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# **Impact of Human Resource Management Practices on Business Performance of Small and Medium Enterprises (Evidence from manufacturing SMEs in Hambanthota District, Sri Lanka)**

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### **Abstract**

This study empirically examines eight human resource management practices (HRMPs) and their impact on business performance among small and medium sized enterprises in manufacturing sector (MSMEs) in Sri Lanka. There is a little attention given to the effect of HRMPs on performance of MSMEs in Sri Lanka. Thus, this study addresses this knowledge gap in the literature in relation to MSMEs. Fifty MSMEs in Hambanthota district in Sri Lanka (HDSL) were randomly selected as the sample. Structured questionnaire was administrated and in-depth interviews were conducted with owner-managers. Results revealed that selected MSMEs in HDSL are mainly adopting informal HR practices. On average, these firms adopted two out of eight possible formal HR practices. Two-thirds of MSMEs adopted fewer than three HR practices and one-third did not adopt any formal HR practices. Further, results revealed that most commonly adopted HR practices are *using professional sources of recruitment, using written criteria for firing and having a Human Resource plan for the firm*. The nature of HRMPs in MSMEs in HDSL differs according to owner-manager's education qualification and the firm size. Results illustrated that insignificant weak positive relationship between the formal Human Resource Management Practices and business performance of MSMEs in HDSL. There is a positive relationship between all the HRMPs variables, except presence of HR specialist(s) and overall business performance. Spending training for employees is the significant predictor of business performance of MSMEs in HDSL. It can also be concluded that there is a significant positive relationship among education qualification, firm size and formal HRMPs.

**Keywords:** Human Resource Management Practices, Small and Medium Enterprises, Manufacturing Small and Medium Enterprises, Business Performance, Sri Lanka

### **Introduction**

Both large firms and small and medium-sized enterprises (SMEs) are struggling for attracting and retaining talented employees in the organizations. In a highly competitive global marketplace, it is very difficult to attract and retain skilled employees in organizations without having sound HR practices. The impact of human resource management (HRM) practices on performance have become the dominant research issue in the field of HRM (Guest, 1997, pp. 263). Theoretical and empirical studies (e.g. Beer et al., 1984; Devanna et al., 1984; Arthur, 1994; Huselid, 1995; MacDuffie, 1995; Youndt et al., 1996; Huselid et al., 1997; Guest, 1997;

Ngo et al., 1998; Kaman et al., 2001; Bartel, 2004; Stavrou and Brewster, 2005; Wright et al., 2005) have generally focused on HRM practices of large firms in Western countries. Only a few studies (Welbourne and Andrews, 1996; Nguyen and Bryant, 2004) identified the link between the adoption of HRM practices and the performance of SMEs. Moreover, relatively little studies can be found in South Asian countries and few reported studies have examined the effect of HRM practices on the performance of SMEs in Sri Lanka (e.g. Umer, 2012; Madurapperuma, 2009; Wijewardena et al., 2004). “Though SMEs have not paid due attention for human resource managing practices (Hornsby and Kuratko, 1990), managing of human resource is a decisive factor as far as SMEs’ performances are concerned” (Madurapperuma, 2009, p.57). Therefore, this study performs to identify the HRM practices adopted by manufacturing small and medium-sized enterprises (MSMEs) in Hambanthota district, Sri Lanka (HDSL) and to investigate whether HRM practices have an impact on business performance of these MSMEs.

### **SMEs in Sri Lanka**

In today’s rapidly growing and dynamic competitive global economy, small and medium enterprises (SMEs) have increasingly become a powerful engine for economic growth and development (Islam et al., 2011). SMEs play a key role in socio-economic development in developed and developing countries (Gamage, 2003). It is a major source of employment, revenue generation, innovation and technological advancement (Kotty and Meredith, 1997). Moreover, they contribute to the gross domestic products (GDP) and stimulate other economic activities.

The SMEs cover broad areas of economic activities such as agriculture, mining, manufacturing, construction, and service sector industries. SMEs play a vital role in the economy of Sri Lanka and are found in all sub-sectors of the economy. Within the manufacturing sector, small and medium scale industries (SMI) account for about 96% of industrial units, 36% of industrial employment and 20% of value-added (white paper, 2002). Currently, the SMEs account for nearly 70% of employment in the industry sector while contributing to about 26% of GDP in Sri Lanka. (Department of Census and Statistics, Sri Lanka, 2011). According to the recent (2006/07) survey done by the International Finance Corporation (IFC) of the SME Market in Sri Lanka, SMEs constitute 80-90% of total establishments and 20% of industrial value added. It shows the significance of the SME sector in Sri Lanka. Hence, “SMEs have been recognized as an important strategic sector for generating economic growth and reducing unemployment, inequality and poverty in Sri Lanka” (White paper, 2002, p.iii)

### **Significance of the Study**

The impact of HRM practices on organizational performance has emerged as the dominant research issue in the field of Human Resource Management (Guest, 1997, p. 263). Findings from a number of empirical studies that have been conducted to test the relationship between HRM practices and organizational performance indicated that high commitment and/or high involvement HRM practices have a positive impact on organizational performance (e.g. Arthur, 1994; Bartel, 2004; Huselid, 1995; Huselid et al., 1997; Kaman et al., 2001; MacDuffie, 1995; Ngo et al., 1998; Stavrou and Brewster, 2005; Wright et al., 2005; Youndt et al., 1996). These theoretical and empirical studies have generally focused on HRM practices within large Western organizations. HR practices in SMEs have not received significant attention in management research (Hornsby and Kuratko, 1990). Relatively little researchers have addressed the impact of HRM practices on firm performance in Asian countries. Very

few researchers have addressed the HRM practices of SMEs and the impact of HRM practices on the performance of SMEs in Sri Lanka. Therefore, there has been a pronounced lack of focus on the impact of HRM practices on firm performance among Sri Lankan SMEs. Therefore, this study addresses this gap in the literature concerning MSMEs in Sri Lanka.

This study attempts to determine what HRM practices owner/managers are using, and how do HRM practices impact on the performance of MSMEs in Sri Lanka? Therefore, findings of this study will be helpful to describe that which HRM practices positively related to the business performance of MSMEs. Hence, findings of this research will be helpful to owners/managers to examine the success of HR practices which are currently implemented by them. As well as, they can make necessary changes of currently used HR practices in SMEs. Since small and medium-sized enterprises (SMEs) play a critical role in the Sri Lankan economy, findings of this study will contribute the economic development in Sri Lanka.

### **Objectives**

There has been a pronounced lack of focus on the impact of HRM Practices on organizational performance among MSMEs in Sri Lanka. Hence, the main objective of this study is to fill up the gap as mentioned above in the literature concerning MSMEs. Besides, identifying the nature of HRM practices of MSMEs in Hambanthota District and exploring how HRM practices differ according to the firm size and educational qualification of the owner/manager are sub objectives of this study. Moreover, it aims to find out the relationship between HRM practices and the business performance of MSMEs in Hambanthota District, Sri Lanka.

### **Problem Statement**

SMEs have been considered as one of the most important driving force behind economies of both developed and developing countries due to their multiple contributions. Performances of SMEs are determined by various factors such as management process, marketing, strategies, networks, technology, HRM practices, and so on (Madurapperuma, 2009, p.563). Adoption of such practices and the extent to which those are put in place, depending upon the management and workforce of a particular organization. Thus, without having positive support from the workforce, it is difficult to obtain desired results even though other practices such as marketing, strategies, management process and network are apparent in the firm.

In most of the developing countries, performance of SMEs is one of the key issues since they are less productive and faces many constraints of technological backwardness, lack of human resource skills, weak management systems, and entrepreneurial capabilities, unavailability of appropriate and timely information, insufficient use of information technology and poor product quality (Davidsson, 2004). As a result, there exists a low level of performance among SMEs (Asian Productivity Organization, 2006, 2011).

Research on HRM is generic and predominantly focused on large organizations (Dunn et al., 2008). Little research has been conducted on SMEs and more specifically in developing countries (Hung et al., 2016). The findings of HRM for a large organization or in developed countries cannot be generalized for SMEs in developing countries, as they each face different barriers specific to them (Kapurubandara and Lawson, 2006). Though, magnitude of researches investigating the impact of HRM practices on performance can be found in large western firms (Mihail & Kloutsiniotis, 2016; Karetape and Olugbade, 2016; Garg and Sharma, 2015; Karapte et al., 2014; Jang and Khan, 2013; Mihail et al., 2013; Moideenkutty et al., 2011; Messersmith and Guthrie, 2010; Zhang and Li, 2009; Camps and Luna-Arocas, 2009;

Subramony, 2009; Becker and Gerhart, 1996; Pfeffer, 1995), it is difficult to find researches of this kind in SMEs in South Asian countries (Mihail and Kloutsiniotis, 2016). Few reported studies have examined the effect of HRM practices on the performance of SMEs in Sri Lanka. Thus it is worth to explore HR practices in SMEs. Madurapperuma 2009, p.57 stated that “Though SMEs in Sri Lanka have not paid due attention for HRM practices; this is a key factor as far as SMEs’ performances are concerned”. Further, Hung et al., 2016 came up with the same view that “Human resource management (HRM) has been identified as a crucial key success factor for SMEs in today’s world”. Human resource management (HRM) has been identified as a crucial key success factor for SMEs in today’s world. Hence, this study focus on the impact of HRM practices on the performance of MSMEs in Hambanthota district, Sri Lanka. Under the above circumstances, this study fills the research gaps in the literature concerning HRM practices and the business performance of MSMEs in Sri Lanka. Therefore, the addressed research problem was to find out whether there is a relationship between HRM practices and the business performance of MSMEs in HDLS.

### **Research Questions**

Based on the problem statement, two research questions i.e. What is the relationship between HRM practices and business performance of MSMEs in HDLS? And what is the effect of HRM practices on business performance of MSMEs in HDLS?’ have been identified in this study.

### **Literature Review**

SMEs have defined in a variety of ways by various countries using many criteria. Many organizations in Sri Lanka have defined SMEs by using different criteria such as many persons employed, amount of capital invested, amount of turnover, and nature of the business. Hence, there is no nationally accepted definition for SMEs in Sri Lanka. The various definition used for SME in Sri Lanka has been included in Table 1.

**Table 1:** Definitions of SMEs in Sri Lanka

Institution	Definition
Department of Census Statistic(DCS)	a) No criterion involving capital b) No of employees less than 25
Department of Small Industries(DSI)	a) Initial capital exceeding Sri Lankan Rs.4,000,000 b) No criterion involving employees
Industrial Development Board (IDB)	a) Fixed assets excluding land, building and permanent capital not exceeding Rs. 4,000,000 b) No of employees less than 50
Ministry of Youth Affairs	a) Fixed assets not exceeding Rs. 500,000 b) Employment not more than 3 persons excluding proprietor

Source: Premaratne, 2002.

### **HRM formality in SMEs**

HR practices mean that it is a set of policies and practices which boost up the firm’s human capital to contribute to the achieving of business objectives (Gürbüz, 2009, p.128). HR Practices are linked with the management of human resources, activities necessary for staffing the organization and sustaining high employee performance (Mahmood, 2004). The most



common HR Practices are recruitment, selection, training, and development, compensation, rewards and recognition (Yeganeh and Su, 2008).

“Research has shown that the most significant difference between HR practices in SMEs and larger firms is not in what practices are adopted, but in how they are adopted” (Nguyen and Brynt, 2004, p.601). One important dimension in how HR practices are adopted is the level of formality in HR management. There is not a single universally accepted definition of HRM formalization. Barrett and Mayson, 2007 have covered almost all the important aspects of HR formality. According to their definition, formal HRM means that procedures or practices are;

- Written down (like a list of skills and qualifications for jobs)
- Regularly applied within an organization (like yearly performance review)
- Assured to take place (like employer sponsored training)

Nguyen and Bryant, 2004 defined HR formality as the extent to which HR practices are documented, systematized, and internalized. Thus, formal practices have identifiable policies, rules, and regulations that are documented and integrated into the firm. An informal mechanism exists when no system is in place and decisions are made on a personal and case - by - case basis (Nguyen and Brynt, 2004).

### **HRM Informality in SMEs**

Studying of 43 small manufacturing firms, Marlow and Pattons, 2002 suggests that business owners face a tension between formality and informality of HR practices in general. The existing literature shows that the majority of the SMEs use informal HR practices. Managers/owners of SMEs often view HR practices as costly, bureaucratic and time-consuming (Anderson, 2003). Therefore, many SMEs are informal in terms of HR practices and are less likely to practice HRM compared to larger organizations (Bacon and Hoque, 2005). Most scholars agree that the owner/manager is the first factor who keeps SME HRM informal (Umer, 2012). Owners/managers avoid using formal HR practices as they prefer to keep direct personal control of the firm and hesitate to delegate responsibilities to other managers. According to Klaas et al., 2000 formalized HRM practices require considerable development costs. Owners of SMEs are fear of adopting formalized HR practices due to lack of resources, such as time and money (Duberley and Walley, 1995; Bacon et al., 1996). Vision and knowledge of the owner/manager and limited time and resources play a role in keeping SMEs informal.

Firm size has been identified as the main organizational factor influencing HRM policies and practices of SMEs (Hornsby and Kuratko, 1990; Wagar, 1998; De Kok and Uhlaner, 2001; Nguyen and Bryant, 2004; Kotey and Slade 2005). According to the results of research done by Nguyen and Bryant, 2004 revealed that firm size is positively related to HR formality. This is confirmed by Barrett and Mayson, 2007 in their study on HRM in small growing firms.

**Table 2:** The Distinction between Formal and Informal HR Practices

Practices	Informal adoption	Formal adoption
Who handle the HR function (specialist or not)	No specialist. Owner or one employee handles this function along with other functions.	Firm has HR specialist(s) or department to handle this function

Hiring	No written criteria or rule. Firm recruits each individuals case by-case basis.	Firm has a proper procedure for recruitment
Firing	No written criteria or rule. Firm dismisses individuals case by-case basis	Firm has a proper procedure for dismissing employees
Sources of new Employees	Candidates come on their own or firm mostly relies on personal network (family & friends)	Firms attract most new employees through professional organizations (Universities, Vocational school, employment agencies)
HR plan	No written plan. Only intuitive plans	Has written plan(s)
Training	Training is mostly individual's responsibility. Firm's budget for training is very small or non-existent.	Firm has a program(s) and budget for employees' training.
Job Description	No written job description for more than 90% of the jobs.	Firm has job description for at least 10% of the jobs.
Performance Appraisal	No written policy for performance appraisal	Firm has policy for performance appraisal for at least 10% of the job

Source: Nguyen and Bryant (2004), p.603.

## **Research Methodology**

### **Sample and Data Collection**

There are 187 registered MSMEs in Hambantota district. Fifty MSMEs were selected randomly to represent all the sub geographic location including city and rural areas within Hambantota district that established more than five years. The department of Small Industries (DSI) defines SMEs as those with a capital investment of less than Rs. 5 Million, and which employee less than 50 employees. Sample of manufacturing firms was chosen following DSI. For collecting data questionnaire was administrated and interviews were conducted with owner-managers of selected MSMEs in HDSL. Questionnaires were distributed only among owner - managers. Prior to data collection, the researcher conducted a pilot study with the owner/managers of ten MSMEs.

### **Measuring Instruments Business Performance**

Various measures have been used in literature to measure the performance of firms. "Performance is a multidimensional concept and thus, use of single performance indicators likely produce biased results" (Fairoz et al., 2010, p.38). Studies have used both financial and non-financial measures of performance (Venkatraman and Ramanujam 1987; Greely, 1986). Both objective and subjective measures can be used to measure the business performance of SMEs (Murphy et al., 1996; Gupta and Govindarajan, 1984; Ramanujam et al., 1986). Tosi and Gomez-Mejia (1994) suggested that performance should be measured with both financial and non-financial measures, employing subjective and objective data. Pushpakumari and

Wijewickrama (2008) used both financial and non-financial indicators to measure the business performance of SMEs in Sri Lanka.

In this study, both financial and non-financial measures of annual sales growth, annual profits (pre-tax), employment growth, market share growth, and owner/manager satisfaction were identified to measure the business performance of MSMEs in HDSL. Above mentioned five items of measuring performance were developed and tested for reliability by Fairoz et al., 2010.

Information regarding sales growth, profit, and employment growth were obtained by filling a questionnaire through an interview with respondents and calculated the average growth rate from the year 2010 to 2012. The five categories of sales growth were used. They are: (1) less than 1%, (2) 1–4%, (3) 4–7%, (4) 7–10%, and (5) more than 10%. Employment growth was measured as: (1) less than 1%, (2) 1–4%, (3) 4–7%, (4) 7–10%, and (5) more than 10%. Pre-Tax profit was measured by (1) negative profit, (2) less than 250,000 LKR (3) 250,000 – 600,000 LKR (4) 600,000 – 1000, 000 LKR and (5) more than 1000,000 LKR. Market share growth was measured based on self-reported performance by the respondent from each MSMEs. The self-report measure was appropriate and reliable when the objective data is not available (Dess & Robinson, 1984). Five categories used to measure market share growth were: (1) stable, (2) less than 1% (3) 1 - 2%, (4) 2 - 3%, and (5) more than 3%. Owner/manager's satisfaction was assessed on a five-point Likert Scale ranging from "very low" (1) to "very high" (5).

### ***HRM practices***

HRM Variable of this study was measured with the help of multiple items adopted from prior studies. Three items were used to measure each HR practice of this study. Within the questionnaire, participants were asked to rate the degree of the extent to which each HRM practice is undertaken in the operation of the firm on a five-point Likert scale ranging from “never use” (1) to “always use” (5).

### ***Firm Size***

Firm size was measured by the number of employees in MSMEs. The distribution of number of employees was positively skewed. Hence, data was transformed using a natural logarithm for the correlation analysis only.

## **Results and Discussion**

### **Reliability Analysis**

The data sets were analyzed with the Statistical Package for Social Sciences (SPSS-Version 19). As the first step of the analysis, the reliability coefficient of all HR practices and business performances was measured. As the coefficient alpha exceeds the 0.70 level, the reliability of the measurements was achieved as recommended by Nunnally (1978).

**Table 3:** Reliability Analysis

Variables	Cronbach's Alpha	Number of items
HR Practices	0.814	08
HR practices and Business Performance	0.771	13

Source: Survey data, 2017.

**Profile of Respondents**

The background characteristics of owner-managers are shown in Table 4. 70% of the respondents are both founders and owners of MSMEs. Most of the respondents are age category of 31-35 years. 42% of respondents of the sample have advance level qualifications and only 4% have University degrees. 32% of respondents of the sample have 5-8 years of previous business experience and 18% have more than twelve years of business experience.

**Table 4:** Owner-Manager Characteristics of MSMEs

<b>Age of the respondent</b>	<b>Frequency</b>	<b>Percentage (%)</b>
26-30	3	6
31-35	15	30
36-40	10	20
41-45	10	20
46-50	5	10
51-55	5	10
Above 55	2	4
<b>Education Qualification</b>		
Graduate	2	4
Advances level	21	42
Ordinary level	15	30
Below ordinary Level	12	24
<b>Business experience</b>		
Less than five years	12	24
5-8 years	16	32
9-12 years	13	26
More than 12 years	9	18
<b>Current position of the respondent</b>		
Founder and owner	35	70
Owner	11	22
Manager	4	8

Source: Survey data, 2017.

**Characteristics of MSMEs**

Table 5 presents the profile of MSMEs in HDSL. The sample consists of 48% of MSMEs from food and beverages, 22% from textile and wearing apparel, 16% from wood and products of wood, 8% from machinery & equipment. As shown in Table 5, 80% of the MSMEs are sole proprietorship. 42% of the sample MSMEs is included to the age category of 11-15 years old. In terms of firm size, 54% of firms have 11-20 number of employees.

**Table 5:** Characteristics of MSMEs

<b>Age of the firm</b>	<b>Frequency</b>	<b>(%)</b>
6-10 years	13	26
11-15 years	21	42
16-20 years	11	22
21-25 years	3	6

More than 25 years	2	4
<b>Type of the Business</b>		
Textile and wearing apparel	11	22
Food products and Beverages	24	48
Machinery and Equipment	4	8
Wood and products of wood	8	16
Jewelers	1	2
Others	2	4
<b>Type of ownership</b>		
Sole proprietorship	40	80
Partnership	6	12
Company	4	8
<b>Number of employees</b>		
6- 10	8	16
11-20	27	54
21-30	7	14
31-40	5	10
41-50	3	6

Descriptive results and correlation coefficients of key variables are summarized in tables 6, 7 and 8. Results revealed that the selected MSMEs have a very low level of HR formality. On average, these firms adopted 2.04 out of 8 possible formal HR practices (Table 7). Two-thirds of MSMEs adopted fewer than three HR practices and one-third did not adopt any formal HR practices at all (Table 6). Therefore, descriptive results revealed that selected MSMEs in HDSE are mainly adopting informal HR practices. Further, results illustrate most commonly adopted HR practices by selected MSMEs. They are (1) using professional sources of recruitment (36% of MSMEs), (2) using written criteria for firing (36% of MSMEs) and (3) having an HR plan for the firm (34% of MSMEs). As shown in Table 8, only 10% of the firms have spent on training for employees.

**Table 6:** Number of Formal Practices Adopted by Number of MSMEs

Number of Formal practices	Number of SMEs adopted	Percentage
0	17	34
1	10	20
2	8	16
3	3	6
4	2	4
5	5	10
6	2	4
7	2	4
8	1	2
Total	50	100

Source: Survey data, 2017.

**Table 7:** Mean and Standard Deviation of the Variables

Variables	Mean	Standard Deviation
Age of the respondent	3.44	1.593
Education qualification	2.26	0.876
Business experience	2.38	1.048
Current position	2.62	0.635
Age of the firm	2.20	1.278
Number of employees	2.36	1.064
Type of the ownership	1.32	0.653
<b>Business Performance</b>		
Sales growth	2.72	0.569
Profits (pre-tax)	3.27	0.429
Employment growth	3.17	0.467
Market share growth	3.15	0.453
Owner/manager satisfaction	4.02	0.589
Overall business performance	3.27	0.235
<b>HR Practices</b>		
Presence of HR specialist(s)	1.82	1.320
Written criteria for hiring	1.86	1.309
Professional sources of recruitment	2.42	1.540
Written criteria for firing	2.40	1.539
Existence of a HR plan for the company	2.18	1.535
Spending on training for employees	1.46	0.994
Written job descriptions	2.06	1.331
Written criteria for performance appraisal	2.08	1.353
Average of 8 HR practices	2.04	0.907

Source: Survey data, 2017.

As in the table 6, for the HRM practices, highest mean value (Mean = 2.42) reported for the *professional sources for recruitment* variable while lowest mean value represents the *spending on training for employees* (Mean = 1.46). For the performance category, highest mean value is 4.02; indicating owner/manger's satisfaction is high.

**Table 8:** Number of MSMEs Adopting Formal HR Practices

HR Practices	No. of SMEs adopting formal HR practices	(%)
Presence of HR specialist(s) (HRS)	11	22
Written criteria for hiring (HIR)	9	18
Professional sources of recruitment (REC)	18	36
Written criteria for firing (FIR)	18	36
Existence of a HR plan (HRP)	17	34
Spending on training for employees (TRA)	5	10
Written job descriptions (JD)	13	26
Written criteria for performance appraisal (PA)	11	22

Source: Survey data, 2017.

### Relationship between Education Qualifications and HR Practices

The data in table 6 indicates that on average, MSMEs in HDSL adopted 2.04 out of 8 possible formal HR practices. That's selected MSMEs in HDSL are mainly adopting informal HR practices. Table 4 shows that 46% of owner/managers have A/L and A/L above education qualification. 54% of respondents are less educated people and have O/L and below O/L qualifications. It reveals that lower education level has been associated with informal HRM practices. There is a significant strong positive relationship between educational qualifications of owner/manager and formal HRM practices is 0.820 (Table 9). Further, it tells that when the education level increases among owners/managers of MSMEs in HDSL, they seem to follow formal HRM practices.

**Table 9:** Correlation between Education Qualification and Formal HRM Practices

	Average of 8 HR practices variables	Sig.
Education Qualification	0.820**	0.000

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

### Relationship between HRM Practices and Business Performance

The correlation co-efficient between eight possible formal HRM practices and business performance is 0.170 (table 10). It indicates that insignificant weak positive relationship between the formal HRM practices and business performance of MSMEs in HDSL.

**Table 10:** Correlation between Overall Business Performance and HR Practices

	Overall business performance	Sig.
Average of 8 HR practices	0.170	0.237

Source: Survey Data, 2017.

It is worthwhile to explore the relationship between individual HRM practices and performance to identify if any of these practices significantly impacts performance. According to table 11, Pearson correlation coefficient suggests that there is a positive relationship between all the HRM practices variables, except *presence of HR specialist(s)* and overall business performance. Only one practice i.e. *spending training for employees* is the significant predictor of business performance of MSMEs in HDSL.

**Table 11:** Summary of the Correlation Coefficients

	HRP	HRS	JD	REC	HIR	PA	TRA	FIR
HR practices								
Sales growth	0.184	0.004	0.121	0.184	0.193	-0.023	0.112	0.099
Profits	-0.066	-0.043	-0.065	0.039	0.118	0.102	0.273	-0.107
Employment growth	0.308*	0.050	0.126	0.184	0.050	0.258	0.271	0.265

Market share growth	0.040	0.000	-0.015	0.144	0.219	0.236	0.346*	0.012
Owner satisfaction	-0.177	-0.179	-0.132	-0.190	-0.182	-0.079	-0.016	-0.144
Business performance	0.144	-0.084	0.013	0.137	0.150	0.180	0.387**	0.047

### Relationship between HRM Practices and Firm Size

**Table 12:** Correlation between HRM Practices and Firm Size

	Average of 8 formal HR practices	Sig.
Firm size	0.670**	0.000

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

There is a statistical evidence to claim that there is a significant positive relationship between firm size and HRM practices ( $r = 0.670^{**}$ ,  $p = 0.000$ ). It is evident that when the number of employees is large, such MSMEs tend to adopt formal HRM practices

### Conclusions and Recommendations

This study aimed to carry out an empirical study on the impact of HRMPs on the business performance of MSMEs in HDSL. Eight HRM practices were identified consistent with prior researches. Most commonly adopted HR practices by selected MSMEs in HDSL are using professional sources of recruitment, using written criteria for firing and having an HR plan for the firm. Results show that identified eight HRM practices have been practiced by MSMEs in HDSL in different magnitude by showing the nature of formality and informality. Descriptive results revealed that selected MSMEs in HDSL are mainly adopting informal HR practices. Moreover, this research study suggested that owner-managers education qualification and the firm size are the reasons for the existence of different types of HRM practices in MSMEs.

Results illustrated that insignificant weak positive relationship between the formal HRM practices and business performance of MSMEs in HDSL. Pearson correlation coefficient suggests that there is a positive relationship between all the HRM practices variables, except the presence of HR specialist(s) and overall business performance. Only one practice i.e. spending training for employees is the significant predictor of business performance of MSMEs in HDSL. It can also be concluded that there is a significant positive relationship between firm size (number of employees) and formal HRM practices.

