about Goleman's model. Questionnaire responses may be wrong due to the respondents could deliberately change their answers based on personal factors. This study was based on the personal views of respondents through the questionnaire. It may not be effective and become bias as the respondent's feelings will be affected for the answers. In addition, the researcher used the questionnaire as the only technique to collect data. Therefore, these data may be more quantitative, and questionnaires might be unable to gather the inner feelings of the respondents.

7. DIRECTION FOR FURTHER RESEARCH

Having understood the limitations above, it is recommended for future researchers take these variables and conduct studies on other contexts, since this study is on Management undergraduates in state universities. Therefore, future researchers can be move towards a considerable population and wide area of all undergraduates in state and private universities in Sri Lanka or organizations by expanding the sampling frame. Furthermore, future

researchers can be investigating other factors affecting to career decision-making. Such as self-efficacy, career commitment, career planning causes, and family supportiveness. Future studies might consider the use of qualitative techniques to gather a broader understanding of the relationship between emotional intelligence and career decision-making. Hopefully, this study would raise the levels of interest among scholars to conduct more studies regarding the impact of emotional intelligence on career decision-making

APPENDIX

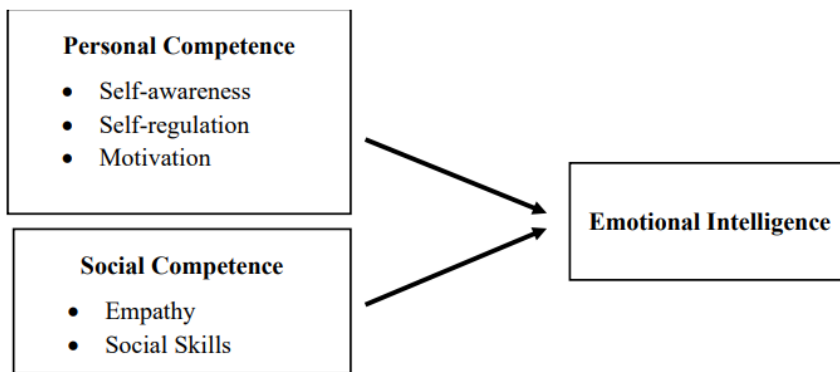


Figure 1: Variables of the Goleman's emotional intelligence model

Source: (Jamali et al., 2008)

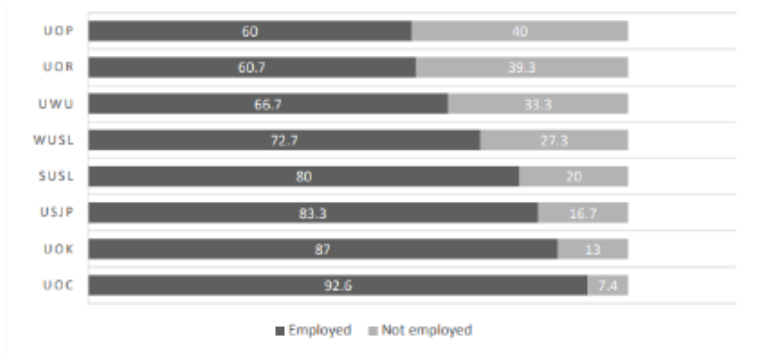


Figure 1.1: Employment Rate of Management Graduates

Source: Tracker study of graduates'-university of Sri Lanka. University Grants Commission-2018

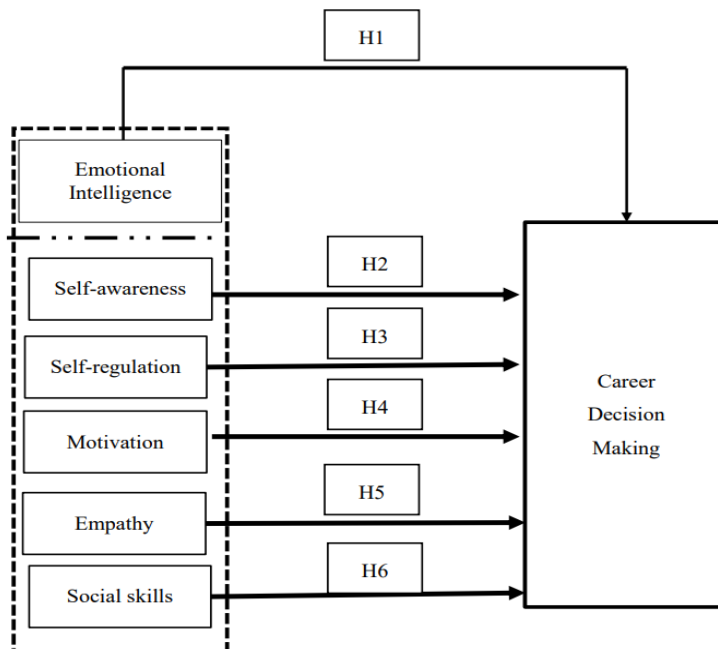


Figure 2: Conceptual framework of the study

Table 1: Composition of the sample [N=280]

Gender	Male	93	33.0%
	Female	187	67.0%
Age Group	20 – 22	7	3%
	23 – 25	202	72%
	26 – 28	71	25%
	Other	0	0%
Occupation	Not working, only studying	20	7%
	Working as an Intern or Trainee	202	72%
	Working as a permanent employee (assistant or executive level)	58	21%

Source: Survey data, 2022

Table 2: Reliability statistics

Variable	Dimension/s	No. of Items	Cronbach's Alpha
Career Decision Making	Career Decision Making	09	0.828
Emotional Intelligence (Cronbach's alpha= 0.905)	Self-Awareness	05	0.589
	Self-Regulation	05	0.759
	Motivation	05	0.635
	Empathy	05	0.589
	Social Skills	05	0.511

Source: Survey data, 2022

Table 3: Validity statistics

Variable	Dimension	No. of Items	Lowest FL	Highest FL	ESSL Cum%
Career Decision Making	Career Decision Making	09	0.460	0.796	51.828%
Emotional Intelligence	Self- Awareness	05	0.360	0.768	43.581%
	Self- Regulation	05	0.306	0.830	52.581%
	Motivation	05	0.098	0.727	41.954%
	Empathy	05	0.220	0.920	42.142%
	Social Skills	05	0.400	0.564	56.844%

Source: Survey data, 2022

Table 4: Descriptive statistics

Dimension	N	Mean	SD	Skewness	Kurtosis
Career Decision Making	280	2.7413	.70102	.325	-.992
Self- Awareness	280	3.1036	.64479	-.210	-.173
Self- Regulation	280	2.8136	.77596	.370	-.739
Motivation	280	3.0064	.65939	.274	-.479
Empathy	280	2.8486	.63126	.314	-.469
Social Skills	280	3.1664	.55586	-.338	-.113

Source: Survey data, 2022

Table 5: Model summary – emotional intelligence impact on career decision making

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.929a	.863	.863	.25957

Source: Survey data, 2022

Table 6: Coefficients– Emotional intelligence impact on career decision making

	Model	Unstandardized Coefficients		Standardized Coefficients		
		B	Std.Error	Beta	t	Sig
1	(Constant)	-.670	.083		-8.087	.000
	Emotional Intelligence Mean	1.142	.027	.929	41.915	.000

Source: Survey data, 2022

Table 7: Correlation analysis table for self-awareness and career decision making

		Career Decision Making Mean	Self-Awareness Mean
Career Decision Making Mean	Pearson Correlation	1	.684**
	Sig. (2-tailed)		.000
	N	280	280
Self-Awareness Mean	Pearson Correlation	.684**	1
	Sig. (2-tailed)	.000	
	N	280	280

Source: Survey data, 2022

Table 8: Correlation analysis table for self – regulation and career decision making

		Career Decision Making Mean	Self-Regulation Mean
Career Decision Making Mean	Pearson Correlation	1	.923**
	Sig. (2-tailed)		.000
	N	280	280
Self-Regulation Mean	Pearson Correlation	.923**	1
	Sig. (2-tailed)	.000	
	N	280	280

Source: Survey data, 2022

Table 9: Correlation analysis table for motivation and career decision making

		Career Decision Making Mean	Motivation Mean
Career Decision Making Mean	Pearson Correlation	1	.858**
	Sig. (2-tailed)		.000
	N	280	280
Motivation Mean	Pearson Correlation	.858**	1
	Sig. (2-tailed)	.000	
	N	280	280

Source: Survey data, 2022

Table 10: Correlation analysis table for empathy and career decision making

		Career Decision Making Mean	Empathy Mean
Career Decision Making Mean	Pearson Correlation	1	.861**
	Sig. (2-tailed)		.000
	N	280	280
Empathy Mean	Pearson Correlation	.861**	1
	Sig. (2-tailed)	.000	
	N	280	280

Source: Survey data, 2022

Table 11: Correlation analysis table for social skills and career decision making

		Career Decision Making Mean	Mean
Career Decision Making Mean	Pearson Correlation	1	.691**
	Sig. (2-tailed)		.000
	N	280	280
Mean	Pearson Correlation	.691**	1
	Sig. (2-tailed)	.000	
	N	280	280

Source: Survey data, 2022

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Mediating Effect of Job Satisfaction on the Relationship between Emotional Labour and Organizational Commitment among the Physiotherapists

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Abstract

Multiple studies on Emotional Labour (EL) among various medical staff segments have been conducted, but none have focused on physiotherapists. Consequently, this study aims to examine the connections between (EL) and Job Satisfaction (JS) among physiotherapists as well as the role of job satisfaction as a moderator in the relationship between emotional labour and Organisational Commitment (OC). A cross-sectional study involving 208 physiotherapists from Sri Lanka was designed. Regression analysis and the Sobel test were used to analyse the data. It was found that EL has a significant beneficial impact on the OC of physiotherapists. Moreover, the EL has a substantial and positive effect on JS. In addition, it was unearthed that JS plays a crucial role in transmitting the effects of EL to OC. Consequently, JS serves as a mediator in this relationship. In addition, the EL dimensions, deep acting, and surface acting all positively affect the OC. This study contributes to empirical findings on the EL of physiotherapists. Due to JS's role as a mediator, hospital administrators should consider the emotions of physiotherapists in order to enhance to being and job satisfaction. Numerous studies have been conducted on various segments of the medical staff, but none have centred on physiotherapists. This study confirms JS's role as a mediator in the relationship between EL and OC in the field of physiotherapy and encourages future research to concentrate more on EL. These findings contribute to the interdisciplinarity of physiotherapy research by incorporating psychological perspectives from emotion management research.

Keywords: Deep Acting, Emotional Labour, Job Satisfaction, Organizational Commitment, Surface Acting

1. INTRODUCTION

The World Health Organization defines "good health" as physical, mental, and social well-being, as well as the capacity to lead a productive life. To adequately manage this service, the government of Sri Lanka maintains free health facilities for the nation. Physiotherapists are one of the most important human human resource

components contributing to the achievement of the aforementioned national goal. Physiotherapists, who specialise in movement and function, are educated to modify physical activities for the general population and those with chronic illnesses. As per 2019 medical statistics, state-owned hospitals in Sri Lanka have 652

physiotherapists for patient care. According to a preliminary study conducted by the researchers, however, the majority of them are contemplating leaving the state-owned service because of the heavy workload, lack of equipment, and low pay and benefits.

A physiotherapist is a professional with a long-standing tradition of practical and experiential knowledge. Physiotherapists assist people who have been harmed by an injury, illness, or disability by administering movements and exercises, manual therapies, education, and advice. They treat everyone, regardless of age, and assist them in coping with pain and avoiding disease. Physical therapy is described as "A science-based profession that takes an approach to health and well-being that considers the "whole person" lifestyle of the average person. "Patients are fundamentally involved in their own care through education, awareness, empowerment, and participation in their treatments. The services of professional physiotherapists can benefit human life at any time. The spirit of a physiotherapist's work should not consist solely of performing the task. Nonetheless, it should entail receiving the work with the correct attitudes, "the right amount of sincerity, and the right amount of concern for the" patients. When interacting with patients, physiotherapists must exhibit certain emotions, such as "friendliness, cheerfulness, warmth, enthusiasm, confidence, or caring and kindness." Hochschild (1983) gave several examples. It is expected that "displaying friendliness and zeal" will increase customer satisfaction, increase

direct sales, lead to an increase in repeat business, and ultimately lead to financial success.

Nonetheless, it should involve completing the task with the appropriate attitude, "the appropriate degree of sincerity," and "the appropriate concern for the patients." Every physiotherapist must display certain emotions when interacting with patients, such as "friendliness, cheerfulness, warmth, enthusiasm, self-assurance, or caring and compassion." Hochschild (1983) provided a number of examples. It is anticipated that "displaying friendliness and zeal" will increase customer satisfaction and directly improve deals, which will lead to a stronger repeat business industry, and boost financial performance.

On the other hand, in order to meet customer expectations, the physiotherapist must perform appropriate and inappropriate emotional display rules while on the job (Grandey et al., 2013). According to Foster & Sayers (2012), the work of physiotherapists consists of physical, intellectual, and emotional components. According to Austin et al. (2008), organisations establish 'rules of conduct that include standards that permit employees to behave and approach situations with the appropriate emotions. The 'display rules' stipulate that employees must exhibit positive emotions and conceal negative ones. The management expects those with direct customer contact to exhibit positive emotions. Because their level of service delivery directly impacts the organisation's service quality standards and overall customer satisfaction (Pugh,2001).

This conduct is known as "emotional labour" (EL). It was coined by Hochschild in 1983. He defines EL as "inducing or suppressing emotion to maintain a facial expression that elicits the desired mental state in others." Hochschild defined EL in 2012 as the "strength, preparation, and control required for a particular feeling that is consistently positive throughout a social relationship." Multiple researchers have provided numerous definitions of EL. However, it occurs when people recognise the need to suppress their emotions.

However, displaying the projected emotions of the organisation as a human is difficult. Discord can arise in the workplace under certain conditions. That is the conflict between a person's emotions and the emotions required to perform as instructed. The service provider personally experiences certain emotions and is required to perform or display another emotion. To surpass actual emotions, he must instead declare facial expressions. The service provider has two options for handling this situation. These are examples of surface and deep acting (Brotheridge & Grandey, 2002). (Brotheridge & Grandey, 2002). Surface acting is an employee-focused EL that primarily describes how employees express, control, and manage their emotions in order to meet work requirements. This is the adjustment and regulation of employees' emotional expressions. Deep acting entails gauging the opinions and emotions of the body's core to satisfy the display requirements of the job. A person manipulates their inner emotions to replicate textures while adhering to the display guidelines for each situation.

1.1 Problem Statement

EL is heavily used in the field of physiotherapy. The physiotherapist is responsible for managing the job's demands. In today's workplace, management manages emotions and expressions in order to provide the best services to their customers; thus, controlling workers' natural emotions creates dissatisfaction. Researchers decided to look for the root cause of low job satisfaction, emphasising EL and OC, based on preliminary findings on the level of satisfaction of physiotherapists. Several studies conducted in Sri Lanka and internationally focused on the impact of EC on OC without considering the mediating role of job satisfaction of different workforce layers. As a result, the current study will fill a gap in the literature by investigating "the mediating role of JC on the relationship between EL and OC." In the Sri Lankan context, empirical evidence relating to JS and OC is still in its early stages. As a result of conducting this type of research study, a contextual gap was discovered to be filled. Therefore, this study was expected to fill a gap in the literature by addressing the question, "Does emotional labour affect the organisational commitment and Job satisfaction of physiotherapists in state-owned hospitals in Sri Lanka?" This study examined whether the JS acts as a mediator in the relationship between EL and OC.

1.2 Research Questions

1.2.1 Main Question

"What impact would emotional labour have on the job satisfaction and organizational commitment of

physiotherapists in Sri Lankan state-owned hospitals?"

1.2.2 Specific Questions

This study will be carried out to fulfil the following Questions;

- What effect does emotional labour have on the organizational commitment of physiotherapists in Sri Lankan hospitals owned by the government?
- What impact does emotional labour have on the job satisfaction of physiotherapists in Sri Lankan hospitals owned by the government?
- What effect does job satisfaction have on the organisational commitment of physiotherapists in Sri Lankan hospitals owned by the government?
- How does job satisfaction impact the relationship between emotional labour and organisational commitment among physiotherapists in Sri Lankan state-owned hospitals?

1.3 Objectives of the Study

1.3.1 Main objective

The study's main objective was "to explore the impact of emotional labour on the job satisfaction and organisational commitment of physiotherapists in state-owned hospitals in Sri Lanka."

1.3.2 Specific Objectives

This study will be carried out to fulfil the following objectives.

- To determine the effect of emotional labour on the OC of physiotherapists in state-owned Sri Lankan hospitals.

- To examine the effect of emotional labour on physiotherapists' job satisfaction in state-owned hospitals in Sri Lanka
- To examine the impact of job satisfaction on organizational commitment among physiotherapists in state-owned Sri Lankan hospitals
- To investigate the moderating effect of job satisfaction on the relationship between employee loyalty and organizational commitment among physiotherapists in state-owned hospitals in Sri Lanka.

1.4 Significance of the Study

Hochschild (1983) recognised that EL required physical and mental resources. It, therefore, has negative consequences on work-related outcomes, including employee JS and well-being (quoted in Wang et al., 2016). However, those results do not match those presented by Ghalandar et al. (2012) and Bhawe & Glomb (2013). Some reported a positive relationship, but others stated a negative or no relationship. As per Yang & Chen (2020), "The relationships between EL and employee outcomes (e.g., burnout, JS, well-being, and affective states) are the most examined in the EL nomological network." Further, they recognise turnover intention and commitment as mainly concerned with organisational-level outcome variables. Johnson & Spector, 2007; Liu et al., 2008; Seery & Corrigan, 2009; Duke et al., 2009; Cheung & Tang, 2010; Diefendorff et al. 2011 and Hsieh et al. 2016: measured the relationship between EL and JS (Cited

in Yang & Chen, 2020). Further, according to their comprehensive literature review, some researchers consider JS a mediate variable (Seery & Corrigan, 2009; Nguyen et al., 2013; Oh et al., 2019). Again several research papers measure the impact of EL on OC (Seery & Corrigan, 2009; Oh et al., 2019).

Over the past two or three decades, researchers have evaluated the EL impact on employee and customer outcomes using a variety of work groups, including hotel employees, bankers, customer service agents, bus drivers, nurses, health care providers, teachers, and police officers. , Aviation employees, customer service employees and general employees (Yang & Chen, 2020). While it is mainly concerned with the healthcare industry, EL impacts have been found primarily in nursing. According to Kirk et al. (2021), it is essential to understand how EL nurses face in developing wellness and retention programs. Yao et al. (2021) A study examined the indirect linear relationship between EL and Chinese nurses and found a positive correlation. Again Theodosius et al. (2021) found that collective EL is important for nurses' motivation to leave their current workplace. However, EL does not affect vacations from organisations or professions as specified. No one focuses on how EL influences physiotherapists. However, Physiotherapy is a profession where EL is required heavily. The physiotherapist is needed to manage his emotions to match the demand of this job. When considering careers that require EL while discharging their job functions, EL should not be a factor

that creates a lack of OC in those professionals. Therefore, in this study, researchers examined the impact of EL on OC with the help of JS as a mediator.

The relationship between EL, JS and OC is a significant relationship that all managers and policymakers should understand. This study will reveal the significance of this relationship among the physiotherapists in Sri Lankan State-owned Hospitals. Therefore, HR Managers and policymakers can utilise the findings of this study for their management strategies and policies.

Even though the study is focused on physiotherapists, the findings can be applied to most patient care professionals, such as nursing professionals, doctors, and attendants. Even in other customer care fields, the study's outcome would support using the EL effectively on JS and OC.

In all researchers, it had been tested the causality effect of EL on OC. Those studies show a relationship or impact of the independent variable on the dependent variable. But none of these research has not tried to answer "why/how" the independent variable affects the dependent variable. Using analysis, it can be quantitatively ascertained how the independent variable influence the dependent variable. This study is expected to find the answer; how the EL influences the OC through the influence of JS.

Since no research has been conducted on physiotherapists of Sri Lankan state-owned hospitals focusing on the mediation effect of JS on OC through the EL, this study would be a significant decision-making resource

for the state-owned hospital administration.

Since this study investigates the direct impact of EL on OC and the indirect effect of EL on OC through JS, even though the study was conducted on physiotherapists in state-owned hospitals, the study's fundamentals imply that the impact of EL on JS and OC is universal across all industries. Therefore, this research could be useful for management in service delivery contexts where EL is a key component. On the basis of this research's findings, they can assess the efficacy of their strategies on EL and their impact on OC and JS.

This research could pave the way for a new line of inquiry into EL. The EL was not a research topic in Sri Lanka, particularly in the health sector.

2. LITERATURE REVIEW

OC (OC) was defined by Porter et al. (1974) as the comparative asset of a person's identification with and participation in a company. It must possess at least three characteristics: (1) strong trust and approval of the company's goals and values; (2) a willingness to use significant force on the company's behalf; and (3) a strong desire to protect employee participation in the workplace. OC is defined as an employee's belief in and acceptance of an organisation's goals and ethics, strength on behalf of the organisation to achieve these goals, and a strong desire to protect membership within the organisation (Hunt and Morgan, 1994). They discovered a significant negative correlation between surface acting and affective commitment. Robbin and Judge (2017) define organisational

citizenship (OC) as the degree to which an employee cares about an organisation and its goals and wishes to remain a member.

Ruppel et al. (2013) reported EL, decreased OC, and an increase in intention to leave a company. Brotheridge and Lee (2003) defined EL as "workers arranging to control their emotions in order to fulfil the organisation's expectations." (Wong and Law, 2002) explain that their structure commitment varies based on the EL performed by their personnel. According to Wharton (1999), "EL" describes the difficulty of displaying organizationally permitted emotions. People whose jobs require them to be in close contact with clients or customers and for whom these relationships are integral to their work may perform this task. Kaya and Ozhan (2012) define EL as the management of emotional feelings in a manner detectable through gestures or tolerated by staff. The physiotherapist's performance of the task should be one of many aspects of their job.

Organisational commitment is to show loyalty to the organisation's mission, to make sincere efforts to realise the mission and to connect with a sense of responsibility (Webber & Scott, 2013). Robbins & Judge (2017) recognised that OC is an essential job attitude for the success of the organisation. Ruppel et al. (2013) reported emotional stress, reduced OC and ultimately increased turnover intention. However, they failed to confirm any significant relationship between deep acting and OC. Lartey et al. (2019)) and Öztürk (2020) found a positive relationship between surface-acting OC. However,

they failed to establish any type of relationship between deep acting and OC. Furthermore, some past studies indicate a negative correlation between EL and OC (Keithley & Koskina, 2010; Zemblas et al., 2009), cited in Mehra & Bedi (2018). This literature shows that past research did not go to one conclusion on the relationship between EL and OC.

In 2020, Yang & Chen conducted a comprehensive literature survey on EM. They recognised JS as one of the most considered dependent and moderating variables of the studies. However, those researchers did not come to one conclusion. Chehab et al. (2021) found a positive relationship between EL and JS. However, Chehab et al. (2021) and Ruppel et al. (2013) revealed that "there is a negative relationship between EL and JS". Again Lam and Chan (2012), Chen et al. (2012): and Larthey et al. (2019) found a negative relationship between surface acting and JS.

Further, Grandey et al. (2015) recognise a positive relationship between deep acting and JS. They do not identify any significant relationship between Surface acting and JS and finally concluded as "some dimensions of EL significantly relate to JS." Further, according to Larthey et al. (2019), there is no significant relationship between deep acting and JS. Lee & Jang (2020) conducted a cross-sectional study using nurses and found a positive relationship between deep acting and JS. However, they did not find any relationship between surface acting and JS. Hakami et al. (2020) conducted a study using Saudi Arabian nurses and found a positive relationship again. According to the

literature, there is no confirmed conclusion on the relationship between EL and JS.

The term JS (JS) was first coined by Hoppock (1935) and defined as "a combination of environmental, physiological and psychological factors that make an employee happy with his/her job" (Cited in Singh & Ryhal, 2021). Also, it can be defined as "JS is an attitude or subjective experience toward an individual's job" (Miembazi & Qian, 2017). According to past researchers, employees, JS, and OC components play a critical role in performance (Karem et al., 2019). They have found a positive relationship between JS and OC (De Alwis & Kodikara, 2016; Alleyne et al., 2018; Aksoy et al., 2018; Bennett & Stanley 2019; Bennett, 2019; Yorulmaz et al., 2020; Bennett & Hylton, 2021). Akanbi & Itiola (2013) investigated the relationship between OC and JS among Nigeria's healthcare employees.

If employees are satisfied with their work, their level of commitment to the organisation is remarkable (Aksoy et al., 2018; Singh & Ryhal, 2021), and JS support decreasing absenteeism (Onyebuchi et al., 2019). Though, some of them recognised it as an antecedent of OC (Aamodt, 2012; Wang et al., 2016). As per the previous studies, JS has mediated relationships between different variables such as role conflicts, Job stress, Organizational Identification and OC (Lu, 2007; Yousef, 2013; Yorulmaz et al., 2020). In this study, we expected the measure the mediation effect of JS on the relationship between EL and OC. H4:

JS mediate the relationship between EL and OC.

Based on the above literature, we have developed the following conceptual framework (Figure 1) and the following hypothesis.

H1: Emotional labour has a significant impact on the organisational commitment of the physiotherapists in state-owned Hospitals in Sri Lanka.

