

ISSN : 2012-6182



# WAYAMBA JOURNAL OF MANAGEMENT

VOLUME 11    ISSUE 01    JUNE 2020



## Department of Business Management

Faculty of Business Studies & Finance

Wayamba University of Sri Lanka

Kuliyapitiya

Sri Lanka

Tel : 037-2283618

Fax : 037-2283618

Web : [fbsf.wyb.ac.lk](http://fbsf.wyb.ac.lk)

WAYAMBA JOURNAL OF MANAGEMENT

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

## Wayamba Journal of Management

Wayamba Journal of Management is a refereed journal published by the Department of Business Management, Wayamba University of Sri Lanka biannually. The Department of Business Management and the editorial board reserve the right to determine the structure and design of the journal. Each prospective article will be reviewed by relevant experts and the Department of Business Management will commit to publish only the original contributions to the field of Business Management by respective authors from Sri Lanka and abroad.

### Editor in Chief

•Dr. H.M.A. Herath

### Editorial Board

•Dr. K.A.M.S. Kodisinghe  
•Dr. M.M.D.R. Deeghawathura  
•Ms. P.A.B.H. Amarathunga  
•Ms. W.D.M.B.K. Dissanayake

### Editorial Advisory Board

•Prof. K.A.S. Dhammika  
•Dr. P.M.B. Jayathilaka  
•Dr. R.A. Rathnasiri  
•Mr. B.M.Wijesiti  
•Dr. H.M.S.P.Herath

Copyright: Department of Business Management

The copyright covers the exclusive right to reproduce and distribute the article, including reprints, photo graphics, and soft form of any other reproduction and translations. No parts of the articles may be reproduced without permission in writing from the copyright holder.

Views expressed in the articles are not the views of the Department of Business Management, Wayamba University of Sri Lanka or the Editorial Board they are the personal views of the authors and the responsibility solely rest with respective authors.

Subscription Rates:

Local : Rs. 300.00 +Postage

Foreign : US\$ 20.00 (Inclusive Postage)

## Brief Guidelines to Contributors

- Wayamba Journal of Management welcomes original research articles. (2000-8000 words).
- Language of the journal is English (USA)
- Article must include an abstract not more than 150 words followed by five keywords, introduction, methods, results discussion, conclusion and references.
- Figures and tables are permitted only in black and white
- Manuscript of research papers which ensure the higher accuracy of language should be type written in A4 paper according to the guidelines provided
- Manuscripts should be sent to the Chief Editor of the Journal with a hard copy and soft copy.
- Having reviewed of each manuscript, decisions of the referees will be made available to the respective author(s).
- Once the article is accepted for publication in the journal, the author cannot republish it without prior permission of the Department of Business Management, Wayamba University of Sri Lanka.
- All the communication should be made through Chief Editor of the journal.
- All citations within the paper and list of references should be made according to the Harvard Method.

Contact Details,  
Chief Editor,  
Department of Business Management,  
Faculty of Business Studies and Finance,  
Wayamba University of Sri Lanka.  
Kuliyapitiya – Sri Lanka  
Telephone (+94) 037-2283618



## **WAYAMBA JOURNAL OF MANAGEMENT**

**VOLUME 11      ISSUE 01      JUNE 2020**

### **CONTENTS**

	<b>Page No</b>
<b>Impact of Service Quality on Customer Satisfaction: A Study Based on Bingiriya Divisional Secretariat</b>	01-09
A.H.M.D.H. Abeysinghe & T.K. Karandakatiya	
<b>The Moderating Effect of the High Involvement Work Systems Between the Relationship of Role Overload and Organizational Citizenship Behavior in Apparel Industry (Special Reference to Katunayake Free Trade Zone)</b>	10-19
J.K.K.N. Jayakody & B.M. Wijesiri	
<b>The Impact of Green Marketing Components on Corporate Image of Green Certified Hotels in Sri Lanka</b>	20-29
B.A.G.S.N. Wijewardena & U.L. Herat	
<b>Perceived Academic Stress Among University Undergraduates in Sri Lanka</b>	30-40
S.M.N. Praveeni & H.M.A.J. Herath	

**The Application of International Internal Audit Standards by Licensed Commercial Banks in Sri Lanka** 41-54

I.A.N.S. Madurasinghe & W.D.N.S.M. Tennakoon

**Inter-Personal Trust, Transaction Cost and Livelihood Success of the Members in Community-Based Organizations** 55-78

H.M.S. Priyanath & H.R.N.R. Habaragamuwa

**Impact of Service Quality Dimension on Customer Satisfaction of Domestic Electricity Consumers in Sri Lanka** 79-93

U.S.Samaraweera & R.A Rathnasiri

## **Impact of Service Quality on Customer Satisfaction: A Study Based on Bingiriya Divisional Secretariat**

**A.H.M.D.H. Abeyasinghe<sup>1</sup> & T.K. Karandakatiya<sup>2</sup>**

<sup>1,2</sup>Department of Business Management

Faculty of Business Studies & Finance

Wayamba University of Sri Lanka

Kuliyapitiya

SRI LANKA

[diliniabeyasinghe15@gmail.com](mailto:diliniabeyasinghe15@gmail.com)<sup>1</sup>, [thusithakk@wyb.ac.lk](mailto:thusithakk@wyb.ac.lk)<sup>2</sup>

### **Abstract**

Divisional secretariats are important public institutions in Sri Lanka that provide various public services. Service quality of divisional secretariats is very sensitive to the public that come to receive various services from them and most of time public has unfavorable response towards the service of those divisional secretariats. The divisional secretariat of Bingiriya also has the same issue. Therefore, it is vital for divisional secretariat of Bingiriya to know its service quality from the consumers' perspective in order to better understand their needs and hence satisfy them. Consequently, the main purpose of this study was to evaluate the dimensions of service quality of the services provided by the Bingiriya divisional secretariat and its impact on customer satisfaction. A research model was developed by investigating the previous literature in order to assess the impact of service quality dimensions on customer satisfaction. The quantitative research approach was applied in the study. Data was collected from a sample of 306 customers of Bingiriya division following convenience sampling method in order to assess their expectations and perceptions of service quality and the public satisfaction through structured questionnaire. The model consists of five dimensions such as tangibility, reliability, responsiveness assurance and empathy. The model was tested using the statistical tool of regression analysis. Data analysis revealed that only tangible, reliability, responsiveness, and empathy have a significant impact on customer satisfaction where reliability is the most influential dimension and empathy is the second dimension. Assurance dimension was unable to indicate impact on customer satisfaction in Bingiriya divisional secretariat.

**Keywords:** Customer Satisfaction, Government Services, Service Quality,

### **1. INTRODUCTION**

#### **1.1 Problem**

Divisional secretariats have huge responsibility in dealing with citizens as it is the administrative level of the

central government which is closer to the general public. Customers have a common desire for personalized and close relationship with service providers. It has become increasingly important for divisional secretariats' vision to conceptualize the service

concept beyond the short-term goals to the long-term national values.

The divisional Secretariats have been established to serve the public through the decisions and policies of the government. Where, serving to the satisfaction of general public is the major concern. The Bingiriya divisional secretariat has employed various methods to measure the satisfaction level and the service quality through introducing

suggestion box, appoint an officer to the “customer complaints” subject, obtaining written information (by a form) and so on. However, it can be seen the customer satisfaction level is generally low than expected (Table 2), and also customer complaints increase year by year (Table 1).

**Table 1. Customer Complaints: Divisional Secretariat, Bingiriya**

Year	Customer complaints
2016	32%
2017	41%
2018	48%
2019	51%

Source: Annual Report (2019)

**Table 2. Customer Satisfaction - Divisional Secretariat, Bingiriya**

Section	Satisfaction level of the customers
Admin	60%
Land	40%
Development	68%
Social Service	52%
Samurdhi	70%
Accounts	75%

Source: Annual Report (2019)

Though the Bingiriya Divisional Secretariat has taken several measures to address the customer satisfaction related issues, there is an inadequacy of proper investigation on how its service quality affect on the customer satisfaction. Therefore, the aim of this study is to investigate the impact of service quality on customer satisfaction of Bingiriya Divisional Secretariat.

## 1.2 Objectives of the Research

1. To measure the current level of service quality of the Bingiriya Divisional Secretariat.
2. To evaluate the impact of service quality of the Bingiriya Divisional Secretariat on customer satisfaction.
3. To identify what extent each service quality dimensions influence on customer satisfaction level.

## 1.3 Previous Work

When review the literature on the impact of service quality on customer satisfaction in government sector, the researcher identified several important evidences according to the previous researches. Parasuraman et al., (1991) suggested that when perceived service quality is high, then it will lead to increase in customer satisfaction.

According to the previous researchers, tangibility, reliability, responsiveness, assurance and empathy can be identified as the major dimensions of the service quality (Parasuraman et al., 1991). The SERVQUAL model describes the five variables as follows. Tangibles includes the physical

evidence of the service, physical facilities, appearance of personnel, tools or equipment used to provide the service, physical representations of the service such as a plastic credit card or bank statement, other customers in the service facilities. Reliability refers to as the firm performs the services right the first time and honors its promises. It involves in accuracy in keeping records correctly, performing the service at the designated time (Parasuraman et al, 1985). Parasuraman et al (1985) and Zeithaml et al (2006) have given the definition of responsibilities as it concerns the willingness or readiness of employees to provide service. One of the aspects in the assurance factor is “knowledge to answers questions.” Assurance is a knowledge and courtesy of employees and ability to inspire trust and confidence (Parasuraman et al 1985). SERVQUAL described empathy as “caring, individual attention the firm provides to customers” (Parasuraman et al., 1988; Zeithaml et al 2006: Sureshchandar et al., 2002).

#### **1.4 Research Gap**

After carefully analyzing various research studies conducted so far using the SERVQUAL model, it has been realized that many research work have been carried out in different service industries such as education, restaurants, banking, and health care. However, limited empirical studies have been conducted using the SERVQUAL model to assess service quality and its impact on customer satisfaction in divisional secretariats including Bingiriya divisional secretariat. Therefore it is evident that there is an empirical research gap in

pertinent with the said area. Therefore, the purpose of this study is to analyzing the impact of service quality on customer satisfaction of Bingiriya divisional secretariat.

#### **1.5. Research Model and Hypotheses Development**

In line with the literature, a research model was developed establishing the relationships between service quality and customer satisfaction. Further, relationships were established between each service quality dimension and customer satisfaction (Cronin & Taylor, 1992, Butcher, 2001, Ndubisi, 2006, Bitner, 1990, Caruana, et al, 2000). Resultant hypotheses are given below.

- H<sub>1</sub>: There is a significant impact of tangibility on customer satisfaction.
- H<sub>2</sub>: There is a significant impact of reliability on customer satisfaction.
- H<sub>3</sub>: There is a significant impact of responsiveness on customer satisfaction.
- H<sub>4</sub>: There is a significant impact of assurance on customer satisfaction.
- H<sub>5</sub>: There is a significant impact of empathy on customer satisfaction.

### **2. METHOD**

#### **2.1 Research Approach**

Researcher applied deductive approach in this study, which is concerned with developing hypotheses based on existing theory,

and then designing a research strategy to test the hypotheses. In this study researcher has found the theory from the previous literature and hypotheses have been developed accordingly. Then researcher collected the data from the sample and made conclusions.

## 2.2. Population

Population of this study is the customer of divisional secretariat in 3 months in 2019 and it amount to 2000 customers.

## 2.3. Sample

In this study, sample is consisting with conveniently selected people who came to the divisional secretariat within the duration of 3 months in 2019. The convenience sampling method was used in this study since the names of the customers who came to get the service are not recorded in one place and which prevents from using a probability sampling technique due to the absence of a sampling framework.

A sample of 322 customers was selected according to the 'Morgan's Table' (Krejcie & Morgan, 1970). There are 6 main divisions in the divisional secretariat which provide services. Therefore, a sample was taken from customers who came to those divisions to get services. When selecting respondents from selected divisions, 54 customers were chosen from 4 divisions and 53 customers were chosen from 2 divisions by giving equal chance to those divisions. It is practically impossible to find respondents from each and every division.

Following table shows how the sample is selected from population.

**Table 3. Illustration of the Sample Selection**

Section	No of Customers	Sample Size
1-Land	54	322
2-Admin	54	
3-Development	54	
4-Account	54	
5- Social	53	
6- Samurdhi	53	

Sources: Survey data

## 2.4 Data Collection and Analysis

### 2.4.1. Data Collection

Primary data was used to gather information on both service quality and customer satisfaction. Data was collected through a questionnaire from a selected sample. Questionnaire was developed in order to disclose key indicators which are related to independent and dependent variables to achieve research objectives. Established research instruments were used to measure the variables (Parasuraman, 1988., Olorunniwo, 2006). Secondary data was collected in many ways such as, internet, newspapers, research articles and magazine. Mainly secondary data collected from customer complaints and subject officer's reports.

### 2.4.2. Data Analysis

The present study utilized both descriptive and inferential statistical techniques for data analysis. Descriptive statistics involved central tendency (mean) and measures of



dispersion (variance, standard deviation, skewness). Inferential statistics were included multiple linear regression and correlation coefficient to test the hypotheses.

### 3. RESULTS

#### 3.1. Reliability of the Instrument

Before analyzing the data, reliability test was performed to identify the reliability of each instrument which was used to measure the research variables.

Cronbach's Alpha values for each independent variable (tangibility, reliability, responsiveness, assurance and empathy) and dependent variable (customer satisfaction) were greater than 0.7 (Table 4).