Since, results of this study showed the positive relationship between the formal HRM practices and business performance of MSMEs in HDSL, owner/ managers of MSMEs in HDSL need to maintain a balance between introducing formal HRM practices to the firm and retaining informal HRM practices in their firms. Further, the positive relationship between formal HRM practices and business performance suggests that MSMEs may need to introduce more systematic and professional HR practices to the firm. Results of the study revealed that the selected MSMEs have a very low level of HR formality. Thus, MSMEs' owners should identify new formal HR practices and should be willing to introduce more formalization into their HRM practices.



Findings of this research will be helpful to the owner/managers of MSMEs to make necessary changes of currently used HR practices. Further research studies are suggested to examine the impact of HR practices on performance of SMEs since this study limited to MSMEs in HDSL.

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# Impact of Ethical Climate on Work Engagement: Empirical Evidence from Operational Level Employees in Garment Sector

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## Abstract

Modern organizations need able and willing employees to invest in their jobs psychologically. It is timely to check whether Work Engagement has something to do with ethical climate of an employee. There is a lack of research in studying the impact of Ethical Climate on Work Engagement. The current study was aimed at identifying the impact of Ethical Climate on Work Engagement of operational level employees in garment sector. Research problem of the study was derived as why there is a low level of Work Engagement of operational level employees in garment sector. Simple Regression was performed to investigate the impact of ethical climate on Work Engagement and Multiple Regression was performed to investigate the impact of dimensions of Ethical Climate on Work Engagement. Work engagement acts as the dependent variable of the study. The ethical climate acts as the independent variable of the study including five dimensions; Caring, Law & Code, Rules, Instrumental and independence. Through this study, it was concluded that the Ethical Climate impacts on Work Engagement; Law & Code, Rules and Independence impact on Work Engagement. The study contributes theoretically and empirically to the broad HR management discourse.

**Keywords:** Work Engagement, Ethical Climate, Caring, Law & Code, Rules, Instrumental, Independence

## Introduction

What makes one company more successful than other companies? Better products, services, strategies, technologies or, a better cost structure? All of these contribute to better performance, but all of them can be copied over time. The one thing which creates sustainable competitive advantage, returns on Investment, company value, and long-term strength, is the company workforce; they are the people who are the company. Employee contribution has become a critical business issue because in trying to produce more output with fewer employee input, companies have to try to engage not only the body but also the mind and the soul of every employee. Modern organizations need employees who are able and at the same time who are willing to invest in their jobs psychologically. And this is exactly what Work Engagement is all about (Schaufeli, Truss, Alfes, Delbridge, Shantz, & Soane, 2013). Work Engagement is “a positive, fulfilling, work-related state of mind which is characterized by vigor, dedication, and absorption” (Schaufeli, Salanova, Gonzalez, & Bakker, 2002b). The construct of Work Engagement is widely used by consulting firms. But, there is a lack of

critical academic literature on the subject, and relatively little is known about how WE can be influenced by management (Yener et al., 2012). In the Sri Lankan context, WE are not a widely researched area. Further, when referring to the literature there is a lack of studies conducted to provide suggestions to increase WE of employees. These research gaps were considered through the current study.

The garment industry is Sri Lanka's largest gross export earner since 1986 and accounted for more than 52% of total export earnings of the country. There are around 300-350 manufacturers of apparel. The industry provides direct employment opportunities to over 300,000 and 600,000 indirectly which include a substantial number of women in Sri Lanka (Annual Survey of Industries, 2015). Sri Lanka's garment industry is highly concentrated in large scale factories. The concentration will save a large part of export earnings while providing job opportunities to people. Therefore, the researcher selected Brandix Apparel limited to the current study which is named as the top Brand within the garment industry among other key players (MAS Intimates (Pvt.) Ltd., Hirdaramani International Exports Ltd., Omega Line Ltd.) (Jayawardhana, 2016). Brandix Lingerie Wathupitiwela is located in Western Province, Gampaha district and it comes under the Export Processing Zone of Wathupitiwela.

According to Schaufeli et al. (2013), WE were more strongly related to performance. As per the interview with the Project Manager of BLW, it was revealed that the performance level was not up to the standards. The reason behind this is Brandix practices Lean Manufacturing systems recently and they are in the introductory stage and therefore, still, employees are in a process of change. WE predict job satisfaction, organizational commitment and intention to quit (Saks, 2006). As noted by Schaufeli and Bakker (2004) engaged employees mostly have a greater attachment to their organization and a lower tendency to leave their organization. Moreover, according to Schaufeli et al. (2013) when there is a higher level of WE, there is a lower level of intention to quit. According to the interview with the Human Resource Manager of BLW, labor turnover rates of employees are higher. The labor turnover rate which was expected by the BLW under TQM standard level was less than 3. But last year the turnover rate of BLW is 3.89. This was one of the reasons to conduct the study in BLW.

Moreover to confirm the problem the researcher conducted a pilot survey using 45 employees of BLW. Proportionate stratified random sampling was used to select employees. A sample questionnaire was distributed among them and data were gathered to find their level of WE. The questionnaire included 9 question items and which was a 7 point Likert scale (anchor ranges from 0-6, never to always) developed by Schaufeli and Bakker, (2004). Gathered data were analyzed using Microsoft Excel 2010. According to the results, there was a negative gap of 2.8 of WE and which was further supported to identify the problem. Accordingly, the research problem statement is "Why there is a low level of Work Engagement of operational level employees at Brandix Lingerie Wathupitiwela". Engaging employees depends on many variables; the Ethical Climate of an organization is one of these factors. Ethical Climate and Work Engagement are two management concepts that are in mutual interaction. Ethical Climate is the Shared perception of what correct behavior is and how ethical situation should be handled in an organization (Victor & Cullen, 1988). There are five dimensions of EC; Caring, Law & Code, Rules, Instrumental and Independence.

## **Literature Review**

### **Work Engagement**

The term WE is coined by Gallup organization in the 1990s and firstly it was used concerning work. The first scholarly article on WE was published by William Kahn in 1990 in the Academy of Management Journal. WE mean “harnessing of organization members’ selves to their work roles” (Kahn, 1990, p. 694). It is “a positive, fulfilling, work related state of mind which is characterized by vigor, dedication, and absorption” (Schaufeli et al., 2002b, p. 74). WE are a positive attitude held by the employee towards the organization and its values. There are some concepts which confused with WE such as Organizational Commitment, Job Involvement, and Organizational Citizenship Behavior. Based on 213 eligible publications Saks (2006) identified four approaches to define WE; The Needs-Satisfying Approach (its relation with role performance); The Burnout-Antithesis Approach (its positive nature in terms of employee wellbeing as opposed to burnout); The Satisfaction-Engagement Approach (its relation with resourceful jobs); and The Multidimensional Approach (its relation with both the job and the organization).

Accordingly the researcher used the definition provided by Schaufeli (2002b) for the study which views work engagement,

as a concept in its own right, a positive, fulfilling, work related state of mind which is characterized by vigor, dedication, and absorption, whereby Vigor refers to high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulties, Dedication refers to being strongly involved in one’s work, and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge; and Absorption refers to being fully concentrated and happily engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work (p.74).

WE is important concept including many positive organizational outcomes such as; increased organizational citizenship behavior, job involvement, commitment, low absenteeism, intention to remain in the organization, increased productivity, healthier and happier employees. In organizations, specially top management should give adequate importance to WE in order to survive in such a competitive business world (Yener, Yaldiran, & Ergun, 2012).

One study revealed WE levels of individual employees could be related to individual outcomes that are relevant to the organization such as; job performance, sickness absence. Average WE levels of organizations could be linked with business-level outcomes, such as profit and productivity (Schaufeli & Bakker, 2013). Several studies showed that high levels of WE lead to more organizational commitment, more personal initiative, more innovative behavior at the team level, a less frequent company registered sickness absence, and better role performance. In one of the Gallup study including over 955,000 respondents in 24 nations, WE accounted for 78% of the variance in profitability across 17,339 business units. Those business units with higher levels of WE had a 94% higher success rate in their organization and a 145% higher success rate across organizations (Harter, Schmidt, Killan, & Agrawal, 2010). Disengaged employees become disconnected from their jobs and hide their true identity, thoughts, and feelings during role performances. In one of the studies conducted

by Harvard Business Review, less than a quarter of businesses believed their employees are highly engaged within their organization. Gallup Poll study found the percentage of engaged employees 32% in 2015.

### **Ethical Climate**

Ethical Climate introduced into the literature by Victor and Cullen in 1987. The EC of an organization refers to the behaviors that are perceived to be ethically correct and how issues regarding deviations away from those expected behaviors are handled in the organization. Ethical Climate and Ethical Culture are two constructs that represent the Ethical Context of an organization. Ethical Climate defines as those aspects that determine what constitutes ethical conduct (Victor & Cullen, 1988). Ethical Culture defines as those aspects that stimulate ethical conduct (as cited in Kaptein, 2007). The culture of an organization establishes the values and the Climate of an organization establishes the ethics of an organization. The cognitive approach and the shared perception approach are two approaches to assess EC within an organization (as cited in Moore & Moore, 2014).

Two dimensions of EC were introduced in the literature. The first dimension is called as 'type of criteria' and it means to a dominant or prescribed moral philosophy used in making ethical decisions in the organization. It consists of the three major schools of ethical theory namely; egoism (maximizing self-interest), benevolence (maximizing joint interest), and deontology or principle (adhering to a principle). The second dimension is the locus of analysis and it focuses on the referent for one's action. The three loci of analysis consist of; self (oneself), local (one's organization), and cosmopolitan (the environment external to the organization) (Mayer, 2013).

Using two dimensions (Ethical criterion and locus of analysis), Victor and Cullen (1987) developed a 3x3 matrix which forms nine theoretical dimensions; self-interest, company profit, efficiency, friendship, team interest, social responsibility, personal morality, rules, and standard operating procedures, and laws and professional codes. Victor and Cullen (1988) prefer naming those climates as; instrumental (includes self-interest and company profit), caring (includes friendship and team interest), independence (includes personal morality), rules (company rules and procedure) law and code (includes law and professional codes) (Mayer, 2013). The definition provided by Victor & Cullen (1987) was utilized in the current study including the dimensions named by them; Caring, Law & Code, Rules, Instrumental & Independence. Many different types of climates were found in organizations and a particular type of climate may have different dimensions (as cited in Shacklock, Manning & Hort, 2011). Organizational Climate is an enduring feature that creates employee collective perceptions of factors consisting of innovation, autonomy, support, cohesiveness, trust, recognition, and fairness (Shacklock et al., 2011). EC as among the value systems in any organization plays a major role in the development of the context in which employees operate. EC provides an interpretive framework for the organization and affects the work experiences of employees, and finally affect employee commitment (Cullen, Praboteeah, & Victor, 2003).

Organizations could be placed along a uni-dimensional moral continuum. At one end of the continuum is the positive moral climate (Ethical Climate), in which organizational norms facilitate agent behavior that merits the trust of organizational stakeholders. At the other end is the negative moral climate (Unethical climate), which, conversely, is never conducive to such behavior (as cited in Shacklock et al., 2011). The EC of an organization results in a



positive outcome of employees and also negative work outcomes including tardiness, absenteeism, and social loafing (Peterson, 2002a; Peterson, 2002b). Some researchers argue that Negative work behaviors are linked to a decrease in job satisfaction and organizational commitment, lower levels of creativity, stagnated productivity, increased antisocial behavior, as well as increased employee turnover. According to Mayer (2013) antecedents of EC clustered into four major categories namely; employees, leaders, organizations and the larger environment. Some researchers have examined demographic conditions as employee antecedents, such as age and gender. At the same time, some researchers explored moral related personal characteristics such as moral values and moral development as antecedents of EC.

### **The Relationship between Work Engagement and Ethical Climate**

Yener and colleagues conducted a study regarding the impact of EC on WE in 2012. As per the result of the study, it was found that WE significantly relate to EC. They considered WE as dimensions (Vigor, Dedication & Absorption) in their study. According to their study, among EC types Independence had a greater effect on WE than other dimensions of EC. The instrumental effect on the Dedication dimension of WE was greater than its effect on Absorption and Vigor dimensions. An ethical Climate's relationship with Dedication and Absorption was stronger than its relationship with Vigor. According to some researchers, it was revealed that there is a relationship between EC and some constructs related to WE. Although no many studies were investigating the relationship between EC and WE in the literature, it was found that conflict between values is a cause (as cited in Yener et al., 2012).

There are five approved dimensions of EC and one study conducted using all those five dimensions but they have revised the model which comprises three dimensions, including all five dimensions. Social responsibility (Instrumental), Rules and professional codes (it consists of Rules and law & Codes, personal morality and interest (Independence & Caring) were dimensions considered in the study. The result of the study shows that WE significantly relate to EC. Further, the study concludes, social responsibility (Instrumental), Rules and professional codes (Rules and Law & Code), and personal morality and interest (Independence & Caring) affect WE (Yener et al., 2012). Accordingly, the following hypothesis was developed; H<sub>1A</sub>: Ethical Climate impacts on Work Engagement of Operational Level employees at BLW

H<sub>1B</sub>: Caring impacts on Work Engagement of Operational Level employees at BLW

H<sub>1C</sub>: Law & Code impacts on Work Engagement of Operational Level employees at BLW

H<sub>1D</sub>: Rules impacts on Work Engagement of Operational Level employees at BLW

H<sub>1E</sub>: Instrumental impacts on Work Engagement of Operational Level employees at BLW

H<sub>1F</sub>: Independence impacts on Work Engagement of Operational Level employees at BLW

### **Conceptual Framework**

Conceptual framework was developed by the researcher based on research conducted by Schaufeli and Bakker (2004) and Victor & Cullen (1988). EC acted as independent variable of the study including five dimensions; Caring, Law & Code, Rules, Instrumental and Independence. The dependent variable of the study is WE.

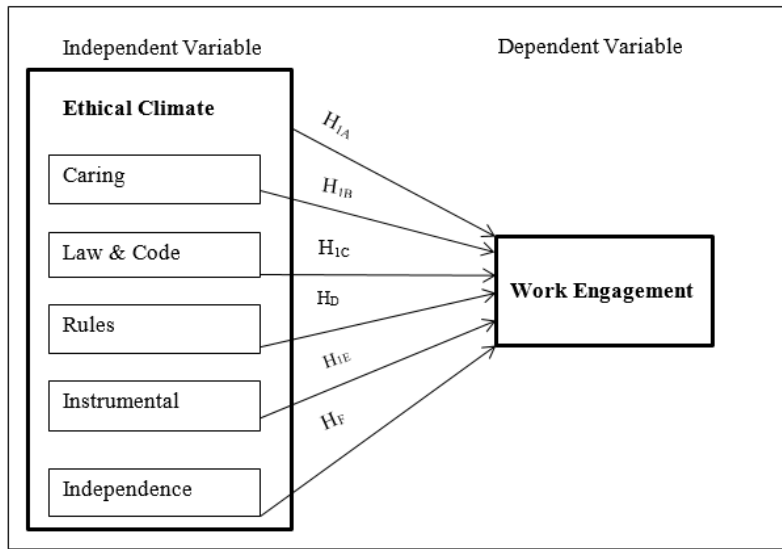


Figure 1: Conceptual Framework

Source: Developed by the researcher based on Schaufeli and Bakker, 2004; Victor and Cullen, 1988

## Operationalization

**Table 1:** Operationalization of Work Engagement & Ethical Climate

Construct	Dimension	Indicators	Measurement	Item
Work Engagement	Vigor	High level energy	7 point Likert Scale	1®
		Feeling Strong	(0 = Never,	2
		Willing to work	1= Almost Never,	3
	Dedication	Being Inspired	2= Rarely,	4
		Feel of enthusiasm	3= Sometimes,	5
		Pride about job	4= Often,	6
	Absorption	Feel happy	5= Very Often,	7
		Being immersed	6= Always)	8
		Feel of liveliness		9
Ethical Climate	Caring	Major concern	7 point Likert scale	1
		Major concern	(0= completely false,	2
		Major concern	1= mostly false,	3
		Friendship	2=somewhat false,	4
		Social service	3=neutral,	5
		Efficiency	4=somewhat true,	6
		Efficiency	5=mostly true,	7®
	Law and Code		6=completely true)	
		Major concern		8
		Major concern		9
		Standards		10
	Rules	First concern		11
		Importance		12

	Importance	13
	Obey policies	14
	Obey policies	15
Instrumental	Self interest	16
	Self interest	17
	Personal morality	18®
	Company interest	19
	Company interest	20
	Company Interest	21®
	Company profit	22
Independence	Personal morality	23
	Personal morality	24
	Personal morality	25
	Personal Morality	26

Source: Developed by the researcher based on Schaufeli and Bakker, 2004; Victor and Cullen, 1988

## **Methodology**

Data were collected by administering questionnaires to operational level employees at BLW. For both, the variables measurement scale of the Likert type scale was utilized. A self-report questionnaire called the Utrecht Work Engagement Scale (UWES) 9 items questionnaire developed by Schaufeli and Bakker (2004) was used to measure Work Engagement, which includes three constituting aspects of Work Engagement. Anchor range from 0 to 6, 7 point Likert scale (0=Never to 6=Always). UWES comprises only 9 items which consist of 3 items for each dimension of Work Engagement (Vigor, Dedication, & Absorption). Although many scholars have used a different number of Ethical Climates, the Ethical Climate Questionnaire of Victor and Cullen has been the far most commonly used measure according to Martin and Cullen (Mayer, 2013). Five dimensions scale of Ethical Climate Questionnaire developed by Victor & Cullen (1988) which includes 26 items was utilized for the current study. 26 items comprise EC dimensions; Instrumental and Caring include 7 items for each, and Independence, Rules, and Law and Code include 4 items for each. Scoring categories of EC scale range from 0 to 6, 7 point Likert scale (0=completely false to 6=completely true).

In this study researcher used quantitative research methodology by developing hypotheses based on literature, collecting and analyzing data from the representative sample from operational level employees of BLW. Research Approach was a deduction process to conclude by a logical generalization of known fact. The current study only administered questionnaires to collect data from respondents. Therefore, the research method of the study was the mono method. The purpose of this study was to test the hypothesis to identify the impact of EC on WE. The type of investigation in the study was correlational as the study aimed at identifying the impact of one variable over others. In this case, beyond administering a questionnaire to employees, the researcher had not interfered with the normal activities in the organization. In other words, researcher interference was minimal. The current study was correlational and the study setting was non-contrived as the research was conducted in the natural environment where work proceeds normally. The unit of analysis was individual employees. The time horizon of the study was cross-sectional. Primary data collection was done through administering questionnaires. The survey strategy was the research strategy used

to conduct this research. The population of the study is operational level employees of BLW. There were 141 employees of cutting section, 63 employees of the molding section, 25 of stores and 14 employees of Quality. Therefore, the population was 243 employees. Hence, a proportionate stratified random sampling technique was utilized to draw a sample from the population. The sample size was 132 employees according to Krejcie and Morgan (1970). 88 of cutting, 39 of molding, 16 of stores and 9 of quality subsamples were selected to include in the entire sample of 152 employees.

UWES is a valid and reliable indicator of WE which could be used for future research on WE. Internal consistency are good. Cronbach's  $\alpha$  value of all 9 items varies from 0.85 to 0.94 (median: 0.91) across the 9 national samples which were tested by Schaufeli and Bakker (2004). The Alpha value for the total database is 0.90. The reliability of the measurement ensures the fit of the one-factor model acceptable; that is, all relative fit indices exceed the critical value of 0.90. Moreover, the one-factor, as well as the three-factor solution of the UWES-9, is relatively invariant across the 9 countries that were included in the analyses which ensure the validity of the instrument (Schaufeli & Bakker, 2004). When considering Ethical Climate, Victor and Cullen (1988) confirmed to use those five dimensions in future research studies. The measures have satisfactory reliabilities (Victor & Cullen, 1988). The five item scale considered which is confirmed valid and reliable according to Victor & Cullen (1988). In the step of data analysis, the data gathered was statistically analyzed to see if the hypotheses that were generated have been supported. The nature of the sample was identified through Descriptive statistics. Correlational analysis was used to determine the relationship between the two factors. The relationship between dependent and independent variables was found out before finding out the impact between dependent and independent variables. Finally, Regression analysis was used to test the impact of ethical climate on employees' work engagement.

## **Results & Discussion**

According to the demographic characteristics, most of the respondents of the sample were in the age of 18-28 who were young employees, the majority was male employees, unmarried, service period in between 1 to 3 years, educational level was up to Ordinary Level, and the service department was Cutting section. The instrument which measures the WE concluded as valid with 95% level of confidence because the KMO & Bartlett's test value for WE was greater than 0.5 (0.709) with P-Value less than 0.05 (0.000). An instrument that measures the Ethical Climate can be concluded as valid with a 95% level of confidence because overall value and values for all the five dimensions are valid due to the values are greater than 0.5 with 0.000 level of confidence. Cronbach's Alpha Coefficient for Work Engagement was 0.783. Therefore, Work Engagement is reliable as the value was greater than 0.7 including all the original items. When considering reliability values for the dimensions of Ethical Climate, Cronbach's Alpha values for Caring, law & Code, Rules, Instrumental, and independence are 0.745, 0.716, 0.726, 0.725 and 0.653 respectively, which means those five dimensions were at the acceptable level of reliability. Five items were deleted to get more reliability values which one item from Caring (C7), one item from Law & Code (L1), one item from Rules (R4), one item from instrumental (I7) and one item from Independence (ID4).

**Table 2:** Test of Normality

<b>Kolmogorov-Smirnov<sup>a</sup> Test</b>		
Work Engagement	Statistic	Significance
	0.065	0.200

Source: Survey Data, 2018

There were some influential observations when the regression test was done. Therefore, normality was tested again after deleting the items which had the problem of influential observation. As per the Table 2, since the p value is greater than 0.05 (0.200), there aren't enough evidence to reject  $H_0$ . Therefore, it can be concluded with 95% level of confidence that WE follows a normal distribution ( $H_0$ : WE follows a normal distribution,  $H_1$ : WE does not follow a normal distribution).

**Table 3:** Test of Correlation

Construct/Dimension	Work Engagement	
	P value	Coefficient
Ethical Climate	0.000	0.538
Caring	0.978	0.003
Law & Code	0.000	0.687
Rules	0.000	0.507
Instrumental	0.843	0.018
Independence	0.000	0.475

Source: Survey Data, 2018

According to Table 3, since the p value is less than 0.05 (0.000), it can be concluded with 95% level of confidence there is a significant relationship between EC and WE. When considering each dimensions of EC, Caring & Instrumental are insignificant since the p values are greater than 0.05 (0.978 and 0.843 respectively). Therefore, it can be concluded that there is no relationship between Caring & Instrumental on WE of operational level employees at BLW. By further referring the table, since the p values of Law & Codes, Rules and Independence are less than 0.05 it can be concluded with 95% level of confidence that there is a significant relationship between Law & Code, Rules and independence on WE of operational level employees at BLW.

**Table 4:** Simple Regression

	$\beta$	P value	95% level of Confidence	
			Lower CI	Upper CI
Constant ( $B_0$ )	1.270	0.000	0.749	1.792
Ethical Climate ( $B_1$ )	0.572	0.000	0.406	0.737

Source: (Survey Data, 2018)

#### **H<sub>1A</sub>: Ethical Climate impacts on Work Engagement of operational level employees at Brandix Lingerie Wathupitiwela**

Simple regression was conducted to test  $H_{1A}$ . As depicted in the Table 4, since the p value of  $B_1$  is less than 0.05 (0.000), there are enough evidence to reject  $H_0$ . Therefore it can be

concluded with 95% level of confidence, there is an impact of EC on WE of operational level employees at BLW (H<sub>0</sub>: There is no impact of EC on WE of operational level employees at BLW, H<sub>1</sub>: There is an impact of EC on WE of operational level employees at BLW).

$$E (\text{Work Engagement / Ethical Climate}) = 1.270 + 0.572 (\text{Ethical Climate})$$

The determination of WE can be explained through the above fitted regression equation. According to the fitted regression equation, if the Ethical Climate is constant, it is expected 1.270 of WE. When EC increases by 1 unit, it is expected WE increases by 0.572 units.

**Table 5:** Multiple Regression

Model		$\beta$	P value	95% level of Confidence	
				Lower CI	Upper CI
<b>1</b>	Constant (B <sub>0</sub> )	1.202	0.000	0.796	1.609
	Caring (B <sub>1</sub> )	-0.022	0.584	-0.103	0.058
	Law & Code (B <sub>2</sub> )	0.373	0.000	0.287	0.459
	Rules (B <sub>3</sub> )	0.118	0.020	0.019	0.216
	Instrumental (B <sub>4</sub> )	-0.025	0.556	-0.110	0.059
	Independence (B <sub>5</sub> )	0.162	0.002	0.061	0.262
<b>2</b>	Constant (B <sub>0</sub> )	1.167	0.000	0.782	1.551
	Law & Code (B <sub>2</sub> )	0.373	0.000	0.288	0.459
	Rules (B <sub>3</sub> )	0.115	0.021	0.017	0.213
	Instrumental (B <sub>4</sub> )	-0.036	0.335	-0.111	0.038
	Independence (B <sub>5</sub> )	0.163	0.002	0.062	0.263
<b>3</b>	Constant (B <sub>0</sub> )	1.065	0.000	0.741	1.389
	Law & Code (B <sub>2</sub> )	0.370	0.000	0.285	0.455
	Rules (B <sub>3</sub> )	0.117	0.020	0.019	0.215
	Independence (B <sub>5</sub> )	0.160	0.002	0.059	0.260

Source: Survey Data, 2018

#### **H<sub>1B</sub>: Caring impacts on Work Engagement of operational level employees at BLW**

To test all the dimensional impact of Ethical Climate on Work Engagement, Multiple regression was performed. According to the output of model 1 in the Table 5, when looking after Caring (B<sub>1</sub>) since the p value is greater than 0.05 (0.584), there aren't enough evidence to reject H<sub>0</sub>. Therefore it can be concluded with 95% level of confidence, there is no impact of Caring on Work Engagement of operational level employees at BLW (H<sub>0B</sub>: There is no impact of Caring on Work Engagement of operational level employees at BLW, H<sub>1B</sub>: There is an impact of Caring on WE of operational level employees at BLW).

#### **H<sub>1C</sub>: Law & Code impacts on Work Engagement of operational level employees at BLW**

As per the Table 5 by considering Law & Code (B<sub>2</sub>) of model 3, since the p value of B<sub>2</sub> is less than 0.05 (0.000), there are enough evidence to reject H<sub>0</sub>. Therefore it can be concluded with 95% level of confidence, there is an impact of Law & Code on WE of operational level employees at BLW (H<sub>0C</sub>: There is no impact of Law & Code on WE of operational level

employees at BLW, H<sub>1C</sub>: There is an impact of Law & Code on WE of operational level employees at BLW).