H2: Emotional labour has a significant effect on the Job Satisfaction of physiotherapists in state-owned Hospitals in Sri Lanka.

H3: Job Satisfaction has a significant impact on the organisational commitment of the physiotherapists in state-owned Hospitals in Sri Lanka.

H4: "The relationship between emotional labour and organisational commitment of physiotherapists in state-owned hospitals in Sri Lanka is mediated by job satisfaction."

3. METHODS

This study is undertaken to ascertain and describe the characteristics of the variables of interest in a situation. Hence, this study type was descriptive. The study's objective is to identify the effect of EL on the OC of physiotherapists and measure the mediation effect of JS on the above relationship. Hence, the type of investigation was a correlation rather than a causal study. A correlation study is conducted in the natural environment of the organisation with minimum interference by the

researcher with the normal flow of work (Sekaran, 2009). There is some disruption to the normal flow of work in the system as the researcher administers questionnaires at the workplace; the researcher's interference in the system's routine functioning is minimal compared to that caused during causal studies.

The study population of this study is physiotherapists who work in Sri Lanka. According to the Medical Statistics Unit Ministry of Health (2019), the total population of the survey is 652. With the aid of Krejcie & Morgan's (1970) sample size determination formula, the sample for the study was estimated at 242. However, 365 questionnaires were distributed, assuming a 15% non-responsive rate. However, researchers received only 208 responses with a 35 % non -responsive rate. Therefore researcher decided to go forward with the study on the 208-response received. The "Purposive sampling method" was adopted as a sampling technique. It uses the judgement of the researchers to select sample members from the population. In this sampling method, the researchers should possess good knowledge regarding the purpose or judgment of their studies so that researchers can correctly select and approach qualified participants.

The questionnaire consists of two parts: part A and part B. The questionnaires were prepared in the English language as well as in Sinhala language. Part A is the personal profile. The respondent's biographical information was collected to establish a profile of the sample group in relation to gender, marital status, age,

educational qualifications, position, average income and length of service.

Measures for the study included standardised instruments in assessing EL, JS and OC and were slightly modified to match the research setting. The basic information relevant to the Part B of the questionnaire is shown in table 1.

4. FINDINGS

4.1 Descriptive statistics

The summary of the descriptive statistics is shown in table no 2. As shown in Table 3, skewness and kurtosis values for each study variable were between -2 – 2 . Therefore, it can be recognised as a normally distributed data set (George and Mallery, 2010).

4.2 Correlation analysis

With the aid of these three variables, the Pearson correlation coefficients were used to establish the relationships. According to Table 4, the correlation coefficient between EL and JS is $r = .846$ with a significant value of $.000$. The R-value is less than $.75$. There is a strong positive correlation between EL and JS. Also, the correlation is significant at the 0.01 level.

Also correlation coefficient between EL and OC is $r = .866$ with a significant value of $.000$. The R-value is greater than $.75$ and again confirms a strong positive correlation between the EL and OC and. Also, the correlation is significant at the 0.01 level. According to the above table, the correlation coefficient between JS and OC is $r = .838$, with a significant value of $.000$. The R-value is greater than $.75$. It is clear that there is a strong

positive correlation between JS and OC. And also, the correlation is significant at the 0.01 level.

4.3 Multiple linear analysis

It can be observed that the Durbin-Watson statistic is 2.234 , which is nearly 2 ; hence it can be concluded that there is no autocorrelation. The acceptable level is tolerance over $.1$ and VIF less than 10 . This model has a tolerance of 0.284 and a VIF of 3.518 . Therefore, it can be concluded that there is no multicollinearity among the variables.

Multiple regression was calculated to predict the impact of EL on JS and OC.

Multiple regression was carried out to investigate whether EL and JS could significantly predict physiotherapists' levels of OC. The regression results indicated that the model explained 78.6% of the variance and that the model was a significant predictor of OC, $F(2,205) = 382.061$, $p = .000$. While EL contributed, however, significantly to the model ($B = .521$, $p < .05$) and JS ($B = .403$, $P > .05$). The final predictive model was

$$OC = .144 + .531(EL) + .403(JS). \quad (2)$$

4.4 Mediator analysis

Sobel test was utilised to examine if JS mediated the relationship between EL and OC. First, results of simple linear regression show that EL was a statistically significant predictor of OC ($b = .834$, $\beta = .866$, $t = 24.81$, $p < .000$). Second, results of simple regression show that EL was a significant predictor of JS ($b = .751$ ($.033$), $\beta = .846$, $t = 22.75$, $p < .000$). Next, when the mediator, JS, was

entered in the regression analysis, EL ($b = .532 (.058)$, $\beta = .551$, $t = 9.15$, $p < .000$). and JS ($b = .403(.065)$, $\beta = .371$, $t = -6.166$, $p < .000$) were significant predictors of OC. After introducing the mediating variable, the direct effect of EL on OC has been reduced. Therefore, it can be observed that JS is a mediating factor by creating the indirect effect of EL on OC, while EL has a significant direct effect on OC. Therefore, EL has two effects on OC, the direct effect and the indirect effect through JS. The Sobel test was utilised to further investigate the mediator (to recognise the indirect effect) to examine if JS significantly mediated the relationship between EL and OC. The results confirmed that JS significantly mediates the relationship between EL and OC ($Z = 5.982$, $p < .001$). The test statistic for the Sobel test is $5.982 (.50)$, $p < .000$. The observed p-value does fall below the established alpha level of $.05$, indicating that the association between the IV and the DV (in this case, EL and OC) is reduced significantly by the inclusion of the mediator (in this case, JS) in the model. On the other hand, there is evidence of the mediation effect of JS on the relationship between EL and OC.

5. DISCUSSION

The present study focused on exploring the impact of EL on JS and OC with special reference to the physiotherapists attached to the State-owned Hospitals in Sri Lanka.

The first specific objective of the research was to identify the impact of EL on OC. During the analysis, it was found that the impact of EL on the OC was positive and statistically

significant. By expecting greater insight into the impact of EL on the OC, the dimensions of the EL, surface acting, deep acting and emotional consonance were evaluated individually to ascertain the impact on the OC. Surface acting, deep acting, and emotional consonance were found to impact the OC positively. These findings are in line with Yin et al. (2019), who argued that the three components positively related to the OC. This was further witnessed by Lee & Vlack (2017).

The second specific objective of the study (hypothesis 2) was to examine the impact of EL on JS. It was found that the EL has a significant positive impact on the JS. The third objective was to investigate the impact of JS on OC (Hypothesis 3). There was sufficient statistical evidence to prove the positive and significant impact of JS on OC.

Finally, It was evaluated the mediating effect of JS on the relationship between EL and OC. It explores the mediating effect of JS on the relationship between EL and OC of physiotherapists in state-owned Hospitals in Sri Lanka. There was a significant direct impact of EL on the OC. It was further revealed that EL has a significant impact on JS, and JS has a positive and significant impact on OC. With the aid of Sobel statistics, the transmission of the effect of EL to the OC through JS was proved.

6. RECOMMENDATIONS

Since the study established a significant impact of EL on JS and OC, those findings can be used to increase the OC of physiotherapists. The management can emphasise the key

dimensions of "EL; surface acting, deep acting and naturally felt emotions, and create a working environment that facilitates to enhance those aspects, the OC can be enhanced". Further development in EL would improve the JS of the state-owned physiotherapists, and satisfaction would cause enhancement of the OC. Therefore, the improvement of EL will have three advantages, one improvement of OC, second improvement of JS and third improvement of OC.

Even though the EL can improve organisational performance, prolonged EL would also lead to negative impacts. According to Mann (1999), EL could be a double edge sword where there will be benefits and dysfunction. Therefore, HR managers should carefully recognise the strategies for EL. If scientific strategies are employed, the dysfunctional part of the EL will be able to maintain the benefits of the EL (Grandey et al., 2015).

7. CONCLUSIONS

It can be concluded that the impact of the EL on the OC is positive and significant. Further, the effect of the EL on the JS is also positive and

significant. Improvement of the EL can be used as a two-pronged strategy to improve OC. One is to strengthen the OC directly. Secondly, it will enhance the JS and help to transmit the impact of EL to the OC through the mediating effect of the JS.

8. LIMITATIONS

The study employed a cross-sectional design which is correlational in nature. Under this state, it is incapable of establishing cause-and-effect relationships among the study variables. This study just focused on a physiotherapist who works in State hospitals in Sri Lanka. Because of that, it is challenging to generalise to all the physiotherapists who work in other sectors. Further, physiotherapists represent a single workgroup of the health sector. Therefore, it does not describe the behaviours of the entire medical staff. Furthermore, the study employed a convenient sampling technique which affected the generalizability of the study. This background opens the door for other empirical studies, including longitudinal studies, to be undertaken in this context.

APPENDIX

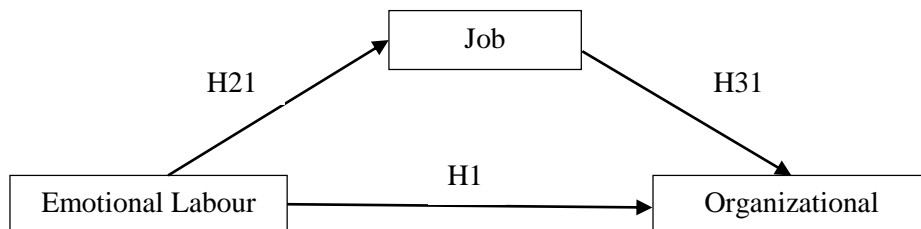


Figure 1. Conceptual Framework

Source: Developed by the authors using exploratory study,2021

Table 1: Basic Information of the measurement constructs

Construct	Number of measurement items	Originally developed by	Type of questions	Cronbach's alpha
Emotional Labour (EL)	12	Briët et al. (2005)	five-point Likert scale 1 (Not at all) to 5 (very great extent)	.86
Job Satisfaction (JS)	07	Khamlub et al. (2013)	Five-point Likert scale 1 (Much worse) to 5 (Much better)	0.74
Organizational Commitment (OC)	15	Altindis (2011)	Five-point Likert scale 1 (Much worse) to 5 (Much better")	.89

Table 2: A summary of the demographic characteristics of the research respondents

Variable	Frequency	%	Variable	Frequency	%
Designation of the respondent			Income Distribution		
Physiotherapist	180	87	Less than 50,000 (US\$ 250)	25	13
Chief Physiotherapist	15	15	Between 50,000-100,000 (\$ 250 -100)	167	80
Trainee Physiotherapist	13	13	Between 100,000-150,000 (\$100 – 150)	10	5
Gender Distribution			More than 150,000 (\$150)	4	2
Physiotherapist	180	87	Working Hours		
Chief Physiotherapist	15	15	Less than 8	33	16
Trainee Physiotherapist	13	13	Between 8-10	145	70
Age distribution			Between 10-12	18	9
18-30	101	4	More than 12	10	5
30-40	76	36.5	Designation of the recipients		
40-50	29	13.9	Marital Status		
above 50	2	1.0	Married	130	63
Passed A/L	2	1	Others	2	1
Diploma	101	49	Work Experience		
Graduate	103	49	“Less than one year	12	6
Master	2	1	1 to 5 years	114	55
			5 to 10 years	17	8
			more than ten years	65	31

Source: Survey Data, 2021

Table 3: A summary of the descriptive statistics for the study variables

Descriptive Statistics					
	N	Mean	Std. Deviation	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic
Emotional Labour (EL)	208	3.0554	.84591	.153	-.997
Job Satisfaction (JS)	208	3.1087	.75092	-.134	-.708
Organizational Commitment (OC)	208	3.0200	.81495	.109	-.849

Source: Survey Data, 2021

Table 4: Correlation analysis

		Job Satisfaction (JS)	Organisational Commitment (OC)
Emotional Labour (EL)	Pearson Correlation	.846**	.866**
	Sig. (2- tailed)	.000	.000
	N	208	208
Job Satisfaction (JS)	Pearson Correlation		.838**
	Sig. (2- tailed)		.000
	N		208

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

Source: Survey Data,2021

Table 5: Table: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888 ^a	.788	.786	.37664

a. Predictors: (Constant), JS, EL

Source: Survey Data,2021

Table 6: Regression coefficients

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.144	.112		1.289	.199
	EL	.531	.058	.551	9.150	.000
	JS	.403	.065	.371	6.166	.000

a. Dependent Variable: OC

Source: Survey Data,202

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Impact of Integrated Reporting on Firm Performance in the Listed Companies in Sri Lanka

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Abstract

The impact of integrated reporting on the firm performance of Sri Lankan listed companies was investigated in this study. A new reporting framework called integrated reporting tries to improve the ability of the investors for assessing the prospects of the firm and to remedy the shortcomings of the traditional reporting model of accounting. The study has included an analysis of quantitative data gathered from 42 companies listed on the Colombo Stock Exchange between 2016 and 2020. STATA - 14 software was used to analyze the data, which included panel regression analysis, correlation, and descriptive statistics. It has concluded that integrated reporting impacts the firm performance of the listed companies were based on the Return on Asset and Return on Equity. The study's findings demonstrated that Integrated Reporting has a significant negative impact on firm performance based on Return on Asset and Return on Equity while having a significant positive impact on firm performance based on Earnings per share.

Keywords: Earning Per Share, Integrated Reporting, Return on Asset, Return on Equity

1. INTRODUCTION

1.1 Background of the Study

In the business world, stakeholders expect beyond profit as disclosing non-financial information, corporate responsibility, and environmental-friendly businesses. As a result of that companies started voluntary disclosure of non-financial information and began Corporate Social Responsibilities (CSR) projects to attract the loyalty of stakeholders by giving value to society through social responsibility. Meanwhile, the International Integrated Reporting Council proposed a new approach to corporate reporting called "Integrated Reporting" in 2013.

The COVID-19 pandemic attacks business activities globally. Due to that most of the stakeholders are willing get a comprehensive view of how the companies create value as well as the impacts faced beyond the companies during the pandemic period. It is intended that integrated reporting will be able to provide stakeholders with appropriate information. Integrated reporting produces financial and non-financial data into a single report, which is a significant improvement over traditional corporate reporting.

The International Integrated Reporting Council (IIRC) issued the

integrated reporting framework in December 2013 (IIRC, 2013), and it presented the fundamental concepts and principles that organizations can use to incorporate both non-financial and financial performance through an integrated report. The goal of the Integrated Reporting framework is to improve the quality of information available to capital providers, encourage a more consistent approach to corporate reporting, and improve accountability for the diverse range of resources that companies use and effect, as well as to support value creation over time (Chen & Perrin, 2017). The IR framework is divided into three components: three fundamental concepts, seven guiding principles, and eight content elements. The IR framework, through the concept of 'information connectivity,' enables a company to bring these elements together to better communicate its significance narration (IIRC, 2019).

The Colombo Stock Exchange (CSE) registered listed companies make a huge role in Sri Lankan development and gross domestic production. Under the Sri Lankan context, there are 288 listed entities registered in CSE representing 19 Business sectors. Further in the Sri Lankan context, there are many numbers of CSE registered companies that adapted to the integrated reporting framework under IIRC, and the integrated reporting council of Sri Lanka plays a significant role in the Sri Lankan context. The primary goal of an integrated report is to show financial capital providers how a company grows in value over time.

The IR framework fills a critical gap by bridging the gap between financial and non-financial capital and promoting the importance of non-financial capital, such as human, social, relationship, intellectual, and natural capital, alongside financial and manufacturing capital. As a result, it is critical to examine the extent to which Sri Lankan companies are utilizing the framework at the national level. Integrated reporting also makes a huge role in Sri Lankan companies as sustainable reports.

In today's context, there are many types of research to identify the impact of international integrated reporting requirements in many countries in the world. And also, there are many types of research available about integrated reporting mainly focusing on the IIRC and its impact on the integrated reporting field. When considering prior research in Sri Lanka regarding with integrated reporting concept, most of the researchers are focused on integrated reporting adoption in Sri Lanka, integrated reporting and financial performance, and also factors affecting integrated reporting quality Cooray et al, (2020). There is a lack of studies available in Sri Lanka to identify the impact of integrated reporting and its effect on company performance. As a result, the purpose of this study was to fill a research gap by investigating the integrated reporting and performance of companies listed on the Colombo stock exchange.

1.2 Research Questions

1. Is there any significant impact of integrated reporting on the Return on Asset (ROA) of

listed companies in Sri Lanka?

2. Is there any significant impact of integrated reporting on the Return on Equity (ROE) of listed companies in Sri Lanka?
3. Is there any significant impact of integrated reporting on the Earnings per Share (EPS) of listed companies in Sri Lanka?

1.3 Research Objectives

1. To identify the impact of integrated reporting on the Return on assets (ROA) of listed companies in Sri Lanka.
2. To in the impact of integrated reporting on the Return on Equity (ROE) of listed companies in Sri Lanka.
3. To identify the impact of integrated reporting on the Earnings per Share (EPS) of listed companies in Sri Lanka.

1.4 Significance of the Study

The study is a good motivation to other companies that have not adopted to integrate reporting to prepare financial reporting in accordance with the IIRF and have advantages on it. This will be more beneficial to its stakeholders who are investors, employees, suppliers, customers, lenders, social groups, environmental organizations, government, etc. Further, this study will contribute to the literature by investigating the adoption of IR and its impact on firm performance. And it will be a good motivation for the companies which did not comply with the IR framework.

1.5 Empirical Review

Jeroe, (2016) examines the effects of IR and non-financial information on the performance of 44 organizations globally during the years 2012 and 2013. The reporting of IR and non-financial information was found to be detrimental to corporate success. The financial performance of five companies in Bahrain between 2012 and 2015 is the subject of an investigation by Albetairi et al, (2018). The business model index, risk and opportunities index, strategy and resource allocation index, and performance disclosure index were used in the study as IR indices, forming the explanatory variables. The results showed that IR indices have mixed effects on firm performance, with the risk and opportunities index having the most significant negative impact.

The impact of the Integrated Report on company value in African nations between 2013 and 2016 was examined by Cosma et al, (2018). The study used firm value as an exposed variable, which was approximated by stock returns, and IR as an exposed variable, which was approximated by the national market index return, utilizing the normal least square regression technique to reveal that IR has a positive effect on firm performance. Between 2010 and 2016, Bijlmakers (2018) investigated the impact of internal relations on company value in 56 European banking firms. The results showed that IR had no discernible impact on company value. The study employed Tobin Q since it was projected to do so. It also used the IR index, size, growth, discretionary accruals, return on equity, and earning

quality as predictors. In the Malaysian context, Luk et al, (2017) stated that there were four out of the eight IR content elements, specifically risks and opportunities, business model, performance disclosure, and governance, have a significant positive impact on the financial performance of the companies.

The prior researchers Athanasios Pavlopoulos, Chris Magnis and George Emmanuel said that the companies that have higher integrated reporting quality had shown lower agency cost than the companies with lower level of integrated reporting quality (Athanasios Pavlopoulos, 2017). Hence, the integrated reporting disclosure helps to reduce agency problems of the companies and to enhance the quality of information among their stockholders (Hamad, Draz, & Lai, 2020).

2. METHODS

2.1 The Conceptual Framework

This study was used integrated reporting as the independent variable. Then, firm performance is a dependent variable. The firm performance of this study was measured by using accounting-based measures and market-based measures. Both ROA and ROE are considered accounting measures. EPS is a market-based measure of the firm performance.

2.2 Research Design

Design the research so that the necessary data can be collected and analyzed to arrive at a solution (Sekaran & Bougie, 2016). The research design is longitudinal under descriptive research design. Therefore, the researcher can gather

data over the years by using the same sample. The study is focused on a positivist approach as a research philosophy. This study selected 42 IR-adopted companies that are listed in the CSE for five years (2016-2020) to evaluate whether the companies that publishing of an IR has any effect on firm performance. IR mainly focuses on the short, medium, and long-term time horizons of the organizations.

2.3 Sampling Plan

A population is a group of individuals having one characteristic that distinguishes them from the other groups Yeong et al, (2018). According to this study context, the targeted population has considered the 80 Listed Companies on Colombo Stock Exchange as per the market statistics on 19th October 2020 which adopted integrated reporting. According to Sekaran and Bougie (2016), the sample is defined as a subset of the population in question and consists of a selection of members from the population. The researcher chose 42 listed companies from a total of 80 to investigate the impact of IR on firm performance as measured by return on asset, return on equity, and earnings per share.

2.4 Data Collection

Data can be gathered from either primary or secondary sources. To meet the objectives, this study relies entirely on secondary data. Secondary data is statistical material that was not created by the investigator but was obtained from someone else's records (Kothari, 2004). The study mainly has used previously collected data known as secondary data through CSE

website and annual reports by referring to listed companies.

2.5 Method of Measurement

The data is measured systematically. Further, this study is contributed to the literature by investigating IR and its impact on firm performance. All the data presenting a yearly basis for five years, from 2016 to 2020. Collected data can be presented in graphical tables connecting to the objectives of the study. IR Disclosure score checklist is used to collect the data used to measure the integrated reporting of the annual reports for the five years from 2016-2020. The disclosure information was obtained from annual reports, and each index item was individually checked. For each company, the total of the index scores for each company and year was calculated.

2.6 Method of Data Analysis

Data were analyzed and evaluated by using univariate, bivariate analysis techniques, and multivariate techniques. The type of data analysis and evaluation is determined by the research problem and objectives. The study adopted panel data analysis. Because this study employs panel data analysis, the STATA package was used for data analysis. For the data analysis, there are two types of statistics: descriptive statistics and inferential statistics. Descriptive statistics is a discipline that quantifies the significant features of a dataset. It depicts the summary behavior of variables in a study, as well as how many observations are reduced to interpretable numbers like averages and percentages. The researcher employs mean, maximum, minimum,

and standard deviation to describe properties. Inferential statistics includes methods based on probability theory such as estimation, interval estimation, and hypothesis testing. It includes two types of analysis: correlation analysis and regression analysis.

2.7 Hausman Test

In econometrics, a statistical hypothesis test known as the Durbin-Wu-Hausman test is named after James Durbin, De-Min Wu, and Jerry A. Hausman. The researcher can use a Hausman test to choose between fixed and random effects, with the null hypothesis being that fixed effects are preferable to random ones (Greene, 2008). In essence, it examines the relationship between the unique mistakes and the regressors; the null hypothesis is that they are not. Decision criteria for the results of the Housman Test:

- H0: The appropriate model is Random Effects.
- H1: The appropriate model is Fixed Effects.

2.8 Testing Hypotheses

The study's hypotheses are focused on how integrated reporting affects business performance in Sri Lankan listed corporations.

Hypothesis 1

H0: There is no significant impact of integrated reporting on the Return on Assets (ROA) of listed companies in Sri Lanka.

H1: There is a significant impact of integrated reporting on the Return on Assets (ROA) of listed companies in Sri Lanka.

Hypothesis 2

H0: There is no significant impact of integrated reporting on the Return on Equity (ROE) of listed companies in Sri Lanka.

H1: There is a significant impact of integrated reporting on Return on Equity (ROE) of listed companies in Sri Lanka

Hypothesis 3

H0: There is no significant impact of integrated reporting on Earnings per Share (EPS) of listed companies in Sri Lanka.

H1: There is a significant impact of integrated reporting on the Earnings per Share (EPS) of listed companies in Sri Lanka.

3. RESULTS

The data gathered from secondary sources is analyzed using univariate, bivariate, and multivariate methods to determine the influence of integrated reporting on the performance of listed firms in Sri Lanka.

3.1 Descriptive Statistics

The STATA software was used in this study to perform descriptive statistics for both independent and dependent variables. For each variable independently, this offers descriptive analysis such as minimum, maximum, mean, and standard deviation. The mean values were used to measure the central tendency, where the dispersion or variability was described by using the standard deviation values Saunders et al, (2009).

3.1.1 Descriptive Statistics of Integrated reporting

When considering integrated reporting there is a maximum value of 91.43 and a minimum value of 22.26. The efficiency has a mean value of 50.46 this means the typical value of efficiency is 50.5. The standard deviation of efficiency is 16.38. It reveals that the value of efficiency varies around the amount of the mean value of 50.46.

3.1.2 Descriptive Analysis of Return on Assets

When considering return on assets there is Maximum and minimum value of ROA are respectively 28.9 and -9.78. The average 3.42 ROA has a standard deviation of 4.45. It reveals that the value of ROA is around the mean value of 3.42.

3.1.3 Descriptive Analysis of Return on Equity

ROE maximum value of 56.71 and minimum value of -25.89. The mean value of ROE is 9.25; it is the average ROE for the period of 2016- 2020. It has a standard deviation of 8.81. It reflects those values of ROE vary around the mean value of 9.25.

3.1.4 Descriptive Analysis of Earning Per Share

When considering the EPS, there is a maximum value of 58.5 and a minimum value of -13.93. EPS has a mean value of 9.43. The standard deviation of ROE is 11.24. It reveals that the values of internet banking vary around the mean value of 9.43.

The mean of the independent variable IR is 50.46%, where the overall standard deviation is 16.37%, while the dependent variables are having the mean values of 3.42%, 9.25%, and

9.43% accordingly where the overall standard deviations of them are followed as 4.54%, 8.80%, 11.24%.

3.1.5 Descriptive Statistics Based on the year

According to Table 3.5, the highest mean value of ROA is 4.72 and represents the year 2016 and the lowest mean value of ROA is 1.93 in the year 2019. Further, the highest ROE is 11.57 in 2016 while the lowest value is 6.28 in 2019, whereas EPS' highest mean value was 10.54 in the year 2017 while the lowest value 7.069 in 2017 accordingly. And also, the highest mean value of IR is 67.65 and it represents the year 2020, where the lowest mean value of IR is 35.85 in 2016.