**Table 4. Cronbach's Alpha for independent variables and dependent variable**

Variable	No of items	Cronbach's Alpha value
Tangibility	06	0.895
Reliability	05	0.853
Responsiveness	04	0.832
Assurance	04	0.861
Empathy	04	0.776
Customer Satisfaction	08	0.910

Source: Survey Data

#### 3.2. Hypotheses Testing

In this research study, five hypotheses were developed as stated above and they were tested by using the Pearson

Correlation Coefficient (r) and regression analysis. Summary of results is indicated in table 5.

According to the results of Pearson correlation analysis, correlation coefficient value of tangibility is 0.676\*\* ( $p < 0.05$ ). Hence; tangibility significantly and positively related to the customer satisfaction. According to the regression analysis result, B value of tangibility is 0.167 and it is significant ( $p < 0.05$ ). It means tangibility significantly affects the customer satisfaction. Hence, hypothesis one is accepted.

Reliability correlation coefficient value is 0.747\*\* ( $p < 0.05$ ). Hence, reliability is significantly and positively related to customer satisfaction. According to the regression analysis result, B value is 0.377 and it was significant ( $P < 0.05$ ). It means reliability significantly affects the customer satisfaction. Hence hypothesis two is accepted.

Responsiveness correlation coefficient value is 0.709\*\* ( $p < 0.05$ ). Hence, responsiveness significantly and positively related to the customer satisfaction. According to the regression analysis result, B value is 0.141 and it is significant ( $p < 0.05$ ). It means responsiveness significantly affect the customer satisfaction. Hence hypothesis three is accepted.

Assurance correlation coefficient value is 0.669\*\* ( $p < 0.05$ ). Therefore, it is significantly related to the customer satisfaction. According to the regression analysis result, B value is -0.048 significant value of assurance is 0.508. Its value is greater than 0.05. It means assurance is not

significantly affecting the customer satisfaction. Hence, hypothesis four is not accepted.

According to the results of correlation analysis, correlation coefficient value of empathy is  $0.685^{**}(P<0.05)$ . Therefore, it is significantly and positively related to the customer satisfaction. According to the regression analysis result, B value is 0.206 it is significant ( $P<0.05$ ). It means empathy significantly affects the customer satisfaction. Hence, hypothesis five is accepted.

**Table 5. Coefficients Table - Backward step multiple regression model**

Variable	Pearson correlation coefficient		Regression analysis		Hypo... accepted or rejected
Tangibility	Pearson Correlation	0.676**	(B)	.167	Accepted
	Sig. (2-tailed)	0.000	Sig	0.001	
Reliability	Pearson Correlation	0.747**	(B)	.377	Accepted
	Sig. (2-tailed)	.000	Sig	0.000	
Responsiveness	Pearson Correlation	0.709**	(B)	0.141	Accepted
	Sig. (2-tailed)	.000	Sig	0.036	
Assurance	Pearson Correlation	0.669**	(B)	0.048	Rejected
	Sig. (2-tailed)	.000	Sig	0.508	
Empathy	Pearson Correlation	0.685**	(B)	0.206	Accepted
	Sig.	.000	Sig	0.038	

Sources: Survey Data

## 4. DISCUSSION

### 4.1 Findings

This research is conducted to identify the impact of service quality dimension on customer satisfaction with special reference to Bingiriya divisional secretariat. Study showed that service quality dimensions impact on customer satisfaction in different ways. Correlation coefficient and regression analysis were used to identify the relationship between service quality and customer satisfaction and the impact of service quality dimensions on customer satisfaction. According to Pearson correlation analysis, strong positive significant relationship between service quality and customer satisfaction can be identified as p-value is less than 0.05 level. Further, there is a significant positive relationship between tangibility and customer satisfaction, reliability and customer satisfaction, responsiveness and customer satisfaction, assurance and customer satisfaction and empathy and customer satisfaction. It can be clearly stated there is a strong association between service quality dimensions and the customer satisfaction with respect to the Bingiriya divisional secretariat. Those findings are substantiated by several previous research findings (Rod, 2009; Wang & Shieh, 2006; Marković & Janković, 2013).

Most influential service quality dimension that influence on customer satisfaction can be identified through multiple regression analysis that is calculated through stepwise. The stepwise multiple regression analysis gives the sense to conclude that

customer satisfaction is influenced by the factors of service quality dimensions such as tangible, reliability, responsiveness, and empathy in the Bingiriya divisional secretariat. Finally, the results of this study conclude that reliability can be identified as most critical factor of service quality dimension towards customer satisfaction in Bingiriya divisional secretariat where it has highest contribution towards customer satisfaction when compared with other service quality dimensions. Empathy shows as the next most influential dimension on customer satisfaction in Bingiriya division. However, the service quality dimension of assurance did not indicate significant impact on customer satisfaction in Bingiriya division. As per the previous research, such results may be available due to various reasons and that should be further investigated (Zaim, Bayyurt, & Zaim, 2010).

#### **4.2. Significance, Limitations and Suggestions**

The present study indicates that by handling the service quality dimensions, specifically, the Bingiriya and other divisional secretariats can develop their strategies to improve the satisfaction of publics those who are coming to obtain various services from them. Further, the present study suggests for policy and decision makers of public service in Sri Lanka to consider the difference of importance of service quality dimensions from customer point of view in trying to enhance the service quality as their importance is not alike. Further, future researchers in this line

can extend the present study by avoiding the following limitations.

The present study has several delimitations. It focuses only on the customer satisfaction and the service quality dimension. Accordingly, further research could investigate with more details the service quality dimension and their influence on customer satisfaction. Furthermore, future studies could focus on the dimension of assurance and could examine how the assurance dimensions could drive the satisfaction of customer.

The present research focused only on customer satisfaction in Bingiriya division, so future researches can focus the customer satisfaction in other divisional secretariats as well. Further, alternative data collection techniques can be considered in future studies as respondents indicated hesitation to disclose accurate information, some customers refused to participate in the survey.

#### **5. CONCLUSION**

This research is conducted to identify the impact of service quality on customer satisfaction in Bingiriya division. This study further shows that only four service quality dimensions (Tangible, Reliability, Responsiveness, and Empathy) having an impact on customer satisfaction. Those most influential dimensions will lead to have a higher customer satisfaction. The assurance is the dimension which has no impact on customer satisfaction in Bingiriya divisional secretariat. However, the results of this study can be used for

service quality improvements, strategy innovations and consequently improving customer satisfaction of Bingiriya division specifically.

## REFERENCES

- Annual Report (2019), Divisional Secretariat, Bingiriya.
- Bitner, M. J. (1990). Evaluating service encounters the effects of physical surroundings and employee responses. *Journal of Marketing*, 52(2).pp. 69-82.
- Butcher, K. (2001). Evaluative and relational influences on service loyalty. *International Journal of Service Industry Management*, 12(4), pp.310-327.
- Caruana, A., Money, A.H. and Berthon, P.R. (2000). Service quality and satisfaction- the moderating role of value. *European Journal of Marketing*, 34(11/12), pp.1338-1352.
- Cronin,J.J.,7 Taylor,S. (1992). Measuring Service Quality - A Reexamination And Extension.*Journal of Marketing*. 56.pp.55-68.
- Krejcie,R., & Morgan,D.(1970).Determining sample size for research activities. *Educational and Psychological Measurement*.30.pp.607-610.
- Marković, S. & Janković,S.R. (2013). Exploring the relationship between service quality and customer satisfaction in Croatian hotel industry. *Tourism* 19(2).pp.149-164.
- Ndubisi, N. O. (2006). A structural equation modeling of the antecedents of relationship quality in the Malaysia banking sector. *Journal of Financial Services Marketing*, 11(2).pp. 131-141.
- Olorunniwo,F.O.,&Hsu,M.K(2006).A typology analysis of service quality, customer satisfaction and behavioral intentions in mass services. *Journal of Service Theory and Practice*. 16(2).pp.106-123.
- Parasuraman, A., Zeithaml, V., and Berry, L.L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*,49(4). pp.41-50.
- Parasuraman, A., Zeithaml, V., and Berry, L.L. (1988). SERVQUAL: a multiple item scale for measuring consumer perceptions of service quality. *Journal of Retailing*,34(1).pp.12-40.
- Parasuraman, Berry & Zeithaml. (1994). Alternative Scales for Measuring Service Quality: A Comparative Assessment Based on Psychometric and Diagnostic Criteria. *Journal of Retailing*. 70 (3). pp.201-230.
- Parasuraman,Berry,& Zeithaml(1991). *Refinement and Reassessment*. of the SERVQUAL scale. *Journal of Retailing*, 67(4),pp. 420–450.
- Rod, M., Ashill, N. J., Shao,J &Carruthers, J. (2009). An examination of the relationship between service quality dimensions, overall internet

- banking service quality and customer satisfaction: A New Zealand study. *Marketing Intelligence & Planning*. 27(1).pp.103-126.
- Sureshchandar, G. S., Rajendran, C., & Anantharaman, R. N. (2002). The Relationship between Service Quality and Customer Satisfaction—A Factor Specific Approach. *Journal of Services Marketing*, 16, pp.363-379.
- Wang, I.M & Shieh, C.J(2006). The relationship between service quality and customer satisfaction: the example of CJCUC library. *Journal of Information and Optimization Sciences*. 27(1).pp.193-209.
- Zaim, H., Bayyurt, N., & Zaim, S. (2010). Service Quality And Determinants Of Customer Satisfaction In Hospitals: Turkish Experience. *International Business & Economics Research Journal (IBER)*, 9(5). pp.51-58.

# **The Moderating Effect of the High Involvement Work Systems Between the Relationship of Role Overload and Organizational Citizenship Behavior in Apparel Industry**

**(Special Reference to Katunayake Free Trade Zone)**

**J.K.K.N. Jayakody<sup>1</sup> & B.M. Wijesiri<sup>2</sup>**

<sup>1,2</sup>Department of Business Management

Faculty of Business Studies & Finance

Wayamba University of Sri Lanka

Kuliyapitiya

SRI LANKA

[kavindi.narmada.123@gmail.com](mailto:kavindi.narmada.123@gmail.com)<sup>1</sup>, [bmw@wyb.ac.lk](mailto:bmw@wyb.ac.lk)<sup>2</sup>

## **Abstract**

This study attempted to examine the moderating effect of the high involvement work systems between the relationship of role overload and organizational citizenship behavior in apparel industry. Furthermore, this study examined the relationship between length of service and organizational citizenship behaviour also. Role overload is normal condition among sewing associates in garment field and it is inherent to the industry. The whole organizational success critically lies on the hands of sewing associates. So, it is very important to study, how to minimize negative effect of role overload on organizational citizenship behaviour by implementing a sound high involvement work system. This study followed deductive research approach and conducted among 300 sewing associates from five garment factories in Katunayake free trade zone using a questionnaire. Findings indicated that the negative relationship between role overload and organizational citizenship behaviour is moderated by high involvement work systems and there was a positive relationship between role overload and length of service of the employees.

**Keywords:** Apparel Industry, High Involvement Work System, Organizational Citizenship Behaviour, Role Overload.

## **1. INTRODUCTION**

The challenge of global competition highlights the importance of the concepts such as innovation, flexibility responsive to everlasting change. Organizations seek new areas for sustainable competitive advantage.

Human resources are the most crucial factor to create advantage that cannot be easily duplicated by rivals and specific for each organization. Work behaviors like organizational citizenship behaviors (OCBs) are receiving more attention as they contribute to effective functioning of

organization. OCB, also stated as extra-role performance, is defined as individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization (Organ, 1988).

Employees at times exhibit certain behaviours that go beyond the call of the duty. Role overload is the situation in which individual have to meet the high demands of roles, obligations or tasks that need to be fulfilled within a specific period of time and it is more than what they could perform (Rizzo et al., 1970). HPWS are a set of practices that typically comprise comprehensive recruitment and selection, incentive-based compensation, performance management, extensive employee involvement, and detailed training initiatives (Huselid, 1995). Besides looking at the direct effect between role overload and OCB, the moderating role of high involvement work systems (HIWS) on this relationship was examined. OCB has been shown to have a considerable positive impact on organizational levels of productivity, efficiency and customer satisfaction, enhancing organizational effectiveness.

In addition, OCB is linked to lower rates of employee turnover and absenteeism (Podsakoff et al., 2000). The subject matter which has been subjected to this research popup with the reported abnormal labour turnover rate, absenteeism, and increasing complains directed to employee council by expressing displeasure against Sunday working, abnormal

work load and overtime hours. Evidences are collected from apparel industry that shows increasing trend in turnover which exceeded industry accepted rate of 3%, long absenteeism and negative comments which had been directed to employee council to express displeasure about extra working dates and abnormal work load and OT hours. These all indirect forces represent disfavor regarding performance of job role which has been described in job description even.

Previous studies provide contradictory evidence regarding the relationship between multiple job demands (Coverman, 1989). One of those job demands is role overload and can be defined as the feeling of employees that their work roles are overloaded (Jensen, Patel, & Messersmith, 2013). In addition, role overload is a dimension of job demands of the job demands-resources model (JD-R model). Job demands refer to those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort (Bakker, Demerouti, & Verbeke, 2004). According to Farh, Podsakoff and Organ (1990), role overload has a significant negative relationship with OCB. Based on the literature of Ramsay, Scholarios and Harley (2000) and the Conservation of Resources (COR) theory, it is expected that HIWS will influence the relationship between role overload and OCB negatively, because it will strengthen the feeling of role overload on employees who already feel overloaded instead of enhance



employees' levels of skill, motivation, information and empowerment.

So, through this research researcher expect to investigate how role overload effect on organizational citizenship behaviour with the moderating effect of high involvement work systems.