**H<sub>1D</sub>: Rules impacts on Work Engagement of operational level employees at BLW**

As shown in Table 5, since the p value of Rules (B<sub>3</sub>) of model 3 is less than 0.05 (0.020), there are enough evidence to reject H<sub>0</sub>. Therefore it can be concluded with 95% level of confidence, there is an impact of Rules on WE of operational level employees at BLW (H<sub>0D</sub>: There is no impact of Rules on WE of operational level employees at BLW, H<sub>1D</sub>: There is an impact of Rules on WE of operational level employees at BLW).

**H<sub>1E</sub>: Instrumental impacts on Work Engagement of operational level employees at BLW**

Furthermore, by considering Instrumental (B<sub>4</sub>) in model 1 as well as in model 2, since the p value of B<sub>4</sub> is greater than 0.05, there aren't enough evidence to reject H<sub>0</sub>. Therefore it can be concluded with 95% level of confidence, there is no impact of Instrumental on WE of operational level employees at BLW (H<sub>0E</sub>: There is no impact of Instrumental on WE of operational level employees at BLW, H<sub>1E</sub>: There is an impact of Instrumental on WE of operational level employees at BLW).

**H<sub>1F</sub>: Independence impacts on Work Engagement of operational level employees at BLW**

Moreover referring the Table 5, since the p value of Independence (B<sub>5</sub>) in model 3 is less than 0.05 (0.002), there are enough evidence to reject H<sub>0</sub>. Therefore it can be concluded with 95% level of confidence, there is an impact of Independence on WE of operational level employees of BLW (H<sub>0F</sub>: There is no impact of Independence on WE of operational level employees at BLW, H<sub>1F</sub>: There is an impact of Independence on WE of operational level employees at BLW).

Caring (X<sub>1</sub>) and Instrumental (X<sub>4</sub>) were removed from the model as the hypotheses were rejected due to insignificance. Model 3 is concluded as the best fitted model through above tests and the fitted regression line is as follows;

$$E(\text{Work Engagement / Law \& Code, Rules, Independence}) = 1.065 + 0.370 (\text{Law \& Code}) + 0.117 (\text{Rules}) + 0.160 (\text{Independence})$$

According to the fitted line, WE are 1.065 when the variation of law & Code, Rules and Independence are constant. When Law & Code increases by 1 unit it is expected that the WE increase by 0.370 units when the variation of Rules and Independence are constant. When Rules increase by 1 unit it is expected that the WE increase by 0.117 units when the variation of Law & Code and Independence are constant. Further referring to the fitted regression line, when Independence increase by 1 unit it is expected that the WE increases by 0.160 units when the variation of Law & Code and Rules are constant.

The objectives of the study were to investigate the impact of EC on WE of operational level employees at BLW and to investigate the impact of the dimensions of Ethical Climate (Caring, Law & Code, Rules, Instrumental, and Independence) on WE of operational level employees at BLW. According to the findings of the current study, it was revealed that the EC, Law & Code, Rules and Independence impact on WE. Even though the literature supported and the

researcher argued that Caring and Instrumental Impact on WE, these two variables were rejected by the model and do not impact on WE in the selected context of BLW.

When considering the past literature, there were only a few researches which conducted to test the impact of EC on WE. According to the study conducted by Yener et al. (2012) Ethical Climate impacts on WE with a significant level of 0.05. Moreover, EC explains 43.1% of the variance of Work Engagement (Yener et al., 2012). This outcome is consistent with some other research studies (Schaufeli & Bakker, 2002b). The current study is consistent with previous literature. The researcher found the relationship and impact between the Ethical climate and WE through the current study. The relationship between EC and WE was proven with a 0.58 value of  $r$  coefficient supported by 0.000 level of significance. The impact of EC on WE was proven by 0.572  $\beta_1$  value, supported by 0.000 level of significance. As per the result of the current study, 48.7% of the variance of Work Engagement could be able to explain through Ethical Climate. Hence, the first objective reached through these evidence and found out there is an impact of EC on WE of operational Level employees at BLW.

The study conducted by Yener et al. (2012) considered Caring and Independence as one dimension of EC. Accordingly, those two dimensions impact on WE under 0.032 level of confidence with  $\beta$  value accounting for 0.118. According to the research conducted by the researcher, it concludes that there is no correlation and no impact between Caring and WE resulting in inconsistent results with the literature. 0.978 of the  $p$ -value for the test of correlation which was greater than the critical  $p$  value of 0.05, which concluded that there was no relationship between Caring and Work Engagement. Caring does not impact on Work Engagement was proven by  $p$  value of 0.584 which was greater than the critical  $p$  value of 0.05. Therefore, it is found that there is no impact of Caring on WE of operational level employees at BLW. However, when referring to the result relating to Independence it is consistent with the result of previous studies. It concludes that there is an impact of Independence on WE with 0.162 of  $\beta_5$  value in line with the  $p$  value of 0.002. It was further supported by the relationship between Independence and Work Engagement with 0.475 of Correlation coefficient and  $p$ -value of 0.000. Therefore it is clear that there is an impact of Independence on WE of operational level employees at BLW.

The study conducted by Yener et al. (2012) considered Law & Code and Rules as one dimension of EC. Accordingly, those two dimensions impact on WE under 0.015 level of confidence with  $\beta$  value accounting for 0.128. When considering the result relating to Law & Code it is consistent with the previous literature. It concludes that there is an impact of Law & Code on WE with 0.373 of  $\beta_2$  value in line with the  $p$ -value of 0.000. It was further supported by the relationship between law & Code and WE with 0.687 of Correlation coefficient and  $p$ -value of 0.000. Accordingly, it was found that there is an impact of Law & Code on WE. Law & Code was the variable that had the greatest impact on WE in the selected context of the researcher. At the same time, the current study relating to Rules is consistent with previous studies. As per the results of the current study, the Researcher found the relationship and impact between Rules and Work Engagement. Relationship between Rules and Work Engagement proved by 0.507 value of the regression coefficient, supported by 0.000 level of significance. The impact of Rules on WE was proven by 0.118  $\beta_3$  value, supported by 0.020 level of significance. Hence, the impact of Rules on WE of operational level employees of BLW is found.



As per the finding of Yener et al. (2012) Instrumental impacts on Work Engagement under 0.00 level of significance. This finding is the same with the studies conducted by some researchers. However, the result of the current study is inconsistent with the literature. According to the analysis of the researcher, it concluded that there is no correlation and no impact between Instrumental and Work Engagement. 0.843 of p value for test of correlation which was greater than the critical p value of 0.05, which concluded that there is no relationship between Instrumental and Work Engagement. Instrumental does not impact on Work Engagement is proven by p value of 0.556 which was greater than the critical p value of 0.05. Therefore, it is found that there is no impact of Instrumental on WE of operational Level Employees At BLW.

## **Conclusions & Recommendations**

### **Conclusions**

The present study have conducted to investigate the impact of EC on WE of operational level employees at BLW. As per the interview of the researcher with Managers of BLW as well as the result of preliminary survey were supported to identify lower level WE of employees. Researcher developed a conceptual framework for the present study through the past literature on the concepts. As per the result of the current study researcher has found; there is an impact of EC on WE of operational level employees at BLW, there is no impact of caring on WE of operational level employees at BLW, there is an impact of Law & Code on WE of operational level employees at BLW, there is an impact of Rules on WE of operational level employees at BLW, there is no impact of Instrumental on WE of operational level employees at BLW, and there is an Impact of Independence on WE of operational level employees at BLW.

### **Implications of the Research**

This study was conducted in the area of EC and WE. Therefore this study contributes to enhance the knowledge on those areas with related to Apparel industry in Sri Lanka. This study would help for the management of BLW, in order to identify factors to enhance WE of their employees and to formulate policies and procedures to improve employee WE and employee performances. There are a number of researches based on the concept of WE in different fields. Even though, there is a huge gap still remaining in the field of garment industry with regard to the relationship between WE and EC in Sri Lankan context as to the best of knowledge of the researcher. Therefore this study fulfills the empirical gap in Sri Lankan Context. Other than that future researchers will be supported with the findings of this study.

### **Managerial Implications**

As per the findings of the current study, if the organization could create better Law & Code, Rules and Independence environment the organization could experience more engaged workforce. Currently the organization is experiencing higher rate of labor turn over which result in low WE. Therefore, the Managers of the Organization should take necessary actions to reduce the rate of labor turn over. The main aim of every organization is to make profit. The reason for existence and the reasons for having ethical values are also to achieve the same aim. When the organization is practicing a good EC it is not only appreciated by the customers but also by every stakeholders of the organization. Fair EC of an organization will lead to make fruitful synergy within employees of the organization. As a result employees show their appreciation being more engaged in their work. Which will finally leads to competitive

advantage and higher profit of the organization. In this competitive business world organizations need to have organization specific EC. Ethical Standards of the organization should be effectively communicated to every level of employees. Organizational Top Management should work harder to improve WE of the organization.

### **Limitations & Future Research Directions**

The current study focuses on BLW. Therefore it is difficult to generalize the results of the study to the other companies in same industry as well as to the other companies in various industries. Further this study was conducted based on the impact of EC on WE, even though there can be other factors affecting to this such as; job characteristics, perceived organizational support, perceived supervisor support, reward and recognition, Job Satisfaction, procedural justice, and distributive justice. The data collection method used in the research was cross-sectional. Despite using a longitudinal method of data collection helps to predict the result more clearly. As far as another limitation the researcher used the mono method which was a questionnaire to collect data. Future researchers could use multiple methods to collect data using interviews and observations. As far as there is an empirical gap in Sri Lankan context related to the impact of EC on WE and uses the western literature may originate a difference in the concepts and which may not accurately apply to the Sri Lankan context. Further, it is hard to measure WE and EC 100% accurately as respondents may be biased. Responses can be varied according to situations, age level etc. Moreover the researcher used the questionnaires to collect data and some of the employees have no enough knowledge to fill questionnaires properly. Future researchers should focus on how the experience of WE is translated into employee behaviors. In the past literature relationship between WE and performance; and the relationship between WE and productivity were not studied. It will be a better direction for future researchers. Finally, the researcher suggests future researchers conduct the study in other fields because there is a lack of literature on the topic and in Sri Lankan context this was not a widely studied area as to the best of knowledge of the researcher.

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# Impact of Loan Portfolio Diversification on Performance of Commercial Banks in Sri Lanka

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## Abstract

Credit risk pertaining to commercial bank loans can be considered as one of the main risks which commercial banks face. Thus, commercial banks diversify their loan portfolio to enhance performance mitigating the credit risk. Loan portfolio diversification refers to providing loans into different sectors without concentrating on a particular sector. However, there is no consensus in the literature about the link between loan portfolio diversification and performance of commercial banks. Therefore, this study examines the impact of loan portfolio diversification on the performance of commercial banks in Sri Lanka. Hirschman Herfindahl Index was used to measure the loan portfolio diversification while performance measured by the CAMEL model. The variables such as Interest Rate Spread and Bank size are considered as the control variables. Data were collected from audited annual financial statements of commercial banks between 2008 and 2017. The sample consists of ten licensed commercial banks including six systemically important commercial banks in Sri Lanka out of 25 licensed commercial banks in Sri Lanka. Data were analyzed by using Pearson correlation and fixed effect panel regression model. The results reveal that there is a significant negative impact of loan portfolio diversification on commercial bank performance. Further, control variables-bank size positively links with commercial bank performance while interest rate spread has a positive insignificant impact on bank performance. In conclusion, it is confirmed that commercial banks should reduce their loan portfolio diversification as much as possible to increase performance. Because results revealed that a diversified loan portfolio position leads to the poor performance of commercial banks. The management should follow specific strategies about LPD and improve commercial bank performance while making high attention about the loan portfolio position of the bank.

**Keywords:** Credit Risk, Loan Portfolio Diversification, Loan Portfolio Concentration, Hirschman Herfindahl Index, Interest Rate Spread

## Introduction

In banking system lending is a significant part that needs to be highly concerned to maximize organizational performance. The loan portfolio is treated as a major asset to the banks. Therefore banks' decision-makers need to properly manage loan portfolios through various strategies such as diversification and concentration. Loan portfolio diversification (LPD) refers to providing loans into different sectors without concentrating on one particular sector. LPD can be based on product, industry, and currency. Product-wise categorization can be

identified as a term loan, overdraft, housing loans, credit cards, and leasing. Industry-wise categorization can be shown as agriculture, manufacturing, banking & finance, tourism, and construction. On the other hand currency, wise categorization refers to a loan given by using various currencies. Loan portfolio concentration (LPC) means concern only specialization area when providing loans. Aarflot and Arnegård (2017) state diversification versus concentration important to banks to ensure financial stability. Some believe LPD helps to enhance the performance of banks while others believe LPC helps to enhance the firm performance. Further mix evidence can be seen in between these two extremes.

Corporate Finance Theory supports for the LPC strategy. According to Acharya, Hasan, and Saunders (2006) industrial and sector-wise loan diversification reduce bank return. Chen, Wei, Zhang, and Shi (2013), Behr, Kamp, Memmel, and Pfingsten (2007) and Adzobu, Adzobu, et al. (2017) also agree with this. Hayden, Porath, and Westernhagen (2007) suggest banks should focus to obtain benefits from management expertise and to reduce agency problems. Further Winton (1999a) suggests LPD harm to the loan monitoring effectiveness because of having a lack of knowledge about new markets.

However, some arguments prescribe LPD as a strategy for reducing credit risk as mentioned in the Portfolio Theory. Tah, Tah, Martinez, and Martinez (2016) state diversification is a better way to mitigate bankruptcy. Maina (2013) and Kashian and Tao (2014) found that LPD increases bank return. Hayden et al. (2007) state banks should be diversified as possible to reduce the risk of bank failure. Theory of Financial Intermediation also highlights diversification makes it cheaper for financial institutions to achieve credibility through better screening of the borrowers.

The diversification of the loan portfolio directly affects bank performance. Raei, Farhangzadeh, Safizadeh, and Raei (2016) state that the U-S global financial crisis in 2008 is partly due to the concentration of bank lending on the real estate sector. Further Raei et al. (2016) state that many previous bank crises have occurred as a result of the concentration of loan portfolios. According to Freitakas (2013) loan portfolio accounts for 70-80% of assets of commercial banks. Therefore bank managers need to take better loan portfolio decisions to gain more profits. This emerges need for managing loan portfolio decisions to enhance bank performance.

Lending exposes the bank to different kinds of risks such as credit risk, market risk, liquidity risk, operational risk. Among these credit risk is one of the most significant risks. Credit risk refers to the default in the payments. Increased defaults require an increase in the amount of loan loss provision and nonperforming loans. Then profitability reduces as a result (Freitakas, 2013). Apătăchioae (2015) also states that risk and performance highly interrelated. Therefore, credit risk should be reduced as possible to increase performance. The essence of LPD versus LPC strategies again arises relating to loan portfolio decisions.

Kurincheedaran (2015) is the only literature article found in Sri Lankan context which relating to the LPD. According to Kurincheedaran (2015) sector, wise loan diversification lead to the poor performance of domestic licensed commercial banks in Sri Lanka. Therefore the purpose of this research is to identify the impact of loan portfolio diversification on the performance of the commercial bank in Sri Lanka. This would be helpful to understand bank performance based on the loan portfolio of a bank.

## **Literature Review**

### **Asset Management**

Lending is a major business activity in the banking sector since it generates the largest revenue to the banks. Therefore loan portfolio is treated as the main source of the asset of a bank (Winton, 1999b). Lending activities should be performed effectively to have a well-managed asset portfolio. There is a greater source of risk associated with a loan portfolio of a bank. It is known as credit risk which is referred to as default the payments. It negatively impacts the asset management of a bank. According to Ávila, Flores, López-Gallo, and Márquez (2013) most of the financial losses due to poor management of the loan portfolio. Thereby banks implement different strategies to reduce loan loss provisions and non-performing loans. Loan diversification and loan concentration are strategies to cope up with credit risk.

Most of the banks try to increase customer deposits through new motivational programs. Banks give rewards, gifts and gift vouchers to customers during special milestones of their lives. Those programs enhance competition between commercial banks. Therefore it helps to enhance loan providing capacity by collecting more funds. It is easy to recover interest payable on deposit to customers by interest income receivable from lending because lending rates are higher than the deposit rates.

Sometimes banks obtain loans from other banks during fund shortage situations. It is called interbank loans. Therefore if a bank has sufficient funds to lend there is no need to grant additional loans from other banks. All these efforts of a bank are to lend as much as they are possible to earn higher profits. Therefore management needs to take correct decisions regarding lending activities. Kurincheedaran (2015) has proven this idea by mentioning as lending is the largest asset that significantly contributes to revenue.

### **Loan Portfolio Diversification**

LPD is a mechanism used by commercial banks to mitigate credit risk. Some banks diversify their loan portfolio while some other banks tend to concentrate their loan portfolios. This is treated as a major strategy of loan portfolio management which captures the risk of the interrelationship of individual loans as a portfolio. The key principle in the banking business is to diversify risk exposures as defined by the Basel Committee on Bank Supervision, 1991. A portfolio theory called traditional banking theory states diversified banks can reduce risk by minimizing the cost of monitoring. Monitoring costs can be reduced by mitigating the agency problem between bank owners and bank creditors. According to Portfolio theory, LPD increases bank performance by reducing credit risk through improving monitoring incentives.

Tah et al. (2016) suggest that LPD reduces the likelihood of bankruptcy and increase the financial performance of a firm. According to Maina (2013), LPD helps to enhance the financial performance and it uses as a strategy to catch up with the higher performance level. According to Dionne and David (2005) diversifying the loan, portfolio helps to reduce portfolio risk. Kashian and Tao (2014) state a more concentrated loan portfolio may lower the return simultaneously higher the credit risk. Meanwhile Lefcaditis, Tsamis, and Leventides (2014) state that concentration risk increase bank credit loss because of the probability of default the payments in specialized sectors. Aarflot and Arnegård (2017) also mentioned increased diversification improves performance. Moreover, Freitakas (2013) states Lithuanian banks provision for bad loans has increased due to concentrated loans.

According to Hayden et al. (2007), LPD improves banks performance only under moderate risk levels. Banks should evaluate the riskiness of the decisions when increasing the industrial, sector-wise or geographical LPD. Banks with diversified loan portfolios can pool their

internally generated funds and allocate them properly according to the analysis based on the financial sector.

Basel Committee on Banking Supervision (2006) mentioned LPC is the main reason for having large losses on bank portfolio. Ávila et al. (2013) state concentrated loans generate losses in credit portfolio because a single portfolio impact to arise concentration risk even though LPC helps to assess capital adequacy to some extent. Those provide LPD as a better way of reducing the credit risk. Beck and De Jonghe (2013) state loan concentration highly related to systematic risk. Therefore the benefit of LPD gains through the least correlated asset because the goal is to minimize the correlation between assets in the portfolio.

### **Loan Portfolio Concentration**

LPC is concentrating only on a few selected sectors which bank can enjoy a competitive advantage (Kurinchedaran, 2015). This is supported by Corporate Finance theory. Most of the researchers highlighted that concentration helps to mitigate agency problem and reduction of firm value. According to Kurinchedaran (2015) increasing LPD lead to allocating resources to inefficient divisions. Therefore it becomes poor investment decisions that affect firm value negatively. Banks need to gather sufficient information regarding borrowers to perform lending activities transparently. LPD contradicts this fact because it is critical to collect reliable information about prospective borrowers. Therefore LPC parallels with this fact because it is possible to screen the borrowers. Information theory highlighted the needs of knowledge about customers. Basel Committee on Banking Supervision also introduced a principle call “know your customer”. All these facts are supported to LPC.

Corporate Finance theory suggests firm should relate with concentration to enhance profitability and to reduce credit risk. Corporate Financial Theory advises specializing in a specific sector. Specialized banks can obtain a competitive advantage by collecting information on that sector to become more knowledgeable. This would result to reduce the cost of information asymmetry through better screening the credit risk of a specialized sector. According to Acharya et al. (2006) industrial and sector wise LPD affects to reduce the firm return simultaneously increase the firm risk. LPC leads to enhance the performance of a bank. Chen et al. (2013) have selected mining, manufacturing, production, construction, and transport as sector-wise categorization. According to Chen et al. (2013) sector, wise LPD may affect to reduce return and risk simultaneously. However, this is contradicted by the findings for the countries like Italy, German, Brazil, and Argentina (Chen et al., 2013). Moreover, Freitakas (2013) states that LPD adversely affects the yield on assets. Similarly, it does not help to reduce the bank risk.

### **Bank Performance**

Performance can be defined as how a bank utilizes its resources to achieve its objectives. There is a strong relationship between bank performance and credit risk of a bank (Githaiga, 2013). Better bank performance can be expected from mitigating credit risk. Banks need to get possible steps to mitigate credit risk to safeguard the assets of the bank and protect the investor's interest. Bank performance can be measured through bank-specific factors and macroeconomic factors. Bank specific factors refer to individual bank characteristics that affect bank performance. Those factors affect internal management decisions. Macroeconomic factors are the variables that are beyond the control of the bank, however, affect the profitability.

According to Athanoglou, Brissimis, and Delis (2008), Market Power theory explains bank-specific factors and Efficient Structure theory discusses macroeconomic factors. Market

power theory states that external market forces lead to earning a profit. Moreover, Efficient Structure theory suggests managerial and scale efficiency supported to higher financial performance. It is possible to conclude that both banks specific and macroeconomic factors are influenced by performance. Bank specific factors are capital size, size of deposit liabilities, size, and composition of credit portfolio, interest rate policy and labor productivity. Macroeconomic policy stability, Gross Domestic Product, Inflation, Interest Rate, and Political instability treated as macroeconomic factors.

Most of the financial institutions face financial losses due to unconsciousness on credit risk. Therefore not only commercial banks but also any financial institution needs to check the performance. According to Baral (2007), financial system of the country can be protected through regular check on performance indicators. International monetary authorities such as the World Bank, the international monetary fund highlighted the needs of a healthy financial sector to build the confidence of the private sector. Financial health consists of political stability and sustainable real sector growth (Rostami, 2015). Mere a financial performance does not portrait the whole performance of the financial institution. Therefore it needs to focus on the quality of the asset, liquidity position, capital base, management quality and earnings. All these factors affect the different types of risks such as credit risk, interest rate risk, liquidity risk, insolvency risk, etc.

There are strategies to reduce the risk of significant losses which is called "safety nets". Government and other regulatory bodies introduced different kinds of safety nets to promote financial and economic stability. Those safety nets include minimum capital requirements and other capital restrictions. Therefore performance can increase by reducing the probability of uncertain losses.

### **Loan Portfolio Diversification Decisions on Bank Performance**

According to Raei et al. (2016), LPD is less attractive because it leads to an increase in the competition. Italy German and Brazilian banking sectors provide empirical evidence to prove it. Moreover, Raei et al. (2016) state credit risk can reduce through specialization because banks can concentrate on sectors in which banks are expertise. Laeven and Levine (2007) state diversified financial institutions have less market value compared to the financial institutions which specialized the financial activities.

According to Kurincheedaran (2015), sector-wise LPD lead to the poor performance of domestic Licensed Commercial Banks in Sri Lanka. Since LPD reduce return and increase risk simultaneously it should enhance the return through LPC. Behr et al. (2007) findings are more parallel with this conclusion. According to Kamp, Pfingsten, Memmel, and Behr (2007) banks which concentrate on special expertise area have a higher return than diversified banks. As well as specialized banks have lower loan loss provisions and lower nonperforming loan rates than diversified banks. Similarly, Tah et al. (2016) mention concentration increase return while reducing default risk.

Fazio, Tabak, and Cajueiro (2003) prescribe that LPC increases the performance and it is advisory to restrict the lending to a few sectors. This fact undermines the LPD (Fazio et al., 2003). Adzobu, Agbloyor, and Aboagye (2017) state that LPD adversely affects profitability and it enhances the credit risk. Further Belguith and Bellouma (2017) show LPD reduces the return of a bank.

LPC could be able to attain more favorable outcomes due to the reasons highlighted by Beck and De Jonghe (2013). Banks have the problem of information asymmetry when providing loans to customers. This is a major vulnerable to adverse selection and moral hazard. Adverse selection can arise when banks are unable to distinguish between solvent and insolvent



borrowers. Banks give higher incentives for the less solvent borrowers while discouraging to provide loans to more solvent borrowers. Moral Hazard is the risk of misleading information. Moreover higher loan concentration can be screen and monitor effectively. Therefore LPC enhances performance by mitigating information asymmetry which is the main source of all these problems.

Lending to more sectors raises the information overload because it lowers the bankability to oversee the total loans effectively. Therefore benefits can be obtained through LPC because there is no information overload. Further learning effect also a benefit of lower-level diversification of the portfolio. It is easier to face the upcoming problems as quickly as possible to take immediate reaction because banks become familiar with specialized sectors. This is a better chance for banks to run business activities very smoothly.

LPD leads to increase in the monitoring cost because a bank needs to have experts to govern whole sectors. Therefore limited attention can be a reason to default the payment. Ultimately banks result in accumulated huge losses (Bonti, Kalkbrener, Lotz, & Stahl, 2006). Further, some studies emphasize that LPD has both merits and drawbacks. According to Turkmen and Yigit (2012), geographical LPD produces a negative effect on performance as well as sector-wise LPD cause a mix of evidence for risk and return preferences. It is advisory for banks to concern about compliance with regulatory requirements when providing loans to different industries. Further, if banks provide loans to sectors that have competitive advantage it can mitigate the risk of default the payments. LPD gains less through monitory benefits. When putting overall effect, credit risk can be minimized through lowering the LPD (Beck & De Jonghe, 2013)

### Conceptual Framework

The following conceptual framework has been constructed based on “How the loan portfolio diversification impacts on commercial bank performance”.

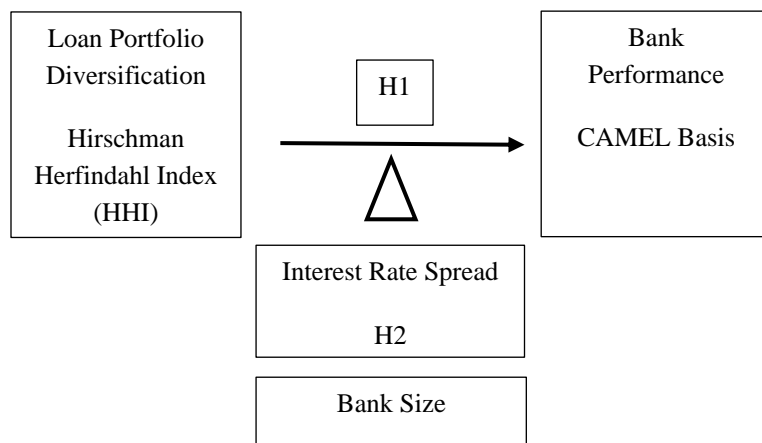


Figure 1: Conceptual Framework

Source: Developed by researcher

### Hypothesis Development

The following hypothesis formulated for the study to test the impact of loan portfolio diversification on commercial bank performance.

H<sub>0</sub> - There is no significant impact of loan portfolio diversification on commercial banks performance.

H<sub>1</sub> - There is a significant impact of loan portfolio diversification on commercial banks performance.

H<sub>0</sub> - There is no significant impact of Interest Rate Spread on commercial banks performance.