3.2 Unit Root Test

A fisher-type unit-root test for unit root is conducted to check the stationary. According to Fisher-type unit-root test results, all P-value is less than the 0.05 there for reject H_0 , so the variables are stationary.

- H_0 : variable is non-statistical
- H_1 : variable is stationary

3.3 Panel Correlation Analysis

Table 3.7 shows that there are statistically significant relationships between IR and ROA, EPS at the level of significance due to the p-value being less than 0.05. ($p=0.0000$). The correlation coefficient of -0.149 indicates weak negative relationships, whereas the coefficient value of 0.141 indicates a weak positive relationship as per the correlation scale of Gogtay & Thatte, (2017).

3.4 Panel Regression Analysis

Regression analysis was employed in this study to ascertain how the independent and dependent variables related to one another functionally. It primarily concentrates on two aspects: the relationship's strength and statistical significance. Since all firms have data for all years, researchers have access to balanced panel data. Usually, fixed-effects or random-effects models are used to estimate panel data models.

3.4.1 Suitable Model for Regression Analysis

For the question of whether to use the fixed-effects or random-effects model by calculating the value of Prob>chip2, Housman, (1978) proposed a test which is called the Housman test. To determine which of the two models should be preferred (i.e., whether the fixed effects or the random-effects model), the following hypothesis was investigated:

- H_0 : Random Effects Model
- H_1 : Fixed Effects Model

3.4.2 Fixed Effect Regression Analysis for ROA

The probability value is 0.7272 greater than 0.05. As a result, the random effect model was chosen to analyze the regression. The table shows R square 2.22, which represents the independent variable's explanatory power for the dependent variables. It means that the independent variable explains 2.22% of the variation in the dependent variable. When another variable is added to the model, the adjusted R square represents how well it explains the dependent variable.

The constant statistic is 5.782 units shows the model would predict

independent variables were zero. The coefficient is explained to what extent the independent variable has an impact on the dependent variable. The β coefficient of Integrated reporting is -0.047. It is significant ($p=0.005$) in firm performance (ROA) in listed companies in Sri Lanka. It means there is a significant impact of Integrated reporting on firm performance in listed companies in Sri Lanka.

Based on the coefficient table the regression equation can be drawn as follows:

$$Y_{it} = \beta X_{it} + \alpha + u_{it} + \epsilon_{it}$$

$$ROA = 5.782 - 0.047(IR) + \epsilon_{it}$$

3.4.3 Fixed Effect Regression Analysis for ROE

The probability is $0.0069 < 0.05$. To examine the regression, a fixed effect model was chosen. The table shows a R square of 0.07, which represents the independent variable's ability to explain the dependent variables. It indicates that the independent variable accounts for 0.07% of the variation in the dependent variable. The adjusted R square shows how well a new variable will explain the dependent variable when it is included in the model.

The constant statistic is 15.703 units shows the model would predict independent variables were zero. The coefficient is explained what extent the independent variable has an impact on the dependent variable. The β coefficient of integrated reporting is -0.127. It is significant ($p=0.000$) in firm performance (ROE) in listed companies in Sri Lanka. It means there is a significant impact of

integrated reporting on firm performance in listed companies in Sri Lanka.

Based on the coefficient table the regression equation can be drawn as follows:

$$Y = \alpha_{it} + \beta_1 IR_{it} + \epsilon_{it}$$

$$ROE = 15.704 - 0.129(IR) + \epsilon_{it}$$

3.4.4 Fixed Effect Regression Analysis for EPS

The likelihood is $0.0522 > 0.05$. As a result, a random model was chosen to examine the regression. According to the table, the independent variable's ability to explain the dependent variables has a R square of 1.99. This indicates that the independent variable explains 1.99% of the variation in the dependent variable. The adjusted R square shows how well a new variable will explain the dependent variable when it is included in the model.

According to the constant statistic of 9.368 units, the model would have predicted that all independent variables would be zero. The coefficient explains the magnitude of the influence of the independent variable on the dependent variable. The integrated reporting coefficient is 0.0013. However, it has little bearing on firm performance (EPS) in Sri Lankan public companies ($p=0.970$). This indicates that integrated reporting has little to no effect on the company performance of Sri Lankan listed corporations.

Based on the coefficient table the regression equation can be drawn as follows:

$$Y_{it} = \beta X_{it} + \alpha + u_{it} + \epsilon_{it}$$

$$\text{EPS} = 9.368 + 0.0013(\text{IR}) + \epsilon_{it}$$

3.5 Hypotheses Testing

The hypotheses testing is carried out using the results of the regression analysis. The entire hypotheses are tested using those results.

Hypotheses 1

The β coefficient of integrated reporting is -.047. It is significant ($p=0.005$) in firm performance (ROA) in listed companies in Sri Lanka. It means there is a significant negative impact of Integrated reporting on firm performance in listed companies in Sri Lanka. So, there is enough evidence to reject the null hypothesis. It concluded that:

H1: There is a significant impact of integrated reporting on the Return on Equity (ROA) of listed companies in Sri Lanka.

Hypotheses 2

The β coefficient of integrated reporting is -0.128. It is significant ($p=0.000$) in firm performance (ROE) in listed companies in Sri Lanka. It means there is a significant negative impact of Integrated reporting on firm performance in listed companies in Sri Lanka. So, there is enough evidence to reject the null hypothesis. It concluded that:

H1: There is a significant impact of integrated reporting on the Return on Equity (ROE) of listed companies in Sri Lanka.

Hypotheses 3

The β coefficient of integrated reporting is 0.0013. But it is not significant ($p=0.970$) in firm performance (EPS) in listed

companies in Sri Lanka. This means there is no significant impact of integrated reporting on firm performance in listed companies in Sri Lanka. So, there is not enough evidence to reject the null hypothesis. It can be concluded that there is no significant impact of integrated reporting on the Earnings Per Share (EPS) of listed companies in Sri Lanka

H0. There is no significant impact of integrated reporting on the Earnings Per Share (EPS) of listed companies in Sri Lanka.

4. DISCUSSION

This section's goal is to describe and examine the rationales for the research findings that were drawn from the analyses of the preceding chapter's outcomes. This covers the description of the interrelationship between independent and dependent variables as well as the testing of the regression model relating integrated reporting and firm performance of listed businesses in Sri Lanka that was described in the preceding part.

4.1 Discussion on Descriptive Statistics

The descriptive statistics for all the variables and the dimensions under this study: Integrated Reporting (IR), Return on asset (ROA), Return on equity (ROE), and Earning Per Share (EPS) are presented in table format. The study has considered the analysis over the last five years from 2016 to 2020 accordingly to the CSE Listed Companies in Sri Lanka.

Under the descriptive analysis, it has covered both independent and dependent variables/dimensions, where it reveals that the highest mean

value with the highest standard deviation among the variables. According to that, the independent variable of IR is having a mean of 50.46 with a standard deviation of 16.34. Further, among the dependent variable dimensions, the highest mean of 9.45 is having PS standard deviation of 11.24, while ROA is having the lowest mean value of 3.43 with a standard deviation of 4.45.

4.2 Discussion on Panel Correlation Analysis

The correlation analysis, which was examined in the previous section utilizing pairwise correlation, discusses the link between dependent and independent variables. Furthermore, by taking into account that independent variable apart from dependent variables, it may be possible to determine the effect of integrated reporting on company performance in Sri Lankan listed businesses. The correlation is performed using the correlate command of the STATA.

4.2.1 Relationship between Integrated Reporting and ROA

The impact of integrated reporting on firm performance based on ROA is negative. Because the p-value is less than 0.05, the relationship is statistically significant. As a result, it is possible to conclude that there is a significant relationship between the IR and ROA of Sri Lankan listed companies. This finding is consistent with previous research. According to Samy and Deeb, (2019), integrated reporting has a negative and significant relationship with firm performance as measured by Return on Asset.

4.2.2 Relationship between Integrated Reporting and ROE

The impact of integrated reporting on firm performance based on ROE is negative. However, it is not significant at 0.05 levels because the p-value is greater than the 0.05 level. As a result, it is possible to conclude that there is no significant relationship between IR and ROE of Sri Lankan listed companies. According to a previous study by Nurkumalasari et al, (2019), the Pearson correlation supported a negative insignificant correlation between the IR level of compliance and the return on equity based on statistical analysis results that included descriptive analysis.

4.2.3 Relationship between Integrated Reporting and EPS.

There is a positive relationship between integrated reporting on firm performance based on EPS. That relationship is statistically significant since the p-value is less than 0.05. Therefore, it can be concluded that there is no significant relationship between the IR and EPS of listed companies in Sri Lanka.

Hurghis, (2015) discovered that the financial performance of the company has no effect on the extent to which the issued integrated report is compliant with the IIRC Framework. This is something new for the participating organizations, the framework is optional, the concepts and criteria are quite flexible, and releasing this kind of report is also a learning exercise. The decision to release an integrated report, however, shouldn't be based on the company's financial performance because this style of reporting encourages integrated thinking, which

enhances the quality of the information available to those who provide financial capital and leads to a more effective and efficient allocation of resources.

4.3 Discussion on Panel Regression Analysis

According to the model of this study, the results found the effect of four independent variables on the share price among the listed companies in Sri Lanka.

4.3.1 The Impact of Integrated Reporting on ROA

According to the findings of regression analysis between these two variables, IR and ROA, Return on Asset has a significant negative impact on ROA. with a p-value of 0.005, significant at 5% (Sig.0.05), and a coefficient of - 0.047 As a result, it can be stated that integrated reporting and firm performance based on ROA have a significant impact.

According to a previous study by Kelvin, (2014), IR has an impact on return on assets and return on equity, as well as the maintenance of business resilience and competitiveness in a volatile market. Furthermore, Susanti et al, (2020) discovered that return on the asset has a significant impact on integrated reporting and firm performance. In contrast, Vitolla, (2018) discovered a significant impact of integrated reporting and return on assets.

4.3.2 The Impact of Integrated Reporting on ROE

The result revealed of regression analysis between these two variables, IR and ROE, Return on Equity is

found to have a significant negative impact on ROE with the p-the value of 0.000, which is significant at 5% (Sig.0.05) with the coefficient of - 0.128. Therefore, it can be expressed that there is a significant impact on integrated reporting and firm performance based on ROA.

Rao and Reddy, (2013) discovered that IR influences return on asset and return on equity in order to maintain business resilience and competitiveness in a volatile market. Susanti et al, (2020) discovered that integrated reporting has a significant impact on firm performance based on return on equity.

4.3.3 The impact of Integrated Reporting on EPS

The result revealed of regression analysis between these two variables, IR and EPS, earning per share is found to have an insignificant positive impact on EPS. with a p-value of 0.970, which is significant at 5% (Sig.0.05) with a coefficient of - 0.0013. Therefore, it can be expressed that there is an insignificant impact on integrated reporting and firm performance based on ROA.

The previous study by Adegboyegun et al, (2020) discovered that firms may not necessarily consider IR as important if there is no evidence of a positive contribution to performance; thus, the question becomes, will IR improve firm performance better than traditional reporting style. Meanwhile, existing studies in the literature have yielded mixed results in terms of the effect of IR on performance, with evidence of mixed, positive, and negative effects, and some even

discovering insignificant effects (Bijlmakers, 2018).

3.4 Discussion on Hypothesis Testing

According to the study, the researcher has formulated a hypothesis, which will accept the significant value of the panel regression analysis as it deals with the impact of the study variables. Because the p-value for the regression analysis's results with the Return on Asset (ROA) and Return on Equity is less than 0.05 ($p = 0.000 < 0.05$), the null hypothesis was rejected (ROE). The regression results of the study are also insufficient to disprove the null hypothesis because the Earnings Per Share p-value is more than 0.05 ($p = 0.000 > 0.05$). (EPS).

5. CONCLUSION

Conclusions of the study have been made by considering the results of the research questions by using the panel data analysis and observations. This study considered 42 Sri Lankan listed companies for the fiscal years 2016-2020. To achieve the study objectives, the researcher used descriptive analysis, correlation analysis, and regression analysis.

5.1 Impact of Integrated Reporting on Return on Assets (ROA) of Listed Companies in Sri Lanka

The first goal of the research is to determine whether integrated reporting influences firm performance as measured by the Return on Assets (ROA) of CSE Listed Companies in Sri Lanka. The results of panel regression analysis on the Random-effects Model show that Integrated Reporting has a significant negative

relationship with firm performance based on $ROA = - 0.0467, p=0.005$.

5.2 Impact of Integrated Reporting on Return on Equity (ROE) of Listed Companies in Sri Lanka

The first goal of the research is to determine whether integrated reporting influences firm performance as measured by the Return on Assets (ROA) of CSE Listed Companies in Sri Lanka. The results of panel regression analysis on the Random-effects Model show that Integrated Reporting has a significant negative relationship with firm performance based on $ROA = - 0.0467, p=0.005$.

5.3 Impact of integrated reporting on Earnings per Share (EPS) of listed companies in Sri Lanka

The third objective of the study is to ascertain whether integrated reporting affects the earnings per share of Sri Lankan companies that are listed on the CSE. This objective is met by panel regression analysis on the random-effects model, which demonstrates a non-significant positive link between Integrated Reporting and firm performance as measured by $EPS = -.00134, p=0.000$.

5.4 Recommendations

There haven't been many published studies on the impact of integrated reporting on firm performance in Sri Lankan listed companies. This research can help you better understand the impact of integrated reporting on firm performance in Sri Lankan listed companies. Integrated reporting has a significant negative impact on firm performance as measured by Return on Asset and Return on Equity, according to the

findings of this study. Most listed companies in Sri Lanka have not fully implemented the integrated reporting framework due to the local context. As a result, integrated reporting has little impact on company performance.

Despite the fact that companies publish IR, the level of adoption of integrated reporting elements into reports is slightly lower. In the Sri Lankan context, several companies have adopted IR for their reporting, but they only disclose certain elements. According to the findings, no company in Sri Lanka fully complies with the integrated reporting framework. Further investigation is therefore needed on how integrated reporting affects financial performance in businesses that have completely adopted the framework. The influence of integrated reporting on business performance as assessed by Return on Asset (ROA), Return on Equity (ROE), and Earnings Per Share may be better understood through this study (EPS).

5.5 Suggestions for Further Research

The study has numerous areas where further research can be done based on the study's limitations, findings, and the researcher's experience over the research period. Future research must include a wide range of variables other than firm performance and integrated reporting. This study only looked at 42 companies that were listed on the CSE between 2016 and 2020. Researchers should expand their research by increasing the sample size, adding more variables, and extending the time period. If a better researcher can obtain a standard answer, the research

period is over. Perform extensive research in each industry. The study's findings should be interpreted with these suggestions in mind, and future researchers should try to overcome them as they go forward.

There are some limitations to this study. For starters, the sample size is small (i.e., 42 listed companies). Second, the research period is brief (i.e., 5 years). Third, because the study was conducted in Sri Lanka, it suffers from the limitations of country-specific factors and thus cannot be generalized to firms in other countries. The study's findings should be interpreted with these limitations in mind, and future researchers should try to overcome them as they conduct additional research in this area.

APPENDIX

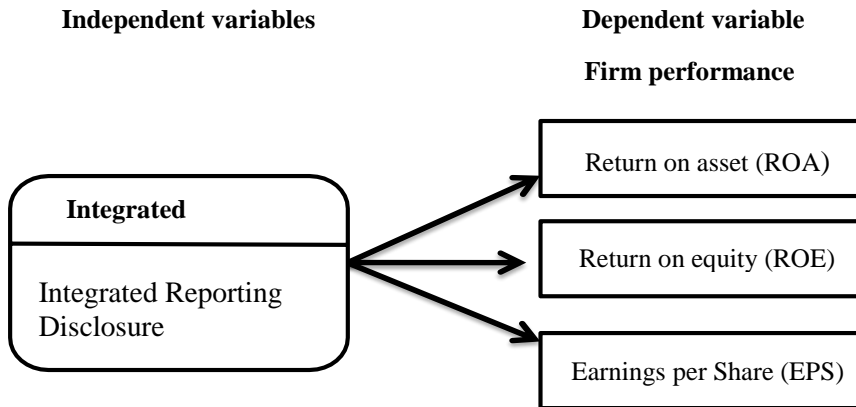


Figure 2.1: The Conceptual Framework

(Source developed by researcher)

Table 3.1: Descriptive Analysis of Integrated reporting

Descriptive statistics	
No of companies	42
No of observation	210
Minimum	22.86
Maximum	91.43
Mean	50.46
Standard deviation	16.37

(Source: Survey Data)

Table 3.2: Descriptive Analysis of Return on Assets

Descriptive statistics	
No of companies	42
No of observation	210
Minimum	-9.78
Maximum	28.9
Mean	3.428
Standard deviation	4.45

(Source: Survey Data)

Table 3.3: Descriptive Analysis of Return on Equity

Descriptive statistics	
No of companies	42
No of observation	210
Minimum	-25.89
Maximum	56.71
Mean	9.25
Standard deviation	8.81

(Source: Survey Data)

Table 3.4: Descriptive Analysis of Earning Per Share

Descriptive statistics	
No of companies	42
No of observation	210
Minimum	-13.93
Maximum	58.5
Mean	9.44
Standard deviation	11.24

(Source: Survey Data)

Table 3.5: Descriptive Statistics based on the year

Year	Descriptive Statistics	ROA	ROE	EPS	IR
2016	Mean	4.724762	11.57429	9.237381	35.85
	Sd	4.925566	8.761229	11.42363	7.810464
2017	Mean	4.016429	10.54595	10.535	41.97286
	Sd	4.642866	8.246792	12.34815	8.778927
2018	Mean	2.947619	10.37643	10.37881	49.04786
	Sd	3.290861	10.40441	12.20553	11.12734
2019	Mean	1.927619	6.298095	7.069524	57.52881
	Sd	2.288941	6.280555	9.003309	13.5163
2020	Mean	3.526905	7.469762	9.957381	67.64857
	Sd	5.868854	9.071535	11.08739	16.61857

(Source: Survey Data)

Table 3.6: Unit Root Test

Variable	Statistic	P Value
ROA	282.4642	0.0000
ROE	164.8405	0.0000
EPS	184.0446	0.0000
IR	540.0474	0.0000

(Source: Survey Data)

Table 3.7: Panel Correlation Analysis

Variable	IR	ROA	ROE	EPS
IR	1.0000	-	-	-
ROA	-0.1488	1.0000	-	-
ROE	-0.0259	-	1.0000	-
EPS	0.1409	-	-	1.0000

(Source: Survey Data)

Table 3.8: Fixed Effect Regression Analysis for ROA

Fixed effects (within) regression	Number of obs = 210
Group variable: company name	Number of groups = 42
R-sq:	Obs per group:
within = 0.0428	Min = 5
between = 0.0097	Avg = 5.0
overall = 0.0222	Max = 5
	F (1,167) = 7.47
corr(u_i, Xb) = -0.0403	Prob > F = 0.0069

(Source: Survey Data)

ROA	Coef.	Std. Err	t	P> t	[95%Conf.	Interval]
IR	-.0488218	0.0178607	-2.73	0.007	-0.840836	-.01356
cons	5.892342	0.9266115	6.36	0.000	4.06296	7.721724

(Source: Survey Data)

sigma | 3.4420469

sigma | 3.1172814

Table 3.9: Random Effect Regression Analysis for ROA

Random-effects (within) regression	Number of obs = 210
Group variable: company name	Number of groups = 42
R-sq:	Obs per group:
Within =0.0428	min = 5
between =0.0097	avg = 5.0
overall = 0.0222	max = 5
	Waldchi2(1) = 7.77
corr(u_i, Xb) = 0	Prob > chi2 = 0.0053

(Source: Survey Data)

ROA	Coef.	Std. Err	z	P> z	[95%Conf.	Interval]
IR	-.0466398	.0167299	-2.79	0.005	-.0794298	-.0138498
cons	5.782233	.9998173	5.78	0.000	3.822627	7.741839

(Source: Survey Data)

Table 3.10: Fixed Effect Regression Analysis for ROE

Fixed Effects (within) regression	Number of obs = 210
Group variable: company name	Number of groups = 42
R-sq:	Obs per group:
within = 0.0866	Min = 5
between= 0.0361	avg = 5.0
overall = 0.0007	Max = 5
	F(1,167) = 15.83
corr(u_i, Xb) = -0.2459	Prob > F = 0.0001

(Source: Survey Data)

ROE	Coef.	Std. Err	t	P> t	[95%Conf.	Interval]
IR	-.1278264	.032126	-3.98	0.000	-.1912518	-.064401
cons	15.70336	1.666694	9.42	0.000	12.41285	18.99387

(Source: Survey Data)

sigma_u | 7.5483984

sigma_e | 5.6070484

Table 3.11: Random Effect Regression Analysis for ROE

Random-effects (within) regression	Number of obs = 210
Group variable: company name	Number of groups = 42
R-sq:	Obs per group:
within = 0.0866	min = 5
between = 0.0361	avg = 5.0
overall = 0.0007	max = 5

(Source: Survey Data)

ROE	Coef.	Std. Err	z	P> z	[95% Conf. Interval]
IR	-0.1041819	0.0309095	-3.37	0.001	-0.1647633 -0.0436005
Cons	14.5102	1.913409	7.58	0.000	10.75999 18.26041

(Source: Survey Data)

sigma_u | 6.6449545

sigma_e | 5.6070484

Table 3.12: Fixed Effect Regression Analysis for EPS

Fixed effects (within) regression	Number of obs = 210
Group variable: company name	Number of groups = 42
R-sq:	Obs per group:
Within = 0.0012	Min = 5
between = 0.0708	avg = 5.0
overall = 0.0199	Max = 5
	F(1,167) = 0.20
corr(u_i, Xb) = -0.2049	Prob > F = 0.6540

(Source: Survey Data)

EPS	Coef.	Std. Err	t	P> t	[95% Conf. Interval]
IR	-.016658	.0370955	-0.45	0.654	-.0898946 0565785
cons	10.27623	1.924513	5.34	0.000	6.476716 14.07574

(Source: Survey Data)

Table 3.13: Random Effect Regression Analysis for EPS

Random-effects (within) regression	Number of obs = 210
Group variable: company name	Number of groups = 42
R-sq:	Obs per group:
within = 0.0012	min = 5
between = 0.0708	avg = 5.0
overall = 0.0199	max = 5

(Source: Survey Data)

EPS	Coef.	Std. Err	z	P> z	[95% Conf.	Interval
IR	.0013422	.0359183	0.04	0.970	-.0690563	.0717407
Cons	9.367886	2.335507	4.01	0.000	4.790377	13.94539

(Source: Survey Data)

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**The Impact of Corporate Social Responsibility (CSR) Dimensions on Brand Image of Hotels
(Prospect of Local Community Established Around Hotels in Galle and Kandy Districts)**

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Abstract

Tourism, being one of the world's largest and most prosperous industry with diversified dimensions focusing on tourists, and sustaining a strong interaction with the local residents. The intention of this study is to examine the impact of Corporate Social Responsibility (CSR) dimensions on brand image of hotels and to determine the most efficient CSR dimension that can strengthen a favorable brand image. Hundred (100) local residents were selected from Kandy and Galle districts using questionnaire with adaptation of judgmental sample technique. The data was analyzed using descriptive statistics, multiple regression analysis, and correlation analysis while using SPSS software. The findings revealed there is a significant impact of CSR dimensions on brand image of hotels and among the three categories, social CSR dimensions mostly affected to the brand image of the hotel. The researcher suggested that CSR dimensions may also be used as a great marketing strategy and there are opportunities to conduct further researches under the areas like identifying most suitable marketing tools to promote CSR among the target audience.

Keywords: Brand Image, CSR dimensions, Local community perspective, Tourism industry

1. INTRODUCTION

The majority of early Corporate Social Responsibilities (CSR) research was dominated by the ethical question of whether corporations had a commitment to promote social wellbeing in addition to their financial and legal duties. This argument essentially defined CSR as socially beneficial company practices not mandated by law or shareholder interests, which explains the concept's

subsequent abrasive and over-inclusive interpretation in the literature (Vishwanathan et al., 2020). According to Fatma, Rahman, & Khan (2016), CSR is a "concept in which businesses choose to contribute voluntarily to a better society and a cleaner environment," and it may be implemented by incorporating "social and environmental factors into corporate operations and interactions

with stakeholders". The idea of CSR merits careful investigation due to its convoluted history. Companies all throughout the world are giving CSR more importance. Further Fatma et al (2016) emphasized that Most CSR research has been conducted in developed nations, such as Western nations; however, there have been few studies published in an Asian context, and there is less information available regarding the issue in emerging nations. The corporate world has rarely shown signs of caring about society as a whole in the past. CSR initiatives can be justified from a strategic standpoint since, in addition to creating socially beneficial outcomes, they will also positively affect, according to one line of thought in this dispute (Moir, 2001; Rowley & Berman, 2000). Despite the fact that there are several available definitions of CSR, this study focuses on more contemporary CSR concepts. According to Richardson, Welker, and Hutchinson (1999), businesses engage in CSR on a voluntary basis to solve societal challenges. Some contemporary definitions are based on the notion that CSR is fundamentally business are led by sustainable development, in which businesses consciously evaluate and report such advantages and disadvantages in parallel to their financial considerations. The 'triple bottom line' concept to sustainable development has also been coined. In this light, Bonilla-Priego, Font, & del Rosario Pacheco-Olivares. (2014) mentioned that multinational hospitality service providers proved their environmental responsibilities and published their CSR efforts in official reports.