This study attempted to address the following questions:

- a) To what extent does role overload influence organizational citizenship behaviour?
- b) How is the relationship between role overload and organizational citizenship behaviour moderated by high involvement work systems?
- c) To what extent does length of service influence organizational citizenship behaviour?

Having considered the research questions stated above, and also the significance of the present research, the following objectives were determined.

- a) Identify the extent to which role overload influence organizational citizenship behaviour.
- b) Identify the relationship between role overload and organizational citizenship behaviour moderated by high involvement work systems.
- c) Identify the extent does length of service influence organizational citizenship behaviour.

This is useful for employees, organizations and society because in this way, jobs can be adapted accordingly and employees will be able to show more OCB which leads to higher organizational effectiveness which ultimately also benefits the employees and society overall (McKenzie, Podsakoff, & Fetter, 1993; Podsakoff et al.,

2000). Furthermore, investigating the moderating effect of high involvement work system (HIWS) will give new insights on how the use of human resource (HR) systems can decrease the effect of role overload on the level of OCB in organizations.

## **2. METHOD**

This study involved with the deductive approach and has derived hypotheses based upon the conceptual framework which is based on literature.

The sample of the study consisted of 300 operational level employees by using Morgan table out of 2000 sewing associates under 95% confidence level. The sampling design consisted of stratified sampling. Survey was selected as suitable for this research study where a questionnaires distributed to gather a large volume of data in a cost-effective manner within a short time period.

The study made use of data from both primary and secondary sources. Primary data about organizational citizenship behaviour, role overload and high involvement work systems from the employee's perspective has been collected through questionnaire.



The secondary data related to the above subject matter was

collected from the other research findings who already investigated and books.

After the data gathering, researcher analyzed data in terms of align with the objectives of the study already proposed. Data were analyzed by using statistical package for social science; SPSS version 20 tool. To measure the reliability and validity in this study the researcher uses "Cronbach's Alpha" separately for each variable. To test the normality the researcher used Skewness Coefficient for both independent variables and dependant variable drivers. In this study, data is categorical and not normally distributed. Therefore, examination should be done with the One-Way ANOVA and Chi – Square test results, (Gujarati and Porter 2009). Spearman rank-order correlation analysis was used in this study with respectively to nature of the variables to measure the strength of that relationship with available statistical data. A multiple linear regression will be performed to find the effect between the individual constructs is significant or not. Regression analysis includes many techniques to analyse the relationship between dependent variable and independent variables.  $R^2$  value suggests that total variation of dependent variable is explained by independent variable. F-value suggests the suitability of the regression formula.

### 3. RESULTS

This section comprises with the findings of the study; provides

answers to the research questions in line with the objectives of the research.

H1: The higher the employees' levels of role overload, the lower their organizational citizenship behaviour.

**Table 1. Correlation Test Result**

Correlations				
			Organizational Citizenship Behavior	Role Overload
Spearman's rho	Organizational Citizenship Behavior	Correlation Coefficient	1.000	-.765**
		Sig. (2-tailed)		.000
		N	300	300
	Role Overload	Correlation Coefficient	-.765**	1.000
		Sig. (2-tailed)	.000	
		N	300	300
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 1 presents the correlation test result between the organizational citizenship behaviour and role overload.

According to the Spearman rank-order correlation analysis the role overload is strongly negatively correlated ((Correlation Coefficient is - 0.765) and (Sig. (2-tailed)) is 0.000)) with on organizational citizenship behaviour in apparel industry at 05.00% level of significance.

H2: The negative relationship between role overload and organizational citizenship behaviour is moderated by high involvement work systems.

**Table 2. Correlation Test Result**

Correlations				
			Organizational Citizenship Behaviour	Role Overload x High Involvement Work System
Spearman's rho	Organizational Citizenship Behaviour	Correlation Coefficient	1.000	-.480**
		Sig. (2-tailed)		.000
		N	300	300
	Role Overload x High Involvement Work System	Correlation Coefficient	-.480**	1.000
		Sig. (2-tailed)		.000
		N	300	300
** Correlation is significant at the 0.01 level (2-tailed).				

Table 2 presents the correlation test result between the organizational citizenship behaviour and role overload x high involvement work system

According to the Spearman rank-order correlation analysis, role overload x high involvement work system is negatively correlated ((Correlation Coefficient is - 0.480) and (Sig. (2-tailed)) is 0.000)) with on organizational citizenship behaviour in apparel industry at 05.00% level of significance.

Further, role overload x high involvement work system is weakly negatively correlated with

organizational citizenship behaviour in apparel industry. It indicates; the high involvement work system is decreased the negative effect of the role overload on the organizational citizenship behaviour in apparel industry. Therefore, there is a moderating effect of the high involvement work system between the relationships of the role overload and the organizational citizenship behavior in apparel industry (Special reference to Katunayake free trade zone).

H3: The higher the employees' length of service, the higher their organizational citizenship behavior.

**Table 3. Correlation Test Result**

Correlations				
			Organizational Citizenship in Behaviour r	Length of Service
Spearman's rho	Organizational Citizenship in Behaviour r	Correlation Coefficient	1.000	.938**
		Sig. (2-tailed)		.000
		N	300	300
	Length of Service	Correlation Coefficient	.938**	1.000
		Sig. (2-tailed)	.000	
		N	300	300
**. Correlation is significant at the 0.01 level (2-tailed).				

Table 3 presents the correlation test result between the organizational citizenship behaviour and length of service.

According to the Spearman rank-order correlation analysis, length of service is strongly positively correlated ((Correlation Coefficient is 0.938) and (Sig. (2-tailed)) is 0.000)) with organizational citizenship behaviour in apparel industry at 05.00% level of significance.

**Table 4. Model Summary**

<b>Model Summary<sup>b</sup></b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901 <sup>a</sup>	.812	.811	.11874
a. Predictors: (Constant), Length of Service, Role Overload				
b. Dependent Variable: Organizational Citizenship Behaviour				

Table 4 presents the model summary without the moderating effect of the high involvement work system

According to the table of model summary, the selected independent variables are explained the total variation of the organizational citizenship behaviour: a case of Sri Lanka by 81.10%.

**Table 5. Regression Coefficients**

<b>Coefficients<sup>a</sup></b>					
Model		Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error		
1	(Constant)	3.073	.168		18.347
	Role Overload	-.268	.042	-.246	-6.314
	Length of Service	.150	.008	.699	17.916
a. Dependent Variable: Organizational Citizenship Behaviour					

Table 5 present regression coefficients without the moderating effect of the high involvement work system

According to the regression results; the Factors such as role overload and length of service have a significant impact on organizational citizenship behaviour: a case in Sri Lanka at 05.00% level of significance.

Regression equation for the estimated model without the moderating is

$$OCBi = 3.073 - 0.268 \times X1 + 0.150 \times X2 + \epsilon$$

**Table 6. Model Summary**

<b>Model Summary<sup>b</sup></b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.898 <sup>a</sup>	.807	.805	.12057
a. Predictors: (Constant), Length of Service, Role Overload x High Involvement Work System				
b. Dependent Variable: Organizational Citizenship Behaviour				

This presents model summary with the moderating effect of the high involvement work system.

According to the table of model summary, the selected independent variables are explained the total variation of the organizational citizenship behaviour: a case of Sri Lanka by 80.50%.

**Table 7. Regression Coefficients**

Coefficients <sup>a</sup>					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error		
1	(Constant)	2.253	.046		.49.22
	Role Overload x High Involvement Work System	-.019	.004	-.149	-.5.45
	Length of Service	.179	.006	.834	30.498
a. Dependent Variable: Organizational Citizenship Behaviour					

Table 7 presents regression coefficients with the moderating effect of the high involvement work system

Regression coefficients represent the change in the response variable for one unit of change in the independent or predictor variable while holding other predictors in the model are constant.

According to the regression results; the factors such as role overload x high involvement work system and length of service have a significant impact on organizational citizenship behaviour: a case in Sri Lanka at 05.00% level of significance.

Regression equation for the estimated model with the moderating effect is

$$OCBi = 2.253 - 0.019 \times X1 + 0.179 \times X2 + \epsilon$$

#### 4. DISCUSSION

According to the Spearman rank-order correlation analysis the role overload is strongly negatively correlated

((Correlation Coefficient is - 0.765) and (Sig. (2-tailed)) is 0.000)) with on organizational citizenship behaviour in apparel industry at 05.00% level of significance. The reason for - 0.765 coefficient is an employee feels, he is suffering from role overload it actually creates a negative impact on the organizational citizenship behaviour. So, it is clear that role overload adversely impacts on organizational citizenship behaviour.

As per the Spearman rank-order correlation analysis, length of service is strongly positively correlated ((Correlation Coefficient is 0.938). Actually, when an employee work for an organization for a long period of time he shows a loyal behaviour towards the organization. If someone settle his employment as a life time employment with the organization actually it creates a strong effect to work as more loyal.

According to the Spearman rank-order correlation analysis, role overload x high involvement work system is negatively correlated ((Correlation Coefficient is - 0.480) and (Sig. (2-tailed)) is 0.000)) with on organizational citizenship behaviour in apparel industry at 05.00% level of significance. Further, role overload x high involvement work system is weakly negatively correlated with organizational citizenship behaviour in apparel industry. It indicates; the high involvement work system is decreased the negative effect of the role overload on the organizational citizenship behaviour in apparel industry. Therefore, there is a moderating effect of the high involvement work system between the

relationships of the role overload and the organizational citizenship behavior in apparel industry (Special reference to Katunayake free trade zone). The reason is, strength of the negative outcomes of role overload is positively moderated by the employee oriented high involvement work system. It tells even though some one is suffering from the role overload, if he is provided benefits and comfort for his work through the high involvement work system, he shows the loyal behaviour. Correlation Coefficient - 0.765 is reduced up to - 0.480 by implementing high involvement work system.

## 5.CONCLUSION

This study aimed to give insight into the relationship between role overload and OCB and into how HIWS moderates this relationship. This is important because OCB has been shown to have a positive impact on organizational effectiveness (Podsakoff et al., 2000). In addition, OCB is linked to lower rates of employee turnover and absenteeism and on the organizational level it is linked to increased productivity, efficiency and customer satisfaction (Podsakoff et al., 2000).

Even though the mainstream view is that HPWS are beneficial for organizations, an alternative theoretical perspective has developed that challenges the “rhetoric versus reality” of HPWS. This perspective suggests that HPWS, which are aimed at creating a competitive advantage for organizations, do so at the expense of individual employees, thus resulting in role overload, burnout, and heightened

pressure for individuals (Godard, 2001, 2004; Gould-Williams, 2007; Kroon, van de Voorde & van Veldhoven, 2009; Ramsay, Scholarios & Harley, 2000). From this vantage point HPWS may have some deleterious consequences for individual employees. However, we argue that these consequences may be tempered when HPWS are implemented with a sufficient amount of job control, or discretion given to employees in determining how to implement job responsibilities (Karasek, 1979). This study accepts the view of mainstream and contradict to the alternative view by showing positive effect of HIWS.

According to the findings of the study, it is concluded that there is a moderating effect of high involvement work system between the relationship of role overload and organizational citizenship behaviour.

Accordingly, the negative relationship between role overload and organizational citizenship behaviour is moderated by high involvement work systems. And there is a positive relationship between length of service and organizational citizenship behaviour.

And researcher suggest following recommendations for improving organizational citizenship behaviour. In the researcher point of view, role overload in apparel sector can't be totally eliminated. As well as role overload negatively effect on organizational performance in long time and loyalty toward the organization. So, by implementing a high involvement work system

including green human resource policies and practices which are focused on not only productivity but also on human perspective also. And implementing employees' council in each month as compulsory. This is the occasion for the employees to raise their voice against the problems which has been faced by them and ensure, take immediate decision before it become a dispute with the union intervention and not to take partial decision. It will secure the organizational citizenship behaviour. As well as conduct events which add a value their personal lives also e.g. anti-drug campaigns. And let them to work under flexible work environment. By implementing these kinds of actions, organizations can enhance the organizational citizenship behaviour.

## REFERENCES

- Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human resource management*, 43(1), 83- 104.
- Coverman, S. (1989). Role overload, role conflict, and stress: Addressing consequences of multiple roles demands. *Social forces*, 965-982. doi: 10.2307/2579710.
- Farh, J. L., Podsakoff, P. M., & Organ, D. W. (1990). Accounting for organizational citizenship behavior: Leader fairness and task scope versus satisfaction. *Journal of management*, 16(4), 705-721.
- Godard, J. 2001. High performance and the transformation of work: The implications of alternative work practices for the experience and outcomes of work. *Industrial and Labor Relations Review*, 54: 776-805.
- Gould-Williams, J. S. 2007. HR practices, organizational climate and employee outcomes: Evaluating social exchange relationships in local government. *International Journal of Human Resource Management*, 18: 1627-1647.
- Gujarati, D. N., Porter, D.C. (2009). *Basic Econometrics* 5<sup>th</sup> Edition, McGraw Hill Inc., New York.
- Huselid, M. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3).
- Jensen, J. M., Patel, P. C., & Messersmith, J. G. (2013). High-performance work systems and job control: Consequences for anxiety, role overload, and turnover intentions. *Journal of Management*, 39(6), 1699-1724.
- Karasek, R. A. 1979. Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24: 285-308.
- Kroon, B., van dVoorde, K., & van Veldhoven, M. 2009. Cross-level effects of

- high-performance work practices and burnout: Two counteracting mediating mechanisms compared. *Personnel Review*, 38: 509-525.
- MacKenzie, S. B., Podsakoff, P. M., & Fetter, R. (1993). The impact of Organizational citizenship behaviour on evaluations of sales performance. *Journal of Marketing*, 57:70–80.
- Organ, Dennis W. 1988. *Organizational Citizenship Behavior: The Good Soldier Syndrome*. Lexington MA: Lexington Books.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J.B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of management*, 26(3), 513-563.
- Ramsay, H., Scholarios, D., & Harley, B.(2000). Employees and high-performance work systems: Testing inside the black box. *British Journal of Labour Relations*, 38: 501- 531.
- Rizzo, J. R., House, R. J., & Lirtzman, S. I. (1970). Role conflict and ambiguity in complex organizations. *Administrative Science Quarterly*, 15(2), 150-163



## **The Impact of Green Marketing Components on Corporate Image of Green Certified Hotels in Sri Lanka**

**B.A.G.S.N. Wijewardena<sup>1</sup> & U.L. Herat<sup>2</sup>**

<sup>1,2</sup>Department of Business Management

Faculty of Business Studies & Finance

Wayamba University of Sri Lanka

Kuliyapitiya,

SRI LANKA.