H<sub>2</sub> - There is a significant impact of Interest Rate Spread on commercial banks performance.

H<sub>0</sub> - There is no significant impact of Bank Size on commercial banks performance.

H<sub>3</sub> - There is a significant impact of Bank Size on commercial banks performance.

## **Methodology**

### **Population**

This study was carried out on commercial banks in Sri Lanka. There are twenty-five (25) licensed commercial banks. In the banking system, there are government banks and private banks based on the ownership structure. Commercial banks in Sri Lanka provide a wide array of financial services including payments and settlement services. So, the considering population in this study was twenty-five licensed commercial banks in Sri Lanka.

### **Sample**

This study focuses on 10 licensed commercial banks including 6 systemically important licensed commercial banks selected out of 25 licensed commercial banks in Sri Lanka. This consists of eight private banks and two state-owned banks. Basel Committee on Banking Supervision has identified factors such as size, complexity, interconnectedness, and expertise to assess systemically important financial institutions.

### **Data and Data collection method**

The researcher gathered information from secondary data. It is data that has already been collected and is readily available for use. The data sources were annual reports of the commercial banks and the central bank of Sri Lanka and referring to the CSE websites. Data collected from annual reports of each commercial bank from 2008 to 2017. However, this data only denotes individual banks position and does not cover subsidiaries or group. The sector classifications are slightly varied between a few banks which were analyzed in detailed and incorporated in the relevant loan products.

## **Results and Discussion**

### **Descriptive Analysis**

**Table 1:** Descriptive Analysis

	N	Mean	Maximum	Minimum	Std. Deviation
HHI	100	2972.232	5419.961	2032.514	741.5500
IRS	100	3.013600	7.540000	0.150000	2.006117
BSIZE	100	8.347004	9.290436	6.299264	0.597802
CRAR	100	14.96660	40.90000	8.060000	4.218043
NPLR	100	4.889100	33.61000	1.350000	4.636515

OCIR	100	54.95818	95.08595	17.63069	15.45105
ROA	100	1.447600	4.240000	0.100000	0.567470
LIQR	100	25.05750	42.00000	20.00000	3.968648

Source: Author's Calculations based on the annual report data

Table1 indicates the mean, median, maximum, minimum and standard deviation values of the descriptive analysis. The descriptive statistics is based on 10 commercial banks and 10 year data that include 100 observations. The first column of the table shows the mean values for each variable. According to the results, the highest mean value for dependent variables is shown in OCIR while ROA shows the lowest mean value. It shows 54.95% and 1.44% respectively. In the 10 years' time period other dependent variables such as CRAR, NPLR and LIQR shows mean value 14.96%, 4.88% and 25.05% respectively. During the period all dependent variables (CAMEL model) have positive mean value and it denotes that the banking sector runs with high performance level. Moreover the independent variable HHI shows 2972.232 mean value in the study denoting that there are high diversified loans in product wise categorization. The highest variance within the dependent variables is shown in OCIR. The value of standard deviation is 15.45. The 0.56 which is the lowest variance within dependent variables, shows in ROA. The other dependent variable CRAR, NPLR and LIQR shows 4.21, 4.63 and 3.96 standard deviation within the time period of 2008 to 2017.

The mean value of CRAR (capital adequacy) is 14.96% which is slightly higher than the regulatory requirement of 10% which is the evidence of the compliance of banks regarding Basel II requirements. And also maximum value and the minimum value standing at 40.90% and 8.06% respectively and accordingly, the standard deviation of CRAR is 4.218043. The NPLR (non-performing loan ratio) among commercial bank in Sri Lanka is varied from 4.88% to 22.30% with the mean and standard deviation 6.47% and 33.61% respectively which indicates that there is volatility among the banks' ability in credit risk management and the need for a loan portfolio diversification. OCIR (operating cost to income ratio) is varied from 17.63% to 95.08% with a standard deviation of 15.45 which indicates that performance indicator management quality highly differs among the bank. The minimum and maximum value of return on assets 0.10% and 4.24% show that low volatility in performance indicator earnings of Sri Lankan commercial banks. The standard deviation value shows that the dependent variable ROA is 0.56. There is also a low variation in LIQR (liquidity ratio) with a stand deviation of 3.96. And also it's standing maximum and minimum value 42% and 20% respectively and it denoting that the banking sector runs with effective liquidity level. The control variable called BSIZE (bank size) calculated by using the logarithm of the total assets and it shows a mean value of 8.34 with a standard deviation of 0.59 and these valued indicates that very small as well as very large commercial banks are included in the sample. And also the maximum and minimum values were 9.29 and 6.29 respectively. Finally, the mean value of real IRS (interest rate spread) was 3.01% indicating the average interest rate spread of the country's economy over the past 10 years with 2.00 standard deviation. The maximum interest rate spread of the economy was recorded as 7.54 and the minimum was 0.15.

### Correlation Analysis

**Table 2:** Correlation Analysis

10								
Probability	HHI	IRS	BSIZE	CRAR	NPLR	OCIR	ROA	LIQR
HHI	1.0000							
	-----							

IRS	0.2460	1.0000						
	0.0136	-----						
BSIZE	0.1728	-0.0746	1.0000					
	0.0855	0.4603	-----					
CRAR	-	-0.1860	-	1.0000				
	0.0707		0.3724					
	0.4845	0.0638	0.0001	-----				
NPLR	0.0376	0.0688	-	-	1.0000			
			0.1271	0.0719				
	0.7098	0.4959	0.2074	0.4767	-----			
OCIR	-	-0.0013	-	0.1285	0.4998	1.0000		
	0.0014		0.3345					
	0.9889	0.9895	0.0007	0.2025	0.0000	-----		
ROA	-	-0.0015	0.3004	-	-	-	1.0000	
	0.1715			0.1748	0.4350	0.5268		
	0.0879	0.9880	0.0024	0.0819	0.0000	0.0000	-----	
LIQR	0.0768	-0.1813	0.0828	-	0.0354	-	0.2315	1.0000
				0.0194		0.0365		
	0.4474	0.0710	0.4123	0.8476	0.7265	0.7180	0.0204	-----

Source: Author's Calculations based on the Annual Report Data

Correlation analysis is used to measure the association or strength of the relationship between two variables. It analyzes the relationship between independent variable and dependent variable to check whether there is a positive relationship or negative relationship. Table 2 represents the correlation analysis between the dependent variables (CRAR, NPLR, OCIR, ROA and LIQR) and independent variable (HHI) and control variables (IRS, BSIZE). According to that HHI is negatively correlated with performance, measured based on CRAR, OCIR and ROA methodology. This indicates that an increase in the Loan portfolio diversification of the commercial bank will decrease the performance. The results show the highly insignificant relationship between HHI and CRAR, based on the results of the analysis. The correlation value is -0.0707 where the value in between -0.5 to 0. Therefore, there is a weak negative linear relationship among the HHI ratio and CRAR. And also the coefficient of correlation between HHI and OCIR is shown as -0.0014. It represents that the weak negative association between the variables and at the same time HHI is statistically insignificant with OCIR since its P value is 0.9889. According to the results of the study, there is another insignificant relationship between the HHI and ROA. The correlation value shows as -0.1715 in the study. So there is a weak negative linear relationship between the HHI and ROA. There is an insignificant weak positive relationship between the HHI and NPLR because the correlation value which is 0.0376 in between the 0 and 0.5. LIQR also positively correlated with the HHI having a 0.0768 correlation value. It also represents the weak positive linear relationship.

The control variable interest rate spread has a weak negative linear relationship with CRAR with a correlation value of -0.1860. There is a weak positive relationship between the IRS and NPLR with a correlation value of 0.0688. Moreover the correlation coefficient value of the IRS with OCIR is -0.0013 where the value in between -0.5 and 0. That indicates there is a weak negative relationship between IRS and OCIR. The correlation value of the IRS with ROA is 0.3004 where the value in between 0.0 and 0.5 and it statistically significant because of the rule of P value less than 0.05. That indicates there is significant weak positive relationship between IRS and ROA.

Further CRAR as well as NPLR and OCIR shows the weak negative correlation between BSIZE according to the coefficient value of -0.3724 and -0.1271 and -0.3345 respectively. There is a statistically significant correlation in CRAR and OCIR with the BSIZE because of the rule of P value less than 0.05. Moreover ROA as well as LIQR shows the weak positive correlation between BSIZE according to the coefficient value of 0.3004 and 0.0828 respectively and ROA a statistically significant with the P value of 0.0024. Among the independent and control variable variables, the highest correlation was between HHI and IRS and the correlation is positive with the statistically significant correlation value 0.2460. The correlation between HHI and BSIZE is the lowest correlation among the explanatory variables with the correlation value of 0.1728

### **Panel Data Analysis**

Regression analysis is a statistical process used to estimate the relationships among variables. This study is based on balanced longitudinal panel data for altogether 10 commercial banks covering the period from 2008 to 2018. In the regression model, there are some assumptions, these assumptions can be tested as a diagnostic test. To improve the validity of the regression results the researcher used these test. There are main assumptions regarding the regression analysis and they are stated in order as follows.

### **Panel Unit Root Test**

**Table 3: Unit Root Test**

	Levin, Lin & Chu	Im, Pesaran and Shin W-stat	ADF - Fisher Chi-square	PP - Fisher Chi-square
HHI	0.0000**	0.0139**	0.0096**	0.0000**
IRS	0.0000**	0.0000**	0.0000**	0.0000**
BSIZE	0.0000**	0.0277**	0.0019**	0.5650**
CRAR	0.0000**	0.0029**	0.0024**	0.0007**
NPLR	0.0000**	0.0108**	0.0089**	0.0007**
OCIR	0.0005**	0.0995**	0.0455**	0.0407**
ROA	0.0000**	0.0002**	0.0002**	0.0010**
LIQR	0.0000**	0.0000**	0.0000**	0.0007**

Source: Author's Calculations based on the annual report data

\*\* indicates the 95% significant level

According to the results of Unit roots test Summary for HHI majority tests arrived with a corresponding P value which is greater than 5% at Level. Meaning that according to majority results researcher can't reject the Null hypothesis at level. But after estimate HHI into 1<sup>st</sup> difference, it shows that majority of tests arrived with a corresponding P value which is less than 5%. Therefore according to majority results researcher can reject the Null hypothesis and accept the alternative hypothesis after 1<sup>st</sup> difference. Therefore, it proves that after converting into 1<sup>st</sup> difference of HHI it does not have a unit root. It is meaning that HHI is stationary data after 1<sup>st</sup> difference.

Unit root test results for IRS majority tests arrived with a corresponding P value which is less than 5% at Level. It meaning that according to the majority results researcher can reject the Null hypothesis at level and accept the alternative hypothesis. Therefore IRS does not have unit root and hence IRS is stationary data at the Level.

Through level unit root test of BSIZE arrived with balance result. But after estimate BSIZE into 1<sup>st</sup> difference it shows that the majority tests arrived with a corresponding P value which

is less than 5%. Therefore BSIZE does not have a unit root and hence BSIZE is stationary data at 1<sup>st</sup> difference.

Unit root test results for CRAR majority tests arrived with a corresponding P value which is less than 5% at Level. Therefore according to majority results researcher can reject the Null hypothesis at the level and accept the alternative hypothesis and it meaning that CRAR does not have a unit root and hence CRAR is stationary data at Level.

When considering the stationary of NPLR the majority tests arrived P value less than 5% in level. Therefore the results indicate to reject null hypothesis by demonstrating NPLR is stationary in the level.

As per panel unit root test the OCIR majority tests arrived with a corresponding P value which is less than 5% at the Level. Therefore according to majority results researcher can reject the Null hypothesis at the level and accept the alternative hypothesis. Therefore OCIR does not have a unit root and hence OCIR is stationary data at Level.

Unit root test results for ROA majority tests arrived with a corresponding P value which is less than 5% at Level. It meaning that according to majority results researcher can reject the Null hypothesis at level and accept the alternative hypothesis. Therefore ROA does not have a unit root and hence ROA is stationary data at Level.

When analyzing the LIQR variable the results majority tests arrived with a corresponding P value which is less than 5% at Level The null hypothesis can be rejected in this case. Therefore data in LIQR can be considered stationary at the level according to the findings.

### **Hausman Test**

**Table 4:** Hausman Test

	CRAR	NPLR	OCIR	ROA	LIQR
Probability	0.1747**	0.0008**	0.5803**	0.0438**	0.2023**

Source: Author's Calculations based on the annual report data

\*\* indicates 95% significant level

Based on the analyzed results to select appropriate model within the fixed effect and random effect model the researcher used the Hausman test. Essentially, the test looks to see if there is no correlation between the unique errors and the regression in the model. In the Hausman test to identify which model is appropriate for the study the researcher developed hypothesis. If the P-value < 0.05, fixed effect model is appropriate, otherwise Random effect model is appropriate.

H0: Random effect model is appropriate for the analysis

H1: Fixed effect model is appropriate for the analysis

Table 4 shows the probability values of Hausman Test. According to the results of the table, it shows the probability values of CRAR, OCIR and LIQR are higher than the significant level as 0.1747, 0.5803 and 0.2023 respectively. Therefore, the null hypothesis cannot be rejected. The null hypothesis is random effect model is appropriate. So to identify the impact of loan portfolio diversification on commercial bank performance the researcher can use the random effect model for panel data. In the case of NPLR and ROA probability values are lower than the significant level 0.05 as 0.0008 and 0.0438 respectively. Therefore it can reject the null hypothesis and H1 is appropriate to the study. It means that fixed effect model is appropriate for the case of NPLR and ROA.

## Fixed Effect Model

**Table 5:** Result of Fixed Effect Model under ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.215156	0.759204	2.654390	0.0103
HHI	-0.000262	8.08E-05	-3.247381	0.0017
IRS	0.025989	0.025008	1.039245	0.3016
BSIZE	0.260120	0.160165	2.450142	0.0161
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.386571	Mean dependent var		1.447600
Adjusted R-squared	0.301961	S.D. dependent var		0.567470
S.E. of regression	0.474114	Akaike info criterion		1.466001
Sum squared resid	19.55624	Schwarz criterion		1.804674
Log likelihood	-60.30007	Hannan-Quinn criter.		1.603068
F-statistic	4.568816	Durbin-Watson stat		1.724979
Prob(F-statistic)	0.000000			

Source: Author's Calculations based on the annual report data

This part reviews the results based on the Fixed effects model. According to the above tables, 5 shows the probability F statistics under ROA as 0.0000. But the other four models such as CRAR, NPLR, OCIR, and LIQR show probability F statistics 0.051214, 0.000011, 0.012126 and 0.217375 respectively (Appendix 6.3.3). The rule is that if the P (F-statistic) value is less than 0.05 the model is highly significant and ROA is the appropriate model with 0.386571 R-squared value. There is only a 38.65% variation in ROA can be explained by HHI. The remaining 61.35 of variation in HHI (LPD) explained by other variables that are not considered in the study. The result of the fixed effect model under ROA is discussed as follows.

When considering the loan portfolio diversification of commercial banks the HHI (Hirschman Herfindahl Index) is identified as a negative coefficient of -0.000262 under the ROA. Further, it is statistically significant and which is having 0.0017 probability value. The negative and statistically significant result shows that the negative impact of loan portfolio diversification on commercial banks performance in Sri Lanka. And also it shows that commercial banks with relatively high diversified loan portfolio base lead to reduce the performance of domestic Licensed Commercial Banks in Sri Lanka. Therefore the Null hypothesis developed in this study can be rejected.

The results of the control variable IRS exhibit a positive coefficient of 0.025989 at 0.3016 significant level under the ROA. It indicates that interest rate spread positively impact to the commercial bank performance. But it is an insignificant relationship and that shows the effect is not conclusive. The second hypothesis developed to identify the impact of interest rate spread on bank performance. Therefore the Null hypothesis cannot be rejected since the results do not appear as significant.

The second control variable BSIZE, the result of bank size shows that a positive coefficient of 0.260120 and it was statistically significant because the P-value is lower than the significant level as 0.0161. Further, it shows that commercial banks with relatively high assets base are more profitable than the small banks which are having a low asset base. The positive coefficient and significant effect indicate that larger banks succeed better than smaller ones in achieving a higher ROA. The third hypothesis was developed relating to identifying the

impact of bank size on commercial bank performance. Therefore since the result is significant Null hypothesis can be rejected.

### Auto Correlation

According to this fixed effect model of ROA the value of Durbin-Watson stat is provided as 1.724979. This value lies between 1.5 to 2.5. In this case the researcher can summarize that the residuals become independent and those are not serially correlated. So there is no serial correlation problem and model is highly valid and appropriate.

### Multi-collinearity

If independent variables are highly or perfectly correlated that is called multi-collinearity. This is a problem in the regression model. Therefore regression results should be free from multi-collinearity problem. Using VIP (Variance Inflation Factor) or Tolerance multi-collinearity can be tested. If VIF is less than 10 or Tolerance is more than 0.1 there is no multi-collinearity problem.

$$\text{VIF} = 1 / (1 - R^2)$$

$$\begin{aligned} \text{VIF (ROA)} &= 1 / (1 - 0.386571) \\ &= 1.630181 \end{aligned}$$

According to the collinearity diagnostic, the VIF value is less than 10. All the tolerance values are more than 0.1. As a result there is no multi-collinearity problem in regression results. Model is silent.

### The Relationship between Independent Variables and Residuals

**Table 6:** Correlation Analysis between Independent Variables and Residuals

Correlation Probability	RESID	HHI	IRS	BSIZE
RESID	1.000000			
	----			
HHI	0.047781	1.000000		
	0.6369	----		
IRS	-4.60E-05	0.246048	1.000000	
	0.9996	0.0136	----	
BSIZE	0.107279	0.172831	-0.074678	1.000000
	0.2881	0.0855	0.4603	----

Source: Author's Calculations based on the annual report data

The result of the correlation analysis between independent variables and residuals all the P values are more than 0.05. So the association between residuals and independent variables are insignificant. Therefore, they are not correlated and the model is appropriate.

## Conclusions and Recommendations

### Conclusion

This study was conducted to find out the impact of loan portfolio diversification on the performance of commercial banks in Sri Lanka. For the study, the researcher used 10 commercial banks from 2008 to 2017 and the researcher used 100 observations for the study.



In this research, LPD was considered as the independent variable and it has used the Hirschman Herfindahl Index (HHI) to measure the diversification. The dependent variables bank performance is measured in accordance with the CAMEL approach. It is a more effective measurement since it covers various aspects of the performance of a bank such as capital adequacy, asset quality, management efficiency, earnings, and liquidity. Product-wise loan categorization such as term loan, overdraft, leasing, pawning, credit card loan, housing loan and other loan has been taken to calculate Hirschman Herfindahl Index (HHI). In this study bank size and interest rate spread rate has selected as control variables. The researcher runs a balanced panel data analysis to achieve the objectives in the study. To get an idea about the data the researcher conducted a descriptive analysis for the study. The study used correlation analysis and regression analysis for achieving the objectives. The main finding of the study shows that LPD significantly reduces commercial bank performance. Moreover, it shows bank size (BSIZE) the control variable of the study significantly impact on enhance the commercial bank performance. The detailed summary of the study can be shown as follows.

In a banking system, lending represents the heart of the commercial banking industry and loans are leading assets as they generate the largest share of operating income. To maximize company performance, it is important for commercial banks to concern productivity in managing the loan portfolio. Portfolio diversification unable to eliminate the default risk, but it can reduce credit risk into the appropriate level.

According to the correlation analysis of the study, there is a negative relationship between loan portfolio diversification and return on asset. That means when the LPD is increasing within the banks the earnings based on assets decrease. This situation arises when the banks are providing more different categories of loan to their customers. Therefore this relationship is not healthy enough for banks when they perform loan-related various activities.

According to the regression analysis of the study, the researcher got the results of ROA is the most appropriate model. Because the rule is that if the P (F-statistic) value is less than 0.05 the model is highly significant and ROA is recorded lowest P(F-statistic) value among the CAMEL model variables. Firstly the researcher checked whether there is a significant negative impact of HHI (LPD) on earning (ROA). According to the results, 38.65% fluctuation of return on assets only can explain from the HHI. The impact is little much high, according to the results. Moreover, there is a negative and statistically significant result, shows that the negative impact of loan portfolio diversification on commercial banks performance in Sri Lanka. Therefore it shows that commercial banks with relatively high diversified loan portfolio base lead to reduce the performance of domestic Licensed Commercial Banks in Sri Lanka.

The results of the control variable IRS show a positive impact on the commercial bank performance and there is an insignificant relationship and that shows the effect is not conclusive. According to the study, the third objective of the study is to check whether there is an impact of IRS on bank performance. Therefore, it shows a positive impact when IRS within the country is changing, the bank performance (ROA) also changes. But this effect is not conclusive.

Considering the results of the second control variable Bank size, there is a significant positive impact of Bank size (BSIZE) on the commercial bank performance (ROA). It means when the bank size is changing, the commercial bank performance (ROA) also change.

### **Recommendations**

These results provide a significant platform for managers to identify the impact of LPD on the performance of commercial banks. According to these results, the following recommendation

can be beneficial to the commercial bank's management, policymakers and their other financial authorities to take an important decision regarding LPD. The management should follow specific strategic planning about LPD and improve commercial bank performance. Moreover, they need to make high attention to the loan portfolio position of the bank.

According to the result, commercial banks need to limit their loan portfolio diversification into appropriate level to enhance their performance. Therefore the management of a commercial bank should need to use appropriate strategies to reduce loan portfolio positions while retaining their client base. Furthermore, they should focus on only limited areas to serve loan to their customers. Moreover, the commercial bank should need to focus on reducing the level of non-performing loans because when diversifying the loan portfolio there is a high credit risk. Therefore commercial bank management needs more attention on those non-performing loans and should get immediate action to reduce the level of credit risk. The large commercial banks have more opportunities to expand their bank size through diversified branch networks and it ensures higher performance generation to the bank. Therefore, commercial banks should need to expand their branch network into an effective position.

### **Future Research Directions**

This study has mainly focused on to identify the impact of loan portfolio diversification on the performance of commercial banks in Sri Lanka. Therefore, based on the researcher experience in the research, there is an ability to provide suggestions for future researchers to conduct their research effective manner. Moreover, it will be important for commercial banks to make an effective decision regarding loan portfolio diversification.

In Sri Lanka, Researcher had not found any one of the previous research conducted when considering all area of loan portfolio diversification such as product wise diversification, industry-wise diversification, and currency wise diversification. There are some domestic and international scholars' researches focused only on one area of loan portfolio diversification. The researcher could able to conduct this research in those areas of the banking industry. If this research were carried out in all private and government sector banks, then research findings could be generalized to the whole island. Moreover, every bank has to do this kind of research to understand the market potential and to reduce the non-performing loans. In addition to that, it is suggested analyze the macroeconomic variables such as GDP growth rate on loan portfolio diversification decision. And also, for further research like how the credit risk and non-performing loan affect the net interest margin of the commercial bank as well. Moreover, the researcher can propose that research can be done in focusing effect of loan portfolio decision on bank cost efficiencies which have not been addressed in this study. Furthermore, the researcher can focus on the effect of the cost of loan portfolio diversification on commercial bank performance.

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# Impact of Microfinance Services on Growth of Micro Small and Medium Scale Enterprises: Empirical Evidence from Micro, Small and Medium Scale Enterprises in Kalutara District

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## Abstract

Micro, Small and Medium Scale Enterprises (MSME) sector is identified as an important strategic sector to create economic and social sustainability in Sri Lanka. This sector is playing a vital role in economic growth, regional development, employment generation and poverty reduction in the emerging economy of Sri Lanka. The Micro Finance Institution (MFI) has been developed a variety of services to assist the financial and non- financial needs of the entrepreneurs including credit, saving, leasing, insurance facilities, and training programs. The sample has been derived from Kalutara district and 100 numbers of respondents have been selected through the random sampling method. Primary data has been collected and administered through a questionnaire. The data were analyzed using descriptive analysis, correlation coefficient analysis, Regression analysis, Baron and Kenny mediator analysis method and Sobel test. The findings revealed the positive relationship between Microfinance services and the growth of MSMEs. Mediator analysis and the Sobel test identified that experience level partially mediates the relationship between the microfinance services and the growth of MSMEs. Study recommends to government to implement different tax policies for this sector, increase the investment on infrastructure in rural areas and this enables MFIs to maintain the lowest rate of interest, increase their outlets in rural areas and to deliver more effective on training programs in order to empower the MSMEs in Sri Lanka to achieve long term sustainability in Sri Lanka.

**Keywords:** Micro Finance Services, Micro Small and Medium Scale Enterprises, Entrepreneurs, Micro credit

## Introduction

The Micro Small and Medium Scale Enterprise (MSME) sector has been identified as an important strategic sector in Sri Lanka and it is a driver of change for inclusive economic

growth, regional development, employment generation, and poverty reduction. The government had played down its role as the major driving force of the economy by a process of commercialization and privatization. The emphasis, therefore, shifted from large-scale industries mainly to small and medium scale industries, which have the potentials for developing domestic linkages for rapid and sustainable industrial development. Attention was focused on the organized private sector to spearhead subsequent industrialization programs. Incentives given to encourage increased participation in these sectors were directed at solving and alleviating the problems encountered by industrialists in the country, thereby giving them greater leeway towards increasing their contribution to the national economy.

There is no proper definition for defined MSMEs and different institutions defined in different ways to MSMEs. As defined in most cases, the number of employees and the value of assets are considered. Adam (2008) defines enterprise size by value of the asset as less than 1 million are micro, assets value between 20-50 million are medium, and more than 50 are large. And the department of census and statistics identify small industry as employees less than 10 and more than 10 are micro and small in respectively.

The practice of microcredit dates back to as early as 1700 and over the years it spread to Asia. The current use of the expression of micro-financing has its following in the 1970s when organizations such as Grameen Bank of Bangladesh with microfinance pioneer Mohammad Yunus, were starting the modern industry of micro-financing (Mawangi, 2011). Microfinance emerged to fill the gap left by formal banks in providing a broad range of financial services that includes services such as deposit, loans, payment services, and insurance to individuals, micro, small, and medium enterprises which were on the rise during this period (Gamage, 2000). Microcredit is a variation on traditional credit service which involves providing small loans to people who would otherwise be unable to secure credit, because of poverty. Microcredit is one component of microfinance and there are services such as insurance, money transfers leasing and micro-savings. Micro saving is similar to the traditional savings account, but designed for small deposits with low minimum deposits or no minimum deposit and typically no service charge. And microfinance institutions provide a training facility for selected SME, with the support from the central bank of Sri Lanka. The training for one day or one-week training which helps the micro-enterprise to become a small enterprise. The growth of micro-enterprises can measure by identifying their expansion of production, the increment of the employees, turnover, income, physical assets. In this research, the growth was measured by using changes in profitability, sales volume, employees and physical assets of the micro-enterprises (Penrose, 1959)

### **Problem Statement**

Despite of MSMEs large contribution in countries development and economic growth in various aspects such as increased profit, increase of business outlets, creation of employment, leads into increase business assets, business diversification and sales return, however their growth and development in developing countries are mainly limited by access to finance, poor managerial skills and lack of training opportunities and high-cost inputs (Cook, 2000)

Microfinance institutions are set up to provide funding for enterprising poor. Through cycles of loan and repayment, it is expected that the SME is increasingly empowered and grow. According to Mosely (2001), Micro Finance Institution (MFI) is said to be a cheaper way of source of finance to SMEs. Despite MFI service been a cheaper way of source of finance to SMEs, very little is known on the actual cost for microfinance clients to access these services, except interest rates. The interest rate is not the only cost of credit incurred by SMEs, there are also other costs related to the process of obtaining information about the services and the whole process of applying for the loan, cost of getting transportation to make loan payments, time spent obtaining loan and tracking the debt all these are referred to as transaction costs. There is some contradictory argument on the utilization of microfinance services. Some users of microfinance services graduated from their first and second loan on average experienced significantly higher growth in their profit and household income, as compared with other similar business operators. But some borrowers left the program after receiving only one loan (Copstake, 2000). Therefore, this study investigated the impact of microfinance services on the growth of MSMEs in Kalutara district.