Further, Guix, Bonilla-Priego, & Font (2018) noted that many hotels publish CSR reports that including sustainable aspects related to their business operations. In addition, the ideas of sustainable development are similar to the concept of corporate social responsibility, and the two have been used interchangeably at times (Fatma et al.,2016). CSR, according to Joyner et al (2002), refers to areas of financial, legal, moral, and discretionary firm entity acts that are geared toward humanity's values and expectations. They also stated that CSR refers to the company's basic expectations in terms of initiatives that protect public health, public safety, and the environment. They emphasized that societal dimensions, norms, and standards determine the extent to which a corporation's perceived social responsibility is influenced by values and ethics. In today's environment, CSR can be described as all facets of company conduct, with the repercussions of these dimensions factored into every corporate objective (Kim et al, 2018). As a result of the literature's definition of CSR, it can be concluded that CSR is business organizations' ongoing commitment to strengthen their ethical concepts and social involvement in society, contribute to economic development, sponsor charitable programs, and improve the quality of their workforce and services provided (Mohamed & Sawandi, 2007). However, Freeman & Liedtka (1991) suggest that CSR can foster incompetence by causing managers to become involved in areas outside of their expertise, such as attempting to fix society's illnesses.

A hotel is the most significant tourist accommodation in the world (Bansal, 2010). According to the tourism act 38 of 2005 of Sri Lanka, tourist hotel means an establishment or place which provides or holds itself out as providing to tourists for fee or reward sleeping accommodation with or without food and has not less than ten bedrooms. Each hotel has unique features associate with it. Thus, Bansal (2010) emphasized that hotels can be classified based on infrastructure, Facilities, service provides, location, tariffs, type of clientele, duration of stay.

In this light, In the global economy, the hotel business is experiencing unprecedented growth. According to Martínez & Nishiyama (2019), this business generates billions of dollars in revenue globally. However, hotel companies are under strong competition, owing to the positive expansion of alternative accommodation offerings such as service apartments, hostels, and apartment rentals. Tsai, Cheung & Lo (2010) noted that such rise in hotel income reflects guests' growing interest in the accommodation setting. In addition, it highlights the necessity for these organizations to differentiate themselves from their competitors in order to raise profits by attracting guests.

As a result, CSR may be characterized as a technique for differentiating one hotel from another. According to Tsai, Tsang, & Cheng (2012) described that CSR in Hospitality industry is in the context of the hospitality and tourism industry, the concerns on CSR are a response to the guidelines established

by the World Travel and Tourism Council (WTC) and the United Nation World Tourism Organization (UNWTO), as well as the environmental awareness raised by the Green Hotels Association” (Pg.1143). Previous research works on CSR of the hotel sector has focused mostly on the impact of CSR towards financial success (Singal, 2014; Wang, 2014). Accordingly, Kang, Lee, & Huh (2010) mentioned that CSR initiatives increased corporate value in the hotel industry. In addition, Rodríguez & Cruz (2007) noted that CSR initiatives and return on assets have a strong and significant impact. Further, some researches have examined at the motives for CSR. Accordingly, Ayuso (2006) mentioned that cost reductions, consumer pressure, and customer awareness are motivations for embracing CSR practices. Moreover, Kim, Woo, Uysal, & Kwon (2018) stated that CSR efforts may have a favorable impact on employee attitudes on a hotel. These employees' attitudes have a impact on better performance elements such as job satisfaction and guest orientation. However, Martínez & Nishiyama (2019) emphasized that prior research on CSR concerns in the hotel industry did not investigate the impact of CSR in relation to brand equity.

One of the key developments in the worldwide hotel sector is branding. Hence the idea of brand image has become increasingly popular among scholars' and professionals' interest in recent years. Accordingly, Lahap et al (2016) described that brand image is a representation of a product or service that consumers remember. In this light, Martínez, Pérez, & Del Bosque

(2014) mentioned that numerous factors have been linked to the expansion of brand image idea within the hotel sector. From the standpoint of consumers, major advantages of brand image are the decrease in search costs and risk perceptions, in the standpoint of managers and owners, benefits of brand image are the capacity to charge a higher rate than competing hotel chains and individual establishments, and aid in enhancing brand loyalty and take market share away from rivals. Further, Lahap et al (2016) a strong brand image has the ability to boost a company's reputation, finances, occupancy, average selling price, income, and level of profitability. Kandampully & Suhartanto (2003) noted that through the effects of marketing, advertising, public relations, guest feedback and word-of-mouth about the goods and services and other forms of communication, brand image could be formed in the minds of consumers. Moreover, Martínez et al (2014) mentioned that creation of a positive brand image and the upkeep of a responsible attitude toward the stakeholders is connected with protecting the environment. Accordingly, using less natural resources, supporting social causes, and treating employees fairly all help to build a great brand image.

1.1 Problem statement

Rapid development in new technologies, trends like e-commerce and introduction of budget travel tourism and hospitality industry grew faster than ever Lahap et al (2016). Stakeholders in the industry started to utilize this friendly situation to spread

tourism throughout the world. Organizations and individuals used interesting strategies to convert countries into attractive tourist destinations in order to attract many tourists who are willing to travel. Well planned tourism projects help governments to gain huge economic benefits and also the industry is a very good solution for unemployment concern in a country. Because of the benefits gain over the industry, government and private organizations work together to develop travel & tourism industry.

Because of tourism & hospitality industry interacts more and more with people and community there are some negative impacts started to create around the world. Higher percentage of negative impacts create base on the environment and society. Tourism turns local cultures into commodities, these cultures include religious rituals, traditional ethnic rites and festivals. Once a destination is sold as a tourism product, and the tourism demand for souvenirs, arts, entertainment and other commodities begins to exert influence, also basic changes in human values may occur. These changes can affect as a negative impact for the existing cultures and values of those communities. In other hand uncontrolled conventional tourism poses potential threats to many natural areas. Uncontrolled tourism dimensions can impact such as soil erosion, increased pollution, discharges into the sea, natural habitat loss, increased pressure on endangered species and heightened vulnerability to forest fires.

With this situation new idea starts to raise around the world. World population started to say that tourism industry cannot accept and it is destroying people's soles and loving nature faster than any other industry. Business organizations and individuals who engaged in the business wanted to overcome these emerging negative impacts towards travel and tourism industry and maintain their positive image among stakeholders Kang, Lee, & Huh (2010). Because of this situation, tourism experts and professionals start to find a method to overcome the emerging natural and social problems and built positive image at once. In this sense, Creel (2012) suggested that when developing brand image, a business must understand community perspective, particularly their preferences for CSR. Moreover, according to a study done in Spain, Martínez & Nishiyama (2019) found that CSR was seen as a critical component in the creation of brand image in hotel industry. In addition, Kim & Stepchenkova (2021) found that CSR posts on environmental, social and economics enhance the community engagement in hospitality industry. Thus, by using many researches, they identified that most suitable method to accomplish aforesaid both objective is corporate social responsible dimensions.

Although hoteliers have put more focus on conducting CSR dimensions to local community and to stakeholders who live around their hotel premises and near area. In some studies, CSR initiatives are viewed as the characteristics of the company that satisfy stakeholders by offering them

relevant benefits and improving the lives of the expected beneficiaries Martínez & Nishiyama (2019).

However, there are few numbers of research studies conducted to identify community's actual feeling towards CSR dimensions. Reaction of local community and change in their thinking behavior do not research to an acceptable level and it need to be done to get the best point of view of the local community and actual impact bring by the CSR dimensions to their lives.

1.2 Research objectives

There are two specific objectives in this study.

- To identify the impact of CSR dimensions on Brand image of hotels.
- To identify the most effective CSR dimension which can create positive impact on brand image of hotels.

1.3 Contribution

This study accurately showcases the importance of CSR dimensions towards creating an impact on hotel brand image that can cause many positive impressions towards hotels. In Sri Lankan context best case study coming under this scenario is Hotel Kandalama story of turning the negative impression of the local community at the initial stage towards a positive impression by applying number of CSR dimensions that benefit the community. Base on this research study, industry stakeholders will be able to learn more about importance of CSR dimensions to create impact on brand image and what is the most effective CSR

dimension which can create positive impact on brand image of hotels in the mind of local community.

Furthermore, the findings of the research would be useful and benefit for future research studies which will be focusing on identify the impact on brand image that hotels gain through CSR dimensions. Although there are higher number of research studies conducted under CSR related topics, lack of research studies conducted under the area of impact of CSR dimensions on Brand image of hotels with prospect of local community will give extra attraction to this research study.

2. METHODS

2.1 Conceptual Framework

(Figure 01)

Develop by using following sources,

Cho, Eunjoo, "Development of a brand image scale and the impact of lovemarks on brand equity" (2011). Graduate Theses and Dissertations. Paper 11962.

Corp. Soc. Responsibility. Environ. Mgmt. 15, 1–13 (2008)

2.2 Hypotheses

H1: There is an impact of CSR dimensions on brand image of hotels.

H0: There is no impact of CSR dimensions on brand image of hotels.

H2: There is an impact of economic CSR dimensions on brand image of hotels.

H0: There is no impact of economic CSR dimensions on brand image of hotels.

H3: There is an impact of social CSR dimensions on brand image of hotels.

H0: There is no impact of social CSR dimensions on brand image of hotels

H4: There is an impact of environment CSR dimensions on brand image of hotels.

H0: There is no impact of environment CSR dimensions on brand image of hotels.

2.3 Population

Population of the research study includes the local community who establish around hotels and experience CSR dimensions that are conducted by those hoteliers in Sri Lanka.

2.4 Sample

The local community establish around hotels in Galle and Kandy districts will be considered under the purposive sampling method as the sample of this study. A sample of 100 community members will be selected for the sample with 50 for each district.

The purposive sampling technique used on deciding who should be chosen to get the relevant data by the researcher as the community people also should have a sufficient knowledge about the concept.

2.5 Data Collection Method

This research study is relying on primary data. Data were collected from the local community who are established around the hotels and who has experience in hotels' CSR dimensions in Kandy and Galle districts. Therefore, 100 respondents were selected from Kandy and Galle districts.

Further, questionnaire filled by the respondents were used to collect data. Questionnaire was developed in order to disclose key indicators which are related to independent and dependent variables in order to achieve research objectives.

2.6 Questionnaire

Questionnaire is consisted with 03 sections. Accordingly, first section of questionnaire was design to obtain demographic information of the respondents. Second section and third section of the questionnaire was designed to measure the independent variable (CSR dimensions) and Dependent variable (Brand image) respectively. Five-point Likert scale was used to rate the level of agreement of the respondents on the statements that measure CSR dimensions of hotels and brand image.

5- Strongly agree

4- Agree

3- Moderate

2- Disagree

1- Strongly disagree

Questionnaire is consisted with questions regarding demographic factors of the respondents, questions to understand the nature of CSR dimensions that conducted by hoteliers and questions to explore the local community members' perception towards brand image of the hotel.

2.7 Data Analysis

Based on the primary data analysis, the research findings discovered and through which the conclusions and recommendations will be developed accordingly. Therefore, statistical

packages such as SPSS software and Microsoft Excel software used to analyze quantitative data and qualitative data effectively in a descriptive approach.

2.8 Reliability Test

Cronbach's Alpha reliability analysis has been done to measure the validity of research questionnaire. The test will be significant when Cronbach's Alpha value result more than 0.7. Following table illustrates the result of Cronbach's Alpha test in each part of the questionnaire.

2.9 Descriptive Statistics

Descriptive statistics techniques are used to discover and summarize the attributes of the sample and it will provide descriptive information such as mean, mode, median, standard deviation etc. It will be helpful to analyze the current situation of selected dimensions. Descriptive statistics analysis can assist in achieving objectives of this research study. Developed statistics are interpreted using graphs and percentages.

According to the questions that were used was analyzed by the following rule.

5-point likert scale can be divided into 5 equal ranges, equal to 0.8. It means items with scores fall between the ranges of:

4.21 – 5.00 are considered as very important

3.41 – 4.20 are considered as important

2.61 – 3.40 are considered as neutral

1.81 – 2.60 are considered as not important

1.00 – 1.80 are considered as not important at all

2. 10 Multiple Regression Analysis

This research was focused on examining the impact of CSR dimensions on brand image of hotels with special reference to the local community established around hotels in Galle and Kandy districts. In order to accomplish this objective multiple regression model can be developed.

$$BI = \beta_0 + \beta_1 (\text{Eco}) + \beta_2 (\text{S}) + \beta_3 (\text{Env}) + \delta$$

BI - Brand Image

β_0 - Intercept of the equation

β_1 - Coefficients of Economic

Eco - Economic

β_2 - Coefficients of Social

S - Social

β_3 - Coefficients of Environment

Env - Environment

δ - Error

Hypothesis can test according to the following Decision Rule:

If the level of significance (p value) is < 0.05, the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted.

3. RESULTS

3.1 Independent Variable Analysis

Calculated mean values and standard deviation values belongs to independent variable shows on table 01.

According to the above-mentioned decision rule, economic dimension have an excellent mean value of 4.28 and std. deviation value of 0.591 shows that the variation from mean value is very less in economic dimension. In the social dimension, 50 respondents give a mean value of 4.61 which is excellent value according to decision rule. Std. deviation value was 0.748 towards the social dimension which is very good number, because less than 1 is a very good value for a variable. Environment dimension gain a mean value of 4.39 which is an excellent value according to decision rule, and std. deviation value of 0.556 which is another well acceptable value.

3.2 Dependent Variable Analysis

Calculated mean values and standard deviation values belongs to dependent variable shows on table 02.

Mystery dimension got a mean value of 4.53 which is an excellent value and of std. Deviation 0.548 to show the mystery dimension have a little variance from the mean value. Further, sensuality dimension has an excellent mean value of 4.60 and std. deviation value of 0.577 shows that the variation from mean value is very less in sensuality dimension. Intimacy received a mean value of 4.43 and to prove it has lower variance from mean value, particular dimension on intimacy got a 0.683 std. Deviation value.

3.3 Multiple Linear Regression Analysis

To analyze the brand image of local community and identify most effective CSR dimensions which can

create positive brand image on local community researcher use a regression analysis between independent variable and dependent variable (Table 03).

3.3 Model Fitness (Table 04)

This model can introduce as overall significant model. According to above table P value is 0.000. It is less than 0.05. It implies that model is fit to the data as well as due to P value is less than 0.05 ($P < 0.05$).

3.4 Regression Analysis Results (Table 05)

$$BI = .121 + .329 (\text{Eco}) + .358 (\text{S}) + .223 (\text{Env}) + \delta$$

Constant (β_0) is 0.121 which implies that, while all Corporate Social Responsibility (CSR) dimensions remain zero, Brand image is 0.121. Meaning of this equation is that without Corporate Social Responsibilities (CSR) dimensions hotel brand image is lower. P- Value of constant term is 0.016 and which states it is statistically significant at 0.05 level of significant. In addition, all the β coefficient values belong to economic, social and environment represented positive values more than β coefficient value of constant and thereby it is obvious that there is a more positive impact of Corporate Social Responsibilities (CSR) dimensions on brand image of hotels.

When considering economic dimension, the β coefficient is 0.329. This indicates that when other variables remain constant brand image can increase 0.329 by increasing economic dimension by one unit.

Furthermore, it can be seen that economic dimension contributes significantly to the model because p-value is 0.009. It is less than 0.05 level of significant.

Therefore, null hypothesis (H_0) is rejected and alternative hypothesis (H_2) is accepted. Hence, there is a significant impact of economic CSR dimensions on brand image.

When other variables remain constant, social dimension can increase brand image by 0.358. Moreover, social dimension can be contributed significantly to the model since p-value of 0.003. It is less than 0.05 level of significant. Therefore, null hypothesis (H_0) is rejected and alternative hypothesis (H_3) is accepted. Hence, there is a significant impact of social CSR dimensions on brand image of hotels.

β coefficient value for environment dimension is 0.223. This means that environment dimension can increase brand image by 0.223 when another variable remains constant. Furthermore, it can be seen that environmental dimension contributes significantly to the model because p-value is 0.041, which is less than 0.05 level of significant. Therefore, null hypothesis (H_0) is rejected and alternative hypothesis (H_4) is accepted. Hence, there is a significant impact of environment CSR dimensions on brand image of hotels.

3.5 Summery of Regression Analysis (Table 06)

According to table 06, all CSR dimensions are having significant impact on brand image. According to the results, economic, social and

dimensions are significantly related with brand image of local people because of the p value is less than 0.05. Brand image got the highest impact on social CSR dimension because of 0.358 β coefficient value. Then the economic CSR dimension having an impact on dependent variable which is brand image by having β coefficient value of 0.329. Finally, the environment CSR dimension has an impact on brand image by β coefficient value of 0.223.

4. DISCUSSION

The research team gathered data for the study from local community members who residing close hotels in the Kandy and Galle districts.

Gender distribution among 100 respondents is 58% & 42% respectively between male and female respondents. When considering the age distribution, highest number of respondents fall into 31-45 age group and secondly 46-55 age group comes next. Least number of respondents are belonged to 18-30 age group. Income level of the respondents fall highly in 25000-45000 category. 26% of respondents belong to 15000-25000 category and over 45000 income categories.

When collecting data from respondents, the research team takes the hotel into account. Respondents were chosen based on their hotel. However, no information was gathered from hoteliers. Hoteliers assist the research team to select local community members.

Two objectives were established on this research study by the research team they are as follows.

- To identify type of brand image that can gain by conducting CSR dimensions.

The first objective of the research is to identify the type of brand image that can be gained by undertaking CSR dimensions. This objective was accomplished through descriptive analysis. Before focusing on brand image, CSR dimensions and CSR dimensions must be considered. All three CSR dimensions have higher mean values, illustrating that hoteliers engage in CSR to address the economic, social, and environmental needs of the local people. Among those numbers, the social dimension has the highest mean value of 4.61, implying that local community members are more concerned with social issues addressed through CSR dimensions. Local community members, for example, are interested in incorporating social trends into CSR dimensions, taking community preferences into account when designing CSR dimensions, and so on. When conducting descriptive analysis in brand image, researcher analyses the brand image under three main brand image dimensions in order to identify the type of brand image that can gain through CSR. Among three dimensions, sensuality dimension has highest mean value of 4.60 which indicates that through CSR dimensions sensuality type brand image can be developed towards hotels. After sensuality dimension, mystery dimension has 4.53 mean value which means after sensuality, hotels can gain mystery type brand image through CSR dimensions. Finally, the intimacy type brand image is built among local community

members. Which indicates by mean value of 4.43. According to the findings on objective one, hoteliers can build higher sensuality type brand image by conducting CSR dimensions on local people who have established around their hotels. After sensuality type brand image, mystery type brand image is developed among local community. And then after intimacy type brand image is developed among local community because of CSR dimensions.

- To identify the most effective CSR dimensions which can create positive brand image on local community.

Research team use multiple regression analysis to identify the most effective CSR dimensions which can create positive brand image on local community. According to the regression analysis outcomes, all CSR dimensions have a significant impact on brand image of hotel. Although all P-values are less than the 0.05 level of significance, analyzing the regression analysis results demonstrates that the social factor received the highest number of β coefficient values, providing by 0.358 in numbers. It means the value which remain constant once other variables change. In accordance with that social dimension can increase brand image by 0.358 which is the highest number of β coefficient value among three CSR dimensions. Furthermore, social dimension can be contributed significantly to the model since p-value of 0.003 which is less than 0.05 level of significant. Hence, null hypothesis (H0) is rejected and alternative hypothesis (H3) is accepted. This implies that there is a

significant impact of social CSR dimensions on brand image. Moreover, economic CSR dimensions has β coefficient value of 0.329 which implies that when other variables remain constant brand image can increase 0.329 by increasing economic dimension by one unit since of p-value (0.009) of economic CSR dimensions contribute significantly to the model. In addition to that environment CSR dimensions has β coefficient value of 0.223 which ranks third comparing with other two CSR dimensions. Nevertheless, according to the regression analysis, environment CSR dimensions contribute for the brand image. Once other variables remain constant, environment CSR dimensions can increase brand image by 0.223. Based on the above regression results, social CSR dimensions can be identified as the most effective CSR dimensions that can create a positive brand image of hotels.

5. CONCLUSION

The research team has developed research objectives and hypotheses to accomplish the research questions. According to the findings of this study, all three CSR dimensions have a significant impact on brand image of the hotels.

Besides that, the research team observed that social CSR dimensions are the most impact CSR dimension on Brand Image as they have a greater ability to build brand image of the hotel.

Furthermore, when analyzing the dependent variable in this study revealed that there are three

dimensions of brand image as sensuality, mystery and intimacy which consist the dependent variable. Accordingly, sensuality brand image has the least standard deviation and it implies that the responses of the employees are less deviated.

Based on the findings, the researcher can suggest that if hoteliers want to create a more sensual type brand image among the local communities that encompass their hotel properties, they should focus on social type CSR dimension.

5.1 Future Research Areas

During the course of this research study, researchers realized that the majority of hoteliers use CSR as a common dimension that is solely utilized to avoid taxes.

Lahap et al (2020) noted that CSR initiatives and return on assets have a strong and significant impact on brand

image. In line with that, the findings of the research study also revealed that there is a statistically strong impact of CSR dimension on Brand Image. Accordingly, it derives a path that a research study should be conducted to determine why hoteliers do not use CSR as a multitasking tool. Hoteliers can use CSR to build their brand image among locals, and then use it as an excellent marketing tool to attract more tourists. This supports with the Lahap et al (2016), which concluded that a strong brand image has the ability to boost a company's reputation. This research study will be very important for the industry to use CSR as a profit-maximizing tool while also increasing the organization's good will with high reputation.

The researchers believe that the results of this study will contribute to make CSR as an incredible marketing tool that hoteliers will be eager to invest their money and time in.

APPENDIX

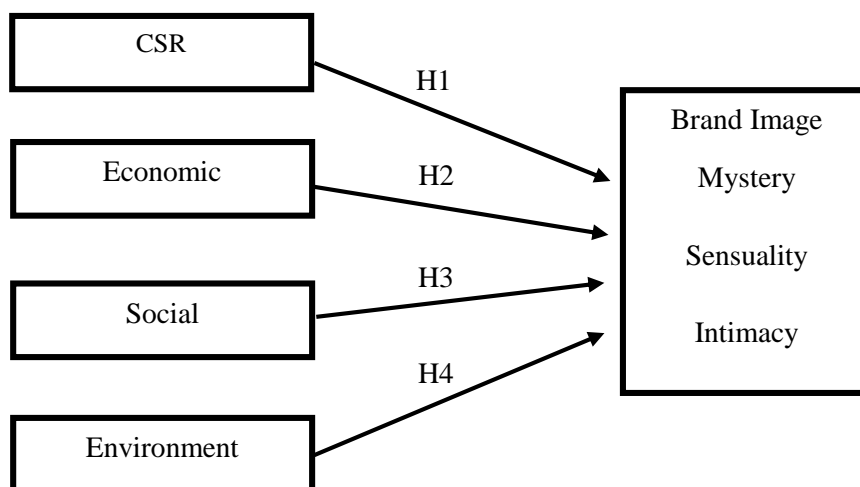


Figure 01 – Conceptual Framework

Table 01 – Independent Variable Analysis

CSR dimension	N	Mean	Std. Deviation
Economic	100	4.28	0.591
Social	100	4.61	0.748
Environment	100	4.39	0.556

Source: SPSS output from field survey information – 2022

Table 02 – Dependent Variable Analysis

Brand Image dimension	N	Mean	Std. Deviation
Mystery	100	4.53	0.548
Sensuality	100	4.60	0.577
Intimacy	100	4.43	0.683

Source: SPSS output from field survey information – 2022

Table 03 – Multiple Linear Regression Analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate
.756	.591	.543	.407

Source: SPSS output from field survey information – 2022

Table 04 – Model Fitness

Model	Mean Square	F	Sig.
Regression	3.384	20.413	.000

Source: SPSS output from field survey information – 2022

Table 05 – Regression Analysis Results

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
(Constant)	.121	.304	1.057	.016
Economic	.329	.128	2.736	.009
Social	.358	.115	3.102	.003
Environment	.223	.158	.777	.041

Source: SPSS output from field survey information – 2022

Table 06 – Summary of Regression Analysis

Modal	P value	<	Significance Level	Null Hypothesis (H0)	Alternative Hypothesis (H2,3,4)
Economic	0.009	<	0.05	Rejected	Accepted
Social	0.003	<	0.05	Rejected	Accepted
Environment	0.041	<	0.05	Rejected	Accepted

Source: SPSS output from field survey information – 2022

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Role Conflict, Role Ambiguity and Job Performance among Supervisors: With Special Reference to Selected Apparel Companies in Sri Lanka

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Abstract

The apparel industry takes a more significant position than other industries that contribute to major income sources in Sri Lanka. Apparel firms mostly rely on the performance of their workforce. However, the problems with regard to job roles are reducing the job performance of the operational level employees, including supervisory employees. They engage in most of the activities that are beyond their responsibility, which results in role conflict and role ambiguity that directly affects their own job performance. Thus, this research study aimed at identifying the relationship and impact of role conflict and role ambiguity on job performance among supervisors in the selected apparel industry in Sri Lanka. The research model was developed from the existing literature regarding the study area. The data were collected from 75 operational level employees-supervisors in three apparel firms using simple random sampling method. Primary data collection was done by using a self-administrated questionnaire, which included 31 statements in terms of role conflict, role ambiguity, and job performance with a Five-Point Likert Scale. The dataset was analyzed based on descriptive statistical analysis, correlation analysis, and regression analysis through SPSS. The findings revealed that supervisors in the selected three apparel firms experienced a high level of role conflict and role ambiguity, and that both role conflict and role ambiguity variables are positively correlated with job performance. Furthermore, role conflict and role ambiguity positively impact on job performance. Future researchers may assess some other variables that can have an impact on employee job performance.