[sureshnilupulw@gmail.com](mailto:sureshnilupulw@gmail.com)<sup>1</sup>, [umangi@wyb.ac.lk](mailto:umangi@wyb.ac.lk)<sup>2</sup>

### **Abstract**

The green concept is becoming a popular concept in today's world as nowadays people is more concern on environmentally friendly products and services. With that trend many industries are encouraged to adopt green marketing concept in their activities. When applying green marketing practices, the Hotel industry in Sri Lanka has a key role to play, as it is considered as the largest resource consuming industry in Sri Lankan context. There have been limited previous researches specifically studied in Sri Lanka on the subject of green marketing in the hotel industry. Most of the studies are available in other countries and in various industries but not in Sri Lankan context, hence there is a need in empirical evidences to examine the impact of green marketing components on corporate image. Therefore, this study intended to examine the impact of green marketing components on corporate image of green certified hotels in Sri Lanka. After critical review of literature, three factors, green/eco-friendly activities, corporate communication of green practices and green image were selected as the independent variables. The primary data were collected from 384 customers who had been visited green certified hotels in Sri Lanka by using a generalized questionnaire and convenience sampling technique. Data analysis was done by using multiple regression analysis. The findings proved green/eco-friendly activities, corporate communication of green practices and green image factors positively and significantly impact on corporate image of green certified hotels in Sri Lanka. Thus it emphasizes hoteliers in Sri Lanka should increase the eco-friendly services, green label products, and increase the energy conservation in order to increase their corporate image. Therefore, the information of this study will be more beneficial to managers of green certified hotels in Sri Lanka in order to retain and attract more eco tourists to Sri Lanka by improving their corporate image using these green marketing components and moreover the findings will be vital for future researchers to extend their studies in green marketing and corporate image in hotel industry.

**Keywords:** Corporate Communication of Green Practices, Corporate Image, Green/eco-friendly Activities, Green Image , Green Marketing,



## 1. INTRODUCTION

The concept Sustainability has become a global matter of concern in today's world. When considering the concept of sustainability, the term Environmentally friendly /eco-friendly, come into the practice as it is a term which comes under the concept of sustainability (Adil, 2017). With that today, the world is shifting towards the green concept that is primarily connected with the eco concept, which focuses on enhancing resource efficiency while reducing the effect on human health, productivity and the environment. (Burchell & Cook, 2006). Nowadays that green concept has become a matter of concern in every field and it has become one of the most important topic in academic research (Hartmann, *et al.*) as well. There are number of studies that emphasized the benefits of implementing green marketing practices to their organizations. According to (Ottman, 1994), green marketing supports organizations in different ways, such as having a positive effect on corporate image and thus consumer intention to revisit to the firm, increasing operational efficiency, competitive advantage, helping the company to become more effective, improving brand value, provide platform for innovation, help attract and retain employees, cut costs and strengthen stakeholder relations. Green marketing affects all areas of economy, it does not just lead to environmental protection but it also creates new market and job opportunities. Companies that are environmental concern stand a chance of gaining many satisfied and loyal customers.

“Green Marketing” is a holistic management process that is accountable for meeting customer and society requirements and needs in a profitable and sustainable manner (Do Paco & Raposo, 2009). Also (Sharmila, 2016), mentioned that environmental problems are one of the reasons why the green marketing emerged. Society became more concerned with natural environment and for eco-friendly purchases, so that business has started to modify their behavior in order to address societies’ new concern (Choudhary & Gokarn, 2013). Therefore, it is vital to conduct a research to find out the impact of green marketing components on cooperate image of the hotel industry in Sri Lanka as it is the largest resource consuming industry (energy, water, material, and food) and generating disproportionate amount of waste.

### 1.1 Research Problem

Like the many industries in today s world, Hotel industry is also considering to be more eco-friendly, as it is a significant consumer of energy, water and other non-durable products (Manaktola, 2007). According to annual statistical report of Tourist Board (2017) Sri Lanka, hospitality sector known as the largest resource consuming industry (energy, water, material, and food) and generating disproportionate amount of waste. According to Wadippuliarachchi *et al.*, 2015 Sri Lanka is currently experiencing less number of eco-tourists, and it is less than 1% over last decade, that is mainly due to the poor practice of the green concept by the eco-hoteliars. Therefore, the hotels in Sri Lankan

hotel industry has a vital role to play in adopting green concept in their activities to attract eco tourists to their hotels.

Researches and managers know relatively less about how green marketing improve corporate image (Yadav, *et al.*, 2016). According to Burchell & Cook, 2006, although green marketing/eco-friendly initiatives are gaining popularity as a strategic initiative in the hospitality sector, there is a lack of studies that have explored the effect of green marketing on the corporate image. Also, according to Sivesan, *et al.*, 2013, the studies on green marketing are in the early stages even in developed countries and there is a need of doing research on green marketing. Moreover, the concept sustainability is more popular in the developed nations, but there is a need of doing research to establish the level of understanding the green concept in the developing nations, as the majority of population belongs to developing nations (Manaktola, 2007).

Though there are many hotels in Sri Lanka only 13 hotels were considering as the LEED hotels (Leadership in Energy and Environmental Design), which is a globally recognized symbol of sustainability achievement, where it is a structured assessment of the sustainability performance of travel and tourism businesses and given for their supply chain partners in Sri Lanka. Therefore, when considering the above gaps, it is evident that there is need for identification of the impact of green marketing components on corporate image of green certified hotels in Sri Lanka.

## **1.2 Research Objectives**

1. To investigate the positive and significant impact of green/eco-friendly activities on corporate image of green certified hotels in Sri Lanka.
2. To investigate the positive and significant impact of corporate communication of green practices on corporate image of green certified hotels in Sri Lanka.
3. To investigate the positive and significant impact of green image on corporate image of green certified hotels in Sri Lanka.

## **1.3 Contribution of the paper**

This research study is important to managers of hotels in Sri Lanka in order to retain and improve the arrivals of eco tourists to Sri Lanka by improving their corporate image using green marketing. Since Sri Lanka is a country with cultural and natural diversity, it has the ability to develop the green concept in hotel industry better than other destinations (Wadippuliarachchi, *et al.*, 2015).

Therefore, this study guide managers of hotel industry to identify which green marketing components should be used to create a better image of green certified hotels in Sri Lanka, hence it is needed to conduct this research of investigating the impact of green marketing components on corporate image of green certified hotels in Sri Lanka.

## 1.4 Literature Review

### Corporate image

Corporate image can be defined as the combination of various variables that indicate and communicate the corporate identity (Karaosmanoglu & Melewar, 2006). It is a person's private assessment of the organization that includes a set of views, emotions and feelings (Dowling, 2001). The word "corporate image" is frequently used with the word "corporate reputation" as all components of the company viewed by the customers. (Kang & Yang, 2010). Researchers have proved that by developing a favorable image, a firm can create a positive attitude towards its product and services and it is also regarded as an organization's strategic resource (Balmer, 2012).

It is proved in many articles that business image plays a critical role in the consumer's buying behavior. Existing empirical studies indicate that the corporate image of a hotel also contributes to a more positive behavioral intention (i.e. revisit intention) (Han & Kim., 2010): (Han, *et al.*, 2010). Behavioral intention is described as the likelihood of people engaging in a particular undertaking and when behavioral intentions are positive, a high probability of a customer revisiting the hotel and spreading positive word-of-mouth is high also in long run, hence that will contribute to increase the profitability of hotels (Jani, 2013).

### Green/ Eco-friendly Activities.

Organizations' environmentally-friendly activities reveal environmental concerns and are

regarded to be the significant efforts made by organizations, and CSR activities are properly used to contribute to improving the image and market position of the companies (Fraj-Andres & E., 2012). Organizations that invest in environmental issues can be a better picture and represent the concern of the organization for the good of society (Chen, 2010) pointed out that the environmental participation of company organizations helps an organization to build its corporate image.

### Corporate communication of green practices

Corporate communication of green practices provides a structure for the efficient coordination of all inner and external communication with the aim to create and maintain a positive reputation for stakeholder organizations that are dependent on the organization (Cornelissen, 2008). Marketers should emphasize the correct and efficient communication of hotel green / ecological tasks and communication is a very significant element to the achievement of environmentally friendly products / services. (Pickett & Kangun, 1995).

### Green Image

According to (Chen, 2010) Green Image is "a set of perceptions of brand in consumer's mind that is linked to environmental commitment and environmental concerns". Many organizations engage in eco-friendly activities and create a green image with environmental organizations (Jani, 2013). Green image is vital for businesses particularly in the context

of common consumer awareness of environmentalism and serious global environmental protection laws (Chen, 2010) There has also been a fact that third parties can enhance the general picture of hotels by certifying environmental standards (Choudhary & Gokarn, 2013).

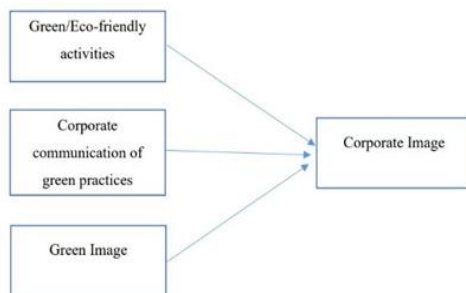
## 2.METHODS

### 2.1 Research approach

The deductive approach is used by the researcher for the present study. In this quantitative method, it was identified research gap and after that hypotheses were built for further analysis. Then hypotheses were tested and based on those conclusions, recommendations were provided.

### 2.2 The Conceptual Model

After a critical review of literature, the developed conceptual model can be depicted as follows



**Figure 1. Conceptual Framework**

### 2.3 Hypotheses

The following hypotheses are formulated to findout the answer for the research questions of what extent the green/eco-friendly activities,

corporate communication of green practices and green image affects the corporate image of green certified hotels in Sri Lanka.

H1: There is a positive and significant impact of green/eco-friendly activities on corporate image of green certified hotels in Sri Lanka

H2: There is a positive and significant impact of corporate communication of green practices on corporate image of green certified hotels in Sri Lanka

H3: There is a positive and significant impact of green image on corporate image of green certified hotels in Sri Lanka

### 2.4 Population and Sampling technique

The target population of this study are the customers who had been visited green certified hotels in Sri Lanka. Since the population is unknown for this research study the formula which was developed by Cooper & Schindler, 2008 was used to calculate the sample size as 384. Under the non-probability sampling technique, convenience method was used to collect data among those customers.

### 2.5 Data Collection and Analysis

In this study primary data were collected through a generalized questionnaire as an online survey by using the Facebook as a communication tool, because many researchers have proved that Facebook as an effective mean of data collection for its high response rate and increase relevance over time as a communication tool. (Balmer, 2012).

In this study, the multiple linear regression was used to investigate the impact of green marketing components on corporate image of green certified hotels in Sri Lanka.

Reliability was examined on all items included in the questionnaire by using the cronbach's alpha value.

### 3. RESULTS

The Cronbach's alpha value indicated that all three variables are within the acceptable range of consistency and it can be depicted as follows.

**Table 1. Cronbach's Alpha Values**

Variable	Cronbach's Alpha	Number of Items	Strength
Green/eco-friendly activities	0.806	4	Accepted
Corporate Communication of green efforts	0.865	4	Accepted
Green Image	0.795	5	Accepted
Corporate Image	0.702	5	Accepted

Further testing assumptions of multivariate analysis of linearity, homoscedasticity and normality ensured the suitability of dataset. The multicollinearity, Variance Inflation Factor (VIF) of all variables and tolerance values for all the observed variables are greater than 0.10, which are in acceptable range.

#### 3.1 Bivariate Analysis

With the intention of identifying the relationship among variables in terms of its significance, direction, and strength of association Pearson correlation analysis was used.

**Table 2. Results of the Correlation Analysis**

		Correlations			
		GA	CC	GI	CI
GA	Pearson Correlation	1			
CC	Pearson Correlation	.718**	1		
GI	Pearson Correlation	.737**	.717**	1	
CI	Pearson Correlation	.757**	.692**	.746**	1

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

According to the Table 2 it indicated that all the variables are positively and significantly related to each other. The results of the bivariate analysis provide a firm basis for continuing further analysis.

#### 3.2 Regression Analysis

##### Model Summery

**Table 3. Results of the Model Summery**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.814 <sup>a</sup>	0.663	0.659	0.29370

The "Adjusted R square" value of the table explains the multiple regression coefficient, which is 0.659, and it shows a positive relationship between independent variables and dependent variable. The "Adjusted R square" value indicates how much of the dependent variable, Corporate image

can be explained by the independent variables of green/eco-friendly activities, corporate communication of green practices and green image. According to the above table, 81.4% of Corporate Image can be explained by the above mentioned four independent variables.