The micro small and medium scale enterprises are playing a vital role in the emerging economy of Sri Lanka. But they are still facing the problem which is the access to financial services. Even though there were more kinds of credit facilities, it's difficult to obtain for MSME because most of them are not having necessary collaterals. But the microfinance offers more credit and extra facilities for entrepreneurs who are in the lower level of their business.

The small business is playing a vital role in creating sustainable Sri Lanka which creates the employment generation, regional development, resource utilization and its high impact on Gross Domestic Production of Sri Lanka. The development of this sector will enable a lot of opportunities for all levels of people in society by creating opportunities for employment. This sector is still emerging, therefore, there is limited research conducted in this area which is the identification of the impact of microfinance services on the growth of MSME, therefore still not builds the proper background on that, which leads to the theoretical gap in this sector. There is a lack of research conduct on to identify the impact between microcredit, micro saving, and training on the growth of the MSMEs in the Sri Lankan context. Therefore, there is an empirical gap also. This research identified how microfinance services impact on the growth of MSME with the level of experience of the owner of the business with special reference to Kalutara district.

Therefore, drawing from these gaps researcher develop primary research question as How Microfinance services impact on growth of Micro Small and Medium Scale Enterprises (MSME) in Sri Lankan context? Secondly, the researcher tries to give answers for How micro credit impact on growth of MSME sector? How micro savings impact on growth of MSME sector? Which ways the training impact on growth of MSME Sector? As well as in which ways the microfinance services impact on growth of MSME through experience level?

In order to address above research questions researcher formulated four research objectives as to identify the impact of micro credit on growth of MSME, to identify the impact of micro

savings on growth of MSME , to identify the impact of training on growth of MSME and to identify the impact of microfinance services on growth of MSME through experience level.

## **Literature Review**

Microfinance is defined as a development tool that provides financial services and products such as very small loans, savings, micro leasing, and money transfer to assist the very poor in expanding or establishing their business. It's mostly used in emerging economies where SMEs do not have access to other sources of financial assistance (Marguerite, 1998). The industrial development bank defines a small industry as an establishment whose capital investment in plant & machinery doesn't exceed Rs 4million (US\$ 4200) & the total number of regular employees doesn't exceed 50 persons (Margueite, 1998).

There is a different kind of definitions on MSME. The Department of Small Industries (DSI) classified enterprise with capital investment less than 5 million (US\$ 52500) & fewer than 50 employees as SMEs (Ponnamperuma, 2000). World Bank-financed investment assistant scheme, the financial institution defines a SME as those enterprise whose investment in fixed assets at original book value, excluding land and building and Sri Lanka Export Development Board (SLEDB) identified the export-oriented enterprise do not exceed Rs 8 Million (US\$ 84000) (Hewaliyanage, 2001).

The firm growth in this context can be defined as an increase in size or other objects that can be quantified or a process of changes or improvements. The firm size is the result of firm growth over some time and it should be noted that firm growth is a process while the firm size is a state (Penrose, 1959). The growth of a firm can be determined by the supply of capital, labor and appropriate management and opportunities for investments that are profitable. The determining factor for a firm's growth is the availability of resources to the firm (Mambula, 2002)

The research has undertaken the mediator variable as the experience level of the entrepreneur. The attributes of the business person are generally acknowledged as imperative fixing that impacts growth. Research indicates that particular characteristics of the entrepreneur that are associated with the growth of the enterprise include motivation, previous management, and business experience and demographics of the entrepreneur such as age, education (Dutta, 2006). On the off chance that the business person's explanations behind beginning the business began in force or opportunity-driven spurs rather than push" or need-driven propels, the subsequent venture will probably develop. Research in developed countries has shown that an entrepreneur's level of experience may be associated with MSEs" characteristics such as growth and performance.

Several studies have been conducted on microfinance services. Copstake (2000) did a study on the impact of microcredit on poverty. The program was not directed towards the poorest business operators but one-third of the clients who were below the national poverty line. Those who graduated from their first to a second loan on average experienced significantly higher growth in their profit and household income, as compared with otherwise similar business



operators. The borrowers also diversified their business activities more rapidly. However, some borrowers were worse off especially among the 50% or so who left the program after receiving only one loan.

Nelson (2010) conducted a study to investigate the impact of microfinance institutions (MFIs) on the

Fatchamp (1997) contends that with lacking assets, ranchers and fishers can't put resources into new gear and apparatus, and it winds up hard to connect with new markets and items. He further contends that without financial assistance, small farmers and artisanal fishermen cannot cope with temporary cash flow problems, and are thus slowed down in their desire to innovate and expand. The general perception is that access to external finance is critical for poor entrepreneurs, who may never have funds proportional to their ambitions.

Margueite (1998) highlighted that there exists a direct relationship between microfinance access and the growth of SMEs. The paper evaluated SMEs Proprietors who have gotten credits just from money related credit. Findings of the study showed that an increase in business profits, employments, outlets, sales volume, all these, were observed to be statistically significant improved by microfinance. Except for an increase in the capital structure which has no direct relationship to microfinance access.

The study also revealed that many problems faced by enterprises are not related microfinance received, but are related to macro-economic institutional constraints, such as demand and supply problems, tax regime and energy problems thus microfinance access is an important aspect of business growth.

The growth can be determined by the supply of capital, labor & appropriate management & opportunities for investment that are profitable. The determining factor for a firm's growth is the availability of resources to the firm (Gay, 1981). Nelson (2010) Concludes his study by stating microfinance is an important asset to developing countries since it can cater for financing needs of the very poor in the society. Economies need to emphasize the development of SME as they provide employment & generation incomes in an economy (Mwangi, 2011). Finance is the lifeblood of any business & SME cannot be set up if there is a lack of finance which the financial institution & government can provide at cost or no cost. It's vital to understand that 70% of SME fail because of poor capital funding in the first & second year (Finweek, 2008). According to the Asia pacific economic corporation (2003), it's recognized that the roles of microfinance institutions are very important for the development of SME.

## Conceptual Framework

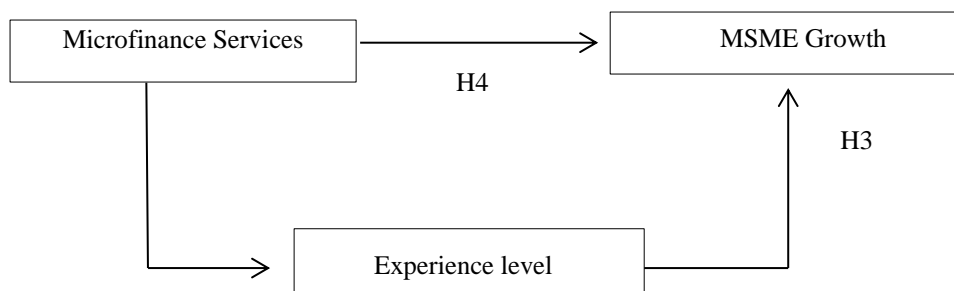


Figure 1: Conceptual Model

Source: Based on literatures

## Research Methodology

According to Kothari (2004), a research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. It is the theoretical structure inside which looks into is led; it constitutes the blueprint for information accumulation, estimation, and examination of information. This study sample was drawn as 100 MSME in Kalutara district and data collected by using questionnaire and it consisted of both the quantitative and qualitative questions. Data analyzed through the correlations and regressions analysis by using Statistical Package for Social Scientists (SPSS).

The research population is Micro small and medium scale entrepreneurs in Kalutara district because Western province is the province which having highest level of micro small and medium scale enterprises and Kalutara district is the area which has the highest level of micro-entrepreneurs as 93% from 60717 of micro small and medium scale enterprises in Kalutara district (Department of census and statistic 2013-2014).

This study is a special reference to the Kalutara district, due to the Department of census and statistic (2013-2014) the western province is the province which is having the highest number of SMEs establishment and the highest number of persons involved in SMEs from the whole island. The Kalutara district is the area which is having the highest percentage of micro-enterprises and micro-entrepreneurs as 93% and 47% respectively. The Kalutara, Panadura and Bandaragama are the areas that were chosen as sample because these are having the highest level of micr enterprise as well as micro entrepreneurs. Cluster sampling technique involves the selection of an entire group from a list of groups (Adam, 2008). The aggregate populace is partitioned into various moderately little subdivisions which themselves are groups of little units. Some of these clusters are then randomly selected for inclusion in the overall sample. Then use the simple random sampling techniques to choose the respondent from each cluster. The researcher selected respondents from their clusters/groups receiving financial services from their micro finance institute. Under this cluster sampling technique, one hundred (100)

respondents were selected from their groups to constitute the sample by using a simple random method.

### **Sampling Frame of the Research**

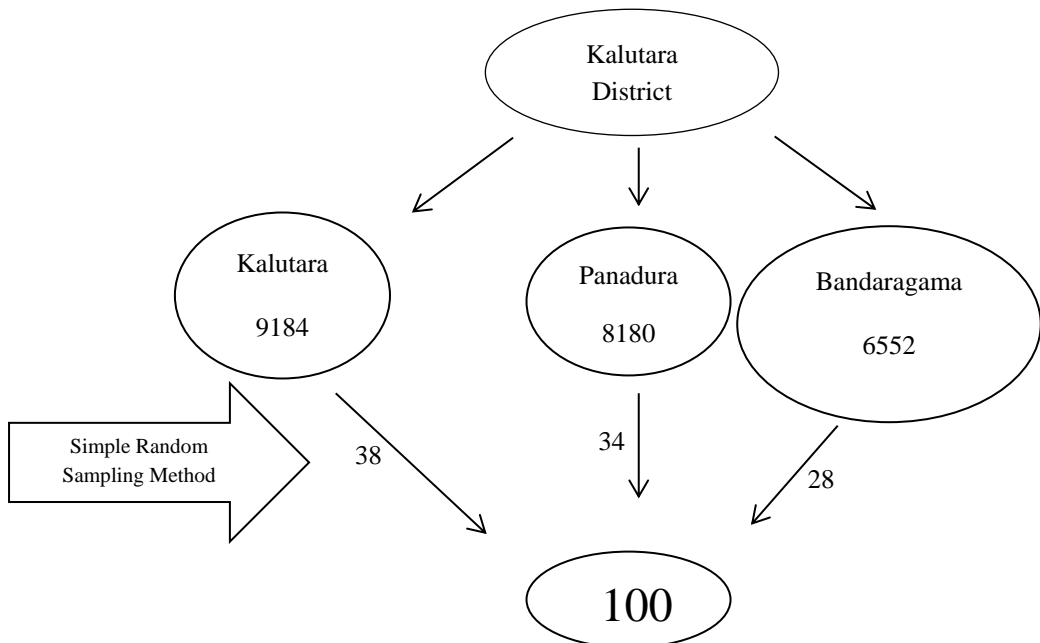


Figure 2: Research Sample and Sampling technique

Source: Department of census and statistic 2013-2014

### **Data Collection Methods**

To collect the data needed this research survey by using a questionnaire for collecting primary data. The questionnaire is designed to obtain both qualitative and quantitative data and it does include both open-ended and close-ended questions. Those questions were created based on a five-point Likert scale. The Likert scale is ranging from strongly agree to strongly disagree. The questionnaire of this survey consisted of two parts as part A and part B. The part a collected demographic information like age, gender, business experience, education, etc. Part B collected the information about microfinance services and the growth of MSMEs.

### **Data Analyzing Method**

After collecting data, it is necessary to utilize statistical techniques to analyze the information to extend the objective of the research. Therefore, the survey data analyzed through descriptive analysis, correlation coefficient and regression, methods by using an SPSS (version 21

### **Mediator Analysis Model**

Mediation is a hypothesized causal chain in which one variable affects a second variable that, in turn, affects a third variable.

### Barons and Kenny Mediator Analysis Model

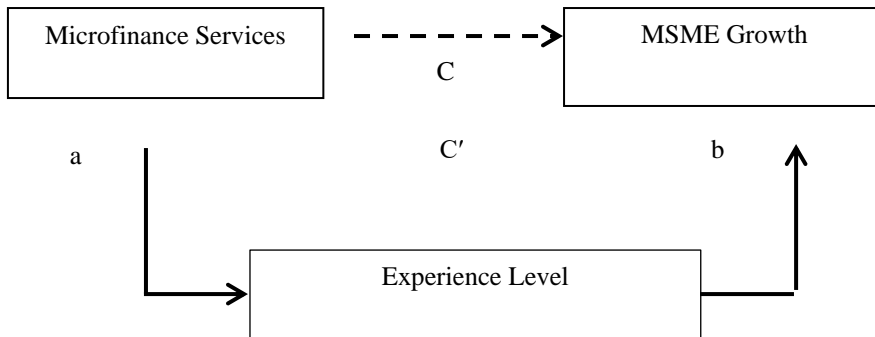


Figure 3: Barons and Kenny Mediator Analysis Model

Source: Mediation model of Baron and Kenny (1986)

a = Regression weight on Microfinance services when predicting Experience level

b and (c) are the regression weights on experience level and microfinance services respectively, when both are used together to predict MSME growth

#### I Testing direct effect for mediation

Baron and Kenny (1986) proposed a four step approach in which several regression analyses are conducted and significance of the coefficients is examined at each step,

##### Step one

Simple regression analysis with microfinance services predicting growth of MSME to test for path c alone,

$$MSME = \beta_0 + \beta_1 MFS + \varepsilon$$

##### Step two

Conduct a simple regression analysis with microfinance services (MFS) predicting experience level (EL) to test for path a,

$$EX = \beta_0 + \beta_1 MFS + \varepsilon$$

##### Step three

Conduct a simple regression analysis with experience level (EL) predicting growth of MSME to test the significance of path b alone,

$$MSME = \beta_0 + \beta_1 EL + \varepsilon$$

##### Step four

Conduct a multiple regression analysis with microfinance services (MFS) and experience level (EL) predicting growth of MSME

$$MSME = \beta_0 + \beta_1 MFS + \beta_2 EL + \varepsilon$$

## **II Sobel Test-Testing indirect effect of mediation (Sobel, 1982)**

$$MSME = \beta_0 + \beta_1 MFS + \beta_2 EL + \varepsilon$$

$$EX = \beta_0 + \beta_1 MFS + \varepsilon$$

Testing total effect

Total effect is equal to the direct effect plus the indirect effect

$$c = c' + a * b$$

## **Results and Discussion**

### **Regression Analysis**

According to correlation analysis, it's at a significant level of 0.000 the correlation between Microfinance Services and MSME growth is 0.820. Since the Pearson Correlation is 0.820 it implies that there is a strong positive correlation between Microfinance Services and the growth of MSMEs. The research hypothesis was checked by using regression analysis. According to the first hypothesis of the research, its coefficients table revealed, the intercept equals 0.102, and the slope, ( $\beta$ ) equals 1.034. The standard error of b is estimated at .0074. The p-value of t-test for User Microfinance services is 0.000 less than 0.05. The assumption of H1 is accepted. Therefore, it could be concluded that Microfinance Services have a significant linear relationship with the growth of MSME at a significance level of 0.05. The second hypothesis is "there is a positive impact of microfinance services on experience level". Its coefficients table revealed, the intercept equals 0.892, and the slope, ( $\beta$ ) equals 0.785. The standard error of b is estimated at 0.059. The p-value of t test for User Microfinance services is 0.000 less than 0.05. The assumption of H2 is accepted. Therefore, it could be concluded that Microfinance Services has a significant linear relationship with the Experience level of entrepreneur at a significance level of 0.05. The assumption of H3 is accepted which there is a positive impact of Experience level on the growth of MSME. The Coefficients table revealed, the intercept equals 0.331, and the slope, ( $\beta$ ) equals 0.926. The standard error of b is estimated at 0.091. The p-value of t-test for User Microfinance services is 0.000 less than 0.05. Therefore, it could be concluded that the Experience Level has a significant linear relationship with the growth of MSME at a significance level of 0.05. Another coefficients table revealed, the intercept equals -0.293, and the slope, ( $\beta$ ) equals 0.866 and 0.214 of Microfinance services and Experience level in respectively. The standard error of b is estimated at 0.121 and 0.124. The p-value of the t test is 0.000 and 0.008 less than 0.05. The assumption of H4 is accepted. Therefore, it could be concluded that Microfinance services have a significant linear relationship on the growth of MSME through experience level at a significance level of 0.05.

That revealed that all four paths are significant with the coefficients of 1.034, 0.785, 0.926, and 0.866 at the 0.05 significant levels. Following the unstandardized coefficient between Microfinance services and MSME growth, it can be identified that there is a strong positive relationship between both variables. Because of it implied value as 1.034. In addition to that

p, value denotes 0.000. Therefore, it is significance at 0.05 levels. Hence it can be concluded that there is a strong positive relationship between the independent and dependent variables without having any mediator. Additionally, according to the Baron and Kenny mediation model c path is significant.

Moreover, the unstandardized coefficient between microfinance services and experience level is 0.785. It suggested that strong positive relationship between independent and the mediating variable. With reference to the Baron and Kenny a path also significant at 0.05 levels because the calculated p value is 0.000.

Similarly, the unstandardized coefficient between experience level and growth of MSME is 0.926. It illustrates that there is a strong positive relationship between the mediating variable and the dependent variable, with reference to the Baron and Kenny mediation b path also significant at 0.05 levels because the calculated p-value is 0.000.

As per the table, the data support for a statistically significant relationship ( $P < 0.05$ ) between the variables when analyzing the independent variable and Mediating variable in predicting the dependent variable. It implied the unstandardized coefficient value as 0.866. Hence there is a strong positive relationship between variables when mediator is in the model. Therefore, the c' path also significant and When compare the c path and c' path there is a significant difference between the unstandardized coefficients of the two paths.

$$C \text{ path} - C' \text{ path} = 1.034 - 0.866 = 0.168$$

Based on the above difference, when a mediator is in the model, the effect of the independent variable on the dependent variable is reduced. The unstandardized coefficient difference is 0.168. It implied that the Experience level partially mediates the relationship between microfinance services and the growth of MSME at 0.05 significant level.

### **Sobel Test-Calculating the Indirect Effect**

The above four-step approach is the general approach many researchers use. There are potential problems with this approach; however, one problem is that it does not ever really test the significance of the indirect pathway that X affects Y through the compound pathway of and b. A second problem is that the Barron and Kenny approach tends to miss some true mediation effects. An alternative, and preferable approach, is to calculate the indirect effect and test it for significance. The regression coefficient for the indirect effect represents the change in Y for every unit change in X that is mediated by M. Therefore, Sobel test is used to illustrate the indirect effect between the variables.

Where,

Sb = Standard error of path b

Sa = Standard error of path a

a = coefficient of path a

b = coefficient of path b

$$\begin{aligned}\text{Sobel's SE} &= \sqrt{(\mathbf{Sb. a})^2 + (\mathbf{Sa. b})^2} \\ &= 0.0899\end{aligned}$$

Source; <http://quantpsy.org/sobel/sobel.htm>

Based on the above Sobel calculation, it illustrates the portion of microfinance services on growth of MSME due to the mediating effect of experience level it is 16.25% at the 0.05 significant levels.

## **Conclusions and Recommendations**

To identify the relationship between microfinance services and the growth of MSME researcher has conducted simple linear regression analysis. The correlation between microfinance services and the growth of MSME is 0.820. Since the Pearson correlation is 0.820 it implies that there is a strong positive correlation between those variables. The researcher has found that 67.3% percent of the variation in the MSME growth interpreted by the variable of microfinance services. Most of the research found growth can't be done only through bank loans; therefore microfinance services provided a variety of services. Through that most researchers have concluded their research, there is a significant impact of microfinance services on the growth of entrepreneurs. According to the coefficient table p-value of 0.00 which is less than 0.05 researches has concluded, there is a positive relationship between microfinance service and growth of MSME. Li (2006) Conclude that microfinance has offered an effective finance method for the construction of new socialist rural regions and has won the support of small and medium scale enterprises. This finding suggested that there is a strong positive relationship between microfinance services and the growth of MSME on that the primary objective of the study is achieved. It likewise concurs with the discoveries of cooper (2012) that microfinance administrations had a solid positive effect on the development of SMEs. The study further concluded that the effect of microcredit, micro insurance and training on the growth of SMEs was high positive performance ( $p = 0.011$ )

To identify the relationship between microcredit and dependent variable the researcher has conducted simple linear regression analysis. The coefficient of this is 0.444 and the p-value of this study is 0.000 which is less than 0.05. Therefore it could be concluded microcredit is having a significant impact on MSME growth. From the result of the Model Summary table, the coefficient of determination  $R^2$  is 0.677. It shows that 67.7 percent of the variation in the dependent variable could be interpreted by the variable of Microcredit. The microfinance services had a strong positive impact on the growth of SMEs. The study further concluded that the effect of microcredit on the growth of the micro business was high positive performance (cooper, 2012). Most researches have concluded MSME has grown when they are using a microfinance credit facility rather than joining with the bank loans. A positive relationship has been built up between MFIs advances and SMEs execution, development, and manageability. The investigation affirms the positive commitments of MFIs credits towards advancing SMEs creation, efficiencies, and aggressiveness. Although the MFI sector faces insufficient funds problems that militate against their efforts to grant sufficient loans to

SMEs, yet their tendencies to boost the financial needs of entrepreneurs are considerably acknowledged. It can be concluded that most SMEs use loans as working capital mainly to source raw materials for production. The research findings confirmed that the role of financial institutions toward SMEs success is a vital importance. Also, some beneficiaries benefited from the loan once acquired for example according to the results in the field some of the respondents interviewed concluded that there are positive changes in terms of sales revenues, physical assets, employment level among others. The researcher also concludes that when making decisions on credit, most borrowers considered flexibility, loan size, and collateral security as the most important aspects. It is therefore important for MFIs to appreciate that if the three aspects are favorable, they would be a necessary infrastructure to facilitate good relations between the MFIs and MSMEs. This helps to step up the MSME performance.

To identify the relationship between micro-savings and the growth of MSME researcher has conducted simple linear regression analysis. The coefficient of this is 0.362 and p-value of this study is 0.000 which is less than 0.05. Therefore it could be concluded micro-savings is having a significant impact on growth. From the result of the Model Summary table, the coefficient of determination  $R^2$  is 0.677. It shows that 67.7 percent of the variation in the MSME could be interpreted by the variable of Micro savings. Most studies have concluded by stating the positive impact of micro-savings on growth of MSMEs. The research finding is also consistent with the findings of cooper (2012) that microfinance services have a strong positive impact on the growth of SMEs. A further conclusion on the study can be made that the effect of microcredit, micro insurance, training and Micro savings on the growth of SMEs in developing county was high positive performance ( $p = 0.001$ ). The research findings consistent with the findings of (Zeller (2002)) have concluded their study that savings and credit facilities help individuals or households build-up or acquire funds for all kinds of investments.

To identify the relationship between training and the growth of MSME researcher has conducted simple linear regression analysis. The coefficient of this is 0.229 and p-value of this study is 0.000 which is less than 0.05. Therefore it could be conclude training is having a significant impact of MSME growth. From the result of the Model Summary table, the coefficient of determination  $R^2$  is 0.677. It shows that 67.7 percent of the variation in the MSME could be interpreted by the variable of training. A majority of MSMEs revealed that they have been beneficiaries of the Business, Financial and Managerial training activities of MFIs. Realizing that most business visionaries need or have next to no information in money related administration, these help administrations have gone far to make them more aggressive and exceptionally aware of the implication of their budgetary choices. In most of the researches have concluded that all microfinance services had effects on the growth of SMEs. Microcredit had the greatest positive impact on SMEs growth, followed by training while micro-insurance and micro-savings had the least impact on SMEs growth.

The Coefficients table revealed, the intercept equals 0.293, and the slope, ( $\beta$ ) equals 0.866 and 0.214 of Microfinance services and Experience level in respectively. The standard error of b is estimated at 0.121 and 0.124. The p-value is 0.000 and 0.008 less than 0.05. Therefore, it could be concluded that Microfinance services have a significant linear relationship on the



growth of MSME through experience level at a significance level of 0.05. Most of the researches concluded that demographic factors of entrepreneurs have a greater impact on their success and the variety of microfinance services will more worthy when entrepreneur having proper experience on the utilization of services which provided by MFIs. The attributes of the business person are generally acknowledged as imperative fixing that impacts growth. Research indicates that particular characteristics of the entrepreneur that are associated with the growth of the enterprise include motivation, previous management and business experience (Dutta, 2006). Therefore the final objective of research was achieved.

### **Managerial Implication and Recommendations**

To ensure that microfinance services enhance assistance in MSMEs, sustain the growth and maximal contribution to economic growth and development of the nation, the following recommendations are hereby proffered. The most recommendations are derived by analyzing the open-ended questions of the questionnaire. Based on the available findings the following are the managerial implication and recommendations,

Government and MFIs themselves should enhance the out-reach of microfinance through creating awareness of the activities and operations to SMEs especially those in rural and semi-urban areas that are yet to appreciate the benefits of the scheme. Consistent battles at the nearby government and ward levels will accomplish this adequately. More so, the expansion of MFIs through the establishment of rural branches is imperative for increasing access to microfinance services. Due to the findings of research enable, there is a lack of awareness of the actual advance of microfinance services to the entrepreneurs.

Businesses should maintain adequate liquidity levels by designing strategies to meet their revenue targets. It also requires effective current asset management such as maintaining adequate stock levels which enables them to avoid stock-outs while avoiding dead stock because it also creates losses. The collection of data emphasized the businesses do not maintain a bookkeeping system or any other transaction recording system. This will enable MFI to develop training programs related to this area.

Easy accessibility to credit through specialized or development-oriented banking or financial institutions should be encouraged. This fund should be made available to the SMEs at a reduced interest rate. Establishment of a National fund will assist micro-loan facilities from the banks and other financial institutions. This will help reduce the excessive demand for collateral security.

MSME owners need to ensure that they maintain adequate cash levels to be able to meet their working capital obligations such as paying their staff on time so that the motivation of timely salaries enable them to continue being committed to the delivery of results. These cash levels also help to pay the business suppliers on time because the survival of any business depends on how reliable its suppliers. If the government can provide more subsidiaries on raw materials, machineries and other equipment the micro-entrepreneurs will be easy to manage their seed financing. Apart from the provision of tax incentives, and financial supports, it is

recommended that the Government should try to provide sufficient infrastructural facilities such as electricity, good road network, and training institutions.