Keywords: Apparel Industry, Role ambiguity, Role Conflict, Job Performance, Supervisors

1. INTRODUCTION

Human resources are the most important and valuable resource to achieving organizational major goals and competitive advantages. The terms of human resources refer to the tangible assets, but they are with

capabilities identified as intangibilities (knowledge, skills, creative abilities, talents, values, and benefits) of an organization's workforce environment. The competitors can create other resources like physical materials, technological

methods, practices and strategies but human resources are unique to each organization. Therefore, organization can't achieve the objectives without good motivated workforce. It needs to be workers' good job performance to achieve those goals. When consider the job performance, it highly affects to manufacturing sector workers.

In manufacturing sectors, there is a need for skilled workers to produce goods. To achieve a great performance level, any organization should have a business environment that helps employees adapt to a dynamic and changing environment. It has a significant impact on employees within businesses.

New skills are required to adopt with new budget cuts and downsizing, frequent organizational change and technological development (Levitt & March, 1988). In addition, networks across traditional boundaries are increasingly necessary to develop innovative solutions for complex problems. As a result, changes have a significant impact, particularly on organizational operational level workers, and they create role ambiguity and role conflict among employees. Thus, employees may have experience that are lack of understanding of their role (role ambiguity) as well as difficulties in attempting to satisfy conflicting or incompatible job demand (role conflict). As per Jackson & Schuler (1985), Research that focuses on cognitive and motivational processes reveals that there is a negative relationship between role ambiguity, role conflict, and job performance. Therefore, the aim of this study is to identify the impact of role conflict and

role ambiguity on job performance among supervisors in three selected apparel firms in Sri Lanka.

1.1 Problem Background

When referring to different types of industries, the apparel industry takes a significant position compared with other industries that contribute to major income sources in the Sri Lankan economy (EDB Sri Lanka, 2022). It is a significant contributor to the economic development in Sri Lanka. Apparel firms have to develop their workforce properly by improving their knowledge, skills and attitudes to meet global competition. To increase those things, there is a need to motivate employees. Therefore, firms try to keep motivated workforce because job performance can be achieved through them (Nabi et al., 2017). There is a major challenge to the development and maintenance of the required manpower for apparel firms in Sri Lanka (Welmilla, 2020). The inefficiency of the workforce is affecting the firm's growth and productivity (Vosloban, 2012).

There should be efficiency among all levels of employees to achieve the common goal of the firm. The operation level has the responsibility of dealing with the firm's manufacturing. Job performances are the apparel firm's expected outcomes through their employees. And also, job performance can be seen through positive people because they always try to increase their performance level (Greeno, 2002). However, the problems with regard to job roles are reducing the job performance of the operational level employees, such as apparel supervisors. When it comes to

supervisory employees' job roles, there are some problems regarding job roles, such as role conflict and role ambiguity. Himmet, Ünal & Cuhadar (2008) and Engin & Serdar (2021) found that role conflicts and role ambiguity seem significant in determining the level of job performance of employees. Most of the time, supervisors are replaced by several job roles, especially when the organizations receive high orders. They engage in most of the activities that exceed their responsibility. Sometimes they are unable to understand what should have to be done. In those kinds of situations, role conflict and role ambiguity can occur. Thus, role conflict and role ambiguity may have direct implications on their own job performance.

Muis et al., (2021) revealed in their study that role conflicts have a significant negative impact on female employees. According to a study conducted by Abramis (1994), assessing the impact of role ambiguity on employees' job performance. The results suggested that role ambiguity significantly and negatively affects the performance of employees. But some scholars have found contradictory results of role conflict and role ambiguity on employees' job performances, as Bedeian, Mossholder, & Armenakis (1983) found different weak correlations between role ambiguity and employee job performance at different times from the same study sample. Since some studies stated that workers who encountered role conflict might stimulate an impulse to resolve the issue and maintain their performance, the impact of role conflict on

employee performance is also uncertain (Rahayu & Hidayat, 2021). Some studies found role conflict did not significantly affect job performance (Wu & Zheng, 2019).

Based on the available evidence, due to both variables of role ambiguity and role conflicts reporting contradictory results and different magnitudes, there is a curiosity to find out the actual results of role ambiguity and role conflicts on job performance of employees. On the other hand, due to the limited studies conducted by combining both role ambiguity and role conflicts on assessing the impact of supervisory job categories, especially in the Sri Lankan apparel industry, this study aimed to identify the impact of role conflict and role ambiguity on job performance among the supervisors of selected apparel firms in Sri Lanka.

2. LITERATURE REVIEW

2.1 Role conflict

Employees face role conflict when they are expected to meet demands and expectations that are irreconcilable (Celik, 2013). Role conflict is defined by different philosopher's in different ways. According to the (Katz & Kahn, 1978) defined role conflict as "the occurrence of two or more role outputs or role requirement that the performance of one of them makes the performance of the other is become more difficult". According to Nayad (2017), "role conflict is inability to perform the role due to incompatibility of different tasks in the same role, arising when the requirements of one system come into conflict with the requirement of the other system. Ahmad, et al. (2021) distinguishes

between two types of role conflict. The first is when a single norm represents a group activity that is immoral, inappropriate, and unethical by the second's norms standard. The second sort of role conflict is one in which two people are competing for the same position is the incapacity of people to do two things at once.

2.2 Role ambiguity

Role ambiguity is defined as “the result of a lack of information with regard to work evaluation about the opportunities to progress, rules and responsibility and superior’s expectations regarding the role of an employee in an organizational position” According to Eys & Carron (2001), role ambiguity is “the lack of a clear set of instructions for guiding one’s actions in a particular setting or to reach a specific goal” According to role theory, “Role ambiguity refers to the lack of specificity and predictability for an employee’s job or role functions and responsibility” (Tang & Chang, 2010). According to Kabiri et al., (2012). Role ambiguity simply define as the focal person doesn’t know what he/she is supposed to do.

2.3 Job performance

Job performance is defined as the total expected value for the organization of the discrete behavioral aspects that an individual carries within standard period of time (Motowidlo & Kell, 2012). And also it can be defined in terms of the incumbent's success in carrying out the tasks that are included in a set of occupational standards (Fleishman & Quaintance, 1984). Job performance can be recognized as employee’s work achievement after

taking required effort on the job which is associated through generating a meaningful work, engaged to profile (Nunez & Frezatti, 2016). Individual work performance refers to an employee's actions that are intended to achieve organizational goals. According to Parker & Turner (2002), individual performance also differs from that of groups and organizations. Some studies, however, show that certain forms of individual performance can contribute to performance results in units of analysis other than the individual level, such as for groups and organizations

2.4 Relationship between role conflict and job performance

As noted by Jackson & Schuler (1985), the literature examining this relationship does not continuously support these contentions. Primary studies in the 1970s and 1980s are failed to find significant correlations between role conflict and job performance. However, in other studies the results indicated that role conflict were significantly and negatively related to job performance.

Role conflicts are issues which are occur due to the mismatch between expectations of job roles in individual within the organization with other inside and outside of the organization (Tsui & Shis, 2005). The potential effect of role conflicts is more sensitive, both for employee or organization in terms of emotional consequences, such as high level of work pressure, job dissatisfaction and lower job performance. Role conflict can be occurred due to discomfort at work and lower motivation. This

condition leads to a negative impact on the employees and would decrease their overall job performance (Amilin, 2017). Sometimes, Role conflict shows positive relationship with the job performance (Kumarasinghe & Deegahawatura, 2021)

2.5 Relationship between role ambiguity and job performance

As per Jackson & Schuler (1985), there is a negative relationship between role ambiguity and job performance can be explained through research that focuses on cognitive and motivational processes. As an example, role ambiguity can be identified as a lack of knowledge of effective job behaviors, when role conflict occurs, due to conflicting information, the individual is unable to do expected things. When comes to cognitive perspective, role ambiguity should result in lower levels of performance since they represent a lack of information and information overload, respectively. From a motivational view, performance should be negatively related to role ambiguity as effort-to-performance and performance-to-reward expectancies. (Tubre & Collins, 2000)

Tubre & Collins (2001) identified a negative relationship between role ambiguity and performance among employees whose roles are characterized by the high level of task interdependence compared to employees who work done independently. When the role ambiguity is high, there are sufficient rooms to interpret the job requirements, leading to different standards of performance among

similar group of individuals and reduced performance

Fried, et al., (1998) found that role ambiguity influenced supervisor performance and those employees with high levels of role ambiguity are associated with lower levels of performance effectiveness. Fisher (2001) also indicated that role ambiguity was negatively related to job performance of the individuals.

2.6 Research Framework

The research framework mainly represents the relationship between the independent variables (role conflict and role ambiguity) and the dependent variable (job performance). Research framework is developed based on the literature. The research problems are conceptualized for the purpose of identifying the operational definitions of the concepts. According to Parvaiz, et al., (2015) role conflict is undesirable job requirement from the employee either he is performing single role or different roles and these requirements generate negative emotions to the person because of the incompatibility of job. According to Eys & Carron (2001), role ambiguity is the lack of a clear set of instructions to guide a person's actions in a particular setting or to achieve a specific goal. Job performance is defined as the total expected value to the organization of the behavioral actions that an individual carries over a standard period of time (Motowidlo & Kell, 2012). Based on the literature review, the research framework is developed as indicated by figure 1. and figure 1 indicates the research framework of the variables.

Following hypothesis can be derived based on the research framework.

1. H_1 - The present level of role conflict exists among supervisors of selected apparel firms is high.
2. H_2 - The present level of role ambiguity exists among supervisors of selected apparel firms is high.
3. H_3 - There is a significant negative relationship between role conflict and job performance among supervisors of selected apparel firms.
4. H_4 - There is a significant negative relationship between role ambiguity and job performance among supervisors of selected apparel firms.
5. H_5 - There is a significant impact of role conflict on job performance among the supervisors of selected apparel firms.
6. H_6 - There is a significant impact of role ambiguity on job performance among the supervisors of selected apparel firms.

3. METHODS

3.1 Study design

There are several variables that can impact the job performance of employees. However, in this study, the researcher chose the two variables of role ambiguity and role conflict as the independent variables and conducted the research study in a natural setting (non-contrived setting). This research is based on cross-sectional studies. Since, the data has been collected at one given point in time from operational level employees

(supervisors) through the distribution of a questionnaire. And also, the unit of analysis was the individuals which represent 75 respondents in the sample. The sample frame of this study was 75 supervisors of the selected firm. The sampling technique of this study was simple random sampling which is coming under the probability sampling method.

3.2 Measures

The variables in the research model were measured through questionnaires with Five-Point Likert Scales and demographic factors measured through nominal scale which were completed by the respondents themselves appropriately as they perceived respond to each and every questions. Personal information of Apparel firm supervisors was measured through questionnaire, which was developed by the researcher.

The questionnaire was developed based on two parts namely; Part 1 - Personal information and Part 2 - Research information from 75 samples which represented to the supervisors of three apparel firms in Sri Lanka. Part 1: Personal information included 06 Statements. It consisted of the information regarding the, Gender, Age, Education, Experience, Position and How many employees of the supervision. In Part 2 - Research information included 31 statements related to three research variables. Dimensions and indicators were used measure those variables. Operationalization of variables has shown in Table 1.

3.3 Validity and Reliability

Content validity ensures that the measure includes an adequate and representative set of items that tap the concept (Sekaran, 2003). In this study, the researcher was provided careful definition of the research through the literature and also researcher used pool of individuals to measure questions in the questionnaire. And also, independent variables and hypotheses are taken from existing literature and similar studies. Criterion-related validity is concerned with the ability of the measures (questions) to make accurate predictions (Saunders, Lewis, & Thornhill, 2016). Therefore, researcher used correlation analysis. Construct validity refers to how well the results obtained from the use of the measure fit the theories around which the test is designed (Sekaran, 2003). Hence, researcher developed questionnaire by using structured questions.

To measure internal consistency, Cornbrash's Alpha (α) measures was used. The recommended value of 0.7 was used as a cut off of reliabilities. The results were provided in the Table 2. According to table 2, all the variables were in accepted level in this study. Variables were greater than 0.7. Therefore, this study's variables have the level of reliability and validity.

3.4 Techniques of data analysis

Collected data were analyzed using the computer based statistical data through SPSS version 23.0 for validity, reliability and hypothesis testing.

4. RESULTS

Personal information analyzed and presented with the frequency distribution. Under the personal information, the researcher measured gender, age, education level, experience of supervisors and number of employees under one supervisor. Gender distribution of supervisors indicated females were represented higher proportion of the sample 57.3% (43) and males were only represented 42.7% (32). Study investigated that majority of sample are representing by the age level between 31-35 years (34.7%). And also between 20-25 years, there were 9 supervisors (9.3%) and between 26-30 years, there were 17 supervisors (22.7%). There were 25 supervisors (33.3%) above 35 years according to the sample collected.

There were three categories of education qualification that are represent in the sample. Majority of the sample were represented the G.C.E A/L and it is 47 (62.75%) and it represented G.C.E O/L as 26 (34.7%). And also other qualifications represented only 2 (2.7%). And also majority of respondents had between 6-10-year experience and it was 35 (30.7%) and 11 (14.7%) of the respondents had the experience level between 2-5 year, and 26 (34.7%) of the respondents had the experience level above 10 years. The least number of respondents had below 2-year experience level and it was 3 (4%) of the sample.

According to frequency distribution of the number of employees under one supervisor, majority of sample represented the number of employees above 35 and least number of

employees under one supervisor were between 16-25 employees.

There should be normality of data for further analysis. The normal distribution of data is the main assumption for running the regression. Skewness and Kurtosis were used to show the normal distribution of data.

Table 3 shows all the skewness and kurtosis statistics. All the items have maintained an appropriate level of skewness in the range of -0.055 to -0.534 and appropriate level of kurtosis in the range of -0.108 to 0.282. These statistics shows that data are normally distributed.

The first objective of the study was to identify the present level of role conflict exists among the supervisors of selected apparel firms in Sri Lanka. Hypothesis was developed as mentioned previously as H₁. The variable of role conflict had high level at its supervisors in selected apparel firm in Galle district (Mean = 3.94). As the high level of mean value, >3.5 was used as a cut off mean value for high level. Most of the respondents expressed the common opinion regarding the variable of role conflict (SD = 0.450). It is also noted that about 84% of respondents have high level of role conflict, while 16% of respondents had moderate level respectively. Therefore, H₁ can be accepted. Values are indicated through table 4. The second objective was to identify to identify the present level of role ambiguity exists among the supervisors of selected apparel firms in Sri Lanka. Hypothesis was developed as H₂. The variable of role ambiguity had high level as it is supervisors in selected apparel firms

(Mean = 3.98). As the high level of mean value, >3.5 was used as a cut off mean value for high level. In addition, most of the respondents expressed the common opinion regarding the variable of role ambiguity (SD = 0.424). It is also noted that about 75% of respondents have high level of variable attribute, while only about 25% of respondents had moderate level respectively. Therefore, this hypothesis can be accepted. These results are represented in table 4.

Pearson's Correlation coefficient with two-tail test of significance was used to identify the relationship between the independent variables and the dependent variable.

The third objective was to identify the relationship between role conflict and job performance among supervisors in selected apparel firms in Sri Lanka. Hypothesis was developed as H₃. Therefore, correlation analysis was used. The fourth objective was to identify the relationship between role ambiguity and job performance among supervisors in selected apparel firms in Sri Lanka. Hypothesis was developed as H₄ as mentioned previously. Table 5 shows the results generated from correlation analysis.

According to the Table 5, significant value of the relationship between role conflict and job performance is 0.000 which is lower than 0.01. This is highly significant even at 1% level of significance. The correlation between role conflict and job performance is 0.660 which is in between +1 to -1. Therefore, there is a strong positive correlation between role conflict and job performance of operational level employees in selected organizations.

So the alternative hypothesis (H_3) was rejected as the findings indicated a positive significance relationship between the two variables.

The correlation between role ambiguity and job performance is 0.597 which is in between +1 to -1. Therefore, there is moderate positive correlation between role ambiguity and job performance of operational level employees in selected organizations. So the alternative hypothesis (H_4) was rejected as the findings indicated a positive significance relationship between the two variables.

Regression analysis was used to identify the impact of role conflict, role ambiguity on job performance. The fifth objective is to identify the impact of role conflict on job performance among supervisors in selected apparel firms in Sri Lanka. The hypothesis developed as H_5 . And also the sixth objective is to identify the impact of role ambiguity on job performance among supervisors in selected apparel firms in Sri Lanka. The hypothesis was developed H_6 . Table 6 shows those results.

According to the Table 6, 43% of the variance in the role conflict can be predicted from the job performance. And also, the value of R-square was 0.43 while the value of Adjusted R-square is 0.42. There is not greater difference between R-square and Adjusted R-square. There is a positive impact of role conflict on job performance can be identified. Therefore, H_5 was rejected.

This study found that 35% of the variance in the role ambiguity can be predicted from the job performance.

And also, the value of R-square was 0.356 while the value of Adjusted R-square is 0.347. There is not greater difference between R-square and Adjusted R-square. There is a positive impact of role ambiguity on job performance. Therefore, H_6 was rejected.

5. DISCUSSION

First objective of the research was addressed to identify level of role conflict exists among the operational level employees (supervisors). According to hypothesis developed based on literature review, the present level of role conflict exists among supervisors of selected apparel firms in Sri Lanka is high. Descriptive frequencies were used to analyze the data and come to the conclusion. According to the descriptive frequency results, the average value (mean value) showed as 3.94 and 0.450 as standard deviation. Based on the decision criteria which presented in chapter five, the average value of the role conflict in indicates there is a high level because highest role conflict has a supervisor in selected apparel firms.

Previous research finding the stated that there is high level role conflict. Schuler, et al. (1977), using the descriptive statics technique in a sample of 362 manufacturing employees of a Midwestern manufacturing firms provided evidence of a high level role conflict has a manufacturing employees (Mean=3.79, SD= 1.21)

Second objective of the research was addressed to identify level role ambiguity among the supervisors. According to hypothesis developed

based on literature review, the present level of role ambiguity exists among supervisors of selected apparel firms in Galle district is high. Descriptive frequencies were used to analyze the data and come to the conclusion. According to the descriptive frequency results, the average value (mean value) shows as 3.94 and 0.424 as standard deviation. The mean scores imply that there is a high level of role ambiguity among supervisors in apparel firms.

Previous research finding the stated that there is high level role ambiguity. This finding is mostly matches with the findings of Thessaloniki & Goulimaris (2014), in the study examines role conflict, role ambiguity and job satisfaction in physical education teachers in Greek with a sample 61 physical education teachers were employed in Greek sport for all programs which shows a high level role ambiguity has a physical education teacher (Mean = 6.07, SD = 1.15).

According to the survey result, the correlation between role conflict and job performance was 0.660. It means that the 66% of job performance depends on the selected variables of role conflict. Therefore, there is a strong positive correlation between role conflict and job performance of operational level employees in selected apparel firms. The hypothesis which is developed as there is a negative relationship between role conflict and job performance among supervisors in selected apparel firms in Sri Lanka was rejected. And also there is a positive impact among those variables as beta value is the 0.660 ($\beta=0.660$) which represents the

average amount the role performance increases when the role conflict increases. Therefore, the hypothesis which is developed as there is a negative impact of role conflict on job performance among supervisors in selected apparel firms in Sri Lanka was rejected.

Previous research finding also stated that there is positive relationship between role conflict and job performance. Behrman & Perreault (1984) identified a positive relationship between role conflict and job performance. Chang (2007) also came to the same conclusion for identify the relationship between role stress (role conflict) and job performance. This study provides evidence of positive relationship between role conflict and job performance among sales person employed by travel agents ($r= 0.278$, $P< 0.001$) significant correlate source as a moderate positive relationship between role conflict and job performance. And also this study found that there is a positive impact of role conflict on job performance ($r = 0.278$). Further, this study found that those sales persons willing to take different job roles by challenging tasks. Therefore, these apparel firm supervisors may have the similar situation.

According to the survey result, the correlation between role ambiguity and job performance was 0.597. It means that the 59% of job performance depends on the selected variables of role ambiguity. Therefore, there is moderate positive correlation between role ambiguity and job performance of supervisors in selected apparel firms. The hypothesis

which is developed as there is a negative relationship between role ambiguity and job performance among supervisors in selected apparel firms in Sri Lanka was rejected. And also, there is positive impact of role ambiguity on employee job performance as regression coefficient or the beta value is the 0.597 ($\beta=0.597$) which is significant at 0.1 significant level which represents the average amount of job performance increases when the role ambiguity increases. The hypothesis which is developed as there is a negative impact of role ambiguity on job performance among supervisors in selected apparel firms in Sri Lanka was rejected. There were no research findings on this type of relationship. These selected supervisors may like to experience the level of role ambiguity when they performing tasks.

6. CONCLUSION

The hypotheses testing provided statistical answer for research objectives of the relationship between role conflict and role ambiguity (independent variable) and job performance (dependent variable) in selected three apparel firms in Sri Lanka. According to the findings of this study, it is substantiated that there are high levels of role conflict and role ambiguity among supervisors. According to the correlation results, there is a positive relationship between role conflict and job performance among supervisors and there is a positive relationship between role ambiguity and job performance among supervisors in apparel firms in Sri Lanka. And also regression analysis represented that there is a positive impact of role conflict on job

performance among supervisors in apparel industry and there is a positive impact of role ambiguity on job among supervisors in apparel firms in Sri Lanka

7. RECOMMENDATIONS

The finding of the study revealed that perception of role conflict, role ambiguity and job performance. Thus in order to maintain the level role conflict, role ambiguity and increase further job performance, recommendations can be suggested as the managers of apparel firms should provide appropriate resources, task and feedback in order to maintain current the level of role conflict and role ambiguity among supervisors. Because in this level, supervisors perform in better way to increase their job performance.

To increase job performance further, managers can provide training and development opportunities for the supervisors, to make working environment as their expectations. The current level of role conflict and role ambiguity increase the job performance. If those are increasing further, job performance may be decreased. Organization can improve another factors which are affect to job to increase level of job performance.

8. IMPLICATIONS AND LIMITATIONS

These findings are very important to decision makers in identifying key workplace issues in order to develop strategies to address and improve the quality of working conditions in an organization. Furthermore, findings of this study would be a better guideline for those who are managers, students,

policy makers, decision makers and other relevant organization.

Moreover, there are some limitations on this study. This research study only focus on role conflict and role ambiguity. Adding other variables would be high reliable than use of

existing variable for the research study. And also this study only covered three apparel firms in Sri Lanka. Expanding the scope beyond the research area would be very effective and useful.