### Analysis of Variance (ANOVA)

**Table 4. Results of the Analysis of Variance**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	48.182	3	16.061	186.197	.000 <sup>b</sup>
Residual	24.497	284	0.086		
Total	72.679	287			

Based on the output in ANOVA table p-value of under the SPSS (0.000) is less than the critical p value (0.05) hence can be concluded the model is statistically significant.

### Multiple Regression Analysis

**Table 5. Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.472	0.120		12.301	0.000
Green/eco-friendly activities	0.288	0.042	0.381	6.846	.000
Corporate communication of green practices	0.116	0.036	0.173	3.204	.002
Green Image	0.267	0.043	0.341	6.143	.000

$$CI = \beta_0 + \beta_1 (GA) + \beta_2 (CC) + \beta_3 (GI) + \epsilon$$

$$Y = 1.472 + 0.381(GA) + 0.173(CC) + 0.341(GI)$$

CI/Y = Corporate Image

$\beta_0$  = Intercept of the equation

GA/X1 = Green/eco-friendly activities

CC/X2 = Corporate communication of green practices

GI/X3 = Green Image

$\epsilon$  = Error

$\beta$  value represents the extent to which the value of the independent variable contributes to the variance of the dependent variable.

The constant has the unstandardized  $\beta$  value as 1.472. It indicates the value of the corporate image, when all of the independent factors remain constant.

The main objective of this study was to investigate the impact of green marketing components on corporate image of green certified hotels in Sri Lanka. Therefore, the first objective was to investigate the impact of green/eco-friendly activities on corporate image of green certified hotels in Sri Lanka. With  $\beta$  coefficient value of 0.381 and p-value of 0.000, which is less than 0.05. This shows that green activities give a positive & significant impact on corporate image of the hotels in the minds of the consumer with accepting H1.

The second objective was to examine the impact of corporate communication of green practices on corporate image of green certified hotels in Sri Lanka. The  $\beta$  coefficient of 0.173 and p-value of 0.002, which is less than 0.05, corporate



communication of green practices was proven to bring the positive & significant impact to corporate image of the green certified hotels in the minds of the consumers in Sri Lanka with accepting H2.

According to third objective in this study, it should be investigated the impact of green image on corporate image of green certified hotels in Sri Lanka. With  $\beta$  coefficient value of 0.341 and p- value 0.000, it can be identified there is a positive & significant impact of green image on corporate image of green certified hotels in Sri Lanka while accepting H3

A total of 384 survey questionnaires were distributed to the target consumers of which 288 acceptable questionnaires were received back from them with the effective response rate of 75%. Considering major findings of the study, it can be identified green/eco-friendly activities, corporate communication of green practices and green image are positively & significantly impact on corporate image of green certified hotels in Sri Lanka.

#### **4. DISCUSSION**

Green practices are one of the significant concepts among several industries and Sri Lankan hotel industry also no omission. When society is more concern on environmentally friendly products and services the hotel industry in Sri Lanka has a key role play in applying green marketing components as it is

the largest resource consuming industry in Sri Lankan context.

The major purpose of this study is to investigate the impact of green marketing components on corporate image of green certified hotels in Sri Lanka. According to the analysis, it was found that green/eco-friendly activities, corporate communication of green practices and green image factors positively and significantly impact on corporate image of green certified hotels in Sri Lanka.

#### **5. CONCLUSION**

There have been limited previous researches specifically studied in Sri Lanka on the subject of green marketing in the hotel industry. Most of the studies are available in other countries and in various industries but not in Sri Lankan context. Accordingly, the researcher attempted to fill that empirical gap from this study.

The findings of the study are very useful for the marketers and managers in the hotel industry to give their attention on green/eco-friendly activities in hotels in order to attract more eco-tourists to Sri Lanka. Hoteliers should increase the eco-friendly services, increase the use of products which are certified with green label in order to increase their corporate image.

According to this study as it indicated that there is a positive & significant relationship between corporate communication of green practices on corporate image, hotels should

communicate their green practices through a varied channel such as electronic media, printing and client relations. Also they can concentrate on marketing and the planning of their green practices and can get the support from the sponsors for the events which are related to environment.

Since it indicated that green image also has a positive and significant impact on corporate image, hoteliers should give their consideration on green marketing in order to create a green image for the success of green marketing in Sri Lankan hotel industry.

Although the present study has added to the existing body of knowledge in the hospitality sector, more specifically in a developing country like Sri Lanka, the study has several limitations.

In the present research, three components, were only selected to test the impact on corporate image. In future research, characteristics such as the green partnership and employee attitudes may also be taken into account, which could influence the corporate image of hotels. In this research, the sample was limited to a total of 288 and it is recommended for future researchers to select large number of customers using other sampling technique.

## REFERENCES

- Adil, F., 2017. Renovation for the Sustainability. *Journal of Clearner Prduction*.
- Balmer, J., 2012. "Strategic corporate brand alignment: perspectives from identity based views of corporate brands. *European Journal of Marketing*, 8(46), pp. 1064-1092.
- Burchell, J. & Cook, J., 2006. It's good to talk? Examining attitudes towards corporate social responsibility dialogue and engagement processes. *Businss Ethics: A European Review*..
- Chen, Y., 2010. The drivers of green brand equity: green brand image, green satisfaction. *Journal of Business Ethics*, 93(2), pp. 307-319.
- Choudhary, A. & Gokarn, S., 2013. GREEN MARKETING: A MEANS FOR SUSTAINABLE DEVELOPMENT. *International Refereed Research Journal*.
- Cooper & Schindler, 2008. *Business research methods*, New York: McGraw-Hil.
- Cornelissen, J., 2008. *Corporate Communication*. London: Sage.
- Do Paco & Raposo, M. a., 2009. "Identifying the green consumer: a segmentation study. *Journal of Targeting, Measurement and Analysis for Marketing*.
- Dowling, G., 2001. *Creating Corporate Reputation*, Oxford: Oxford University Press.
- Fraj-Andres & E., L.-P., 2012. Company image and corporate social responsibility:reflecting with SMEs" managers. *Marketing Intelligence and Planning*, 30(22), pp. 266-280.



- Han & Kim., 2010. An investigation of green hotel customers' decision formation.. *International Journal of Hospitality Management*.
- Han, L., Schneider & Chang., 2010. Understanding how consumers view green hotels: how a hotel's green image can influence behavioural intentions.. *Journal of Sustainable Tourism*..
- Hartmann, P., Ibanez, V. & Sainz, F., n.d. Green branding effects on attitude: functional versus emotional positioning strategies. *Marketing Intelligence & Planning*, Volume 23, pp. 9-29.
- Jani, D., 2013. Personality, social comparison, consumption emotions, satisfaction, and behavioral intentions. *International Journal of Contemporary Hospitality Management*.
- Karaosmanoglu, E. & Melewar, T., 2006. Corporate communications, identity and image: a research agenda. *Journal of Brand Management*., pp. 196-206.
- Manaktola, K. a., 2007. Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*.
- Ottman, J., 1994. *Green Marketing*. Lincolnwood: NTC Business Books..
- Pickett & Kangun, 1995. *An examination of the conserving consumers: implications for public policy formation on promoting conservationbehaviour*, s.l.: Environmental Marketing.
- Sharmila, 2016. A study on importance and need of green marketing. *International Journal of Academic Research and Development*, 1(9), pp. 102-106..
- Sivesan, S., Achchuthan, S. & U. R., 2013. Green Marketing Practicesand Customer Satisfaction: A Special Reference to Leather Goods. *Global Journal of Management and Business Research Accounting and Auditing*, .
- Wadippuliarachchi, R. S., Yajid, M. S. & Khatibi, A., 2015. Eco-Tourism Practicein Sri Lankan Eco Resorts: An Analysis of Satisfaction and Behavioural Intention of Eco Tourists. *International Journal of Business and SocialScience*.
- Yadav, R., Dokania, A. K. & Pathak, G. S., 2016. The influence of green in building corporate image : Evidences from hospitality industry in a developing nation. *International Journal of Contemporary Hospitality Management*.

## Perceived Academic Stress Among University Undergraduates in Sri Lanka

S.M.N. Praveeni<sup>1</sup> & H.M.A.J. Herath<sup>2</sup>

<sup>1</sup>Department of Business Management  
Faculty of Business Studies & Finance  
Wayamba University of Sri Lanka  
Kuliyapitiya  
SRI LANKA

<sup>2</sup>ICT Center, Wayamba University of Sri Lanka  
Kuliyapitiya  
SRI LANKA  
[praveeni@wyb.ac.lk](mailto:praveeni@wyb.ac.lk)<sup>1</sup>, [akila@wyb.ac.lk](mailto:akila@wyb.ac.lk)<sup>2</sup>

### Abstract

The purpose of the study was to investigate the levels of Perceived Academic Stress (PAS) among undergraduate students in Sri Lanka. Systematic random sampling was used to select 497 undergraduate students from the universities to participate in the study. Data on PAS were collected with the aid of the Perceived Academic Stress Scale (PASS) which was adapted from Cohen (1994) and re-validated for the study. Data were collected through previously validated questionnaire and were analyzed with descriptive and inferential statistics. The PAS levels of the respondents were compared on the basis of gender and level of study. The hypotheses formulated for the study were tested at 0.05 level of significance. The findings revealed that undergraduate students reported higher academic stress levels and negatively related with the Academic Performance (AP). It is important that students should be counseling and trained to manage stress effectively otherwise it can adversely influence their AP.

**Keywords:** Academic Performance, Perceived Academic Stress, University Undergraduates, Sri Lanka

### 1. INTRODUCTION

Stress has become a significant topic in academic circle as well as in our society. Many scholars in the field of behavioural science have carried out extensive research on stress and its outcomes and concluded that the topic

needed more attention (Rees & Redfern, 2000; Ellison, 2004; Ongori & Agolla, 2008; Agolla, 2009). Stress in academic institutions can have both positive and negative consequences if not well managed (Tweed et al., 2004; Stevenson & Harper, 2006).

Academic stress refers to the unpleasant situations that occur due to the many demands made on the students or learners in the form of examinations, maintaining healthy and academic lives, competing with peers, meeting the academic expectations of teachers and parents as well as own academic expectations. Bisht (as cited in Lal, 2014), defined PAS as demands related to academics that tax or exceed the available resources (internal and external) as cognitively viewed by the student involved. According to her, PAS reflects perceptions of an individual's academic frustration, academic conflict, academic pressure and academic anxiety.

Education is the most powerful path in acquiring knowledge, skills and nurturing positive attitudes. Proper educational level enhances productivity of any country. University education enhances the human capital of the country. If students drop out from the universities, they face difficulties in finding suitable jobs from the labour market. This leads to other social problems such as youth frustration, stress and anti-governmental activities. On the other hand, this situation hinders the development of the labour market and ultimately it affects Previous empirical studies

Previous empirical studies show that some undergraduate students significantly experience stress (Brown et al., 1999). First-year university students were found to be particularly

prone to stress (Towbes & Cohen, 1996; Pancer et al., 2000; Wintre & Yaffe, 2000) and experience high levels of stress (Wintre & Yaffe, 2000) due to the college life transition (Towbes & Cohen, 1996). Many of them face culture shock as university life is different from school life. Failing to cope with the stressors during the transition may cause deterioration of AP and increase of psychological distress (Dwyer & Cummings, 2001). The increase in stress during the first year predicted the decrease of overall adjustment and lower grade point average (GPA) (Wintre & Yaffe, 2000). Students tend to lose self-confidence having to establish new social relations and at the same time trying to cope with the increasing academic demands (Tao et al., 2000; Dwyer & Cummings, 2001).

Many researches were conducted to assess the relationship between stress and AP of undergraduate students and it is found that stress affects students' AP (Elliot et al., 2005; Choi et al., 2007). Students complained of feeling stressed academically when it comes to facing exams and grade competition and having too much information to study yet insufficient time to master the knowledge (Carveth et al., 1996). Bennett (2003) reported a similar finding that stress is significantly correlated with poor AP in his study of business undergraduates. Nonetheless, no any clear-cut evidences on how PAS impact on students AP in the Sri Lankan context. The need to embark on this study is thus justified.

Thereby, the aim of this paper is to examine and evaluate the level of PAS and relationship with AP of university Undergraduates in Sri Lanka.

## 2. LITERATURE REVIEW

AP is the outcome of education; the extent to which a student, teacher or institution has achieved their educational goals (Annie, Howard & Mildred, 1996). Usually, university undergraduate AP is expressed in terms of GPA that is the mean of marks from weighted course units contributing to the assessment of the final degree programme. Self-reported GPA which is not only as an indicator of student learning but also as a predictor of AP and other important life outcomes (Helsper & Eynon, 2010).

Academic performance is affected by several factors, whether internal or external (Bello & Gumarao, 2016). Stress is one of the factors that affect the AP of students.

The processes and variables that drive the experience of stress have received considerable attention in psychological research (Lazarus, 1993). According to the transactional theory of stress (Lazarus & Folkman, 1984), stress reactions are the result of the interaction of personal variables and environmental variables. Stress can be defined as “an unfavorable person-environment relationship” (Lazarus, 1993) and is perceived when the situational demands are taxing or exceeding the resources of the individual. Cognitive appraisal is a central mediator between environmental demands and stress reactions and refers to a process in

which individuals “constantly evaluate the significance of what is happening for their wellbeing” (Lazarus, 1993).