According to the findings of research most of the entrepreneurs have low level of education; the government should design a way to enhance entrepreneurial skills in this segment by offering them education on business initiation skills and management. This can be done by incorporating entrepreneurial-based curriculum in teaching subjects in schools at all levels, to inculcate entrepreneurial spirit, especially among the youth.

Finally, the findings of research embark the seminars and workshops should be organized by the microfinance institutions to educate entrepreneurs on their policies and judicious use of funds and what it takes to assess loans. Also, microfinance institutions should initiate more developmental projects to win the confidence and trust of the businesses.

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# Impact of Financial Leverage on Firm Growth of Sri Lankan Listed Companies

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## Abstract

This study investigates the impact of financial leverage on firm growth based on the data concerning twenty (20) listed companies in Sri Lanka during the five years ranging from 2013 to 2017. The study measures the firm growth in terms of sales growth, profit growth and assets growth whereas financial leverage are measured in terms of total debt to total assets ratio and total debt to total equity ratio. According to the correlation analysis, it was found that there is a positive significant relationship between TDTE and firm growth (all indicators) and there is only a positive relationship between TDTA and asset growth. According to the R<sup>2</sup> values given that variation among variables shown by the model is not due to change and about 15% -26% (Approx.) of the changes in firm growth are explained by the changes in financial leverage of the firm and rest of the changes are due to the other factors. Furthermore, the results show that financial leverage has a significant effect on firm growth. Specifically, financial leverage was found positively influence firm growth, while older firms saw a faster increase in assets sales and profits, and it would be one of the key motivators in maintaining their optimal leverage on firm growth. Therefore, the financial managers and the key decision-makers in the business fields should make trustful decisions utmost concerning the financial leverage and firm growth changes with exploring the impact of other factors as well.

*Keywords:* Financial Leverage, Firm Growth, Listed Companies, Sri Lanka

## Introduction

The capital structure represents one of the most debated concepts in corporate finance (Akinyomi & Adebayo, 2013). Moreover, the majority of companies are showing concerned regarding capital structure and decision on capital structure and its decisions are most challenging for the management of the companies. This is because; capital structure decision plays an important role in the business survival and wrong decision may lead to financial breakdown to the companies even to failure (Schoubben & Hulle, 2004).

Particularly, Leverage is defined as the amount of debt to be financed for acquiring the required assets (Perera, 2007). When managing the firm, firm value and shareholders wealth are considered almost importance (Hampton, 1993). Organizations have to make decisions on financing the firm. Capital Structure focuses on the mix of the firm's debt and equity. Financial Leverage refers to using borrowing money to enhance the effectiveness of invested equity. The more debt financing company uses the higher Financial Leverage; Implies higher interest payment, which eventually results in adversely affecting the company's Earnings per Share. In the financial management scenario, financial leverage is generally concerned with

the relationship between the firm's earnings before interest and tax and earnings per share. The measures for leverage are; Total Debt to Total Assets ratio, Total Debt to Equity Ratio, and Time to Interest Earned ratio. Then, Firm Growth can be explained as an important tool for measuring firm performance and financial policies directly influence the growth of a firm. The firm growth can be divided into two types; Internal Growth and External Growth. Growth can be determined including several factors such as Leverage, Profitability, Liquidity, Firm Size, Innovation, etc. Growth is to ensure the sustainability of a firm and it can be measured with turnover, market share, profit, sales, and personnel. Generally, operation in sales, profit, and assets are referred to as firm growth. It can be measured by the change in sales, profit, and assets (Bei & Wijewardana, 2012). However, Assets Growth is an important growth factor for increasing the profitability of the firm.

Internal Growth and External Growth mainly identified by financial management can be considered as the main two forms of Firm Growth. Internal Growth can be used as a key measure of company success. External Growth of the company can be identified as cash flow, rapid expansion, and reduction of risk. Financial Leverage is related to borrowing money to finance the purchase of assets. Financial Leverage positively affects fixed assets, non-debt tax shield, firm size, firm value (Gamlath,&Rathirane, 2013) and it will negatively affect to payback period, the volatility of cash flow, profitability, probability of bankruptcy (Perera, 2007). However financial management and investor should explain the relationship between financial leverage and growth of the firm's assets, sales and profitability and how leverage can best be utilized to achieve the targeted growth level.

In the financial decision-making process, capital is an important source along with other sources. Capital can be divided into equity or non-equity capitals. These two show the assets and debts of the company. The combination of these two is called the financial leverage and varies in different conditions such as capital market, capital cost, management perspective, company size, company growth, organizational strategies, etc.(Arasteh, Nourbakhsh, & Pourali, 2013). Sri Lankan enterprises use a high level of bank borrowing to fund investment. A reduction in borrowing and increasing equity funding can help Sri Lankan enterprises become more competitive and grow faster. An increase in equity investments can also improve the country's capital stock and wealth (Hettiarachchi, 2013). Normally high leverage transfers the large proportion of wealth to debt holders than equity holders. This will adversely affect to the owners of the firm that the credit risk limits the new investment due to credit risk and the bankruptcy problems will arise so that those will be affected for long-run survival (Perera, 2007)

Firm Growth is nowadays an important predominant benchmark for the investors to see their potentiality on their future investments in the Sri Lankan economy (Hettiarachchi, 2013). However, very few studies were conducted to show the impact of Financial Leverage on Firm Growth in our country. There is an argument that a low level of leverage can be affected by the growth of these firms. Sri Lankan firms use a lower level of retained earnings and equity to fund new investment (Perera, 2007). There are possible causes associated with it. It implies that their firms do not have suitable internal capital to fund. It can be one of the factors lead the organizations towards lower growth, lower profitability and lower firm value. Sometimes high borrowings impact on the growth of firms. Loans of Small and Medium Enterprises (SME) of Sri Lanka use high-level bank borrowings (Wijesinha&Perera, 2015). SMEs can reduce the financial risk of borrowers and increase growth (Hettiarachchi, 2013).

From the above, it is apparent that the exact impact of financial leverage and Firm Growth is yet to be sharpened and it is calling for further investigations within the Sri Lankan context to find out the impact on Financial Leverage and Firm Growth of Listed Companies in the Colombo Stock Exchange. Also, most of the studies have not adopted the recent data in their studies and where researchers have considered the recent data they have not included the variables speculatively relate to investors. Also, this study would be an aid for the country as well as future researchers, managers, and investors to get an understanding on how capital structure (leverage) decisions effect to firm growth and investors' return. These constitute the gaps to be filled by this study.

This study aims to examine the effect of financial leverage on firm growth (Firm Asset Growth, Firm Sales Growth, and Firm Profit Growth) in listed companies in Sri Lanka. More substantially, this aims to determine the focus on listed companies on the Colombo Stock Exchange (CSE). This research will be important to a number of groups. The management of the listed companies can get an overall understanding of the impact of Financial Leverage on Firm Growth of their companies. Furthermore, it will lead to a prudent financial decision by the management on how they can formulate their Capital Structure in a way that obtains the targeted growth level of the firm. It will also help to increase the firm's stability, financial strength, and future financial performance. Another importance of this study is it focuses on measuring Financial Leverage by using Capital Structure. It is related to Total Debt to Total Equity and Total Debt to Total Assets ratios. Then this study helps future researchers to find the impact of other factors on firm growth in Sri Lankan listed companies

## **Literature Review**

The type of financing and capital structure of a company has a risky and significant role in its wealth and financial position on decision making (Arasteh, Nourbakhsh, & Pourali, 2013). On the other hand, Bei and Wijewardana (2012) state, the capital is a significant source of the financial decision-making process of the company along with the other resources and capital can be generally classified as ownership capital or non-ownership capital incorporate financial aspect. Equity capital and debt capital are representing by these two types. The combinations of equity capital and debt capital are identified as financial leverage. It is a great position and varies under different situations like cost of capital, capital market, manager's perception, organizational strategies, firm size, growth, etc.

Capital structure plays the most significant role in a company when increasing the firm value and shareholders wealth. Debt and equity are two types to finance a company. Finance leverage is the proportion of debt in the financing mix of a company. However, maintenance of an optimal capital structure mix is a must to finance the firm assets thereby maximizing the firm's market value and shareholders wealth (Panday, 2015). Several approaches are involved to find the optimal solution of capital structure such as Agency Theory, Net Income Approach, Net Operation Income Approach, Modigliani Miller Approach, Pecking Order Theory, and Agency Theory which can be used to maximize the firm growth.

First, the Agency model is measured as one of the oldest theories in the literature of management and economics (Daily, Dalton, & Rajagopalan, 2003). Agency theory discusses the problem that faces in the firms due to the sedation of owners and managers and emphasis on the decrease of this problem. This theory helps in implementing the different governance methods to manage the agent's action in the jointly held corporations (Panda & Leepsa, 2017). Berle and Means (1932) in their view found that the modern corporation of the USA was having dispersed ownership and it leads to the separation of ownership from control. In a

joint-stock company, the ownership is held by individuals or groups in the form of stock and these shareholders (principals) delegates the power to the managers (agent) to run the company on their behalf. But the main issue is whether these managers are performing for the owners or themselves (Jensen & Meckling, 1976).

The impact of leverage on firm growth implications is related to the agency theory of capital structure. Jensen and Meckling (1976) found that the manager's interest and shareholder's interest is not always equal. There is a problem with the interest of shareholders, debt holders, and managers. When considering shareholders and managers, shareholders prefer leverage but managers do not prefer leverage. When considering shareholders and debtors, shareholders prefer dividend payout but debt holders have lower risk with their loan contract. Managers use the surplus free cash flows for their interest continuously on behalf of return to shareholders and surplus debt creates a conflict between shareholders and creditors. Finally, it can result in a negative relationship between leverage and firm performance.

Second, the Net income approach has been discussed that the value of a firm can be improved by decreasing the overall cost of capital. It can be done during a higher proportion of debt which is cheaper than equity financing sources. Further net income approach suggests when the leverage is improved, the Weighted Average Cost of Capital (WACC) can be decreased and the value of a firm also increased.

$$\text{WACC} = \frac{\text{Required rate of return} \times \text{Amount of equity} + \text{Rate of interest} \times \text{Amount of debt}}{\text{Total amount of capital}(\text{debt} + \text{equity})}$$

There are several assumptions with the net income approach. The first one is interested in debt will affect the confidence level of the investors. The second one is the cost of debt is less than the cost of equity. The last one is there are no taxes charged. Net income approach, the cost of equity is assumed to enhance with leverage. As a result of the weighted average cost of capital is also constant. It means that the NOI approach was based on the value of the firm is not affected by the change of debt.

On this emphasis on the above two approaches, Modigliani and Miller (1958) defined capital structure decisions are no effect on the value of the firm. Namely MM supporter capital structure irrelevancy theory. This theory reviews that the future growth of a firm affects the market value of the firm. Besides, this theory reviews that the value of the firm does not depend on capital structure. MM approach is developed under some of the assumptions. The first one is there is no tax. The second one is there is no transaction cost for buying and selling securities as well as bankruptcy cost. The third one is investors will have access to the same information. The fourth one is the cost of borrowing is the same for investors as well as companies. The last one is debt financing does not affect companies EBIT. However Modigliani and Miller (1963) modified their original theory to MM II by reducing the zero tax assumption, starting that levered firms are more valued than the unlevered firms due to the factor that interest is a tax-deductible cost but the cost of equity increases due to high debt since shareholders accept higher business risk due possibility of bankruptcy, therefore no much difference between levered and unlevered firms, though levered firms are expected to have the tax advantage. There is a positive link between leverage and firm profits.

Even though, the pecking order theory does not take an optimal capital structure as a starting point but instead asserts the empirical fact that firms show several preferences for using internal finance over external finance. If internal funds are not as much as essential to finance

investment opportunities, firms may or may not get external financing and if they do, they will select among the several external finance sources in such a way as to reduce additional costs of unsuited information (Gweyi & Karanja, 2014).

Myers (1984) described, this theory based on the cost of asymmetric information. It means managers have more information about firms rather than investors. As well as managers issue debt when they are positive about their firms future and will issue equity when they are unsure. This shows that the company has many investment opportunities and growth predictions rather than internal funds. In here the company expects firm cash flow to pay to a fixed amount of interest as well as equity issues would indicate that the current share price is overvalued. According to the pecking order theory, there are two kinds of equity capital. Those are internal and external financing. The firm always uses internal financing when available. Debt is chosen when external financing is required and debt financing does not control equity financing. As well as debt is cheaper than external and internal equity due to interest deductibility. Further pecking order theory by Myers (1984) is explained the negative relationship between profitability and debt ratio.

In the trade-off theory, the term trade-off theory is used to explain a family of related theories. A firm evaluates the different costs and different benefits of alternative leverage plans by the decision-maker. Normally it is understood that an internal solution is obtained so that managerial costs and managerial benefits are balanced (Gweyi & Karanja, 2014). Besides, DeAngelo and Masulis (1980) found the trade-off theory allows the bankruptcy cost to exist. It states that there is an advantage to financing with debt (tax benefit with debt) and there is a cost of financing with debt (bankruptcy cost and finance distress). The interest payment is tax reducible cost and therefor mere debt increased tax benefit and the trade-off between the cost of bankruptcy and tax benefit of debt. The managerial benefits of debt decline as debt increases while managerial cost increases. Trade-off theory predicts that profitable companies will employ more debt since they are expected to have high tax benefits and low bankruptcy risk.

The focal problem of this study is to examine how the financial leverage affects the firms' growth factors in an emerging market in Sri Lanka within these conflicts in the results of previous works. Only a few researchers have looked into Sri Lankan firm growth issues, especially in the association of financial leverage. Some studies have examined the correlation between firm size and firm growth (e.g. Al-Mahrouq, 2014; Almsafir, Nassar, Al-Mahrouq, & Hayajneh, 2015), while most emphasized the impact of financial leverage upon performance and firm profitability (Al-Taani, 2013; Ramadan, 2015). The above theories emphasized that the leverage is some-what occasional and fulfill the capital requirement of the firm thereby enriching the effective utilization of funds for the long-run survival of the firms as well as the firm growth. Also, the impact of Financial Leverage on Firm Growth is not yet to be sharpened and impact the research theme is significantly explored to country perspective by conducting this research. With that, this research addressed several shortcomings detected in the above theoretical literature evidence by investigating the impact of financial leverage upon firm growth among Sri Lankan listed firms as under-mentioned.

The direction of correlation between firm growth and capital structure is uncertain as it is variable-dependent, whereby leverage, in particular, has exerted varied impacts upon varying firm growth variables (Hamouri, Al-Rdaydeh & Ghazalet, 2018). Thus, this study determined the viability of the results by evaluating growth via assets, sales, and employment to detect the precise impact of leverage upon firm growth variables. With that, this study examined



selected firms in Jordan to identify the vital aspects of economic progress through the correlation of firm growth with financial leverage. Company operations of sale, profit, and asset are referring to by growth. There are three scales to measure growth changes in scale, profit, and asset. These changes help to enhance stock holder's revenue (Hampton, 1993). Pandey (1994) confirmed that earning per share (EPS) is regarded as the mainly important indicator in investment and the company effectiveness scale. Adjustments in the EPS are determinate through growth as well as scale reliability which confide on the firm growth rate. Therefore, investment on asset is essentially required to develop production and sale promotion. On the other word, the expansion or promotion can be calculated during the assets growth rate. Assets growth is of the significant factors base on liquidity and no critical need for outsider financing. A firm value consisted of perpetual, consistent development of company evaluation rather than short-term earlier profit making from the capital market perspective (Bei & Wijewardana, 2012). Firm growth theory is no single theory to analyze the impact, evaluation of firm growth, though firm growth impact on employment, industry concentrations, firm survival, and economic activities. Some researchers say that the reason for it is the meaning of "firm" is difficult and different one by one. According to the empirical shreds of evidence on firm growth, it highlights the following determinants which affect the firm growth.

Frank and Goyal (2009) stated that the firm-specific factors affecting company capital structure are firm size, profitability, tangibility, growth, and volatility. On the other hand, Zhou and Wit (2009) review three sections for determinants of firm growth. There are individual, organizational and environmental dimensions. The growth of a firm is to a certain extent a matter of decision made by an individual entrepreneur. Shane, Locke, and Collins (2003) investigated indicate of individual determinants as personality traits, growth motivation, individual, and personal background. There are the most important determinants that determine the growth of the firm.

Then another important thing is the organizational determinants. Firm growth is an increase in certain attributes as sales, employment, and profit of a firm between two points in time. Organizational determinants should have more direct impacts on firm growth. Dimensions of organizational determinants are firm attributes, firm strategies such as market orientation and entrepreneurial orientation, firm-specific resources including human capital and financial resources, organizational structure and dynamic capability (Zhou & Wit, 2009). The last one is the environmental determinants. Dess and Beard (1984) show that the environment varies along some dimensions, such as dynamism, heterogeneity, hostility, and munificence and this may be the biggest dimension of the growth potential of firms. Theses dimensions are adopted and further developed to investigate the effect on firm growth. Inherently, the capital structure decisions are the most significant part of the decision making on financing and it signifies the types of financing and capital structure lead to liquidation, financial limitation, and bankruptcy. Most of the literature has the same opinion that there is a relationship between financial leverage and firm growth.

Firm growth is directly related to the operation is assets, sales, and growth of the firm. Financial strength is also connected to influence its ability to develop. Lang, Ofek, and Stulz (1995) defined the relationship between leverage and future growth. Here researcher has investigated the factor of leverage, investment and firm growth at the firm level and for identified firms at the segment level. Finally, researchers found was the relationship between leverage and growth over 20 years and find a strong negative relationship. The sample was 640 different firms and 142 firms were satisfied with the sampling criteria every year. Through

researchers use three growth measures first one was a net investment in year +1 dividend by the book value of the fixed asset in year 0, the second measurement is the growth rate of real capital expenditure and the third measured final rate captures the growth rate of employment.

The research of financial leverage, firm growth and financial strength in the listed companies in Sri Lanka was done by Bei and Wijewardana (2012). Researchers investigated whether the financial leverage influences negatively or positively on singling the firm growth toward Sri Lanka firms. Here researchers used 62 firms traded in the Colombo Stock Exchange (CSE) out of 13 sectors for the period from 2000 to 2009 and researchers require data were collected from published annual reports, handbooks of listed companies in Colombo Stock Exchange and annual reports of Central Bank of Sri Lanka. Data were analyzed by multiple regression models. As a result of the study financial leverage is positively related to the growth and financial strength. On the other hand, there is a positive relationship than a negative relationship between financial leverage, firm growth and it is a negatively signal about future growth.

Abor (2005) study on the effect of capital structure on profitability of twenty two firms listed on the Ghana Abor (2005) study on the effect of capital structure on profitability of twenty-two firms listed on the Ghana Stock Exchange. This study evaluated functions relating the Return on Equity (ROE) with measures of capital structure by used regression analysis. The results explain a significantly positive relationship between the ratio of short-term debt to total assets and ROE. However, a negative relationship between the ratio of long-term debt to total assets and ROE was found. With consider to the relationship between total debt and return rates, the results explain a significantly positive association between the ratio of total debt to total assets and return on equity.

Assets growth of a firm is necessary for increase sales and profitability of firm by considering these factors Saberi and Asadipour (2016) has investigated the Relationship between Financial Growth and Strength with Leverage Ratios of Companies Listed in Tehran Stock Exchange. In this study, the independent variable was sales growth, profit growth, and financial strength. The leverage ratio was the dependent variable. And also evaluate the company's financial leverage by used to four various rations. Altman bankruptcy model has been measured financial strength. Data related to 102 companies listed in Tehran Stock Exchange for the period 2002-2011 have been used as a sample to test the hypotheses and observe the effect of independent variables and leverage ratio. To analysis the data, descriptive and inferential statistics used. The outcome of the study was a significant level between assets growth and leverage ratio.

Firm growth is an expansion of firm assets, sales, and profit. In here most of the researchers have investigated the relationship between financial leverage and firm growth. Avarmaa (2011) has investigated that do leverage affects company growth in Baltic countries. Here researcher has considered the relationship between leverage and company growth with a focus on the differences in the financial behavior of local and multinational companies (MNCs). Sales growths of multinational companies were compared with local companies in Baltic countries (Estonia, Latvia, and Lithuania) for 2001-2008 by considering financial statement data. A fixed-effect regression model on financial statement data was made and as a result of research, there is a positive impact of Financial Leverage on the growth of local companies, especially at a low level of leverage and there is no significant impact on the growth of multinational companies. The positive effect of leverage on growth seems to be the highest for local companies with low use of external financing.

A company can maintain optimal capital structure by making financing decision to achieve the value of the firm and strength of the financial position of an organization is considered as the financial performance of the firm. Rajkumar (2014) has investigated that impact of financial leverage on the financial performance of John Keels Holding Plc in Sri Lanka. It is the biggest listed company on the Colombo Stock Exchange. Data were analyzed from 2006 through 2012 with ratio analysis and inferential statistics which involves multiple regression analyses to find out this relationship. Financial leverage was the independent variable. It measured by debt to equity and debt to total assets ratio. Another independent variable was financial performance. It was based on Net Profit, ROE (Return on Equity) and ROC (Return on Capital Employed). Finally, the researcher has reviewed that the negative relationship between the financial leverage and the financial performance of John Keels Holding Plc in Sri Lanka. But there is a significant impact on the financial performance of the company.

Further, studying the literature on Financial Leverage, there is an interrelated relationship with Firm Growth. Arasteh, Nourbakhsh, and Pourali (2013) also have investigated the relationship between Capital Structure, Firm Growth and financial strength with financial leverage of the company listed in the Teheran Stock Exchange. This research is focused that whether or not there is a significant relationship between the ownership structure and financial leverage. 140 companies were selected as the sample of Teheran stock Exchange and used deductive simultaneous equation system and panel data relating to 2007-2011. According to researchers finding, there is a negative relationship between organization ownership and managerial financial leverage, profit growth, financial strength is negatively related to managerial financial leverage. Sales growth and assets growth are positively related to managerial financial leverage of companies listed in Tehran Stock Exchange.

Most of the research conclusions are disclosed about the relationship between firm growth and financial leverage. The final result reviewed that there is a significant relationship between leverage and firm performance as measured by return on assets. The effect of financial leverage on financial performance was investigated by Gweyi and Karanja (2014) as the effect of financial leverage on the financial performance of deposit-taking saving and credit co-operative in Kenya. Researchers selected sample data was 40 saving and credit co-operative societies from 2010 to 2012 period. Used secondary data of financial statements were collected for analyzing. Financial leverage was the independent variable and it was measured by the debt-equity ratio. The dependent variable was financial performance and it measured by profitability, return on equity, returns on assets and income growth. Finally, researchers found that there is a strong correlation between financial leverage and financial performance of deposit-taking saving and credit co-operative in Kenya.

## **Research Methodology**

This study was used in secondary data for the study. Data was collected from the audited financial statements published by the listed companies on the CSE website. The sample of this research is twenty (20) companies (Table 1) selected by considering the top performers ranging from 50% of market capitalization in the CSE trading list for the year 2018. Then, the data were collected for five years ranging from 2013 to 2017.

**Table 1:** Sectors for Sample of Study

Sector	No. of companies
Beverage Food & Tobacco	5
Manufacturing	2

Diversified Holding	3
Telecommunication	2
Health Care	1
Bank, Finance & Insurance	7
Total	20

Descriptive statistics, correlation analysis, and regression analysis were used to find the impact of financial leverage on Firm Growth. Here financial leverage is an independent variable and firm growth is the dependent variable. The financial leverage is measured in terms of total debt to total assets (TDTA) ratio and total debt to total equity (TDTE) ratio. Firm growth is measured in terms of asset growth, sales growth and profit growth.

After referring the literature, identifying the research gap and formulating the objectives, the following conceptual framework is formulated to illustrate the relationship between the financial leverage on firm growth of Sri Lankan listed companies.

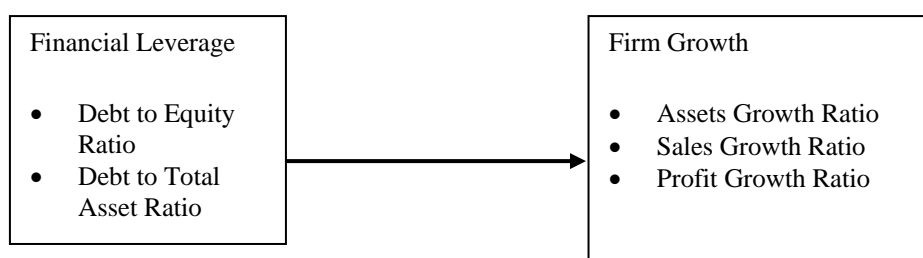


Figure 1: Conceptual Framework

Source: Model designed by the Researcher

According to the above mentioned conceptual frame work, the researcher formulated the following hypotheses.

- H<sub>1</sub>      There is a significant effect of Financial Leverage on firm Assets Growth.
- H<sub>2</sub>      There is a significant effect of Financial Leverage on firm Sales Growth.
- H<sub>3</sub>      There is a significant effect of Financial Leverage on firm Profit Growth.

In the present study, the researcher analyzed the data by employing descriptive statistics, correlation and multiple regressions. For the study, the Stata/MP 13.1 software package was used in order to analyze the data. The following financial leverage and firm growth ratios are taken into accounts which are given below.

**Table 2:** Variables, Indicates and Measurements – Financial Leverage and Firm Growth

Key Concept	Variables	Indicates	Measurement
Financial Leverage	Leverage	Debt to Equity Ratio	Total Debt / Total Equity
		Debt to Total Assets Ratio	Total Debt / Total Assets

Firm Growth	Firm Performance	Assets Growth	Assets Value in the selected year - Assets Value of the based year) / Assets Value of the based year
		Sales Growth	Sales Value in the selected year - Sales Value of the based year) / Sales Value of the based year
		Profit Growth	Profit Value in the selected year - Profit Value of the based year) / Profit Value of the based year

Accordingly, the following three data analysis models have been formulated in order to analysis the effect of financial leverage and firm growth.

$$\text{Model 01} \quad \text{AGit} = \alpha + \beta_1 \text{TDTAit} + \beta_2 \text{TDTEit} + \varepsilon \dots \dots \dots (1)$$

$$\text{Model 02} \quad \text{SGit} = \alpha + \beta_1 \text{TDTAit} + \beta_2 \text{TDTEit} + \varepsilon \dots \dots \dots (2)$$

$$\text{Model 03} \quad \text{PGit} = \alpha + \beta_1 \text{TDTAit} + \beta_2 \text{TDTEit} + \varepsilon \dots \dots \dots (3)$$

Where,

AG = Assets Growth, SG = Sales Growth, PG = Profit Growth, TDTA = Total Debt to Total Assets, TDTE= Total Debt to Total Equity,  $\varepsilon$  is the residual term, i is the company, t is the time

## Data Analysis and Results

### Descriptive Analysis

Descriptive analysis described the behavior of independent and dependent variables. Researcher has used descriptive analysis tools such as minimum, maximum, mean and standard deviation, to identify the behavior of the financial leverage (independent variable) and firm growth (dependent variable). Table 4.1 shows the results of descriptive analysis.