APPENDIX

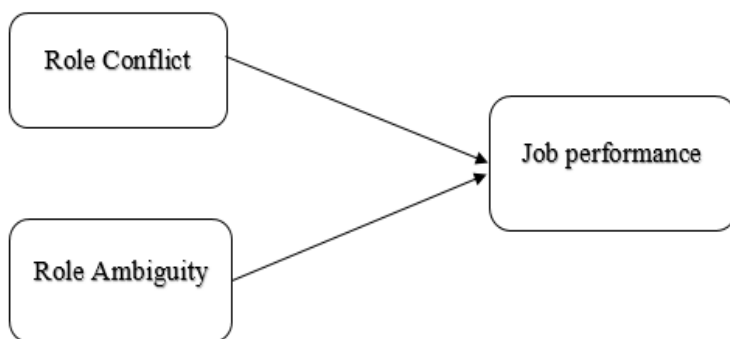


Figure 1: Research framework

Table 1: Operationalization of the variables

	Variable	Dimensions	Indicators	Q.N	Source
1	Job performance	Task performance	Task proficiency	19	Sonnentag, S., Volmer, J. & Spsychala, A., (2008). Job performance. Volume 1, pp. 427-447.
2			Collaboration	20	
3			Task management & administration	15,16 17	
5			Work issues	18	
6			Extra activities	21	
7		Contextual performance	Enthusiasm to perform task	25	
8			Challenging tasks	22,24	
9			Creativity & build solutions	23,28	
10			Seek improvement opportunities	26,27	
11		Adoptive performance	Adoptability	29,30	
12			Learning	31	

1	Role conflict	Internal values and standards conflict	Differentiation of tasks and conditions	1	Rizzo, J. R., House, J. R. & Lirtzman, I. S., (1970). Role conflict and ambiguity in complex organizations . pp. 155-157.
2			Unnecessary things	2,8	
3		Capability and resources conflict	Capabilities and materials	7	
4		Incompatible behavior	Work group	4,6	
5		Conflicting expectations	Incompatible request	5	
6			Rules and policies	3	
1	Role ambiguity	Level of clarity of role expectations	Clear goals and objectives	9	Schuler, S. R., Aldag, R., & Brief, A.P., (1977). Role conflict and ambiguity: A sacle analysis. <i>Organizational behavior and human performance</i> , 20(1), pp. 111-128.
2			Time management	10	
3			Clarity of duties and responsibilities	11,12, 14	
4		Degree of uncertainty	Certain about authority	13	

Table 2: Reliability Analysis for the Variables

Variables	Cronbach's Alpha value
Role Conflict	0.767
Role Ambiguity	0.702
Job Performance	0.802

Table 3: The Shape of Data Distribution Based on Skewness

Statistics			
	Role_Conflict	Role_Ambiguity	Job_Performance
Skewness	-.280	-.534	-.055
Kurtosis	-.260	.282	-.108
Minimum	2.88	2.83	2.59
Maximum	5.00	4.83	4.59

Table 4: Level of Role Conflict and Role Ambiguity

Criteria	Decision Attributes	Frequency of role ambiguity	Percentage	Frequency of role conflict	Percentage
$1 \leq X \leq 2.5$	Lower level	0	0%	0	0%
$2.5 < X \leq 3.5$	Moderate level	19	25%	12	16%
$3.5 < X \leq 5$	High level	56	75%	63	84%
Total		75	100%	75	100%
		Mean: 3.98 SD: 0.424		Mean: 3.94 SD: 0.450	

Table 5: Correlation Analysis of Role Conflict, Role ambiguity and Job performance

Role Conflict & Job performance	Pearson Correlation	.660**
	Sig. (2-tailed)	.000
	N	75
Role Ambiguity & Job Performance	Pearson Correlation	.597**
	Sig. (2-tailed)	.000
	N	75

Table 6: Regression Analysis of Role Conflict, Role ambiguity and Job Performance

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.236	.323		3.820	.000
	Role_Conflict	.612	.081	.660	7.509	.000

R Square: 0.436
Adjusted R Square: 0.428
F-value (p-value): 56.390 (0.000)
a. Dependent Variable: Job_Performance

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.307	.371		3.525	.001
	Role_Ambiguity	.588	.092	.597	6.352	.000
R Square: 0.356						
Adjusted R Square: 0.347						
F-value (p-value): 40.349 (0.000)						
a. Dependent Variable: Job_Performance						

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The Impact of Costa & McCrae's Big Five Personality Traits on Academic Motivation of Part-time Employed Undergraduates

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Abstract

Undergraduates differ in their level of motivation, learning styles, and individual educational preferences. Identifying the relationship between the Big Five personality traits and academic motivation may be central to uplifting the academic motivation of undergraduates towards a higher level of achievement. The objective of the study is to identify the impact of Big Five personality traits namely Neuroticism, Agreeableness, Extraversion, Conscientiousness, and Openness to Experience on academic motivation of Part-time employed undergraduates in University of Sri Jayewardenepura. Since education is the key for most individuals to succeed in their lives, this study contains important information for academic staff to produce high-quality and powerful leaders. Productive graduates will empower the country by bringing new businesses, new technology, new wealth, and ultimately economic growth. Therefore, this study is important not only to undergraduates but also to the growth of the country.

Keywords: Academic Motivation, Agreeableness, Conscientiousness, Extraversion, Neuroticism, Openness to Experience

1. INTRODUCTION

“The quality of students’ thoughts is critical to learning and could potentially determine their academic achievements” (Komarraju & Karau, 2005). Their personality traits are different and will affect people’s thoughts (Perry, 2003). It is argued that a diverse set of personality traits is required for individuals to be successful at work. There is a link between personality qualities and academic success, according to numerous studies.

Motivation is an important aspect of undergraduates' academic development. This article investigates academic motivation and its various component

concepts, such as dogmas, goals, and values, along with intrinsic and extrinsic motivation (Rowell & Hong, 2013). It also presents major, well-researched theoretical perspectives on academic motivation and briefly illustrates strategies for increasing academic motivation.

Individual variances in distinctive patterns of thinking, feeling, and behaving can be defined as personality. Personality is not just an important individual resource but is also plays a vital role in determining academic success. The Big Five Personality (BFP) traits are the most commonly used method to measure the inter-correlation between

personality and academic performance (Hurtz & Donovan, 2000). It is consisting with five major dimensions namely Extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The Big Five personality traits (NEU, EXT, OPN, AGR, and CON) have indeed been linked to a variety of behaviors, including academic performance and job performance (Komarraju & Karau, 2005). One of the most significant benefits of using the BFP traits model is that personality does not change significantly over time.

Education is the process of acquiring beliefs, values, knowledge, skills, learning, and habit formation (Biggs, 2001). Experience, training, education are the three main mechanisms for the acquisition of human capital. Education facilitates the learning and growth and knowledge, which leads to an increase in productivity. In the end, education will bring new technology, new businesses, new wealth, and ultimately the economic growth. It provides benefits to society as well as the individuals.

Many undergraduate students in Sri Lanka devote their valuable time, power, and ultimate commitment to completing their academic requirements while working part-time. Although governments currently provide bursaries and “Mahapola” scholarships to undergraduates, most undergraduates work part-time. However, academic motivation is critical in producing high-quality individuals as well as dominant, powerful leaders.

Today's educational institutions are attempting to identify a multitude of

elements that influence academic motivation in part-time employees, but they are unsure of the precise outcomes of these factors. Numerous recent research studies have discovered a proper inter-relationship between personality and academic motivation in undergraduates (John & Rao, 2020). According to some research studies, the BFP traits had already reflected core aspects of personality and have a strong influence on human behavior (Milfont & Sibley, 2012). Many researchers in the educational sector have extensively studied the BFP traits in academic motivation. The Two-factor study process discovered recently that the big five traits have a strong significant relationship with academic motivation.

However, because most research studies focus on full-time employees (Komarraju & Karau, 2005) and students in high schools and universities, there is a relatively little research on public personal in relation to academic motivation of part-time employment.

Many undergraduate students in Sri Lanka dedicate their precious time, power, and ultimate dedication to education, but a substantial percentage of undergraduate students distinguish these parts while sustaining academic motivation. Several reviews and the two-factor study process questionnaire have documented the importance of university students' personality traits for their academic motivation (Biggs, 2001). Throughout the twenty-first century, there has been a growing study of the relationship between personality traits and academic motivation. Many

studies have found that personality traits have a positive impact on part-time employees' academic performance (Oi & Morrison, 2005). However, some research suggests that personality traits have no effect on the academic performance of part-time employees (Zhou, 2015).

Most of the research on personality traits focuses on the academic motivation of full-time employees or full-time undergraduates, rather than part-time employees (Oi & Morrison, 2005). Based on the current researcher's knowledge, no research has been conducted in Sri Lanka to determine the impact of the Big Five personality traits on academic motivation of part-time employees. Furthermore, determining the impact of the BFP traits on academic motivation of part-time employees will be useful for university students, academic staff, and policymakers in a variety of fields in order to uplift the academic performance and motivation of part-time employees.

The Main purpose of this research study is to find the impact of Big Five Personality Traits on academic motivation of part-time employed undergraduates in University of Sri Jayewardenepura. Many research studies have indeed been done to identify and fully grasp the impact of personality traits on part-time employees' AM. Understanding the link among both personality traits and academic motivation will aid part-time employees in balancing their work and personal lives. They will emerge as dominant leaders and key stakeholders in the country's economic development and growth.

When it comes to hiring new employees, many of the most key considerations that employers look for is academic motivation. Sri Lanka is dealing with a rapidly aging population as well as the counterbalance of a sluggish global labor force (Arunathilake, 2009). This, however, may have a significant influence on the development of skilled human resources for the labor market. As a result, decision makers, administration staff, and corporations in the labor market must give greater attention to combining five personality traits to develop personalized behavior to have better academic motivation. At last, the findings will be useful to the socioeconomic environment, which has a significant impact on the motivation of part-time employees. This information will assist the government in providing better facilities to meet the needs of all individuals. In this research study, Sri Lanka is the geographical context which will be used. Therefore, this research study will be unable to show the globalized results. This research focuses on one of the states (government) universities in Sri Lanka and it is a not really a long-term study. Undergraduates of University of Sri Jayewardenepura (USJ) are taken as the population of the study. Therefore, this research study will not provide information regarding all Sri Lankan university students who are engaged in part-time employment. And while giving answers to the questionnaire, part-time employees may not have been honest and initially some of the respondents did not support to fill the questionnaires. In addition, academic motivation of part-time employees can

be also affected by politics and culture. Therefore, future research study workers should consider about these limitations which have mentioned above.

2. LITERATURE REVIEW

2.1 Academic Motivation

Undergraduates are a valuable resource for universities. Their academic motivation is critical in developing high-quality undergraduate students and dominant leaders (Ojedokun, 2018). As a result, determinants of students' academic motivation have emerged as an intriguing research topic for academics.

Motivation is unquestionably among the most essential psychological concepts in education. Academic motivation will guide students to achieve their educational goals, and Motivation in the classroom or lecture hall. Commonly measured by using the Revised Two-Factor Study Process Questionnaire (R-SPQ-2F) (Costa & McCrae, 1992). The first study used students and discovered that students can be motivated either constructively or destructively. Many researchers later discovered that students are taught in a way that resembles their skills and talents are more likely to accomplish at higher levels. Finally, Biggs, 2001 showed the "Two-factor study process questionnaire was created to demonstrate how students approach learning with either a surface, substantial, or achieving style".

Personality has been discovered to make a significant difference in academic achievement. To investigate the potential effects of personality on

learning, various models, theories, and strategies have been developed. For a variety of reasons, the BFP Traits Prototype stood out. To begin, these five traits (OPN, CON, EXT, AGR, and NEU) perfectly overlap with studies that include more or fewer traits than the BFP Traits Model. These five characteristics are "dispositions that are dynamic but relatively stable, as well as indicators of personal needs." (Chamorro-Premuzic & Furnham, 2009)

Essentially, people are endowed with a variety of characteristics that shape their personality and influence how they respond to stimuli in their surroundings. The most Appropriate personality traits of a key manager assist him/her in achieving the organizational goal, not only in terms of revenue generation, but also in terms of achieving a high level of performance. A person's personality or behavior influences how he reacts, perceives, and thinks about stimuli, resulting in a person's attitude or behavior toward the environment. It is the method by which an individual achieves high levels of performance in his or her job. "A person's personality can be defined as a set of characteristics that determines his or her behavior, cognition, motivation, and attitude in each situation" (Gupta & Gupta, 2020).

Previous students were studied to identify and analyze the various factors that influence academic motivation of part-time employees. Part-time employees' academic motivation is influenced by factors such as their living environment, study habits, and academic interactions (Perry, 2003). However, the focus of

this research study was on the impact of the BFP traits on part-time employees' academic motivation in University of Sri Jayewardenepura.

Most of the population, knowledge is transferred to students through lectures. Many research findings have found a statistically significant link between absenteeism and academic performance. It was discovered that declining student engagement and poor lecturing were the primary causes of students' non-attendance. However, they have not focused on one of the most important factors, such as their personality traits.

To summarize, all previous research findings have focused on various socioeconomic, environmental, and psychological elements that determine academic motivation. The main purpose of this research study is to add to current and existing knowledge by exploring the impact of the BFP traits on academic motivation of part-time employees at the USJ in Sri Lanka Studies that have been conducted have not explicitly stated whether they are focusing on part-time or full-time undergraduates. Therefore, the primary focus of this research study is on full-time undergraduates who work part-time at USJ. Undergraduates' academic motivation suffers because of part-time occupation. Having a part-time job can provide financial benefits, more instruction of successful experience, and the identification of job interests, all of which are beneficial to their academic studies. (Oi & Morrison, 2005)

2.2 Personality Traits

Personality can be clearly defined as “the total of how a person reacts to it

and interacts with others”. (Robbins & Judge, 2016). There are methods and models are available for studying individual personality, but the BFP traits model is one of the most utilized methods for studying these personality traits. The BFP traits framework is the most widely used to explain personality, and it has been independently verified across cultural contexts and as a model of characteristics. “The BFP traits reflect core aspects of human character and have a strong influence on behavior” (Costa & McCrae, 1992). It contains five dimensions namely EXT, AGR, CON, NEU, and OPN.

2.3 Extraversion (EXT)

EXT can be clearly defined as the proclivity to be friendly and chatty, enthusiastic, outgoing, energetic, sociable, and eager to learn. Extraverts are known for their positive emotions, energy, supremacy, activity, and expressiveness. (Stephens & Wand, 2012). Introverts, but at the other hand, are reserved, even-tempered, and self-sufficient. Introverts devote more time to study, Extraverts, on the other hand, spend more time socializing. (Chamorro-Premuzic & Furnham, 2009).

The extravert people are upbeat, energetic, and hopeful. They are always out and about. “They have entrepreneurial skills and enjoy working on a variety of projects. They are always spread over a wide crowd”. (Gupta & Gupta, 2020). People with a low rating, on the other hand, are quiet, submissive, unsocial, and completely disinterested in others. Lower extroversion does not entail that people are less productive; rather,

it means that they work more slowly. They spend most of their time alone.

According to many investigators, extraversion has been negatively associated with academic motivation. (Liang, 2003). But some investigators have identified that there is a positive inter-relationship between personality trait of extraversion and academic motivation.

2.4 Agreeableness (AGR)

Agreeability is a characteristic of interpersonal orientation that ranges from love and kindness and recognition to ambivalence and disagreement. It describes cooperation, trustworthiness, cheerfulness, hard work, being useful and interesting, learning by group assignment, gentleness, and flexibility. "Students who are lack in agreeableness tend to be low and less cooperative and more aggressive" (Chowdhury & Amin, 2006). Prior research studies have covered significant inter-relationship between agreeableness and academic motivation has produced both high and low results. According to several number of investigators, the personality trait of agreeableness has negatively correlated with academic performance (Paunonen, 1998) and (Rothstein, Paunonen, Rush, & King, 1994) High Agreeableness factor scores relate to the level self - report measures of interpersonal facilitation (Perry, 2003).

In order to maintain strong connections with their staff and valuable clients, account managers should possess this attribute. It consists of traits such as trust, altruism, cooperation-compliance,

modesty, and so on. People with a high level of agreeableness assist others, show genuine interest in others, and can readily rely on others. In their viewpoints, such individuals are so kind, mild, forgiving, and adaptable. High agreeability is not always beneficial or advisable. People who have a lack in agreeableness score, believe that manipulating is fundamental to human life. Because they are adamant in their beliefs, these people are regarded as arrogant (Gupta & Gupta, 2020).

"A positive score in this factor more strongly predicts performance in jobs that require team cohesion rather than another interaction". (Perry, 2003) However, still there is a positive relationship between personality trait of AGR and AM of part-time employees (Milfont & Sibley, 2012).

2.5 Conscientiousness (CON)

Conscientiousness is found to correlate with someone being goal-oriented, organized, self-assured, methodical, and dependable. Part-time employees who are conscientious tend to focus on a few goals and do their best to achieve them. The domain of conscientiousness includes impulse control, goal-oriented behavior promotion, and going to approach tasks in a premeditated and organized manner (Althoff, 2010). Previous research studies have shown that managers regard cognitive capacity and conscientiousness as perhaps the most important attributes for achieving goals. Some research studies have found that conscientious students are managing their work life, planning the available time, and working hard to achieve their goals. Academic success is more likely for

undergraduates with higher degrees of conscientiousness than for students with lower levels of conscientiousness, even if the personality factor of conscientiousness stresses behavioral patterns rather than intellectual qualifications per se. For contrast, an undergraduate may be academically mature but lacking in the cognitive or intellectual skills required to flourish in the classroom setting (Althoff, 2010). Unlike broad definitions of personality traits, conscientiousness was solely considered in the context of academic matters, namely how it contributes to an individual's success in maximizing his or her learning chances.

In their research, some researchers discovered a constant link between conscientiousness and work performance (Gupta & Gupta, 2020). But some investigators have been able to identify the low significant relationship between the personality trait of conscientiousness and academic motivation (Ojedokun, 2018).

2.6 Neuroticism (NEU)

People with a high neuroticism are willing to experience emotions like fear, sadness, embarrassment, disgust, and anger, whereas those with low neuroticism are usually relaxed at work and calm but even in their personal lives. The term NEU refers to a person's susceptibility and sensitivity to negative emotions. "A person who is emotionally intelligent recognizes and comprehends the potential consequences of their various emotional responses and is capable of regulating and control them" (Biggs, 2001).

Employees who had scored high on neuroticism tend to be more pessimistic. As a result, they are stressed, have high blood pressure, are depressed, anxious, and have other symptoms. It includes characteristics such as self-consciousness, vulnerability, anxiety, irritability, and so on. Higher levels of neuroticism are easily irritated. They are powerless over their desires. They are more likely to suffer from heart attacks, anger, and other negative emotions. Employees or students with a relatively low score are less likely to become enraged. They are silent, stable, and do not easily and regularly become irritated. If an individual's neuroticism is extremely low, he or she is caring and careless. From the standpoint of a career, having an extremely low level of neuroticism is unacceptable. To a degree, workplace stress is desirable. Because it holds people accountable and keeps them focused on achieving a goal.

Some previous researchers found no significant relationship between NEU and AM (Schneiderman, Ironson, & Siegel, 2005).

2.7 Openness to experience (OPN)

OPN shows the proclivity for intellectual curiosity, thoughtfulness, open-mindedness, and the ability to use one's preoccupation. Individuals with high scores for this trait exhibit imagination, innovation, and rule breaking, whereas those with low-level scores operate more customarily and have a conservative outlook. Close-minded people have limited interests, whereas open-minded people seek novelty and enjoy learning new things.

According to some research studies, “openness to experience is not an acceptable personality trait for employee motivation” (Murray & Michael, 1991). OPN is having the characteristics of being exploratory, imaginative, eager, open-minded, brilliant, and supporting a responsible authorized individual in the performance of his or her duties. Employees with a high-level of OPN score, are imaginative, come up with new ideas, and are eager to try and experience new fresh things. Those individuals are exploratory in nature. An individual who scores low is traditional, down-to-earth, hidebound, and at ease in a familiar setting. These personal characteristics serve as the foundation for developing the objective (Hurtz & Donovan, 2000). Having said that, open people enjoy different ways of thinking and are eager to discover new solutions and opportunities. There can be a significant relationship between OPN and AM (Farsides & Woodfield, 2003). By some investigators have found that, there is no significant relationship between OPN and AM.

3. METHODS

The purpose of this research is to determine the effect of the BFP traits on academic motivation of part-time employees at the University of Sri Jayewardenepura. This research study employs a deductive research method to demonstrate the correlation between different variables. The study's objective will be met by developing hypotheses, testing them on a sample, and presenting the accurate results.

This study research uses survey method to collect data because the method will be able to facilitate the researcher to gain more information regarding the current research. The researcher collects quantitative data by using research questions. According to the plot test, it was identified that the undergraduates of USJ have involved in part-time employment opportunities, and they are currently performing well in academics. Therefore, the undergraduate students of USJ were selected as the unit of analyze in this research study.

The conceptual framework in this study is focused on the relationship between Extraversion (EXT), Agreeableness (AGR), Conscientiousness (CON), Neuroticism (NEU), and Openness to experience (OPN) as the independent variables while the dependent variable is the AM of part-time employees in USJ.

The following hypotheses are developed in conjunction with the conceptual framework. Refer: Figure 1: Proposed Conceptual Framework

H1: Personality trait of extraversion is predicting academic motivation of part-time employees in University of Sri Jayewardenepura.

H2: Personality trait of agreeableness is predicting academic motivation of part-time employees in University of Sri Jayewardenepura.

H3: Personality trait of conscientiousness is predicting academic motivation of part-time employees in University of Sri Jayewardenepura.

H4: Personality trait of neuroticism is predicting academic motivation of part-time employees in University of Sri Jayewardenepura.

H5: Personality trait of openness to experience is predicting academic motivation of part-time employees in University of Sri Jayewardenepura.

4. RESULTS

The main survey used to gather data was conducted in University of Sri Jayewardenepura, using 300 undergraduates. The information shows that all three hundred respondents (100%) were from University of Sri Jayewardenepura and involved in internships or part-time employment. Within all the respondents, hundred and seventy-seven (59%) were male and hundred and twenty-three (41%) were female. The respondents are also categorized by the faculty of the respondents. Hundred and eleven (37%) undergraduates were from FMSC (Faculty of Management Studies & Commerce) and seventy three (24.3%) undergraduates were from FHSS (Faculty of Humanities & Social Sciences). Both Medical and Engineering Faculties were represented by 18 (6%) undergraduates. Sixty-three (21%) undergraduates were from Faculty of Applied Sciences and finally, there were seventeen (5.7%) undergraduates were from Faculty of Technology. The results for the final characteristic, which is the degree part was as follows: there were fifteen undergraduates (5%) from Year I, sixty-one undergraduates (20.3%) from Year II, eighty-eight undergraduates from Year III,

hundred and thirty-two undergraduates (44%) from Year IV, one undergraduate (0.3%) from Year V, two undergraduates (0.7%) from Year VI and one undergraduate (0.3%) from Year VII.

In order to utilize the data purification and the process of reduction of the items under each given variable, the factor analysis can be used. Measurement of the adequacy can be carried out by Kaiser – Meyer – Ohlin (KMO). According to the factor analysis, the KMO value of all measurable items was greater than 0.6. The overall variation is greater than 50% and it shows the appropriation of the total variation in the selected items of respective factors. Refer: Table 1: Factor Analysis

The reliability of the variables in this research study can be identified by the value of internal consistency through the calculation of Cronbach's Alpha values. The results showed the Cronbach's Alpha values are greater than 0.70 and it indicated that the alpha values were above the cut-off value, proposing adequate reliability. Refer: Table 2: Reliability Analysis

The mean values and standard deviation values indicate that openness to experience recorded the highest mean value among determinants. The mean values of extraversion (4.3020), agreeableness (4.3760), conscientiousness (4.3229), and openness to experience (4.3933) were more than 4 and shows the greater impact to academic motivation of part-time employees. Refer: Table 3: Mean Value Calculation

The strength of the relationship between the independent variable and

dependent variables can be analysed by using a correlation analysis. The table 4 indicates how the variables correlated. According to the results, the correlation between the dependent variable and independent variables were statistically significant.

The study's primary objective is to identify the impact of BFP traits on Academic Motivation of part-time employees. The selected dependent variable is academic motivation of part-time employees, and the five independent variables are EXT, AGR, NEU, CON and OPN. This multiple regression analysis is used to access whether EXT, AGR, NEU, CON, and OPN have a significant influence on AM of part-time employees. B value is used to interpret this test and the hypotheses will be rejected if it is relevant at less than 0.05 level of significance. The regression analysis findings are illustrated in the tables 5 & 6. R square value is essentially the proportion of variation in the selected dependent variable which has been clarified by independent variables. As shown in the table, the R^s was 0.733. ($F = 161.103, P < 0.001$), which shows that 73.33% of the variation in AM of part-time employees can be explained by BFP Traits. The VIF values were below 5, therefore there is no multicollinearity problem in the model. Refer: Table 7: Coefficients

According to the results, if $p < 0.05$, B is of significance. The p-values of extraversion (0.000), conscientiousness (0.000) and openness to experience (0.000) were under 0.05. Those factors thus have a major effect on the academic motivation of part-time employees. Among these three factors, the

openness has a significant impact on the academic motivation of part-time employees. It led to the highest beta value (0.412). The results of measurements of validity and reliability specified that all the variables met the standards required. Results of multiple regression analysis have identified that there are statistically significant three determination constructs other than agreeableness and neuroticism construct in this study model. Openness to experience has the highest influence among the drive constructs and conscientiousness has the least effect on academic motivation of part-time employees in USJ. The next chapter of this study is an overview of the results from previous empirical research. This will facilitate in identifying how those findings are compatible with this study's observations.

5. DISCUSSION

This study looks at the impact of BFP traits on AM part-time employees in University of Sri Jayewardenepura. There were more research studies focused on the impact of BFP traits on AM of full-time employees, and the inter-relationship between the BFP traits and AM. The key factors examined in this study were OPN, NEU, AGR, EXT, and CON. Past studies have described those five factors as the most critical factors that influenced the academic motivation. This study analyzed five hypotheses and the acceptance status are,

- I. Personality trait of extraversion is predicting academic motivation of part-time

employees in University of Sri Jayewardenepura.

- II. Personality trait of agreeableness is not predicting academic motivation of part-time employees in University of Sri Jayewardenepura.
- III. Personality trait of conscientiousness is predicting academic motivation of part-time employees in University of Sri Jayewardenepura.
- IV. Personality trait of neuroticism is not predicting academic motivation of part-time employees in University of Sri Jayewardenepura.
- V. Personality trait of openness to experience is predicting academic motivation of part-time employees in University of Sri Jayewardenepura.

This study has shown that the correlation between the academic motivation of part-time employees in University of Sri Jayewardenepura and EXT, CON, and OPN is statistically significant. There was no statistically meaningful correlation between the academic motivations of part-time employees in University of Sri Jayewardenepura and personality traits of AGR and NEU. And this study shows that EXT, CON, and OPN have influenced academic motivation of part-time employees in University of Sri Jayewardenepura. Among these three personality traits, OPN has the highest impact and CON has the lowest impact on academic motivation. EXT has a moderate impact of academic motivation of part-time employees. The current study found that AGR and NEU have no impact on AM of part-time

employees. And that results have rejected the hypothesis of 2 and 4.

I. To determine the impact of extraversion on academic motivation of part-time employees

The findings from the extraversion indicate the second highest impact on academic motivation of part-time employees in University of Sri Jayewardenepura. Many early research studies (Mohammed Chowdhury, 2006) found that extraversion to be a significant force that have a negative impact on academic motivation. Furthermore, some other research studies have even identified a positive inter-relationship between EXT and AM (Rothstein et al., 1994, Milfond and Sibley, 2012). The students who are having extraversion behaviours would like to enjoy with external world. Most of the Part-time employees who are having qualities of extraversion, are action-oriented, enthusiastic, and comfortable in group settings.