Stress is a part of life for most college students. A national survey in 2013 found that 82.8% of students reported feeling overall stress during the last year (ACHANCH, 2013). University students might experience high stress due to academic commitments, financial pressures and lack of time management skills. Stress occurs when one perceives that they cannot cope with the demands of a situation (Lazarus, 1966). Stress is perceived in different ways and may mean different to different individuals. It is perceived as situations that cause individuals to feel tension, pressure, or negative emotions including anxiety and anger. Moreover, other people define stress as the response to existing situations, which includes physiological, emotional and behavioural changes (Bernstein et al. 2008). When stress is perceived negatively or becomes excessive, it can affect both health and AP (Campbell & Svenson, 1992) and can hurt students (Amirkhan, 1998; Covington, 1997). Moreover, if the pressure is prolonged and perceived as unmanageable, these experiences have been shown to elicit helplessness, depression and stress (Carver & Scheier, 1994), thereby placing the academic futures of some students in jeopardy (Marcos & Tillema, 2006). A considerable number of studies have been conducted to investigate the effect of stress factors on the grade point average (GPA) of university students (Calderon et al., 2001; Hammer et al., 1998; Hatcher et al., 1991; Kelly et al., 2001; Trockel et al.,

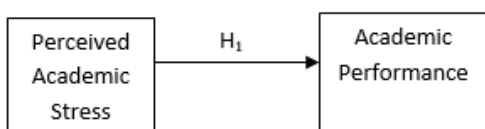
2000; Quaye et al., 2005; Watering & Rijt, 2006).

A study conducted by Crego et al., (2016) stated that academic stress might compromise students' performance. Another study conducted by Kötter et al., (2017) mentioned that increased stress leads to decreasing performance, increasing stress. With this, stress is revealed to have a significant relationship with AP.

### 3. METHODS

The study aimed to assess the PAS, and its relationship to students' AP. To determine the relationship between the variables, the method employed in the study was a descriptive-correlation approach. The study applied the quantitative design utilizing the questionnaire for data collection.

#### 3.1 Conceptual Framework



**Figure 1. Conceptual Framework**

#### 3.2 Population and Sampling

The population of the study was the 3rd year university undergraduates who are enrolled to the management faculties which is the second-largest student's enrollment to the universities in Sri Lanka (N=5196) (Sri Lanka University Statistics, 2017). For the study, all the management faculties student enrollment has been listed in descending order (the highest

to the lowest). Among the listed faculties researcher randomly selected the first four highest management faculty student enrollment as the basis in selecting the sample. According to Creswell (2009); Creswell and Plano Clark (2017) followed by the cross-sectional survey, distribution of the questionnaire was conducted and yielded 497 responses from the targeted 600 potential respondents which constitutes 82% response rate. According to Roth & BeVier (1994) the minimum acceptable level of response rate is 80%. Thereby, the sample obtained within this study was an adequate representation of the total population.

#### 3.3 Measurements of research Constructs

The instruments used for the study were the Perceived Stress Scale (PSS) by Cohen (1994). The Perceived Stress Scale (PSS) is a scale constructed by Cohen (1994) and is the most widely used psychological instrument for measuring stress perception. It consists of 10 items and is answered through a five-point Likert scale.

A study was conducted by Lu et al., (2017) to test its validity. The internal consistency reliability was .85, measured by Cronbach's alpha. Meanwhile, the test-retest reliability coefficient was .7. It was concluded that the scale exhibited satisfactory psychometric properties.

The outcome of the study was the AP of the university undergraduates which was measured through AP proficiency scale (students' ability to perform academic tasks and solve

problems) which is a four-item scale, used in the study by Yu et al., (2010), who adapted it from Chao et al., (1994) (e.g. I am confident about the adequacy of my academic skills and abilities, I have performed academically as well as I anticipated I would) with responses this time being a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

### 3.4 Methods of Data Collection

In the process of accomplishing and achieving the essential findings of the study in determining the PAS and their relationship to the AP of students, preset up questionnaires were distributed to the respondents. Questionnaires were an efficient data collection mechanism when the researcher knew exactly what is required and how to measure the variables of interest. Questionnaires can be administered personally, mailed to the respondents or electronically distributed (Sekaran, 2006).

The resulting data obtained from the respondents were entered into SPSS software and the Descriptive statistics of the responses to the survey are presented with percentages of responses displayed. The descriptive statistics provide summaries about the sample's answers to each of the questions as well as measures of variability (or spread) and central tendency.

This study's main objective is to assess PAS and their relationship with the students' AP. Hence, the Correlation Analysis was conducted.

## 4. RESULTS

### 4.1 Respondents Profile

Respondent profile of the respondents formed the preliminary analysis. This is shown in Table 1.

**Table1. Respondent Profile**

Profile	Frequency	Percentage
<b>Gender</b>		
Male	210	42
Female	287	58
<b>Level of the Study</b>		
Level 1	140	28
Level 2	130	26
Level 3	120	24
Level 4	107	22
<b>Residence</b>		
Home		25
Hostel		50
Boarding		13
Other		2
<b>Working</b>		
Yes		27
No		73

Source: Survey results

Table 1 shows that out of four hundred and ninety-seven students who participated in the study, 58% were females while 42% were males. This indicates that the number of female participants in the study was a dominant fraction than that of their male counterparts. The majority of the participants were in Level 1 (28%), whereas Level 2 had (26%) participants and Level 4 had the least number of participants (22%).



Majority of the students are in university studies and they do their academic studies in the university premises whereas 25% of the sample come university from their home. It is also noted that only 27 % of students are working while they engage with office work.

#### 4.2 Validity and Reliability

In determining the internal consistency of constructs in the model, Cronbach's alpha and KMO and Bartlett's test were used in line with recommendations from Hair et al. (2017) and Kline (2015). Table 2 shows the results on the internal consistency measures of the reflective model.

**Table 2. Construct Validity and Reliability**

Constructs	Cronbach Alpha	KMO value	Bartlett's Test
PAS	0.797	0.683	0.000
AP	0.867	0.804	0.000

Source: Survey results

The values obtained from Cronbach's for the reflective model shows that the model achieved reliability standards as the value of Cronbach's Alpha greater than 0.7 is considered reliable (Nunnally, 1978). According to table 2, values for the KMO test were above 0.5 and all the values for Bartlett's test indicated below 0.05 which is confirmed the validity requirements of the data set. The KMO test was used to verify the sampling adequacy for the analysis.

#### 4.3 Univariate Analysis

The table 3 shows the indicators of stress represented by statements based on the Perceived Stress Scale (Cohen, 1994).

**Table 3. PAS Analysis**

Indicators	Mean	Interpretation
In the last month, how often have you been upset because of something that happened unexpectedly?	3.05	High
In the last month, how often have you felt that you were unable to control the important things in your life?	3.15	High
In the last month, how often have you felt nervous and "stressed"?	3.75	High
In the last month, how often have you felt confident about your ability to handle your personal problems?	3.10	High
In the last month, how often have you felt that things were going your way?	3.45	High
In the last month, how often have you found that you could not cope with all the things that you had to do?	3.02	High
In the last month, how often have you been able to control irritations in your life?	3.62	High

In the last month, how often have you felt that you were on top of things?	3.01	High
In the last month, how often have you been angered because of things that were outside of your control?	3.71	High
In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	2.99	High

Source: Survey results

The data from Table 3 revealed that the respondents attained high mean scores of 2.99 to 3.75. It is noted that the mean of the responses from indicators 4, 5, 7, and 8 was reversed as they are positively stated items, as instructed by the scale.

**Table 4. AP Analysis**

Indicators	Mean	Interpretation
I am confident about the adequacy of my academic skills and abilities	3.51	High
I feel competent conducting my course assignments	3.48	High
I feel learned how to successfully perform my coursework in an efficient manner	3.50	High
I have performed academically as I anticipated I would	3.37	High

Source: Survey results

According to the numeric expressions in table 4, All the mean values are above 0.3 which indicates that the

average academic performance of the students are at a satisfactory level. 52% of the sample was confident on the adequacy of their academic skills and abilities while only 2% strongly disagreed with their adequacy level of academic skills. 54% of the sample have learned how to successfully perform their coursework efficiently and 46% have performed academically as they anticipated they would. However, only 21% did not perform academically as anticipated. Further, more than 40% of students are competent in conducting their course assignments.

#### 4.4 Bivariate Analysis

Correlations between the constructs are as follows. The objective of the correlation analysis is to measure the degree to which two constructs are related.

**Table 5. Correlation Analysis**

Relationship	P-Value	Pearson Correlation	Correlation
PAS -AP	0.00	-5.36	Negative

Source: Survey results

Results reported in Table 5 shows that correlations among the PAS and AP and correlation coefficient was statistically significant at  $p < .05$ . The relationship between stress and AP is negative ( $r = -5.36$ ). This finding is in line with the past researches (Choi, Abbott, Arthur & Hill, 2007; Rafidah, Azizah & Noraini, 2007). Accordingly,  $H_1$  is accepted.

Thereby, it is highlighted that higher level of PAS will lead to decrease the



AP as there is a negative relationship between PAS and AP.

## 5. DISCUSSION AND CONCLUSION

Stress has always been an issue among undergraduate students and past research finds stress to be significantly correlated to AP. This research is carried out to discover the stress levels of the undergraduate students in a local university. Besides ensuring that the students developed in both cognitive and psychological aspects, this study also helps in considering the need of designing stress interventions for the students. From this present research, undergraduate students were found to be having moderate vulnerability to stress and academic stressors topped the sources of stress. There was a significant negative relationship identified between PAS and AP. This is important for the discovery of the latest state of psychological well-being and new sources of stress among undergraduate students. Students can be guided to reduce their stress levels as this can enhance their AP.

## REFERENCES

- Agolla, J.E. and Ongori, H., 2009. An assessment of academic stress among undergraduate students: The case of University of Botswana.
- Amirkhan, J.H., 1998. Attributions as predictors of coping and distress. *Personality and Social Psychology Bulletin*, 24(9), pp.1006-1018.
- Annie, W., Howard, W.S. and Mildred, M.W., 1996. Achievement and ability tests-definition of the domain, educational measurement.
- Asadzadeh, A., Kötter, T., Salehi, P. and Birkmann, J., 2017. Operationalizing a concept: The systematic review of composite indicator building for measuring community disasterresilience. *International journal of disaster risk reduction*, 25, pp.147-162.
- Bello, D.L. and Gumarao, M., 2016. Stress, Coping Strategies, and Academic Performances of Dentistry Students. *Adventist University of the Philippines*, p.37.
- Bennett, J., 2003. *Teaching and learning science: A guide to recent research and its applications*. A&C Black.
- Bernstein, E.F., Freedom-2 LLC, 2008. *Tissue fillers and methods of using the same*. U.S. Patent Application 12/026,457.
- Brown, S.J., Health Hero Network Inc, 1999. *Method for treating medical conditions using a microprocessor-based video game*. U.S. Patent 5,918,603.
- Campbell, R.L., Svenson, L.W. and Jarvis, G.K., 1992. Perceived level of stress among university undergraduate students in Edmonton, Canada. *Perceptual and motor skills*, 75(2), pp.552-554.

- Carver, C.S. and Scheier, M.F., 1994. Situational coping and coping dispositions in a stressful transaction. *Journal of personality and social psychology*, 66(1), p.184.
- Carveth, J.A., Gesse, T. and Moss, N., 1996. Survival strategies for nurse-midwifery students. *Journal of Nurse-Midwifery*, 41(1), pp.50-54.
- Chao, G.T., O'Leary-Kelly, A.M., Wolf, S., Klein, H.J. and Gardner, P.D., 1994. Organizational socialization: Its content and consequences. *Journal of Applied psychology*, 79(5), p.730.
- Choi, Y.B., Abbott, T.A., Arthur, M.A. and Hill, D.N., 2007. Toward a future wireless classroom paradigm. *International Journal of Innovation and learning*, 4(1), pp.14-25.
- Choi, Y.B., Abbott, T.A., Arthur, M.A. and Hill, D.N., 2007. Toward a future wireless classroomparadigm. *International Journal of Innovation and learning*, 4(1), pp.14-25.
- Cohen, A.D., 1994. Assessing language ability in the classroom.
- Covington, M., Aprili, M., Paraoanu, E., Greene, L.H., Xu, F., Zhu, J. and Mirkin, C.A., 1997. Observation of surface-induced broken time-reversal symmetry in YBa 2 Cu 3 O 7 tunnel junctions. *Physical review letters*, 79(2), p.277.
- Creswell, J.W. and Clark, V.L.P., 2017. *Designing and conducting mixed methods research*. Sage publications.
- Creswell, J.W., 2009. Mapping the field of mixed methods research.
- Dwyer, A.L. and Cummings, A.L., 2001. Stress, self-efficacy, social support, and coping strategies in university students. *Canadian Journal of Counselling and Psychotherapy*, 35(3).
- Gotelli, N.J. and Ellison, A.M., 2004. *A primer of ecological statistics* (Vol. 1). Sunderland: Sinauer Associates.
- Hair Jr, J.F., Sarstedt, M., Ringle, C.M. and Gudergan, S.P., 2017. *Advanced issues in partial least squares structural equation modeling*. saGe publications.
- Hatcher, P.J. and Quinn, M.J., 1991. *Data-parallel programming on MIMD computers* (Vol. 90, No. 77). Mit Press.
- Helsper, E.J. and Eynon, R., 2010. Digital natives: where is the evidence?. *British educational research journal*, 36(3), pp.503-520.
- Hughes-Hammer, C., Martsolf, D.S. and Zeller, R.A., 1998. Depression and codependency in women. *Archives of Psychiatric Nursing*, 12(6), pp.326-334.