**Table 3:** Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
TDTA	.015	1.892	.46500	.424861
TDTE	.013	1.972	.50392	.443271
AG	-.0520	1.9150	.38297	.415468
SG	-.4370	3.7260	.54231	.665712
PG	-.389	2.893	.66811	.615557

Table 4.1 shows the descriptive statistics of the dependent and independent variables. TDTA has a minimum value of 0.015, the maximum value is 1.892 and the average value of TDTA has 0.465. According to that variance of TDTA is 43% for 5 years. TDTE shows a minimum

of 0.13, a maximum of 1.972 and TDTE has a mean value of 0.50392. According to that, the variance shows 44% off during the study period. TDTE shows the maximum range and a higher variation than another financial leverage measure (TDTA).

Assets Growth (AG), Sales Growth (SG) and Profit Growth (PG) are used as firm growth measures. AG has a minimum of -0.0520 and a maximum of 1.915 with a mean assets growth rate of 0.38297. Also, this variable shows a 41% variance during the study period. SG represents a minimum of -0.437 and a maximum of 3.7260. The mean value of the PG is 0.54231 with 67% of the variance of the sample companies. PG has a minimum growth is -0.389, maximum profit growth is 2.893 and means the level of profit growth is 0.66811 and its variation is 61%. SG shows the maximum range and a higher variation than the other two firm growth variables (AG&PG).

### **Correlation Analysis**

To identify the relationship between independent and dependent variables, correlation analysis was used. Correlation matrix defined as a set of correlation between a numbers of variables. Table 4.2 represents its results and sig. values are presented italic type.

**Table 4:** Results of Correlation Analysis

	TDTA	TDTE	AG	SG	PG
TDTA	1				
TDTE	.090 .374	1			
AG	.462** .000	.251* .012	1		
SG	-.229* .022	.295** .003	.270** .007	1	
PG	-.368** .000	.211** .035	-.086 .349	.299** .003	1

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

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

Table 4.2 shows that the significant values of financial leverage (TDTE and TDTA) and firm growth (AG, SG and PG). If the correlation coefficients are significant at the level of 0.01 or 0.05, the researcher can identify a significant relationship between financial leverage and firm growth. According to the above coefficients with its significant levels, it showed the correlation of a significant level among explanatory variables. Some variables are showed a positive correlation value. It means that there is a positive association between dependent and independent variables. Some variables are showed a negative correlation value. It means that there is a negative association between dependent and independent variables. The TDTA and AG have positive significant correlation ( $r=0.462$ ) at the 0.01 level. The TDTA and SG have a negative significant correlation ( $r=-0.229$ ) at the 0.05 level. The TDTA and PG have a negative significant correlation ( $r=-0.368$ ) at the 0.01 level. The TDTE and AG have positive significant correlation ( $r=0.251$ ) at the 0.05 level. The TDTE and SG have positive significant correlation ( $r=0.295$ ) at the 0.01 level. The TDTE and PG have positive significant correlation

( $r=0.211$ ) at the 0.01 level. Therefore, the analysis revealed that there is a positive significant correlation between TDTE on firm growth (SG, PG&AG at 1%, 1%, and 5% levels respectively). On the other hand, it was found that there is only a positive significant correlation between TDTA on at the 1% level, whereas there are only a negative significant correlation between TDTA on PG and SG at the 1% and 5% levels.

### Regression Analysis

The previous section investigated the relationship between key research variables. This section aims to examine those relationships using regression analysis. In the below-mentioned multiple regression analysis models, AG, SG and PG were entered as dependent variables and TDTATDTE were entered as independent variables.

#### Model 01 Financial Leverage and Assets Growth

The regression coefficients for AG are expressed according to the above designed regression model as in below mentioned table.

**Table 5:** Regression Analysis - Financial Leverage and Assets Growth

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.081	.066		1.239	.218
TDTA	.434	.086	.443	5.049	.000
TDTE	.198	.082	.212	2.409	.018
a. Dependent Variable: AG					

On the basis of the results shown above, the regression coefficients for financial leverage in relation to the firm growth can be expressed as;

$$AG = 0.081 + 0.434 (TDTA) + 0.198 (TDTE) + \varepsilon$$

According to the above regression coefficients, those indicate a positive effect between financial leverage (TDTA and TDTE) and AG. TDTA has positively influenced to AG and the result indicates that there is a significant. Because reported sig value is 0.000 which is less than 0.05 level. On the other hand, TDTE has positively affected to AG and the result indicates that there is a significant. Because reported sig value is 0.018 which is less than 0.05 level. Also, t values of both TDTA and TDTE are greater than 2 and therefore this result indicates that the first hypothesis (H1) has been accepted.

**Table 6:** Model Summery - Financial Leverage and Assets Growth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.508 <sup>a</sup>	.258	.243	.3615103
a. Predictors: (Constant), TDTE, TDTA				

The model summary shows that there is a high relationship among dependent and independent variables. Moreover, the  $R^2$  value given that variation among variables shown by the model is not due change and about 26% (Approx.) of the changes in AG are explained by the changes in financial leverage of the firm and other 74% of the changes are due to the other factors.

**Table 7:** ANOVA Analysis - Financial Leverage and Assets Growth

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.412	2	2.206	16.879	.000 <sup>b</sup>
Residual	12.677	97	.131		
Total	17.089	99			

a. Dependent Variable: AG  
b. Predictors: (Constant), TDTE, TDTA

Also, the above ANOVA analysis indicated that, there is a linear relationship between dependent variable (AG) and independent variables (TDTA and TDTE). The model is significant as the sig-value of .000<sup>b</sup> is less than 0.05.

### Model 02 Effect of Financial Leverage on Firm Sales Growth

The regression coefficients for SG are expressed according to the above designed regression model as in below mentioned table.

**Table 8:** Regression Analysis - Financial Leverage and Sales Growth

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.489	.113		4.344	.000
TDTA	-.403	.147	-.257	-2.741	.007
TDTE	.477	.141	.318	3.388	.001

a. Dependent Variable: SG

Therefore, on the basis of the results shown above, the regression coefficients for financial leverage in relation to the firm growth can be expressed as;

$$SG = 0.489 - 0.403 (TDTA) + 0.477(TDTE) + \varepsilon$$

According to the above regression coefficients, those indicate positive and negative effects between financial leverage on SG. According to TDTE, it indicates a positive effect between TDTE and sales growth. TDTA has negatively influenced sales growth and indicating that there is a significant value (0.007) less than 0.05 level. On the other and, TDTE has positively affected sales growth and indicating that there is a significant value (0.001) less than 0.05 level. Also t value of TDTA is less than -2 and t value of TDTE is greater than 2. Therefore, this result indicates that second hypothesis ( $H_2$ ) has been accepted.

**Table 9:** Model Summary - Financial Leverage and Sales Growth



Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.391 <sup>a</sup>	.153	.135	.6191134
a. Predictors: (Constant), TDTE, TDTA				

The model summary shows that there is a relationship among dependent and independent variables. Moreover, the  $R^2$  value given that variation among variables shown by the model is not due change and about 15% (Approx.) of the changes in SG are explained by the changes in financial leverage of the firm and other 85% of the changes are due to the other factors.

**Table 10:** ANOVA Analysis - Financial Leverage and Sales Growth

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.694	2	3.347	8.732	.000 <sup>b</sup>
Residual	37.180	97	.383		
Total	43.874	99			

Also, the above ANOVA analysis indicated that, there is a linear relationship between dependent variable (SG) and independent variables (TDTA and TDTE). The model is significant as the sig-value of .000<sup>b</sup> is less than 0.05.

#### 4.4.3 Model 03 Effect of Financial Leverage on Firm Profit Growth

The regression coefficients for SG are expressed according to the above designed regression model as in table as follows.

**Table 11:** Regression Analysis - Financial Leverage and Profit Growth.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.759	.101		7.484	.000
TDTA	-.556	.132	-.391	-4.273	.000
TDTE	.384	.127	.246	2.691	.008
a. Dependent Variable: PG					

Therefore, on the basis of the results shown above, the regression coefficients for financial leverage in relation to the firm growth can be expressed as;

$$SG = 0.759 - 0.556 (TDTA) + 0.384(TDTE) + \varepsilon$$

According to the above regression coefficients, those indicate positive and negative effects between financial leverage on PG. According to TDTE, it indicates a positive effect between TDTE and PG. TDTE has positively influenced PG indicating that there is a significant value (0.008) less than 0.05 level. On the other hand, TDTA has negatively affected PG and indicating that there is a significant value (0.000) less than 0.05 level. Also t value of TDTE is greater than 2 and t value of TDTA is less than -2. Therefore, this result indicates that third hypothesis ( $H_3$ ) has been accepted.

**Table 12:** Model Summery - Financial Leverage and Profit Growth

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.443 <sup>a</sup>	.196	.179	.557674

a. Predictors: (Constant), TDTE, TDTA

The model summary shows that there is a relationship among dependent and independent variables. Moreover, the  $R^2$  value given that variation among variables shown by the model is not due change and about 20% (Approx.) of the changes in SG are explained by the changes in financial leverage of the firm and other 80% of the changes are due to the other factors.

**Table 13:** ANOVA Analysis - Financial Leverage and Profit Growth

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	7.345	2	3.673	11.809	.000 <sup>b</sup>
Residual	30.167	97	.311		
Total	37.512	99			

a. Dependent Variable: PG

b. Predictors: (Constant), TDTE, TDTA

Also, the above ANOVA analysis indicated that, there is a linear relationship between dependent variable (SG) and independent variables (TDTA and TDTE). The model is significant as the sig-value of .000<sup>b</sup> is less than 0.05.

### Hypothesis Testing

The testing of hypothesis expects to do by using the methods of regression result. According to all t values in the range ( $t < -2$  and  $t > +2$ ) and p values ( $p < 0.05$ ), All testes of significance are given by a sig-value. The sig-value is the statistical power of the test. The criteria sig-value is widely used for sig-value is 0.05. If sig-value is less than 0.05, the hypotheses are accepted. Further if sig-value is more than 0.05, the hypotheses are rejected. Hypothesis which is developed in the study are follows.

H1      There is a significant effect of Financial Leverage on firm Assets Growth.

H2      There is a significant effect of Financial Leverage on firm Sales Growth.

H3      There is a significant effect of Financial Leverage on firm Profit Growth.

Based on the hypotheses testing, the following findings were listed by using the regression results.

**Table 14:** Hypothesis Testing (Regression Analysis)

Hypothesis	TDTA	TDTE	Result
H1	+ Significant	+ Significant	Accepted
H2	- Significant	+ Significant	Accepted

H3	- Significant	+significant	Accepted
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Based on the significance of regression coefficients, the variables TDTA and TDTE have been accepted from the model as the highly significant variables in depicting the impact to the firm growth. This indicates that the higher the level of TDTA and TDTE of financial leverage, the higher the impact with firm growth. These results show that TDTA and TDTE affect most to the firm growth which should be considered by managers at their optimal decision making on the impact of financial leverage on firm growth. Therefore, the researcher is of the view that all hypotheses have been accepted since all correlation values were significant at the 1% or 5% levels and all beta coefficients are significant considering their t and p values.

## **Findings and Discussion**

This study identified how financial leverage affects firm growth in listed companies in Sri Lanka. In this study firstly tested descriptive analysis. Base on the descriptive analysis all of the independent variables (TDTA and TDTE) and dependent variables (AG, SG and PG). According to Table descriptive analysis, TDTA and TDTE are used as financial leverage measures. TDTE shows the maximum range and a higher variation than another financial leverage measure (TDTA) for 5 years. On the other hand Table 4.1 shows that Assets Growth (AG), Sales Growth (SG) and Profit Growth (PG) are used as firm growth measures. SG shows the maximum range and a higher variation than the other two firm growth variables (AG&PG) for 5 years.

In this study secondly tested correlation analysis. The researcher identified how financial leverage affects firm growth in listed companies in Sri Lanka. According to the result of correlation analysis shows that the significant values of financial leverage (TDTE and TDTA) and firm growth (AG, SG, and PG). If these are less than 0.01 or 0.05, the researcher can identify a significant relationship between financial leverage and firm growth. Further correlation analysis shows the correlation of a significant level among explanatory variables. Some variables are showed a positive correlation value. It means that there is a positive correlation between dependent and independent variables. Some variables are showed a negative correlation value. It means that there is a negative correlation between dependent and independent variables. According to a correlation analysis result, the researcher can identify there is a positive significant correlation of TDTA on firm assets growth. On the other hand, the researcher can identify there is a negative significant correlation of TDTA on firm sales growth and profit growth. The researcher can identify there is a positive significant correlation of TDTE on firm assets growth, sales growth, and profit growth.

Finally, this study tested regression analysis to hypothesis testing. According to the regression analysis result, the researcher can identify there is a significant effect of financial leverage on firm assets growth. Hence the first hypothesis (H1) is accepted. Further regression analysis present there is a significant effect of financial leverage on firm sales growth. Hence the second hypothesis (H2) is accepted. On the other hand regression analysis present, there is a significant effect of financial leverage on firm profit growth. Hence the third hypothesis (H3) is accepted.

According to literature, Bei and Wijewardana (2012) state done the research of financial leverage, firm growth and financial strength in the listed companies in Sri Lanka. Researchers investigated whether the financial leverage influences negatively or positively on singling the firm growth toward Sri Lanka firms. As a result of their research financial leverage is

positively related to the growth and financial strength. On the other hand, there is a positive relationship than a negative relationship between financial leverage, firm growth and it is a negatively signal about future growth.

Saberi and Asadipour (2016) state investigated the Relationship between Financial Growth and Strength with Leverage Ratios of Companies Listed in the Tehran Stock Exchange. The outcome of the study was a significant level between assets growth and leverage ratio. Further Avarmaa (2011) investigated that “Does the leverage affect company growth in Baltic countries. He identified there was a significant impact of financial leverage on the growth of local companies. Rajkumar (2014) investigated the impact of financial leverage on the financial performance of John keels holding plc in Sri Lanka. Finally, he identified there was a significant impact on the financial performance of the company. Further, this study researcher identified there is a significant effect of financial leverage on firm profit growth.

Therefore Yasemi, Farshidkhairollahi, Fatahidehpahni and Jalilian (2014) Studied the Financial Leverage Relation to Firms Growth and Financial Strength in the Accepted (Listed) Companies in Tehran Stock Exchange in Various Industries. Finally, the results of their study were reviewed that there is no significant relationship between financial leverage, firm growth and there is a significant negative relationship between financial leverage and financial strength. However, they have concluded that financial leverage has no influence on the firm's growth & financial structure may influence the financial strength.

## **Conclusions, Recommendations and Future Research Directions**

The main objective of the study is to find the effect of Financial Leverage on Firm Growth in Listed Companies in Colombo Stock Exchange of Sri Lanka. The researcher used statistical tools to identify the relationship by considering the 20 companies for 5-year observation from the financial year 2013/2014 and ending with the financial year 2017/2018. Finally consider the Total Debt to Total Assets Ratio and Total Debt to Total Equity ratio as Independent Variable and Asset Growth, Profit Growth and Sales Growth ratio as dependent Variables representing the Firm Growth. According to the research findings of the descriptive statistics, sales growth shows the maximum range and a higher variation than the other two firm growth variables (AG and PG) for 5 years. Regression analysis found that Total Debt to Total Assets can positively affect assets growth and negatively effect on profit growth and sales growth. Further TDTA is significant with all growth variables such as asset growth, sales growth and profit growth of sample companies. Total Debt to Total Equity ratio positively affected asset growth, profit growth, and sales growth. But TDTE is significant with two growth variables such as asset growth and sales growth. Further TDTE is significant with profit growth. Also, it is evident that the present study has employed for reaching the objectives of the study. According to these objectives, financial leverage has a significant relationship with AG and SG; TDTA negatively impact on FG, and TDTE positively affected on FG of Sri Lanka listed companies.

This study can generate many possibilities for future research. It would be interesting in identifying how financial leverage affects firm growth in listed companies in different industries and countries separately. This study selected a mixture of different types of companies in CSE in Sri Lanka due to the lack of time and resources. But it would be a good idea to categorize companies in CSE and then study and explain the behavior of financial leverage and firm growth of those particular groups of companies. According to these factors, future researchers can use more than 5 year period, results may show better than these results and actual view of the effect on financial leverage and firm growth. The present study made

a picture of all the firms. But sector-wise analysis which clarifies broader important to compare in order get real investment in the share market would be researchable in an added advantage.

However, the researcher used only twenty (20) listed companies out of a total of 297 listed companies in CSE because it is difficult to find out the companies which have Intangible Assets. It does not represent the entire population of the company because of the constraint of time and cost. Therefore the results of the study may not create a clear perception of the impact of Financial Leverage on Firm Growth. The ratio has been calculated, analyzed and interpreted for the period under five years from 2013/2014 to 2017/2018. The Financial Statements are subject to window dressing. It can be one of limitation to the process of analysis. Further Ratio analysis is one of qualitative analysis and it is not reviewing the qualitative impact of listed companies. Another limitation is the lack of comparison of individual sectors. The conclusion of the study has made a conclusion to all firms in similar situations. Therefore, these hidden gaps will be ideal for future research.

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# Destination Image and Loyalty: Comparison between Asia Pacific and European Tourists in Sri Lanka

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### Abstract

Destination Image (DI) and tourists' Destination Loyalty (DL) have been attractive topics in tourism discourse though comparisons of different tourist groups are dearth. It is questionable whether DI and behavioral intentions remain same within different groups from different regions. Tourism is a booming industry and plays a crucial role in Sri Lankan economic growth. Western Europe has been the traditional source market for the post-colonial Sri Lankan tourism industry. The emerging trends display that tourists from Asia Pacific region overtake the traditional markets. Amidst this background, this study attempts to explore the difference between Sri Lankan Destination Loyalty among Asia Pacific and European tourists. It is expected to clarify the knowledge and empirical gaps in the destination loyalty discourse while providing recommendations to direct destination marketing efforts of post-war growing tourism industry in Sri Lanka. Study is based on primary data collected through a structured questionnaire using convenience sampling of 286 tourists; 143 from each region. Data was analyzed using Structural Equation Modeling in Smart PLS3. Tourists were highly satisfied with the existing level of cognitive destination image and affective destination image though significant differences are observed in specific features between two regions. The study argues that the destination marketers have to customize their plans and approaches to be more effective in different tourist markets.

**Keywords:** Destination Image, Destination Loyalty, Asia Pacific Tourists, European Tourists, Sri Lankan Tourism

### Introduction

Destination image is important for all types of destinations since; tourists are attracted to the destination image. Similarly, when tourists' expectations are fulfilled they are satisfied. (Ranasinghe, 2014) According to Stepchenkova and Mills, (2010) destination image is one of the main areas of tourism researches for more than four decades. The researches done by different scholars suggest that there is a significant positive relationship between destination image and tourist satisfaction. Murphy and Giller (2000), have recognized a positive relationship of surrounding, infrastructure, attribute, worth and object to revise with tourist experience and perceptions. Furthermore, Bigne et al., 2001, discover that destination image



had straight relationship with distinguish nature, remuneration and aim to respond and willingness to recommend others.

Loyalty can explain as a persons' faith about the utility suffers lead to their overall attitude toward a product or service, such as the intent to repurchase. It is attitudinal. According to the (Jones & Taylor, 2007) Destination loyalty is Customer's object to continue a relationship with a specific service provider and force his or her next buying in the group from this benefit caterer. Perceived value is rate that a product or service has in the judgment of the consumer. According to (Zeithaml, 1988), perceived value defined as overall valuation made by consumers through weighing their benefaction and convenient with mind to the performance. Today destinations face the throat cutting competition in decades and it may become tougher still in years to come so marketing managers need to understand why tourists are faithful to destinations and what determines their loyalty (Chen & Gursoy, 2001). Therefore, there is a relationship between destination image and destination loyalty. But there are few researches relevant to destination image and destination loyalty in the Sri Lankan context. It is well known that tourist destination loyalty and behavioral intentions are primary considerations in tourist destination marketing. Equally, according to the Annual Statistical Report Western Europe emerged as the as the primary source of region for Sri Lanka tourist arrivals and south East Asia is the second place (SLTDA, 2010). But (SLTDA, 2016) reported tourist arrivals from Asia continued to be the main source of Tourism to Sri Lanka in the year 2016 accounting for 45.1 percent of the total share and the number of arrivals from Western Europe continued to be the second source of tourism with a share of 31.4 per cent.

There is a dearth of research done on destination image and destination loyalty by comparing tourists of two regions. Therefore, there is an empirical gap. Based on this background the present study explores the key questions namely, what is the role of destination image on the destination loyalty among the Asia Pacific tourist and European tourist? And what is the difference between destination loyalty among the Asia Pacific tourist and European tourist?

The study expects to evaluate the destination loyalty of the foreign tourists and identified role of destination image in Sri Lanka regarding tourists who visits Colombo district. It will help to Government organizations and professional associations to promote Sri Lanka as a tourist destination and take effective decisions. Further, this study will be a complement to lack of literature regarding destination image and destination loyalty in Sri Lanka and may give guidelines for another future researcher who are interested about this filed. Finally the study will help to identify what European and Asia pacific tourist seek at tourist destination and will help tourism marketers better understand their customers.

## **Theoretical Background and Hypotheses Development**

### **Destination Image**

Country, city town or an area can be identified as a destination and cruise ship also accepted as a destination. Simply it could be recognized that destination is place which is created or

intended. (Harris & Leiper, 1995) defines destination as “places towards which people travel and where they choose to stay for while in order to experience certain features or characteristics a perceived attraction of some sort”. Hence, any kind of destination should consist with certain facilities, characteristic, significant environment the specific service for satisfy the tourist. Image is defined as “the people feelings of anything that they aware”(Boulding, 1956) According to the (Barich & Kotler, 1991) Image is the completion of beliefs, attitudes, sense that a person or group has of an aim and sense may be exact or dishonest, actual or imaginary.

Generally, tourist when select the place as their travel destination, they may have any overall image of certain place in their mind. When reviewing the literature, (Milman & Pizam, 1995) have testified that destination image has a strong linkage with tourists, destination choice. For successful in comparative tourism market tourism planners need to clearly identified what are the features of tourist attraction in destination, and how important they are. Creating a positive destination image can help a destination to gain competitive power relative to other destinations(Crompton et al., 1992). Destination image plays an important role in tourists' decision making and subsequent travel behavior e.g.:(Baloglu & McCleary, 1999).; consequently, they have been examined extensively in the tourism literature (Pike, 2002).

Destination Image is a statement of wisdom, impressions, damage, imaginations and sensational thoughts an individual has of a particular place (Lawson & Baud-Bovy, 1977). According to (Assael, 1984), Destination image is “the overall perception of the destination that is formed by processing information from various sources over time”. Furthermore, (Hu & Ritchie, 1993) stated that a tourism destination is a package of tourism facilities and services, which, like any other consumer product or service, is composed of a number of multidimensional attributes that together determine its attractiveness to a particular individual in a given choice situation. When it come to the idea of(Murphy et al., 2000), A sum of associations and pieces of information connected to a destination, which would include multiple components of the destination and personal perception. Best of authors knowledge, (Baloglu & McCleary, 1999a)stated that destination image concept as an attitudinal construct consisting of an individual's mental representation of knowledge (beliefs), feelings, and global impression about a destination. Despite the different definitions (Gartner, 1993), stated that destination image is a compilation of beliefs and impressions based on information processing from various sources over time that result in a mental representation of the attributes and benefits sought of a destination. Additionally, “Destination image is an interactive system of thoughts, opinions, feelings, visualizations, and intentions toward a destination”(Tasci & Gartner, 2007).

According to the reviewed literature there are two major approaches in conceptualizing destination image: three-dimensional continuum approach and three-component approach (Echtner & Ritchie, 1991) , suggests attribute-holistic, Functional-psychological, and common-unique as the three-dimensional continuums of image. Three-component approach consists with cognitive, affective, and conative components. According to (Gartner, 1993)

Destination image is comprised by three distinctly different but hierarchically interrelated components called cognitive, affective, and conative. Further, (Dann, 1996), also suggested that destination image created by three components consisting cognitive, affective and conative. Hence, this study focus on the main two dimensions only.

### **Cognitive Destination Image**

The measurements of cognitive image usually solicit tourists' perception on multiple attributes of the destination, such as attractions, infrastructure, environment, and service quality (Beerli & Martín, 2004). In addition to cognitive destination image should be composed of perceptions of individual attributes (Echtner & Ritchie, 1993). According to the (Beerli & Martín, 2004) cognitive destination image is measured with several attributes and dimensions. When reviewing the literature, can identify (Calantone et al., 1989) 13 attributes, (Fakeye & Crompton, 1999) 23 items and (Baloglu & Mangalolu, 2001) used 14 items for measure the cognitive destination image. Furthermore, (Beerli & Martin, 2004a) revealed 21 items under 5 dimensions and (Assaker, 2014), revealed it six first order factors consisting 18 destination attributes.

According to (Dibb & Simkin, 1996) product theory, cognitive destination image has been split across images of natural environment, built environment, socially responsible environment, plus local people to thread the ring. However, this study base on the 29 items under 6 factors Natural attractions, Cultural attractions, Social setting and environment, Infrastructure and facilities, Accessibility, Price and value by following (Basaran, 2016b). According to (Gartner, 1993), from a theoretical and empirical point of view, cognitive destination image analyzed as an antecedent of the affective destination image and also empirical studies show that there is a positive and significant relation between the cognitive and affective destination image. Further, (Walmsley & Young, 1998) idea is when comparing cognitive destination image and affective destination image, cognitive destination image is directly observable, descriptive and measurable.

### **Affective Destination Image**

Affective image is how a consumer feel about product or service. According to the (Gartner, 1993) affective image refers to feelings about a destination. Affective destination image is defined as individuals' feelings toward a destination or as an emotional response of individuals to a place (Russel & Pratt, 1980). Affective destination image has 4 items and (Russel and Pratt, 1980), identified the affect four bipolar scales (unpleasant-pleasant; gloomy-exciting; sleepy-arousing; distressing-relaxing). This study also use above four bipolar scales for measure the affective destination image by reviewing the literature e.g.: (Basaran, 2016b).

## **Destination Loyalty**

According to marketing literature, customer loyalty defined in several ways. Loyalty can define as a “Loyal customers are those who re-buy a brand, consider only that brand, and do no brand-related information seeking (Newman & Werbel, 1973). According to (Tellis, 1988), recognized behavioral conditions as repeat buying frequency or relevant convolution of same-brand buying”. According to (Oliver, 1999) states that loyalty is a construct that can be conceptualized by several perspectives. At the same time, he defines loyalty as “a deeply held commitment to rebuy or re patronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts have the potential to cause switching behavior”. Further, (Oppermann, 2000), states that “tourist loyalty should be reflected in positive word-of-mouth publicity, recommending behavior and other aspects. In addition to, “it is feasible to indicate loyalty by the behavioral tendency to revisit”,(Jang & Feng, 2007).