II. To determine the impact of agreeableness on academic motivation of part-time employees

The personality trait of agreeableness has no impact on academic motivation of part-time employees in University of Sri Jayewardenepura. Agreeableness is largely unrelated to post-secondary academic performances. Agreeableness has shown more undergraduates' personal behaviour. The undergraduates who have high agreeable qualities tend to be more corporative and competitive. They care and convene about other people, and they feel empathy about others. According to the Farsides & Woodfield, (2003), AGR has shown a

positive impact on AM but according to Zeidner and Matthews (2000), “there is a negative relationship between agreeableness and academic motivation”. However, according to the outcome of this current study, it shows that being trustworthy, helpful, preference to work with others, being kind to everyone will not have an impact on academic motivation of part-time employees in University of Sri Jayewardenepura.

III.To determine the impact of conscientiousness on academic motivation of part-time employees

This research study presents that there is a statistical meaningful inter-relationship between CON and AM of part-time employees in University of Sri Jayewardenepura. “The personality trait of conscientiousness has the most significant correlation with academic performance in students” (John, John, & Rao, 2020). “The personality trait of conscientiousness has been the most consistently connected to post-secondary academic success” (Komarraju & Karau, 2005). The undergraduates of University of Sri Jayewardenepura who are high in conscientiousness tend to pay their attention to detail and they would like to enjoy the routine by having a properly set schedule. And also, the part-time employees who are lack in conscientious behaviours, do not prefer the structures and schedules. According to this research study, most if the part-time employees in University of Sri Jayewardenepura are well-organized, overconfidence, self-controlled, self-disciplined, and not easily upset.

IV.To determine the impact of neuroticism on academic motivation of part-time employees

The findings resulting from this study’s fourth objective indicate that there is no statistical correlation between the NEU and AM of part-time employees in University of Sri Jayewardenepura. The personality trait of NEU has been negatively correlated with Grade Point Average (Chamorro-Premuzic & Furnham, 2009). Neuroticism has associated with dissatisfaction, moody, and distress. According to this research study, part-time employees in University of Sri Jayewardenepura are not shy, backward, and do not worry a lot. The neurotic undergraduates have a less interest in aspects of academic career in contrast, according to this research study, the personality patterns of getting nervous easily, being occasionally, rude to others, avoiding academic dedication, tend to be silent, have no impact on academic motivation of part-time employees in University of Sri Jayewardenepura.

V. To determine the impact of openness to others on academic motivation of part-time employees

The findings resulting from the personality trait of openness indicate the highest impact on academic motivation of part-time employees in University of Sri Jayewardenepura. Many previous research studies which investigated the OPN factor of personality traits as one of the predictors of AM has generated mixed results. Personality trait of OPN shows a tendency towards thoughtfulness, curiosity, willingness to use imagination, and broad-mindedness (Moon, 2013). Majority of the people

who would prefer openness to experience are with the behavioural characteristics such as imagination, emotionality, and liberalism. According to this research study, personality trait of OPN has a favourable impact on academic motivation of part-time employees in University of Sri Jayewardenepura. It stated that majority of the part-time employees are creative and deep thinkers. They have an ability to cope up with stress because they have creative imagination, value aesthetic experiences and they always come up with creative new ideas. The ability of active imagination will be supported by the interest that they have in art, music, movie, and drama.

The findings of this study clearly emphasized that part-time employees, who are with the characteristics of kind, corporative, warm, impulsiveness, hostility, had no influence on academic motivation but the characteristics such as positive emotions, active, dutifulness, aesthetic have an influence on academic motivation. The present findings relating to the inter-relationship between the academic motivation of part-time employees and the agreeableness and extraversion, have shed new lights. In most of the previous research studies' agreeableness has shown a positive correlation with academic motivation and personality trait of extraversion has shown a negative correlation with academic motivation. The result of this study facilitates the predictive validity of Big Five personality traits by using the R-SPQ-2F developed by (Biggs, 2001).

The present research study shows that personality traits as measured by a reliable and well-established inventory such as R-SPQ-2F can be very useful and important in the prediction of academic motivation.

According to the outcome of the current study, the academic motivation of part-time employees in University of Sri Jayewardenepura should be uplift and in order to enhance the academic motivation, the following suggestions have to be made. These suggestions will help to improve the quality, effectiveness, and efficiency of academic motivation of part-time employees in USJ. Ultimately, with the expectation to strengthen both academic life and professional life of part-time employees.

As a minor implication of this study, academic counsellors will be able to find and utilize the strengths and weaknesses of undergraduates. That will help them to guild the part-time employees towards the success by building their strengths and lowering weaknesses.

Understanding the personality traits of part-time employees will be an important pedagogical tool which can be used to provide benefits to both undergraduates and academic staff in making business subjects such as marketing. Despite of being management undergraduates, some may have lower interaction and multitasking skills.

The personality traits of part-time employees have an impact on not only the academic motivation but also academic achievements. The undergraduates with low level of self-

determination are more depending on personality traits (Zhou, 2015). The undergraduates are not performing in a homogeneous way in their personalities or academic motivation. It is compulsory for academic staff to deal with the undergraduates with low motivation. Therefore, the classroom observations and feedback assessments can be used to observe the personality traits of undergraduates. The personalities of undergraduates can be used to assist educators in developing strategies to improve the student learning experience. (Zhou, 2015). As an example, the academic staff will be able to reward the undergraduates who are hardworking, well-disciplined, and performing well. The undergraduates will also be encouraged to work in groups.

Most of the investigators use the BFP traits to predict AM. But the BFP traits are showing a broader view of academic motivation. Therefore, future investigators are strongly advised and encouraged to get narrow personality and behaviour traits instead of using broad personality traits in order to facilitate the prediction of academic motivation of part-time employees in University of Sri Jayewardenepura. And also, the further studies can use learning styles, thinking patterns, academic year, and age as moderating variables.

The academic motivation can be influenced by cultural factors. Therefore, the future investigators are encouraged to consider the cultural influences. And also, the financial facilities and government policies can be used as moderating variables to the BFP traits.

“The medium of instructions is a further drawback” (Köseoğlu, 2016). The medium which was used for the study is English. Since there are undergraduates getting education in Sinhala, the results of the study may infer about undergraduates of University of Sri

Jayewardenepura that provides education only in English. Therefore, further investigators are encouraged to utilize both Sinhala and English languages in order to get better accurate results.

6. CONCLUSION

It was widely identified that the BFP traits namely OPN, NEU, AGR, EXT, and CON have been able to capture the differences in individual behavioural patterns. This study aims to analyze the BFP traits that influence academic motivation of part-time employees in university of Sri Jayewardenepura. A collection of variables captured from previous research studies were used to explain the factors tested in the study. The primary data were gathered through self-administered online structured questionnaire. The present study found that the tested personality traits of OPN, EXT, and CON have an impact on academic motivation of part-time employees in university of Sri Jayewardenepura. And also, there is no impact of the tested personality traits of AGR, NEU on AM of part-time employees in University of Sri Jayewardenepura.

Based on the respondents in this study, the talkative, outgoing, energetic, and sociable behavior of part-time employees have an impact on academic motivation. It shows that their energies and interests toward the

outer world have associated themselves in order to perform well in academics. And, the part-time employees who are purposeful, well-organized, self-controlled, have performed well in academics. According to this study, the part-time employees who have performed well in academics had only few goals, but they have worked hard to achieve them. The current research study shows that the individual behaviour such as willingness to use imagination, intellectual curiosity has a favourable impact on academic motivation. But accordance with respondents, some of individual behaviours namely trustfulness, being helpful, being gentle, being flexible, fear, sadness has failed to build a positive relationship with academic motivation of part-time employees in USJ.

Ultimately, the current study suggests the academic motivation of part-time employees in University of Sri Jayewardenepura are highly influenced by their personality traits. The tested personality traits namely NEU and AGR have least effect on academic motivation of part-time employees in University of Sri Jayewardenepura. But the personality traits namely OPN, EXT, and CON have a positive effect on academic motivation and important to boost the academic motivation of part-time employees in University of Sri Jayewardenepura. Further studies may recognize others strong factors affecting the academic motivation with respect to some other important areas and groups. It can be used by the academic staff and policymakers to formulate their strategies in order to build more competent graduates and ultimately leaders.

APPENDIX

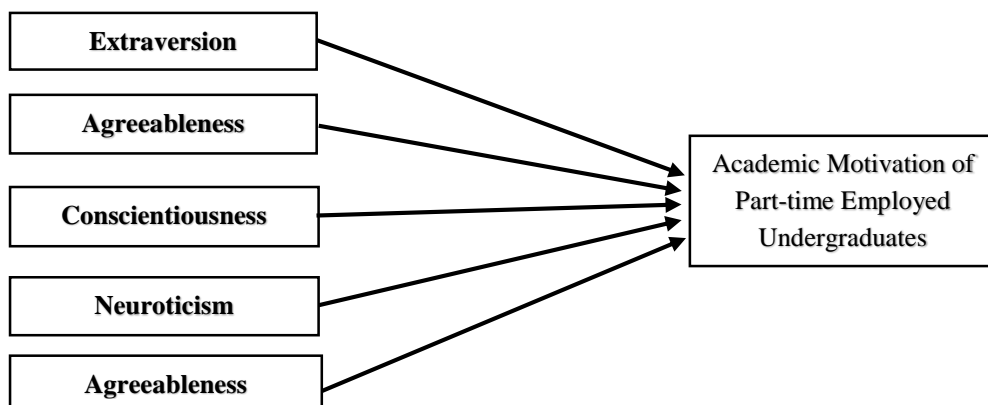


Figure 1: Proposed Conceptual Framework

Table 1: Factor Analysis

Variable	KMO Value	Bartlett's Test of Sphericity Chi-Square	Total Variance explained	Factor loading														
Academic Motivation	0.826	434.227	56.648%	<p>Component Matrix^a</p> <table border="1"> <thead> <tr> <th></th> <th>Component</th> </tr> <tr> <th></th> <th>1</th> </tr> </thead> <tbody> <tr> <td>AM1</td> <td>.717</td> </tr> <tr> <td>AM2</td> <td>.758</td> </tr> <tr> <td>AM3</td> <td>.730</td> </tr> <tr> <td>AM4</td> <td>.787</td> </tr> <tr> <td>AM5</td> <td>.768</td> </tr> </tbody> </table>		Component		1	AM1	.717	AM2	.758	AM3	.730	AM4	.787	AM5	.768
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Extraversion	0.803	307.712	50.646%	<p>Component Matrix^a</p> <table border="1"> <thead> <tr> <th></th> <th>Component</th> </tr> <tr> <th></th> <th>1</th> </tr> </thead> <tbody> <tr> <td>E1</td> <td>.728</td> </tr> <tr> <td>E2</td> <td>.754</td> </tr> <tr> <td>E3</td> <td>.667</td> </tr> <tr> <td>E4</td> <td>.685</td> </tr> <tr> <td>E5</td> <td>.721</td> </tr> </tbody> </table>		Component		1	E1	.728	E2	.754	E3	.667	E4	.685	E5	.721
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Agreeableness	0.814	310.862	50.871%	<p>Component Matrix^a</p> <table border="1"> <thead> <tr> <th></th> <th>Component</th> </tr> <tr> <th></th> <th>1</th> </tr> </thead> <tbody> <tr> <td>A1</td> <td>.710</td> </tr> <tr> <td>A2</td> <td>.772</td> </tr> <tr> <td>A3</td> <td>.717</td> </tr> <tr> <td>A4</td> <td>.729</td> </tr> <tr> <td>A5</td> <td>.630</td> </tr> </tbody> </table>		Component		1	A1	.710	A2	.772	A3	.717	A4	.729	A5	.630
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Conscientiousness	0.870	733.509	57.775%	<p>Component Matrix^a</p> <table border="1"> <thead> <tr> <th></th> <th>Component</th> </tr> <tr> <th></th> <th>1</th> </tr> </thead> <tbody> <tr> <td>C1</td> <td>.730</td> </tr> <tr> <td>C2</td> <td>.655</td> </tr> <tr> <td>C3</td> <td>.511</td> </tr> <tr> <td>C4</td> <td>.745</td> </tr> <tr> <td>C5</td> <td>.767</td> </tr> <tr> <td>C6</td> <td>.789</td> </tr> <tr> <td>C7</td> <td>.797</td> </tr> </tbody> </table>		Component		1	C1	.730	C2	.655	C3	.511	C4	.745	C5	.767	C6	.789	C7	.797		
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C7	.797																							
Neuroticism	0.928	1177.645	64.715%	<p>Component Matrix^a</p> <table border="1"> <thead> <tr> <th></th> <th>Component</th> </tr> <tr> <th></th> <th>1</th> </tr> </thead> <tbody> <tr> <td>N1</td> <td>.753</td> </tr> <tr> <td>N2</td> <td>.801</td> </tr> <tr> <td>N3</td> <td>.747</td> </tr> <tr> <td>N4</td> <td>.796</td> </tr> <tr> <td>N5</td> <td>.823</td> </tr> <tr> <td>N6</td> <td>.853</td> </tr> <tr> <td>N7</td> <td>.851</td> </tr> </tbody> </table>		Component		1	N1	.753	N2	.801	N3	.747	N4	.796	N5	.823	N6	.853	N7	.851		
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N5	.823																							
N6	.853																							
N7	.851																							
Openness to experience	0.929	1060.335	57.041%	<p>Component Matrix^a</p> <table border="1"> <thead> <tr> <th></th> <th>Component</th> </tr> <tr> <th></th> <th>1</th> </tr> </thead> <tbody> <tr> <td>O1</td> <td>.794</td> </tr> <tr> <td>O2</td> <td>.775</td> </tr> <tr> <td>O3</td> <td>.685</td> </tr> <tr> <td>O4</td> <td>.709</td> </tr> <tr> <td>O5</td> <td>.773</td> </tr> <tr> <td>O6</td> <td>.772</td> </tr> <tr> <td>O7</td> <td>.762</td> </tr> <tr> <td>O8</td> <td>.766</td> </tr> </tbody> </table>		Component		1	O1	.794	O2	.775	O3	.685	O4	.709	O5	.773	O6	.772	O7	.762	O8	.766
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Table 2: Reliability Analysis

Variable	Cronbach's Alpha Value	Cronbach's Alpha based on Standardized Items	No. of items
Academic Motivation	0.808	0.808	5
Extraversion	0.754	0.756	5
Agreeableness	0.756	0.757	5
conscientiousness	0.834	0.841	7
Neuroticism	0.908	0.909	7
Openness to experience	0.890	0.892	8

Source: Output from SPSS data analysis

Table 3: Mean Value Calculation

Variables	Mean	Standard Deviation	N
Academic Motivation	4.2887	.68153	300
Extraversion	4.3020	.63572	300
Agreeableness	4.3760	.61657	300
Conscientiousness	4.3229	.62689	300
Neuroticism	2.6290	.89150	300
Openness to Experience	4.3933	.65618	300

Source: Survey Data

Table 4: Correlation Analysis

	MeanE	MeanA	MeanC	MeanN	MeanO	MeanAM
MeanE	1					
Pearson Correlation						
Sig. (2-tailed)						
N	300					
MeanA	.837**	1				
Pearson Correlation						
Sig. (2-tailed)	.000					
N	300	300				
MeanC	.847**	.832**	1			
Pearson Correlation						
Sig. (2-tailed)	.000	.000				
N	300	300	300			
MeanN	.143*	.250**	.165**	1		
Pearson Correlation						
Sig. (2-tailed)	.013	.000	.004			
N	300	300	300	300		
MeanO	.797**	.785**	.820**	.119*	1	
Pearson Correlation						
Sig. (2-tailed)	.000	.000	.000	.039		
N	300	300	300	300	300	
MeanA	.795**	.738**	.799**	.153**	.811**	1
Pearson Correlation						
Sig. (2-tailed)	.000	.000	.000	.008	.000	
N	300	300	300	300	300	300

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

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

Table 5: Regression Analysis 01

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.856 ^a	.733	.728	.35540	1.890

Source: Output from SPSS data analysis

Table 6: Regression Analysis 02

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	101.746	5	20.349	161.103	.000 ^b
Residual	37.136	294	.126		
Total	138.881	299			

Source: Output from SPSS data analysis

Table 7: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.060	.157		.385	.700		
MeanE	.309	.070	.288	4.406	.000	.212	4.709
MeanA	-.031	.071	-.028	-.441	.660	.222	4.505
MeanC	.269	.073	.248	3.697	.000	.203	4.934
MeanN	.023	.024	.031	.971	.332	.917	1.091
MeanO	.412	.060	.397	6.908	.000	.276	3.624

Source: Output from SPSS

Table 8: Operationalization of the Variables

Variable	Measurement Items	Source
Academic Motivation of Part-time employees (AM)	<p>AM1... I find that at times studying gives me a feeling of deep personal satisfaction</p> <p>AM2... I feel that virtually any topic can be highly interesting once I get into it</p> <p>AM3... I find that studying academic topics can at times be as exciting as a good novel or movie</p> <p>AP4... I work hard at my studies because I find the material interesting</p> <p>AM5... I approach most study sessions with questions in mind that I want answering</p>	<p>Meera et al. (2005), Melissa et al. (2007), Biggs (2001) Mohammed Chowdhury (2006), Mikael Jensen (2015), Ojedokun (2018), Vallerand et al. (1992)</p>

<p>Extraversion (E)</p>	<p>E1... I am talkative E2... I am curious about what happened around me E3... I am sociable E4... I have a desire to learn E5... I am an extravert student</p>	
<p>Agreeableness (A)</p>	<p>A1... I have a forgiving nature A2... I am trustworthy A3... I am helpful A4... I am kind to everyone A5... I prefer to work with others</p>	
<p>Conscientiousness (C)</p>	<p>C1... I am organized C2... I am not easily upset C3... I am overconfidence C4... I am self-controlled C5... I am a reliable person C6... I have self-disciplines C7... I make plans and follow through with them</p>	
<p>Neuroticism (N)</p>	<p>N1... I get nervous easily N2... I occasionally rude to others N3... I am a shy and backward person N4... I am avoiding academic dedication sometimes N5... I worry a lot N6... I tend to be silence N7... I am somewhat careless</p>	
<p>Openness to experience (O)</p>	<p>O1... I come up with new ideas O2... I am creative O3... I have an ability to cope with stress O4... I am a deep thinker O5... I have an active imagination O6... I value aesthetic experiences O7... I like to play with ideas O8... I have an interest in art, music, movie or drama</p>	

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The Impact of Social Media Marketing Activities on Consumers Purchase Intention towards Handloom Clothes in Eastern Province, Sri Lanka

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Abstract

Nowadays, Social Media Marketing (SMM) is a powerful promotional tool for influencing consumers' purchase intention. The aim of this study is to explore the impact of SMM activities such as entertainment, customization, interaction, trendiness, and electronic word of mouth on consumers' purchase intention in the context of the handloom clothing businesses in Eastern Province of Sri Lanka. The research used an online survey of 176 suitable responses. The respondents were selected based on the convenient sampling technique. Multiple regression analysis was conducted. The findings of this study revealed that customization, trendiness, and electronic word of mouth have significant impact on consumers' purchase intention, while entertainment and interaction have no impact on consumers' purchase intention towards handloom clothes in Eastern Province of Sri Lanka. The main implication of this research is that handloom clothing businesses should perform effectively the social media marketing activities which pave the ways to stimulate consumers' purchase intention. Future researchers may investigate how social media marketing activities influence other businesses or industries. Furthermore, age, gender, income and cultural differences may be used as moderators in the future regarding this topic.

Keywords: Consumer Purchase Intention, Handloom Clothing, Social Media Marketing Activities

1. INTRODUCTION

Until a few years ago, most companies used mass media including television, newspaper, and radio for marketing and advertising activities to convey the messages to their stakeholders. Nowadays, the technological advancement and the digital revolution connects people to each other and makes it easier to access information related to people, businesses, products, brands, and

services. In this regard, one of the interactive technologies is social media which allows businesses to do external promotions, marketing, communicate with employees, and customer engagement (Troise & Camilleri, 2021; Seo & Park, 2018).

Customers are considered to be concrete assets that need to be developed, sustained, and used wisely. Therefore, for organizations, inducing customers to purchase products or

consume services from them is the crucial part. Das (2014) stated that consumer purchase intention is a positive feelings and attitude on a product or service or brand. Consumer purchase intention is not only influenced by friends and relatives but also by unknown persons on social media (Poturak & Softic, 2019). Therefore, the way consumers make buying decisions is changing due to the development of social media sites and forcing marketers to reevaluate their marketing strategies (Shah, Zahoor, & Qureshi, 2019). Organizations that do not adopt social media marketing strategy may lose the chance to build customer relationship (Wang & Kim, 2017).

In the fashion industry, handloom clothing is generating more interest as there is a growing concern about the exploitation of production and the contribution to the economy through trade (Wanniarachchi, Dissanayake, & Downs, 2020). Sri Lankan handloom industry is a labor inducement and deconcentrated industry. Primarily most of the production sections are found in rural areas and it is an important cottage industry and thousands of rural women and men depend on it for their livelihood (Export Development Board, 2013). It is evaluated that there are about 6,500 handlooms operating in Sri Lanka, delivering about 15,000 immediate jobs which includes a substantial number of women in the country (Export Development Board, Sri Lanka, 2020).

Handloom industries are concentrated in Sri Lanka, particularly in the Western, Eastern, North Western, and Southern Provinces (Costa, Fernando

& Yapa, 2018). This study focused Eastern Province which consists of districts namely Ampara, Batticaloa, and Trincomalee. The reason behind the selection of Eastern Province for this study was the dispersion of multi ethnic people such as Sinhalese, Tamils, Muslims, and Christians live together in this Province. Therefore, the study findings will be more generalizable to the handloom businesses based on the perspectives of all the group of people who live in Sri Lanka.

Since customers' intention to purchase handloom products due to the usage of social media lead to the handloom business retention (Guha, Mandal & Kujur, 2021), this study was conducted based on this idea in the context of Eastern Province, Sri Lanka.

Based on the past studies on social media marketing, researchers have categorized social media marketing activities inside five components, entertainment, interaction, trendiness, customization and electronic word-of-mouth (eWOM) (Lee, 2017; Yadav and Rahman, 2017; Kim & Ko, 2012). According to Balasubrahmanyam & Muthumeenakshi (2021), in the current scenario, social media serves as a vital promotional tool for handloom products and generates customer satisfaction. Furthermore, this research helps to realize how social media assist marketers to provide clear and uncomplicated information about their products to customers without any confusion in promoting their brands.

Rani & Bains (2014) stated that buyers prefer handloom brands regardless of

the fashion trend going on. They consider handloom clothes to be medically good for human skin and give it an attractive and royal look. Consumers of handloom clothes gain awareness about handloom clothes through trade fairs and exhibitions (Varghese, 2019), which are the traditional means of promotions done by marketers. However, it is better that handloom businesses are focusing more on digital marketing means for example Social media marketing, which motivates consumers to buy handloom clothes immensely nowadays. In this regard, Humbe & Bhalerao (2018) stated that handloom clothing businesses have many benefits through social media because they can interact directly with customers on social media in minutes. Therefore, the aim of this research is to investigate the impact of social media marketing activities on consumers purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

1.1. Research problem

In general, the promotion of handloom products is limited to exhibitions and fairs with limited outlets (Dineshkumar, 2018; Sivasakthi & Basariya, 2018; Nadh, Rao, & Harshavardhan, 2013). Therefore, the handloom industry needs constant marketing campaign through social media than traditional media promotions to get the lasting and constructive influence of handloom items on the customers purchasing decisions (Guha, Mandal & Kujur, 2021). These handloom producers face few challenges in selling handloom clothes by reason of

structure of the industry changes and lack of access to markets and information (Wanniarachchi, Dissanayake & Downs, 2020). In addition, there are a lack of advertising in handloom products, but after adopting social media marketing, handloom businesses are slowly increasing sales volume of handloom products (Balasubrahmanyam & Muthumeenakshi, 2021).

Prior research has discovered and endorsed the significance of social media marketing in numerous areas or industries for example operations, services, finance, and human resource management. (Seo & Park, 2018). In the context of marketing, most studies have assessed the impact of social media marketing on customer satisfaction or consumer behavior (Godey, Manthiou, Pederzoli, Rokka, Aiello, Donvito & Singh, 2016). There have been few studies conducted to discover the impact of social media marketing activities on consumer purchase intention in the foreign context (Alfeel, 2019; Gautam & Sharma, 2017; Godey et al., 2016). To the knowledge of the researcher, scant researches have been conducted in the Sri Lankan context including Eastern Province of Sri Lanka on the present research topic (Sandunima, Bandara, Viduranga, & Kodagoda, 2019). Therefore, in order to fill the empirical gap, this research is conducted to inspect the impact of social media marketing activities on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

Furthermore, this study will help in effectively selling and buying handloom clothes through social

media marketing by providing proper awareness to the customers of handloom clothes. It is expected that the results of this study will help academics, handloom business owners and strategy makers to understand how the social media marketing activities affect consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

1.2. Research Objective

The objective of this study is to investigate the impact of social media marketing activities on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

1.3. Research question

This research study aimed to answer the following research question:

“At what extent do social media marketing activities impact on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka?”