- Hung, W.L., Xie, Y., Vijaykrishnan, N., Addo-Quaye, C., Theocharides, T. and Irwin, M.J., 2005, March. Thermal-aware floorplanning using genetic algorithms. In *Sixth international symposium on quality electronic design (isqed'05)* (pp. 634-639). IEEE.
- Jackson, L.E., Calderon, F.J., Steenwerth, K.L., Scow, K.M. and Rolston, D.E., 2003. Responses of soil microbial processes and community structure to tillage events and implications for soil quality. *Geoderma*, 114(3-4), pp.305-317.
- Jangid, R.S. and Kelly, J.M., 2001. Base isolation for near-fault motions. *Earthquake engineering & structural dynamics*, 30(5), pp.691-707.
- Kline, R.B., 2015. *Principles and practice of structural equation modeling*. Guilford publications.
- Kobus, C., Crego, J. and Senellart, J., 2016. Domain control for neural machine translation. *arXiv preprint arXiv:1612.06140*.
- Lazarus, R.S. and Folkman, S., 1984. *Stress, appraisal, and coping*. Springer publishing company.
- Lazarus, R.S., 1966. Psychological stress and the coping process.
- Lu, L., Guo, X. and Zhao, J., 2017. A unified nonlocal strain gradient model for nanobeams and the importance of higher order terms. *International Journal of Engineering Science*, 119, pp.265-277.
- Marcos, J.J.M. and Tillema, H., 2006. Studying studies on teacher reflection and action: An appraisal of research contributions. *Educational Research Review*, 1(2), pp.112-132.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill.
- Ongori, H. and Agolla, J.E., 2008. Occupational stress in organizations and its effects on organizational performance. *Journal of Management Research*, 8(3), pp.123-135.
- Pancer, S.M., Hunsberger, B., Pratt, M.W. and Alisat, S., 2000. Cognitive complexity of expectations and adjustment to university in the first year. *Journal of Adolescent Research*, 15(1), pp.38-57.
- Rafidah, K., Azizah, A., Norzaidi, M.D., Chong, S.C., Salwani, M.I. and Noraini, I., 2009. Stress and academic performance: Empirical evidence from university students. *Academy of Educational Leadership Journal*, 13(1), p.37.
- Rees, C.J. and Redfern, D., 2000. Recognising the perceived causes of stress—a training and development perspective. *Industrial and commercial Training*.

- Roth, P.L. and BeVier, C.A., 1998. Response rates in HRM/OB survey research: Norms and correlates, 1990-1994. *Journal of Management*, 24(1), pp.97-117.
- Setterstrom, J.A., Tice, T.R., Jacob, E., Reid, R.H., Van Hamont, J., Boedecker, E.C., Jeyanthi, R., Friden, P., Roberts, F.D., McQueen, C.E. and Bhattacharjee, A., 2005. *Therapeutic treatment and prevention of infections with a bioactive material (s) encapsulated within a biodegradable-bio-compatible polymeric matrix*. U.S. Patent 6,902,743.
- Smith, C.A., Haynes, K.N., Lazarus, R.S. and Pope, L.K., 1993. In search of the "hot" cognitions: Attributions, appraisals, and their relation to emotion. *Journal of personality and social psychology*, 65(5), p.916.
- Stevenson, A. and Harper, S., 2006. Workplace stress and the student learning experience. *Quality Assurance in Education*.
- Tao, F., Yokozawa, M., Xu, Y., Hayashi, Y. and Zhang, Z., 2006. Climate changes and trends in phenology and yields of field crops in China, 1981–2000. *Agricultural and Forest Meteorology*, 138(1-4), pp.82-92.
- Towbes, L.C. and Cohen, L.H., 1996. Chronic stress in the lives of college students: Scale development and prospective prediction of distress. *Journal of youth and adolescence*, 25(2), pp.199-217.
- Trockel, M.T., Barnes, M.D. and Egget, D.L., 2000. Health-related variables and academic performance among first-year college students: Implications for sleep and other behaviors. *Journal of American college health*, 49(3), pp.125-131.
- Tweed, S.A., Skowronski, D.M., David, S.T., Larder, A., Petric, M., Lees, W., Li, Y., Katz, J., Krajden, M., Tellier, R. and Halpert, C., 2004. Human illness from avian influenza H7N3, British Columbia. *Emerging infectious diseases*, 10(12), p.2196.
- Van de Watering, G. and van der Rijt, J., 2006. Teachers' and students' perceptions of assessments: A review and a study into the ability and accuracy of estimating the difficulty levels of assessment items. *Educational Research Review*, 1(2), pp.133-147.
- Wintre, M.G. and Yaffe, M., 2000. First-year students' adjustment to university life as a function of relationships with parents. *Journal of adolescent research*, 15(1), pp.9-37.

## **The Application of International Internal Audit Standards by Licensed Commercial Banks in Sri Lanka**

**I.A.N.S. Madurasinghe<sup>1</sup> & W.D.N.S.M. Tennakoon<sup>2</sup>**

<sup>1</sup>Commercial Bank of Ceylon PLC  
Colombo 02  
SRI LANKA

<sup>2</sup>Department of Business Management  
Faculty of Business Studies & Finance  
Wayamba University of Sri Lanka  
Kuliyapitiya  
SRI LANKA

[Nadeera.Madurasinghe@combank.net](mailto:Nadeera.Madurasinghe@combank.net)<sup>1</sup>, [tennakoon@wyb.ac.lk](mailto:tennakoon@wyb.ac.lk)<sup>2</sup>

### **Abstract**

Compliance with the International Internal Audit Standards (IIASs) is obligatory to ensure the credibility of the audit reports. In Sri Lankan context, the extent of IIASs application by the financial institutions is still unclear as no formal investigation has been performed so far to address the same. Thus, the purpose of the present study was to assess the application of IIASs by the commercial banks of Sri Lanka. A quantitative research was carried out to reach the research objective. A field survey of population aided in deriving the empirical evidences. Unit of analysis was Licensed Commercial Banks (LCBs) in Sri Lanka. Closed-ended, self-administrated questionnaire was distributed among the internal auditors of LCBs. Opinions of respondents were solicited using a five-point Likert scale ranging from 1 to 5. Regression model was used to analyse data with the support of SPSS statistical package. Results suggested a moderate level application of IIASs by LCBs. However, the extent of IIASs application found significantly vary among three categories of IIASs. The attribute standards seemed the heavily applied IIASs category by Sri Lankan LCBs compared to performance standards and implementation standards. The least level of application was evidenced with respect to performance standards. Theoretically, findings appear significant as there is a short of research work carried out in internal auditing, particularly on IIASs in the global context as well as in Asian context. As managerial implications of this research, it can be noted that LCBs should pay much attention in raising the application of IIASs where performance standards principally need much attention relative to other two standards.

**Keywords:** Licensed Commercial Banks in Sri Lanka (LCBs), Institute of Internal Auditors (IIAs), International Internal Auditing Standards (IIASs), Attribute Standards, Performance Standards, Implementation Standards

## 1. INTRODUCTION

Banks play a central role in the economy through their liquidity and credit creation function (Calema and Michael, 2004). So that the commercial banks do. Further, banking industry is highly regulated in any country. To be in compliance with the set regulations by rule setters and to achieve bank's objectives in an effective and efficient manner, banks should have a better internal control system to prevent inconsistencies. Internal controls can be defined as the policies and procedures employed by executives of an institution to realise their set objectives (Makgatho, 2016). Hence, internal controls determine the achievement of bank's objectives in an effective manner with respect to operations, reporting and compliance (COSO, 2013). These internal controls may deviate from the expected due to different management styles, work force capabilities and changing internal & external environments. As a result, it is necessary to conduct an internal control review and this review should involve in internal checks, an internal audit, the custody of assets, and accuracy of records (Makgatho, 2016). This review has to be ongoing or separate (COSO, 2013). As per Makgatho (2016) internal audit is one way of reviewing internal controls. It gives a reasonable assurance of existence of a proper internal control system (COSO, 2013). Having identified the major role of commercial banks in an economy, it is pertinent to identify the importance of maintaining an effective and efficient internal control system in a bank. Further, banks can create vulnerabilities of systematic nature,

partly due to a mismatch in maturity of assets and liabilities and their inter connectedness. The soundness of banks is important, as it contributes towards maintaining confidence in the financial system, and any failure may have the potential to impact on activities of all other financial and non-financial entities, and finally the entire economy (CBSL, 2018). Further, auditing of banks efficiently is a requirement due to problems that banks could encounter in their financing function those may cause serious effects in the economy (Zengin & Yu ksel, 2016). Internal auditing is an independent & objective assurance and consulting activity designed to add value and to improve organization's operations. It helps an organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance process (IIA, 2015). In order to comply with above statement of IIASs, banks have to comply with mandatory guidance principles implemented by IIAs (IIA, 2015). Mandatory guidance consists with standards, code of ethics and core principals. Hence, banks should apply IIASs as partial compliance with IIASs rules in their internal audit function. The management of the organization is responsible for designing, implementing and maintaining internal controls appropriate for preparation and fair presentation of financial statements (Gunathilaka, 2012). Separate standards may be in action in different territories and countries depending on their legal system. However, as per IIAs (2015), IIASs are the standards



published by International Professional Practice Framework (IPPF). In Sri Lanka, audit standards followed are “The Sri Lanka Accounting and Auditing Standards” issued under the Act No. 15 of 1995 (CA Sri Lanka, 2018). LCBs in Sri Lanka are also liable to adopt these evaluations in addition to Sri Lanka Auditing Standards (SLAuSs). The banking sector in Sri Lanka mainly comprises with Licensed Commercial Banks (LCBs) and Licensed Specialised banks (LSBs). LCBs dominate the financial system and account for the highest share of the total assets in the financial system. Banks play a critical role within the Sri Lankan financial system, as they engage in provision of liquidity to the entire economy, while transforming the risk characteristics of assets (CBSL, 2018). As per CBSL (2018), in terms of the asset base and the magnitude of services provided, the LCBs are the single most important category of financial institutions within the banking sector. LCBs dominate the financial system with the highest market share of the entire financial system's assets. Therefore, the health of Sri Lankan financial system depends to a large extent on the soundness of the LCBs, primarily on the performance and financial strength of the six largest LCBs. Hence, they are generally referred as the Systemically Important Banks (SIBs) of Sri Lanka. As such, it is utmost important to have the best method of control over LCBs both by the regulator and their own management. Internal controls should function as intended and they need periodical evaluations to ensure the adequacy and effectiveness.

The establishment of Accountancy board in 1941 and the Institute of Chartered Accountants of Sri Lanka in 1959 considered as catalyst to the auditing profession in Sri Lanka. The companies’ Act No 7 of 2007 was introduced replacing the companies Act No 17 of 1982 and the Companies ordinance of 1938. Sri Lanka Accounting and Auditing standards Act No 15 of 1995 was developed by the Ministry of Finance and Planning with the assistance of the accounting professionals and representatives from the commercial and financial sector. Institute of Chartered Accountants of Sri Lanka formulates accounting and auditing standards in Sri Lanka under the Sri Lanka Accounting and Auditing standards Act No 15 of 1995. This Act was developed in response to the recommendations made by the Public Enterprise Reform Commission which was established in 1995. The Act established Sri Lanka Accounting and Auditing Standards monetary Board (SLAASMB). It established Statutory Accounting Standards Committee and the Auditing Standards Committee (AuSC). The AuSC promulgates SLAuSs in par with the International Standards on Auditing (ISAs) of International Auditing and Assurance Standards Board (IAASB) of International Federation of Accountants (IFAC) with slight modifications to meet local requirements. Accounting and auditing in corporate sector of Sri Lanka is directly subject to the international influence of IAASB, IFAC, International Monetary Fund (IMF), the World Bank (WB), and the Asian Development Bank (ADB)



(Prem, Sarath, and Siriwardhane, 2017).

LCBs adapt SLAuSs issued under the Act No. 15 of 1995 (CA Sri Lanka, 2018). It was mentioned that the SLAuSs are based on the ISAs published by IAASB of the IFAC, with adjustments to match the local context. Hence, compliance with the SLAuSs ensures compliance in all material components of the international standards on auditing. Yet, in Sri Lanka, no formal administrative arm is monitoring the compliance of LCBs towards ISAs even though LCBs are expected to follow them in spite of their compliance to SLAuSs.

Further, a study in Sri Lanka has found that the internal audit department which is entrusted to perform the internal audit function is not efficient, is understaffed, doesn't conduct regular audit activities and doesn't produce regular audit reports. The study also found that there is lack of information sharing and inadequate security measures to safe guard the assets. The study established a significant relationship between internal control system and financial performance as well (Gamage, Lock, & Fernando, 2014).

In light of these, a question arises as to whether international internal auditing standards published by IPPF are applied properly by Sri Lankan commercial banks.

Since internal audit has become a value creator for improving the effectiveness of risk management, control and governance systems (Dellai & Omri, 2016), researches

aimed at internal auditing have significantly increased over the recent past (Metlib & Turki, 2017). Many scholars have studied several aspects of internal auditing with wider focus on efficiency, relevance, globalization and organizational features. However, only a few scientific studies have studied the internal audit standards and their application (Turaev, 2017). In particular, research works have been carried out to ascertain the level, and the effective application of SLAuSs with a greater focus towards the financial statements in Sri Lankan context. Yet, there had been no research study to assess the application of IASs to the best knowledge of the researchers. Application of IASs in Sri Lanka seems to be an area untapped so far by researchers in the field of finance. Further, when it is concerned about approaching the global markets by Sri Lankan companies, it is obvious that they have to adhere to global standards. Banking industry is not an exception. LCBs too have to comply with the requirements and subsequently to globally accepted accounting and auditing standards. In other words, LCBs have to comply with IASs in global dealings. In addressing the absence of any study assessing the , the present study focused on finding the level of IASs application by Sri Lankan LCBs.