Best of authors knowledge, “Consumers” intentions or actual behavior to repeatedly purchase certain products or services”;(Hawkins et al., 1995). Furthermore, “Customer’s aim to maintain a relationship with a particular service provider and make his or her next purchase in the category from this service provider.”(Jones & Taylor, 2000). According to (Chen & Gursoy, 2001) determined “destination loyalty as the level of tourists’ perception of a destination as a good place, one that they would recommend to others, noting that studies which only consider repeat visits as an indicator of loyalty to the destination are deficient”.

Specifically, tourist loyalty has been conceptualized in one of the following approaches: behavioral loyalty, attitudinal loyalty, and composite loyalty (Jacoby & Chestnut, 1978). Behavioral loyalty focuses on the behavioral outcome such as repeat visits. It has measured by the actual behavior; such as visit times. This approach usually fails to disclose the antecedent factors that affect customer loyalty (Yoon & Uysal, 2005). Attitudinal loyalty is suggesting to intention to revisit or recommend to other tourists about destination. Tourist having with positive image about destination he or she would recommend it to other potential tourists such as friends and relatives. It defined as “Customers’ beliefs about the value received lead to their overall attitude toward a product or service, such as the intention to repurchase”(Hawkins et al., 1989). The composite or combined approach of loyalty suggests the integration of both attitude and behavior (Backman & Crompton, 1991). Repeat visitors represent a much desired market segment for many tourism products and destinations (Lau & McKercher, 2004).

When reviewing the literature, many of ideas can capture regarding the “behavioral intention” as a part of destination loyalty in this study. Word-of-mouth communication is one of the multidimensional indicators of behavioral intentions (Zeithaml, 1988). Many researchers revealed that word-of-mouth have a fast effect on consumers’ communication with others and on consumer behaviors. According to (Gursoy & Chen, 2000), Word-of-mouth

communication plays a vital role in as an information source and it is one of the most important factor in persons' holiday preferences and decisions.

### **Perceived Value**

Value" is a variable that is built by a buyer's perceptions of acquisition and cost. Many researches regard products have emphasized that perceived value is realized before purchase (Dodds et al., 1991). When consider the definitions of value in the literature, they determined perceived value is perceived by consumers, it is related to the use of a particular product and service and its value perception is based on a comparison between the convenience made to either get or consume the products and services and the gain from the product. Although, it is not possible to admire perceived value before purchase, because of the features of the tourism sector, especially for destinations. perceived value in the field of tourism includes the purchase process (Sanchez et al., 2006).

Perceived value can define as "the overall assessment of the utility of a product or service based on perception of what is received and what is given", (Zeithaml, 1988). Further, it can have presented in relation to pricing as the distance between customer perceptions of what is received (utility derived from quality) and what is sacrificed (price and other costs) (Leszinski & Marn, 1997). Normally, tourist perceived value can be measured by the gap between the amount of customers' benefits and the total cost for taking the journey. (Bolton & Drew, 1991) also suggested that viewing value as a trade-off between only quality and price is too simplistic.

### **Hypotheses Development**

Destination image straightway or sideways influence satisfaction through excursionist expectations and perceived value. According to (Chen & Tsai, 2007a), "destination image composed of destination brand; entertainment; nature and culture; and sun and sand has a significantly positive effect on behavioural intentions comprised of likeliness to revisit and willingness to recommend". On the other word, tourists' revisits of destinations and recommendations to others play important roles in the successful development of a destination. According to (Beerli & Martín, 2004), Tourist behaviors can change according to their perceived image of a destination. When consider the idea of (Chen & Tsai, 2007b, Chen & Tsai, 2007a), destination image affects tourist behaviors during their experience of the destination. That revealed destination image is not important only for the destination selection process.

Destination image affects tourists' revisiting of a destination but has no effect on their intention to recommend the destination to others (Phillips et al., 2011). In the same time, they determined that destination image positively affects perceived value. Further, (Öztürk & Qu, 2008), revealed that destination image positively affects perceived value and intentions to recommend the destination to others. When reviewing the literature, many of studies prove that perceived value positively influence on behavioural intention the part of consumer

loyalty. Furthermore, (Javier & Bigné, 2001), discovered that destination image had direct relationship with perceived quality, satisfaction and intention to return and willingness recommend others. According to (Alcañiz et al., 2009), the functional component of cognitive destination image, based on more tangible or measurable perceptions, such as scenery, accommodation or price levels, significantly affects the revisit intention. On the other hand, (Moon et al., 2013), determined that destination image, included both cognitive (opportunity for adventure, ease of communication, hospitality/ friendliness/ receptiveness, tourist sites/ activities, and nightlife/ entertainment) and affective components (relaxing-distressing, friendly-unfriendly, arousing-sleepy, interesting-boring, pleasant-unpleasant, and exciting-gloomy) have positive influences on behavioral intention.

Further, (Song et al., 2013), revealed that destination image consists of cognitive (people, life and customs; infrastructure and superstructure; indoor and outdoor resources) and affective dimensions have statistically significant and positive influence on destination loyalty intention. Further, current studies recognized destination image as important in terms of its effects on tourist behavior such as destination choice, decision making and satisfaction (Chen & Hsu, 2000). When considering the idea of (del Bosque & San Martín, 2008), they stated that Positive evaluation of the destination image would lead to higher level composite loyalty demonstrated by the tourists.

Tourists holding a positive destination image tend to demonstrate a higher level of satisfaction and perceived value, and then more likely to revisit the destination in the future and recommend it to others (Yoon & Uysal, 2005). According to (Murphy & Giller, 2000), perceived value is an important forecaster and the major component of customer satisfaction and loyalty. Some researchers found that destination image significantly affects visit and revisit intention(Choi et al., 2011). According to the reviewed literature, determining the destination image has positive influence on tourists' decision making regarding revisiting a destination and their intentions to recommending a destination to others. Further, they discover destination image have both direct and indirect relationship with destination loyalty and perceived value.

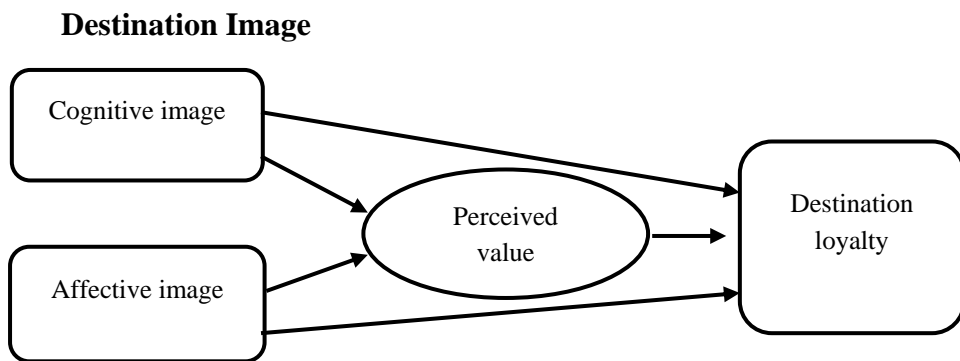


Figure: 01: Conceptual Framework

Source: Adopted from different sources

According to the proposed model above the following hypotheses are proposed to test during the course of this study.

*H1: There is a positive relationship between cognitive image and destination loyalty.*

*H2: There is a positive relationship between affective image and destination loyalty.*

*H3: There is a positive relationship between cognitive image and perceived value.*

*H4: There is a positive relationship between affective image and perceived value.*

*H5: There is a positive relationship between perceived value and destination loyalty.*

## **Methodology**

### **Scale Development**

After reviewing the relevant literature critically the scales to measure the variables were formulated. Cognitive image was measured using six indicators namely; natural attractions, cultural attractions, social setting and environment, infrastructure and facilities, accessibility and price and value. Equally, affective image was quantified using four indicators namely; unpleasant – pleasant, gloomy – exciting, sleepy – arousing and distressing – relaxing (Basaran, 2016a). The destination Loyalty was measured in terms of tourists' behavioral intentions in two major concerns. The attitudinal loyalty and behavioral loyalty were adopted from Zhang et. al (2014). The mediator variable was measured through three indicators namely emotional value, social value and functional (price) value and was adopted from Sweeny and Soutar (2001). The questionnaire included four major parts. The first part of the questionnaire was information on respondents' profile. It was consisted with closed ended questions about personal characteristics of the tourists such as region of origin, gender, age, income level, and profession and so on. Other three parts consisted questions to measure key variables namely destination image, destination loyalty and perceived value. All questions were designed based on 5 point Likert scale.

### **Sampling, Data Collection and Analysis**

The population for the study being the entire tourists visits Sri Lanka from Europe and Asia Pacific regions a sample of 286 tourists (143 from each region) was drawn using purposive sampling technique. Primary data were collected through a self-administered questionnaire fielded in Mount Lavinia, Greater Colombo and Colombo North tourist regions in November and December 2018. SmartPLS is the software specialized for item-based Structural Equation Modeling (SEM) using the partial least squares (PLS) path modeling method. According to (Monecke and Leisch, 2012), special feature of SmartPLS is the finite mixture routine (FIMIX), a method to deal with unobserved heterogeneity. PLS-SEM is a multivariate

analysis method to estimate path models with latent variables. Further, it calculates path models with latent variables using the PLS-SEM algorithm the software calculate standard results assessment criteria and it assist other statistical analyses also. That model consists of two elements; they are, structural model or inner model (displays the relationships/ paths between the constructs) and measurement model or outer model (display the relationships between the constructs and the indicator variables). On the other hand, PLS-SEM is employed to prediction and explanation of target constructs. It is complex model works with ordinal and binary scaled questions. That is suitable for analyze small sample sizes. In this study, PLS-SEM was used to compare and contrast destination loyalty between Asia Pacific and European tourists using the primary data collected.

## Results and Discussion

### Demographic Profile of the Respondents

The table 01 illustrates the demographic characteristics of the sample used for the analysis of this study. Accordingly male tourists were the majority from both Asia Pacific and European regions representing 57 percent and 53 percent respectively. Majority of the Asia Pacific tourists were belong to the age group of 20 to 29 and 30 to 39 together with 40 to 49 groups were equally represented as illustrated in the table. However, European tourists were mainly belong to the age category of 20 to 29 which was 44 percent. Tourists from both the regions were mainly traveling for pleasure representing the highest numbers for this purpose. 87 percent of tourists from Asia and pacific and 92 percent of the European tourists were first time visitors as per the figures in the below table.

**Table 01:** Demographic Characteristics of the Respondents

Tourists' Demographic Characteristic	% of Asia Pacific Tourists		% of European Tourists	
	Number	%	Number	%
<b>Gender</b>				
Male		57		53
Female		43		47
<b>Age Years</b>				
Below 20		6		7
20-29		28		44
30-39		26		21
40-49		26		18
50-59		13		10
60 or more		2		0
<b>Profession</b>				
Business		13		18
Executive		2		7



Educationist	18	12
Retired	4	7
Other	59	57
<b>Purpose of Travel</b>		
Pleasure	57	64
Religious and Cultural	11	12
Business	8	4
Study	8	8
MICE	4	5
Other	2	5
<b>Repeat Visit</b>		
First time	87	92
Repeat Visit	13	8

Source: Survey 2018, N=286

### **Smart PLS Model Assessment Procedure**

The study has tested the conceptual model by using the Smart PLS software. The results of the Smart PLS software are presented in two parts. It tests the validity and reliability of the measures (outer model), and the tests of hypotheses (inner model). The outer model evaluates the relationship between indicators and the latent variables while the inner model evaluates the relationship among the latent variables. The structural model (inner model) results are examined after the evaluation of measurement model (outer model). If only the outer model evaluation results emphasis the reliability and validity of the constructs, the inner model is evaluated. When evaluating the outer model and the inner model, the bootstrapping and blindfolding results also considered. As the first step, the researcher has evaluated the outer model and it is as follows.

### **Reliability of Reflective Constructs:**

First, the individual reliability of each indicator is given by loadings between the indicator and the variables. Most of the researchers assume that a latent variable should explain a substantial part of each indicator's variance (usually at least 50 percent). Accordingly, the standardized outer loadings should be higher than 0.60 (Evanschitzky et al., 2006). Second, the scale reliability allows measuring internal coherency of all indicators in relation with the latent variables. The composite reliability is a preferred alternative to alpha as a measure of internal consistency reliability. Cronbach's alpha assumes that all indicators are equally reliable but the Smart PLS prioritizes indicators according to their reliability, resulting in a more reliable composite (Henseler et al., 2009) The acceptable cutoff value for composite reliability would be the same as the researcher sets for Cronbach's alpha. The composite

reliability and the Cronbach's alpha were used to measure internal consistency and reliability of the model. According to the past research findings the value should be above 0.70, whereas a value below 0.60 indicates a lack of reliability (Nunnally, 1978).

### **Comparison of Asia Pacific and European Tourists DI and DL in Sri Lanka**

In this study, demonstrate the standardized path coefficients through PLS Algorithm and relevant t-statistic of relationships obtained through PLS bootstrapping procedure. According to (Hair et al., 2013), R<sup>2</sup> values 0.25, 0.50 and 0.75 represent weak, moderate and substantial predictive power of endogenous latent variables respectively. When data analyse using the PLS Algorithm consider about all the factor loadings are positive and in the range of 0.6.

According to this study, when Asian Pacific respondents' data analysis using the PLS Algorithm all the factor loadings are positive. The means of Accessibility and Price and value under Cognitive Destination Image factors loadings removed because of their loadings values are lower than 0.6. At the same time two factor loadings under Behavioural Loyalty and Functional value under Destination Loyalty also removed because of their loadings values are lower than 0.6. When the factor removed from the scales, some R<sup>2</sup> values and other loadings values were increased.

In the case of European tourists, all the factor loadings are also positive. The means of Natural attractions and Price and value under Cognitive Destination Image factors loadings removed because of their loadings values are lower than 0.6. At the same time two factor loadings under Behavioural Loyalty, one factor under Affective Destination Image and Behavioural loyalty under Destination Loyalty also removed because of their loadings values are lower than 0.6. Then some R<sup>2</sup> values and other loadings values were increased.

Hypothesis1 proposed a positive relationship between Cognitive Destination Image and Destination Loyalty values. According to the Figure 4.5.1, the path coefficient is 0.065 and  $t = 0.452$ ,  $p < 0.1$  indicate there was a weak positive relationship and no significant effect and therefore H1 was rejected. Positive relationship proposed between Affective Destination Image and Destination Loyalty (H2) path coefficient is 0.360 and  $t = 2.695$ ,  $p < 0.01$  indicate a weak positive effect. When consider about the proposed positive relationship between Cognitive Destination Image and Perceived Value (H3) path coefficient is 0.489 and  $t = 3.284$ ,  $p < 0.01$ . It determine that there was a weak positive effect. Hypothesis 4 proposed positive relationship between Affective Destination Image and Destination Loyalty values. The path coefficient is 0.182 and  $t = 1.247$   $p < 0.1$ , indicate that there was a weak positive support and no significant effect and therefore H4 was rejected. The proposed positive relationship between Perceived Value and Destination Loyalty values path coefficient is 0.176 and it indicates weak positive relationship. Although,  $t = 1.641$ ,  $p < 0.1$  indicates that there was no significant effect and therefore H5 was also rejected.

In addition to, three bodies of cognitive destination image, affective destination image and perceived value combine were determined 40.7% of variance of destination loyalty and

combination of cognitive destination image and affective destination image were determined 28.4% of variance of perceived value.

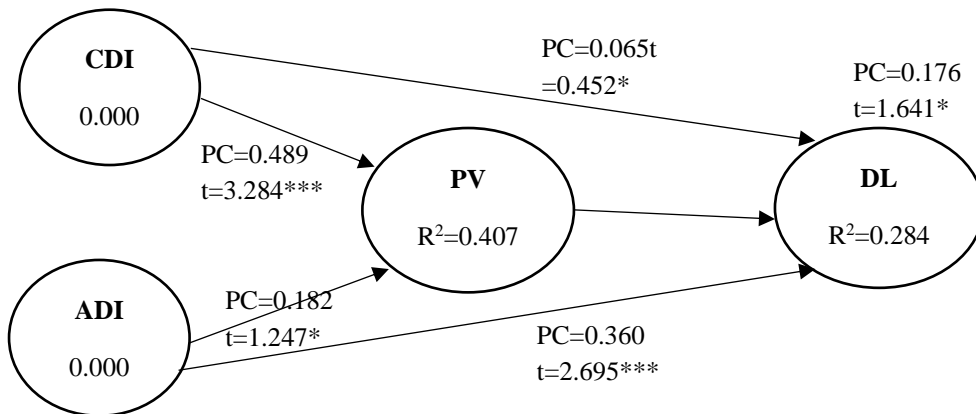


Figure 2: PLS SEM Model for DI and DL of Asia Pacific Tourists in Sri Lanka

Source: Survey, 2018.

At the same time according to the below (Figure 4.5.2) Hypothesis1 proposed a positive relationship between Cognitive Destination Image and Destination Loyalty values the path coefficient is 0.381 and  $t = 4.305$ ,  $p < 0.01$  indicate there was supported indicating a weak positive effect. Proposed positive relationship between Affective Destination Image and Destination Loyalty (H2) path coefficient is -0.212 and  $t = 1.778$   $p < 0.1$ , indicate a negative significant effect and it was also rejected. When consider the positive relationship between Cognitive Destination Image and Perceived Value (H3) path coefficient is 0.265 and  $t = 2.321$ ,  $p < 0.01$  It determine that there is a weak positive effect. Hypothesis 4 proposed a positive relationship between Affective Destination Image and Destination Loyalty values the path coefficient is 0.365 and  $t = 3.427$ ,  $p < 0.01$  indicate there was a weak positive effect. The proposed positive relationship between Perceived Value and Destination Loyalty (H5), path coefficient is 0.526 and  $t = 5.890$ ,  $p < 0.01$  indicates that there was supported with robust effect.

Furthermore, three bodies of cognitive destination image, affective destination image and perceived value combine were determined 46.1% of variance of destination loyalty and combination of cognitive destination image and affective destination image were determined 27.5% of variance of perceived value.

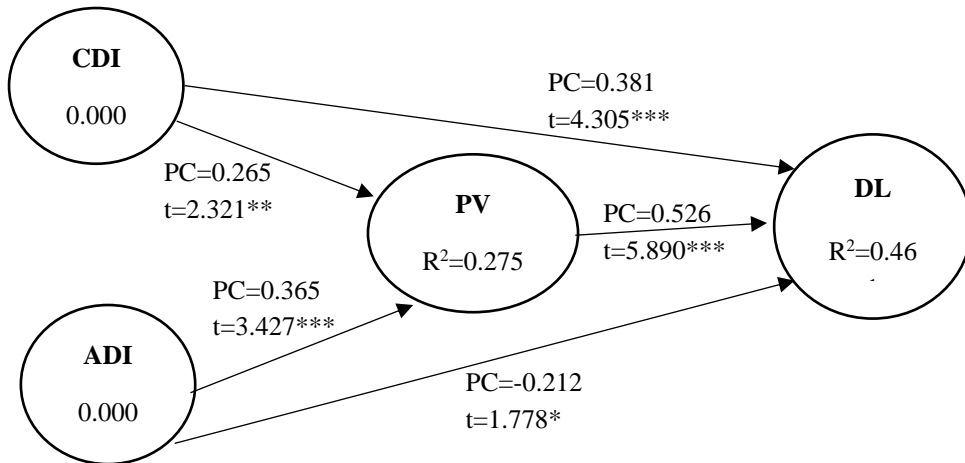


Figure 3: PLS SEM Model for DI and DL of European Tourists in Sri Lanka

Source: Survey 2018

**Table 02:** Results of Proposed Model

Hypothesis	variables	Path Coefficient		t- statistics		Supported	
		Asia Pacific	Europe	Asia Pacific	Europe	Asia Pacific	Europe
H1	CDI- DL	0.065	0.381	0.452*	4.305***	No	Yes
H2	ADI- DL	0.360	-0.212	2.695***	1.778*	Yes	No
H3	CDI- PV	0.489	0.265	3.284***	2.321**	Yes	Yes
H4	ADI- PV	0.182	0.365	1.247*	3.427***	No	Yes
H5	PV- DL	0.176	0.526	1.641*	5.890***	No	Yes

Note: \*\*\*p<0.01, \*\* p<0.05, \* p<0.1

Cognitive Destination Image- CDI, Affective Destination Image- ADI, Perceived Value- PV, Destination Loyalty- DL

## Discussion

Quality of infrastructure facilities and variety of entertainment facilities and good nightlife under the infrastructure and facilities dimension were moderately satisfied by European respondents. Variety of entertainment facilities and good nightlife from Asia Pacific respondents also were moderately satisfied. At the same time, well organized traffic flow and parking information under accessibility dimension from Europe respondents were moderately satisfied. Further, the dependent variable (DL) also concludes that the tourists from both regions were almost agreed with the existing level of destination image. At the same time when consider about the behavioral loyalty dimension under destination loyalty, it indicate

moderately agreed situation from Europe respondents regarding the destination image. As main reason for the moderate satisfaction was the both regions majority of tourists are 1<sup>st</sup> time visitors to Sri Lanka. When consider about the Perceived Value variable, which was also play almost satisfied role among both regions respondents.

Creating a positive destination image can help a destination to gain competitive power relative to other destinations (Sahin and Baloglu, 2011). Khuong and Phuong (2012), stated that both cognitive and affective destination image had positive relationship with overall tourist satisfaction. The empirical finding of this study was revealed the relationship between Cognitive DI and DL values ( $H_1$ ), have weak positive effect under European tourists and no significant effects under Asia Pacific tourists. At the same time based on this research, the proposed positive relationship between Affective DI and DL values ( $H_2$ ), supported with weak positive effect from Asia Pacific tourists and it indicate negative relationship from European tourists.

As hypothesized, the proposed a positive relationship between Cognitive DI and Perceived Values ( $H_3$ ), supported with weak positive effects from both Asia Pacific and European tourists also. Further, the proposed positive relationship between Affective DI and Perceived Values ( $H_4$ ), supported with weak positive effects from European tourists and indicate weak positive relationship with no effect from Asia Pacific tourists. According to the (Gong et al., 2009), stated that a positive relationship between destination image and perceived value. Further, (Phillips et al., 2013), stated that destination image positively affects perceived value. Moreover, DI has a positive and significant effect on total perceived value and word-of-mouth communication (Lban et al., 2015). The proposed positive relationship between perceived value and DL values ( $H_5$ ), supported with positive robust effects from European tourists and found weak positive relationship with no effect from Asia Pacific tourists. Based on the literature, predicts that there is a significant positive relationship between perceived value and DL (Wang and Leou, 2015). Further, Total perceived value positively and significantly affects the intention to revisit and word-of-mouth communication (Lban et al., 2015).

## **Conclusions and Recommendations**

### **Conclusions**

This research has two independent, one mediator and one dependent variable. 5 point Likert scale questionnaire was employed to measure these three variables. There were two major objectives for this research and those were identify the role of destination image on the destination loyalty among the Asia Pacific and European tourist and identify the difference between destination loyalty among Asia Pacific and European tourists. The findings of this research can be indicated under different topics.

PLS-SEM analysis approach was employed to measure and identifies the differences of Cognitive DI, Affective DI, Perceived Value and DL among Asia Pacific and European tourists. Hypothesis1 ( $H_1$ ) proposed a positive relationship between Cognitive DI and DL

values. There was a weak positive relationship and no significant effect from Asia Pacific respondents and there was supported indicating a weak positive effect from Europe respondents. Therefore, this study revealed Cognitive DI on DL has an effect only from European tourists in Sri Lanka. Further, there was proposed positive relationship between Affective DI and DL values ( $H_2$ ), supported with a weak positive effect from Asia Pacific tourists and indicate a negative significant effect from European tourists. Hence, that described Asia Pacific tourists have an effects on Affective DI through DL in Sri Lanka.

The proposed positive relationship between Cognitive DI and Perceived Value ( $H_3$ ), there was a weak positive effect from both region tourists. That concludes that both region tourists have effect on Sri Lanka's Cognitive DI through Perceived Value. Moreover, Hypothesis 4 ( $H_4$ ) proposed a positive relationship between Affective DI and DL. There was a weak positive support and no significant effect from Asia Pacific tourists and indicate there was a weak positive effect from European tourists. That revealed when Asia Pacific tourist have not effect Sri Lanka's Affective DI through DL, European tourists have an effects. The proposed positive relationship between Perceived Value and DL values ( $H_5$ ), confirmed a there was supported with robust effect from European tourists, although, there were no effects on Asia Pacific tourists. Thus, it is clear that there is a significant difference between the two regions tourists in the case of DI and DL in Sri Lanka.

### **Recommendations**

Based on the theoretical implications observed the following empirical insinuations can be introduced to post war booming tourism context of Sri Lanka to enhance its tourism marketing effectiveness. According to the above findings the role of destination image and the relationship between destination image and destination loyalty are can be different in tourists from different regions. Therefore, when consider the Sri Lankan DL through DL on Asia Pacific and European tourists, there were some factors to be identified and that are needed to be develop to achieve high level of tourists satisfaction among the destination. In the case of accessibility in Sri Lanka, there were no well-organized traffic flow and parking information regarding destination and adequate and convenient local transportation systems through the destination. Therefore, required to manage the traffic flows and parking information effectively and increased effective and adequate transport systems. The entertainment facilities available were of less significant and this may have been due to the lack of awareness and an effective promotional mechanism to promote them is a prerequisite. Many of Asia Pacific tourists (especially Chinese tourists) have not much skill to speak and understand English language. Hence, needed to more interpreters who can gathered three or more languages (especially Chinese language). Another problem is the price level of tourist products due to local peoples' efforts of earning unfair profits from the tourist. This can be minimized by giving the fixed and fair price level for the tourist products.

Sri Lankan has many of food and beverage supply places operating under different themes. If the local food and beverages are available for the tourist instead of the selling fast food and

beverages tourist will expect to buy those food items and it should be a focus of tourism development bodies. Another weak area shown in the model was bad behavior of local sellers and beggars. They cause to make uncomfortable the tourists' journey in Sri Lanka. This problem can be solved if the responsible parties take actions for such groups that have an impact on DL and DL in Sri Lanka. There should be a fixed rate for the taxi, Tuk Tuk riders and other vehicles to minimize the different unfair price rates of the transport modes.

### **Limitations and Future Research Directions**

The research approach was quantitative and tracing real feelings may be limited through structured questionnaires from people who experience them. Therefore, answers from respondents are limited as they really feel. Thus, it is recommended for future researchers to trace such emotional issues using qualitative approaches to compare and further validate the findings of this study. This research data were collected only from some places in Sri Lanka because of the time limitation. Furthermore, the result cannot be generalized to an entire population since other tourists from regions such as Africa, South and North America may have different perceptions. Thus, a wider approach in terms of tourists to Sri Lanka from all the regions from the world will have the robustness of future findings. Thus it is recommended to study the tourists from other regions to have a comparison. When collecting the data there were language problems with the some tourists which reflect some problems of the scope. Expanding data collection tools from mother tongue of the respondents may contribute effectively for better data collection.

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