1.4. Related literature

1.4.1. Social media and social media marketing

The widely accepted definition for the social media was said by Kaplan & Haenlein (2010) who described social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content”. Howard and Parks (2012) also defined social media through three parts such as “(a) the information infrastructure and tools used to produce and distribute content;

(b) the content that takes the digital form of personal messages, news, ideas, and cultural products; and (c) the people, organizations, and industries that produce and consume digital content”. Currently, few social media platforms such as Facebook, Twitter, and content sharing website YouTube are widely adopted (Pham and Gammoh, 2015). Though the social media has been emerging immensely in the technological world, the definitions for it also has been being modified with new keywords but for the purpose of this study, the above said two definitions are appropriately selected by the researchers.

Social media enables interactive two-way direct communication by removing all restrictions related to time, place, medium (Gautam & Sharma, 2017), which allows customers and companies around the world to connect at any time (Harris & Rae, 2009) and becomes a crucial factor in determining several features of consumer behavior, plus consciousness, ideas, attitudes, purchasing behavior, and evaluation (Mangold & Faulds, 2009). Social media marketing is defined by Felix et al. (2017) as “an interdisciplinary and cross-functional concept that uses social media, often in combination with other communications channels, to achieve organizational goals by creating value for stakeholders” Social media marketing can be portrayed as the interaction that enables advancement of websites, items, and contributions through internet based social channels that incorporate activities identified with promoting and advertising, for example, writing

for a blog, sharing pictures and posts on the web (Yazdanparast, Joseph & Muniz, 2016).

1.4.2. Consumer purchase intention

Purchase intention refers to the probability that a consumer will purchase a product after the evaluation on purchasing decision

(Kian et al., 2017). Moreover, purchase intention is a pre-purchase motivation, which provides the customer a willingness in purchasing goods and services (Meskaran, Ismail & Shanmugam, 2013).

Social media gives businesses incredible opportunity to connect with customers in their social networks and develop closer relationships with them (Kelly, Kerr, & Drennan, 2010), for pre-purchase motivation. Prior research from Gautam & Sharma (2017), Kim & Ko (2012), and Kim & Ko (2010) described social media marketing efforts or activities that has impact on consumer purchase intention in social media. Therefore, the social media marketing activities is discussed below.

1.4.3. Social media marketing activities

There are five aspects of social media marketing activities available such as entertainment, customization, interaction, trendiness, and electronic word of mouth (Godey et al., 2016; Kim & Ko, 2012).

1.4.3.1. Entertainment

Muntinga, Moorman & Smit (2011) stated that entertainment strongly encourages users to engage in social media and create user-generated content (UGC). Based on the involvement of social media, users

utilize social media for the purpose of entertainment, relaxation, passing the time, and combating boredom from seeking related content on social media (Lee & Ma, 2012). Entertainment has positive impact on consumers purchase intention in social media in the fashion industry (Gautam & Sharma, 2017; Kim & Ko, 2012; Kim & Ko, 2010). Therefore, following hypothesis was formulated as follows:

H1: Entertainment has significantly positive impact on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

1.4.3.2. Customization

Customization is meant that how far the products, services and information are tailored to satisfy the target customers. Companies can build brand loyalty and relationships by customizing social media networks (Martin & Todorov, 2010). Furthermore, Tam & Ho (2006) stated that customization enhances the quality of the purchase decision away from the information load. Gautam & Sharma (2017), Kim & Ko (2012), and Kim & Ko (2010) found that customization has significantly positive influence on consumer purchase intention in social media. Therefore, following hypothesis was developed:

H2: Customization has significantly positive impact on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

1.4.3.3. Interaction

Godey et al. (2016) described that interaction is conversation and discussion between users and others.

According to Hajli (2013) and Nolcheska (2017), customers' social interaction has a huge influence on purchase decision. According to Gautam & Sharma (2017), Kim & Ko (2012) and Kim & Ko (2010), interaction as one of the social media marketing activities that has a significant positive effect on consumers' purchase intention. Thus, it was hypothesized that:

H3: Interaction has significantly positive impact on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

1.4.3.4. Trendiness

Social media delivers to the latest messages and hot topics (Naaman, Becker, & Gravano, 2013). According to Cheung, Pires, & Rosenberger (2020), trendiness indicates the ability for social media to spread the trendy information. Gautam & Sharma (2017), Kim & Ko (2010), and Kim & Ko (2012) found that trendiness has significantly positive impact on consumer purchase intention in social media. Therefore, following hypothesis was developed:

H4: Trendiness has significantly positive impact on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

1.4.3.5. Electronic word of mouth

Word of mouth (WOM) is meant that spoken interaction where information is shared in social setting or circle. Customers suggest or share their personal experiences on social media (Godey et al., 2016). According to BrownBritish (2011), electronic word of mouth (E-WOM) is

greater dependable than traditional marketer-generated content on the Internet. Therefore, social media users can create, send, or recommend brand, product, or service-related information to their friends, contacts, colleagues and family members. Electronic word of mouth produced through social media, helps in consumer buying decisions (Pan & Chiou, 2011). Gautam & Sharma (2017), Kim & Ko (2012), and Kim & Ko (2010) found that electronic word of mouth in social media has a significantly positive impact on consumer purchase intention. Hence the ensuing hypothesis was formulated:

H5: Electronic word of mouth has significantly positive impact on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka.

2. METHODS

2.1 Research Design

Research design is a structure that is concerned with guiding this research (Saunders, Lewis, & Thornhill, 2009). This research adopts quantitative method. The quantitative research strategy is best suited for this study to examine the impact of social media marketing activities on consumer purchasing intention.

2.2 Sampling design and data collection

The population of this research study is Eastern Province of Sri Lankan consumers who are purchasing handloom clothes through social media sites. The samples in this study were selected using a convenient

sampling technique. Target respondents were reached through an online data collection technique, an online Google form. Data were collected from 176 respondents who live in Eastern Province of Sri Lanka and purchased handloom clothes through social media.

A structured questionnaire consisting of twenty-two indicators according to the dimension of the study. The questionnaire was first developed in English, then translated into Sinhala and Tamil, then formulated by using the Google form.

The pilot test was conducted with 10 potential respondents to assure the standard and clarity before administering the actual questionnaire. Through the pilot study, it was found that the language used was stated to be clear and direct and the length of the questionnaire was reasonable. Finally, the questionnaire was distributed through email, Facebook, WhatsApp, and Viber. The survey was opened for data collection from mid-May 2021 to mid-June 2021.

2.3. Research instrument

To evaluate social media marketing activities indicators were adopted from prior research. Three indicators were adopted from Godey et al. (2016) and Luo (2002) to measure the entertainment. Three, four, and four indicators, respectively, were adopted from Godey et al. (2016) to estimate customization, interaction, and trendiness. Four indicators were adopted from Godey et al. (2016) and Kim & Ko (2012) to measure the electronic word of mouth. Finally, four indicators were adopted from

Kim & Ko (2012) to measure the customers purchase intentions.

A five-point Likert scale ranging from 1, strongly disagree, to 5, strongly agree, was used for indicators or items operationalizing all the constructs. Operationalization of variables are shown in Table 1 in the Appendix.

3. RESULTS

Data were analyzed using computer aided software called Statistical Package for Social Sciences (SPSS Version 25.0) to meet the objectives of the study. There were few analyses conducted using SPSS such as; demographic description, reliability analysis, validity analysis, collinearity test, descriptive statistics, and multiple regression analysis.

3.1. Demographic description

A total of 176 valid responses were obtained. The demographic profile of the responses is presented in Table 2, given in the Appendix. The respondents were relatively female, young, and had degrees. Most respondents, 69%, 89%, and 96%, were female, educated with holding under graduate or post graduate qualifications, and age between 20 to 45, respectively. Also, most respondents, 64% were employed with government employment or private employment. 78% of the respondents earns above Rs. 25000.

The responses came from districts Ampara (55.7%), Batticaloa (23.3%), and Trincomalee (21%). Responses mother tongues either Sinhala or Tamil were equally at the rate of 50%. The majority of respondents were Buddhist with 40.9%, 25.6% were

Hindu, 19.9% were Muslims and 13.6% were Christian. The respondents.

Nearly, half (50.6%) of the respondents were married. The percentage of unmarried respondents were 47.2%. Widows and divorcees were the lowest with 0.6% and 1.7%, respectively.

The survey further determined that most of the respondents, 92%, had been using the social media, for example Facebook, Instagram, or Twitter for more than 6 months. Also, the respondents' use of social media in a day were (7%) all the time, (32%) often, and (51%) a few times. This indicates that respondents are well versed in dealing with social media sites.

3.2. Reliability Analysis

Reliability test is used to test the internal consistency of variables. Each social media marketing activities constructs or variables had a high level of internal consistency, as determined by Cronbach's alpha ranging from 0.767 to 0.877, as shown in Table 3.

The reliability coefficient of entertainment was 0.767, customization was 0.750, interaction was 0.840, trendiness was 0.877, electronic word of mouth was 0.843, and consumer purchase intention was 0.784. Since the recommended Cronbach's alpha value is 0.7 or higher (DeVellis, 2003; Kline, 2005), all coefficients were acceptable (Nunnally & Bernstein, 1994). Thus, social media marketing activities constructs validity was established.

3.3. Validity Analysis

The validity test is used to assess the trustworthiness of variables in a research study. Table 4 shows that Kaiser-Meyer- Olkin measurement is 0.804, indicating that there are adequate inter-correlations. The test value of Bartlett's Sphere is significant (Chi-square = 218.304, $p < 0.01$). Therefore, variables are more valid in this study (Heppner & Heppner, 2004).

3.4. Multi-Co linearity

Based on Table 5, the tolerance level is neither greater than nor equal to 1 and the VIF values are below 10. Values of tolerance and VIF range from 0.590 to 0.888 and 1.126 to 1.694, respectively. Therefore, there were no multi-collinearity problems in this study.

3.5. Descriptive statistics

Table 6 shows that interaction has the highest mean value of 4.49 while electronic word of mouth has lowest mean value of 4.24. The mean value indicates that all the respondents' purchasing intention towards handloom clothes is favorable due to the social media marketing activities put forth by these businesses. Moreover, according to Hair et al. (2010), if the values of skewness or kurtosis are within the range of plus or minus 2.56, normality of a data distribution is satisfied. The results of this study show that the value of skewness or kurtosis are within the standard range and most of the variables are correlated significantly

with each other, as showed in Table 7, and all the dependent variables are correlated to consumers purchase intention from 0.192 to 0.424. Moreover, it was proved that the association of customization, interaction, trendiness and electronic word of mouth with customers purchase intention was at the 99% of the significant level but entertainment which was proven at 95% of the significant level.

According to the table 8, significant value (p value) is 0.000 which is less than the significant level 0.05. Therefore, it can be concluded that the independent variables have 46.2% of the impact on the dependent variable in the significant level.

3.6. Hypotheses testing

The multiple regression analysis was used to test the hypotheses developed in this study. Furthermore, this multiple regression analysis was helped to predict a dependent variable by more than one independent variables (Heppner & Heppner, 2004). According to the Table 9, customization ($\beta=0.155$, $P< 0.05$), trendiness ($\beta=0.182$, $P< 0.05$) and electronic word of mouth ($\beta= 0.288$, $P< 0.05$) had positive and significant influences on consumers purchase intention in purchasing handloom clothes, hence H2, H4, H5 were ratified. Nevertheless, entertainment ($\beta = -0.013$, $P> 0.05$), interaction ($\beta=-0.058$, $P> 0.05$) had not contributed significantly in the consumers' purchase intention towards handloom

clothes purchases, thus H1 and H3 were not confirmed.

4. DISCUSSION

This study's objective was "to investigate the impact of social media marketing activities on consumer purchase intention towards handloom clothes in Eastern Province of Sri Lanka". This was achieved through the regression analysis, given in Table 8, where the value of adjusted R^2 was 0.4620. This conveys that the 46.20% variance in consumer purchase intention can be explained by the social media marketing activities, including entertainment, customization, interaction, trendiness, and electronic word of mouth, taken in this study. This finding is in line with the study of Gautam & Sharma (2017).

Further, the finding that customization, trendiness, and electronic word of mouth had significantly positive impact on consumer purchase intention.

The results revealed that entertainment did not significantly ($\beta = -0.013$), as showed in Table X, affect consumer purchase intentions towards handloom clothes, indicating that the handloom clothing businesses did not use much of the entertainment activities associated with social media sites. However, contrast to this finding, Gautam & Sharma (2017), Kim & Ko (2012) and Kim & Ko (2010) found a positive influence of entertainment on consumers purchase intention.

Therefore, it is recommended to the handloom business people to conduct more entertainment activities such as conducting contests, create how-to videos, develop user-generated content, promote “tag a friend” contest, write behind-the photos as well as videos, use more emojis, create Polls, and run live events. Conducting these activities through the social networks can develop closer relationships with audience (Kelly, Kerr, & Drennan, 2010), and may enhance the pre-purchase motivation.

Customization ($\beta = 0.155$) activity of social media marketing was significant in creating customers purchasing intention towards handloom clothes. Consistent with the findings of Gautam & Sharma (2017), Kim & Ko (2012), Kim & Ko (2010) who found that the customization had significant impact on consumers purchase intention. Interaction ($\beta = -0.058$) in the social media marketing had no notable impact on consumers purchase intention because most of the handloom businesses may fail to interact well through social media marketing to induce the consumer’s purchase intention towards handloom clothes. However, according to Gautam & Sharma (2017), Kim & Ko (2012) and Kim & Ko (2010) interaction had a significant positive impact on consumers’ purchase intention.

Results of this study proved that trendiness ($\beta = 0.182$) has significant and positive effects on consumers purchase intention of handloom

clothes. This finding shows that the trend has become a crucial step in social media marketing because consumers are looking for trendy features in everything in the current world. Therefore, it is inevitable that the handloom clothing businesses will also focus on maintaining the trend in marketing on social media sites, in which they will be sufficiently successful. This finding is supported by Gautam & Sharma, (2017), Kim & Ko, (2012), and Kim & Ko, (2010).

As the results indicates, electronic word of mouth supports significantly ($\beta = 0.123$) and positively impact on consumers purchase intentions in purchasing handloom clothes. This finding suggests that through social media, customers act as advertisers by spreading positive or negative words regarding the handloom clothing businesses that they are satisfied or dissatisfied with. This finding is accordant with the past studies of Gautam & Sharma (2017), Kim & Ko (2012), and Kim & Ko (2010).

In summary, through the multiple regression analysis, it was found that customization, trendiness and electronic word of mouth have a positive and significant impact on consumer purchase intention and entertainment as well as interaction don’t have significant impact on consumers purchase intention towards handloom clothes in Eastern Province of Sri Lanka. Also, the multiple regression analysis proved that the research study model is indicated as significant at 0.01 levels ($F = 10.093$; P

< 0.01). Moreover, 46.2 % of the variation (which is in the significant level) in consumer purchase intention is explained by customization, trendiness and electronic word of mouth.

5. CONCLUSION

5.1. Implications

This study found that social media marketing activities help to strengthen the strong consumer purchase intention for handloom clothing in Eastern Province of Sri Lanka. Thus, handloom businesses can focus more on continuing to invest in social media initiatives. Moreover, a significant social media marketing activities will boost the image of the handloom businesses in the minds of the target consumers and create positive words about the businesses which are considered as a source of competitive advantages.

The result of this research will help the handloom businesses to develop customer-driven marketing strategies. Also, the handloom clothing businesses can put more effort into practicing social media marketing activities to improve consumer purchase intention within the handloom businesses in Eastern Province of Sri Lanka.

In this study, it is suggested that through social media marketing, handloom businesses can communicate and serve consumers in a personalized way compared to conventional mass media marketing. Furthermore, using the social media,

handloom clothing businesses can share ideas, upload attractive photos and videos, form interest-based groups and participate in exciting discussions for entertainment activities, especially during the COVID-19 pandemics.

Moreover, handloom businesses can create interactions in developing and managing long term dyadic customer relationship, and they can build more productive and responsive customer service on social media platforms. In addition, the interaction with customers can be reactive and proactive. Proactive interactions are the most powerful trick for handloom businesses to build visitor relationships, create targeted web clicks and find opportunities.

5.2 Limitations and future research directions

Due to the time constraints of this study, only 176 customers in Eastern Province of Sri Lanka were taken as respondents and it was expected that respondents to this survey would respond to closed questionnaires. And the "COVID-19" pandemic is one of the limitations of this research because there are travel restrictions everywhere. Thus, the researcher was unable to collect in-depth data by providing face-to-face questionnaires and was unable to conduct qualitative research by conducting face-to-face interviews. Therefore, the data were collected using the online mode of data collection.

Furthermore, only five dimensions of social media marketing activities

were taken into account in this study. Accordingly, the SMM activities such as entertainment, customization, interaction, trendiness, and electronic word of mouth on consumers' purchase intention is explained by only 48% (R Square value is .477, showed in Table 8). But other than these SMM activities taken into this study also could contribute to the purchase intention. For example, the SMM activities such as informativeness and personalization as suggested by Guha, Mandal, & Kujur, (2021) can be taken to study the impact of SMM activities on consumers' purchase intention in the context of the handloom clothing businesses. This limitation should be

conducive to future researches to consider these variables as well.

Since, the technological environment that changes drastically with time, future researchers can identify new dimensions of social media marketing activities and consumer purchase intention and consider mixed method that can be applied to reveal new findings. For example, future researchers may find related factors such as trust, privacy, and the perceived risk to go into depth.

Furthermore, future studies can analyze other industries beyond the handloom industry and expand the large sample size to obtain new findings.

APPENDIX

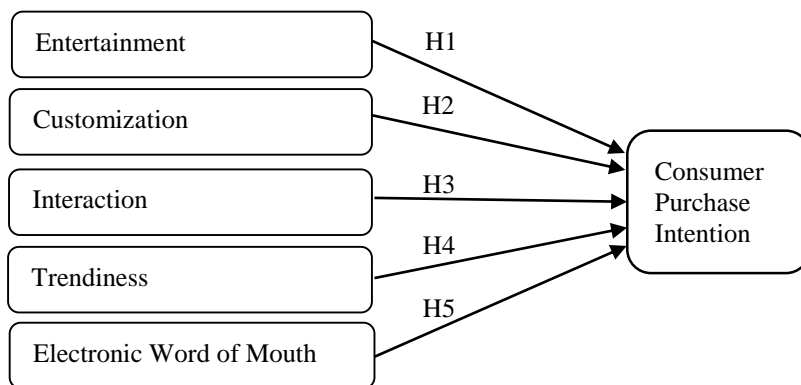


Figure 1: Proposed conceptual model

Sources: (Gautam & Sharma, 2017; Godey et al., 2016)

Table 1: Operationalization of variables

Code	Item Description	Source
Entertainment (1-5 Likert scale, 1=Strongly disagree, 5=Strongly agree)		
E1	I believe that the contents on the social media pages of handloom clothing businesses are interesting.	Godey et al. (2016) and Luo (2002)
E2	I feel relaxed when i am viewing the social media pages of handloom clothing businesses.	
E3	I see the pictures of handloom clothes on social media for the entertainment purpose.	
Customization (1-5 Likert scale, 1=Strongly disagree, 5=Strongly agree)		
C1	I believe that the social media pages of handloom businesses offer customized service for me as a customer.	Godey et al. (2016)
C2	I believe that customized information search is available on the social media pages of handloom businesses.	
C3	I believe that the social media pages of handloom businesses provide the information that I need.	
Interaction (1-5 Likert scale, 1=Strongly disagree, 5=Strongly agree)		
I1	I believe the social media pages of handloom businesses interact with its followers/ customers.	Godey et al. (2016)
I2	I believe the social media pages of handloom businesses provide platforms for customers to share their reviews about handloom clothes.	
I3	I believe that it is easy to find customer's reviews/ratings on the social media pages of handloom businesses.	
I4	I believe that handloom businesses pay attention to customer's comments on their social media pages	
Trendiness (1-5 Likert scale, 1=Strongly disagree, 5=Strongly agree)		
T1	I believe that the social media pages of handloom businesses are trendy.	Godey et al. (2016)
T2	I believe that the social media pages of handloom businesses offer up-to-date information.	
T3	I believe that handloom businesses use latest content (pictures/videos) on its social media pages.	
T4	I believe that the social media pages of handloom businesses offer timely information.	
Electronic Word of Mouth (1-5 Likert scale, 1=Strongly disagree, 5=Strongly agree)		
EW1	I believe that information sharing is possible on the social media pages of handloom businesses.	Godey et al. (2016) and Kim & Ko (2012)
EW2	I believe that it is easy to give my opinion on the social media pages of handloom businesses.	
EW3	There is high likelihood that I recommend my friends/family/ acquaintances to purchase the handloom clothes on the social media pages of handloom businesses.	
EW4	I get opinion about the handloom clothes from people on the social media platforms.	
Consumer Purchase Intention (1-5 Likert scale, 1=Strongly disagree, 5=Strongly agree)		

PI1	The probability that I will buy the Handloom clothes is very high on social media pages of handloom businesses.	Kim & Ko (2012)
PI2	I plan to purchase handloom clothes that are promoted on social media.	
PI3	I will buy the handloom clothes on social Medias next time when I need it.	

Table 2: Demographic profile of the respondents

Variable	Frequency	Percent
Gender		
Male	54	30.7
Female	122	69.3
Age category		
Below 20	1	0.6
20 - 25	56	31.8
26 - 35	54	30.7
36 - 45	58	33
Greater than 45	0	0
Education Level		
Primary Level	1	0.6 %
Secondary Level	19	10.8 %
Graduate	125	71.0 %
Post Graduate	31	17.6 %
District		
Ampara	98	55.7
Batticaloa	41	23.3
Trincomalee	37	21.0
Mother tongue		
Sinhalese	88	50
Tamil	88	50
Religion		
Buddhist	72	40.9
Hindu	45	25.6
Muslim	35	19.9
Christian	24	13.6
Marital status		
Single	83	47.2
Married	89	50.6
Widowed	1	0.6

Divorced	3	1.7
Employment		
Self-Employment	15	8.5
Government Employment	36	20.5
Private Employment	50	28.4
Professionals (Government / Private Sector)	26	14.8
Student	49	27.8
Monthly Income		
Below 10000	14	8.0
10001 - 25000	25	14.2
250001 -50000	90	51.1
50001- 75000	28	15.9
Above - 75000	19	10.8
Experience with Social Media usage of Facebook/ Instagram/ Twitter		
Less than 6 months	14	8
6-12 Months	21	11.9
1-5 Years	95	54
More than 5 years	46	26.1
Use of social media with in a day		
All the time	13	7.4
Often	56	31.8
A few times	90	51.1
Seldom	17	9.7

Table 3: Reliability Test

Dimensions	Cronbach's alpha value	Number of Items
Entertainment	0.767	3
Customization	0.750	3
Interaction	0.840	4
Trendiness	0.877	4
Electronic Word of Mouth	0.843	4
Consumer Purchase Intention	0.784	4

Table 4: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.804
Bartlett's Test of Sphericity	Approx. Chi-Square	218.304
	df	10
	Sig.	.000

Table 5: Test of Co linearity

Variable	Tolerance	VIF
Entertainment	.888	1.126
Customization	.707	1.414
Interaction	.667	1.499
Trendiness	.653	1.531
Electronic Word of Mouth	.590	1.694

Table 6: Descriptive Statistics

Variable	M	SD	SKE	KUR
Entertainment	4.28	.37	.568	.161
Customization	4.29	.36	.878	-.686
Interaction	4.49	.38	-.038	-1.360
Trendiness	4.31	.40	.711	-.996
Electronic Word of Mouth	4.24	.36	1.058	-.265
Consumer Purchase Intention	4.34	.37	.580	-1.043

Where: M=Mean, SD=Std.Deviation, SKE=Skewness and KUR=Kurtosis

Table 7: Correlation Matrix

Variable	1	2	3	4	5	6
Entertainment	1					
Customization	.228**	1				
Interaction	.222**	.440**	1			
Trendiness	.298**	.375**	.441**	1		
Electronic Word of Mouth	.251**	.472**	.496**	.525**	1	
Consumer Purchase Intention	.192*	.333**	.232**	.373**	.424**	1

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

Table 8: ANOVA^a

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.678a	.477	.462	.33001

a. Predictors: (Constant), Entertainment Average, Customization Average, Interaction Average, Trendiness Average, Electronic word of mouth Average.

Table 9: Regression analysis and hypotheses testing

Model	Coefficients (β)	t-value	Sig.	Conclusion
(Constant)	1.989	4.573	0.000	
Entertainment	-0.013	-0.198	0.843	H1: Rejected
Customization	0.155	1.915	0.047	H2: Accepted
Interaction	-0.058	-0.733	0.464	H3: Rejected
Trendiness	0.182	2.389	0.018	H4: Accepted
Electronic word of mouth	0.288	4.195	0.001	H5: Accepted
a. Dependent Variable: Consumer purchase intention				
Note: The relationship can be illustrated in a regression formula as follows:				
$CPI = \beta_0 + \beta_1ENT + \beta_2CUS + \beta_3INT + \beta_4TRE + \beta_5EWM + e$				
CPI = 1.989 + -0.013 + .155 + -0.058 + .182 + .288 + e				
CPI - Consumer Purchase Intention; β_0 - Intercept;				
β_1 - is the coefficient of the explanatory x variables;				
ENT – Entertainment; CUS – Customization; INT – Interaction; TRE –				
Trendiness; eWOM – Electronic Word of Mouth;				
e - Error term				

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