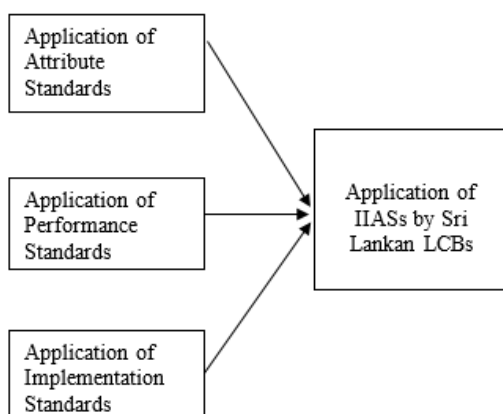
The main three categories of International Internal Auditing standards (IASs) are:

1. Attribute Standards
  2. Performance Standards
  3. Implementation Standards
- of IASs serve as the bases for the

research questions of the study. There are,

1. Does application of attribute standards predict the application of IIASs by Sri Lankan LCBs
2. Does application of performance standards predict the application of IIASs by Sri Lankan LCBs
3. Does application of implementation standards predict the application of IIASs by Sri Lankan LCBs

Accordingly, the main objective of the study was to assess the extent of IIASs application by Sri Lankan LCBs specific objectives of the assessing the application level of three main categories of IIASs namely, attribute standards, performance standards, and implementation standards. The conceptual model of the study depicted the assumed connections between key variables (Figure 1).



**Figure 1. Conceptual Framework**

Based on the framework and empirical findings presented by literature review, the following hypotheses were developed to address the research problem.

H1: Application of attribute standards significantly predict the application of IIASs by Sri Lankan LCBs.

H2: Application of performance standards significantly predict the application of IIASs by Sri Lankan LCBs.

H3: Application of implementation standards significantly predict the application of IIASs by Sri Lankan LCBs.

## 2. METHODS

A quantitative inquiry of the research questions was performed with the aid of a field survey of the population. Population of the study comprised of all the LCBs in Sri Lanka. As per CBSL (2019) there are 26 LCBs in Sri Lanka. This study is considered a census as it surveyed all 26 LCBs. Out of all 26 LCBs, CBSL had identified six large commercial banks as Significantly Important Banks (SIBs). These SIBs consist of two large state banks namely; Bank of Ceylon & People's Bank and four large private sector banks namely; Commercial Bank, Hatton National Bank, Sampath Bank, and Seylan Bank. All LCBs including these six SIBs were the population of this study. LCBs were the unit of analysis where data was collected from senior audit officials of each bank. The audit function of each bank has been questioned from respondents since each bank has separate unit for audit function. Identical number of representatives, i.e. senior officers from the internal audit departments of each LCB was surveyed. The study succeeded in deriving 179 valid responses from 26

internal audit departments of all LCBs.

A pre-tested instrument (Shaban, 2013) of 59 items was used with adjustments considering the appropriate of its measurement properties. Response rate of all the instruments was a five point Likert scale in which 1 denoted “Strongly Disagree” and 5 denoted “Strongly Agree”. The questionnaire consisted of three sections; A, B, and C. Section A offered the background details of the study including the aims of the study, while section B addressed the demographic factors of the population items. Section C – possessed the items relating to study variables. As per the conceptual framework, there were four variables namely, the application of three categories of IIASs and the application level of IIASs by LCBs (Figure 1). Three types of standards namely attribute standards, performance standards and implementation standards were identified as independent variables and extent of IIASs application was considered the dependent variable. Summary of the number of items included under each variable has been tabulated in the table 1.

**Table 1. Distribution of Items in the Questionnaire**

Variable	Section C	Number of questions
Attribute Standards	Part I	25
Performance Standards	Part II	12
Implementation Standards	Part III	10
Application of IIASs	Part IV	12
Total		59

Table 1 shows the total number of items included under each part of the questionnaire. Sectional distribution of items based on the operationalization of the variables, was shown by the table 2.

**Table 2. Operationalization of the Variables**

Variable	Indicator	Measurement
Attribute Standards	Purpose, Authority and Responsibility	05
	Independence and Objectivity	10
	Proficiency and Due Professional Care	05
	Quality Assurance and Improvement Programme	05
Performance Standards	Managing the Internal Audit Activity	03
	Nature of work Performing the Engagement	03
	Monitoring Progress	03
	Communicating the Acceptance of Risk	03
Implementation Standards	Governance, Risk and Compliance requirements	03
	Audit Plans	05
	Training for audit staff	01
	Supervision	01
Application of IIASs	Knowledge	04
	Resources	03
	Opinions	05

Five Point Likert Scale

Source: (Shaban, 2013)

Data analysis was achieved using univariate, bivariate and multivariate techniques. The hypotheses testing was based on the results of multiple regression analysis. A regression model was developed to predict the level of IIASs application based on the application level of each three categories of IIASs.

$$Y = a + b_1X_1 + b_2 X_2 + b_3X_3$$

$$\text{IIASs} = a + b_1\text{AS} + b_2\text{PS} + b_3\text{IS} + e$$

where;

IIASs = Application of International Internal Auditing Standards

AS = Attribute Standards

PS = Performance Standards

IS = Implementation Standards

e = Error Term

The Statistical Package for Social Sciences (SPSS), version 23 was used in performing the statistical analyses.

### 3. RESULTS

Statistical data pertaining to demographic factors are presented by the table 3.

**Table 3. Demographic Profile of Respondents**

	Frequency	Percentage (%)
<b>Gender</b>		
Male	138	77.1
Female	41	22.9
Total	179	100.0
<b>Age</b>		
18-25	1	.6
26-35	120	67.0
36-45	41	22.9
46-55	14	7.8
55-60	3	1.7
Total	179	100.0

<b>Academic qualifications</b>		
Secondary	72	40.2
Degree	47	26.3
Post Graduate	60	33.5
Total	179	100.0
<b>Professional qualifications</b>		
Certificate or Diploma in Banking & Finance	45	25.1
Chartered Accountant	3	1.7
Chartered Institute of Management Accountants	4	2.2
Certified Internal Auditor	4	2.2
Certificate or Diploma in Information Systems Security, Control and Audit	3	1.7
Other	6	3.4
Combine	114	63.7
Total	179	100.0

As per table 3, 77% of respondents were male auditors, and 67% of them were in the age range of 26-35. It implies that the respondents were experienced auditors who are capable of assessing the audit function of the bank. 40% of the respondents have completed secondary level of their education while 26% of the respondents have earned degree qualification. 34% had their post graduate qualifications. In general, 64% of respondents were having either or combination of these qualifications thus prove to be qualified enough in commenting the application of IIASs. Table 4 presents the results of correlation analysis.

**Table 4. Results of Correlation Analysis**

Variable	Application of IIASs	Significance
Attribute Standards	.589	.000**
Performance Standards	.199	.004**
Implementation Standards	.535	.000**

\*\* significant at 0.01 level

The table 4 presents the correlation coefficients pertaining to study variables. Pearson coefficient (r) spoke about and direction of relationship. All three components of IIASs share a positive and significant association with the application of IIASs. As such, the results of correlation analysis evident that attribute standards ( $r = .589$ ) and implementation standards ( $r = .535$ ) moderately related with application of IIASs while performance standards show only a weak association with the dependent variable. It implies that application of IIASs is not identical across three components and there is a deficiency of application of performance standards. Next, step-wise multiple regression analysis was performed to explore the individual contribution of three components of IIASs towards the application of IIASs.

**Table 5. Model Fit**

Model	r	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Durbin-Watson
1	.589 <sup>a</sup>	.347	.343	.34119	
2	.621 <sup>b</sup>	.385	.378	.33184	
3	.642 <sup>c</sup>	.412	.402	.32542	1.786

Source: (Survey data)

a. Predictors: (Constant), Attribute

b. Predictors: (Constant), Attribute, Implementation Standards

c. Predictors: (Constant), Attribute, Implementation Standards, Performance Standards

d. Dependent Variable: Application level of IIASs

Table 5 shows the R<sup>2</sup> values of three models. Best model fitting is achieved by the model three. It has R<sup>2</sup> value of 41.2 %. The selected model is significant at 99% confidence level ( $p > .000$ ). Explanatory power of each individual component of IIASs is assessed via beta coefficients of them (table 6).

**Table 6. Regression Analysis – Regression Coefficients**

Model		Unstandardized Beta Coefficients	Standardized Beta Coefficients	Sig.
1	(Constant)	.678		.030*
	Attribute	.740	.589	.000**
2	(Constant)	.407		.194
	Attribute	.524	.417	.000**
	Implementation	.275	.261	.001**
3	(Constant)	.909		.011*
	Attribute	.513	.408	.000**
	Implementation	.421	.400	.000**
	Performance	.257	.211	.005**

\* Significant at .05 significance level

\*\*Significant at .01 significance level

As illustrated by table 6, model 3 produced significant beta coefficients for all the predictor variables. Accordingly, the regression model can be established as follows.

$$\text{IIASs} = 0.909 + 0.408\text{AS} + 0.211\text{PS} + 0.400\text{IS} + e$$

where;

IIASs =Application of International Internal Auditing Standards

AS =Attribute Standards

PS =Performance Standards

IS =Implementation Standards

e =Error Term

Here the attribute standards appear affecting the most in deciding the level of IIASs application whereas relatively weaker application of performance and implementation standards are evidenced. Based on the results of regression analysis,

hypotheses testing is performed of which the results are summarised by the table 7.

**Table 7. Summary of Hypotheses Testing**

Hypothesis		Decision
H <sub>1</sub>	Application of attribute standards significantly predict the application of IIASs by Sri Lankan LCBs.	Supported
H <sub>2</sub>	Application of performance standards significantly predict the application of IIASs by Sri Lankan LCBs.	Supported
H <sub>3</sub>	Application of implementation standards significantly predict the application of IIASs by Sri Lankan LCBs.	Supported

#### 4. DISCUSSION

Three components of IIASs namely, attribute standards, performance standards and implementation standards were assumed to be affecting the application of IIASs by Sri Lankan LCBs. These assumptions were statistically supported by the descriptive statistics and multi variate analysis.

Responses for attribute standards had a minimum value of 3.28, maximum value of 4.84 and mean statistic of 4.0516. It corresponds to the value label “agree” as denoted by the scale of response. Further, the standard deviation was 0.335. That indicates that there is no significant difference



among the banks with respect the application of IIASs. There was a positive moderate correlation ( $r = 0.589$ ) between attribute standards and the application of IIASs. The regression model reflected 41.2% model fitting out of which 35% was contributed by the attribute standards. Further, the beta coefficient was positive and was 0.408 at 99% confidence level. Thus, it is evidenced that the attribute standards become the main contributor of the level of IIASs application by LCBs. The similar findings were presented by Dellai, et al., (2016) in Tunisian context. Further, Marais, et al., (2009), have in the South African context also found attribute standards significantly predicting the application of IIASs. Hence, this finding is considered in line with the existing understanding on the same.

Next, responses for performance standards had a minimum value of 3.00, maximum value of 4.93 and mean statistic of 4.133 which corresponds to “agree” level of the response scale. Further, the standard deviation was 0.345. It implies a relatively even compliance to IIASs among the surveyed LCBs. A positive yet weak correlation ( $r = 0.199$ ) exists between performance standards and application of IIASs. The model was improved by 3% with the inclusion of performance standards. The predictive power of performance was .211 at the significance level of 1%. This implies that the performance standards, relative to the attribute standards contributes less towards the application of IIASs by Sri Lanka LCBs. It calls for the attention of administrators to craft strategies to

enhance the presence of performance standards in the internal auditing function of LCBs. Many researches including, Dellai, et al. (2016), Marais, et al. (2009), Turaev (2017), and Shaban (2013) have identified performance standards as an important determinant of IISAs compliance. Thus, the finding of the present study is considered in line with the existing literature.

Then, the minimum value and maximum values implementation standards responses were 3.00 and 5.00 respectively. The mean statistic was 4.1503 which denoted the “strongly agree” level of the response scale. Moreover, the standard deviation of 0.3992, showed that no significant variance prevails among the participated LCBs in connection to the application of implementation standards. A positive and moderate association ( $r = 0.535$ ) was reported between implementation standards and application of IIASs. The overall model improved by 4% of with the addition of implementation standards. Standardised beta coefficient of 0.400 suggested the explanatory power of implementation standards. This implies the significant role played by the implementation standards in affecting the application of IIASs by LCBs. Identical results were reported by other researchers including, Metlib & Turki (2017), Marais, et al., (2009), Dellai, et al., (2016), and Shaban (2013). Hence, the findings appear compatible with the present body of knowledge. These results had been proven in different territories as well. In Uzbekistan it had been identified by that attribute and performance standards needs further improvements



(Turaev, 2017). Shaban (2013) concluded that the Jordanian telecommunication industry greatly applies attribute standards and implementation standards while no performance standards are not applied (Shaban, 2013). Thus, the findings of the present study appear to apply for the entire banking industry in the region and in particular to the banking industry of the South Asian region.

## 5. CONCLUSION

The main objective of the study was to find out the application of IIASs by Sri Lankan LCBs in their internal audit function. Three main components of IIASs namely, attribute standards, performance standards and implementation standards were tested against their impact towards the extent of IIASs application. Hypotheses were established in the light of available literature which were supported by the data analysis. Findings aided in concluding that the LCBs apply IIASs in their internal audit function at a moderate level. Further, it was observed that all three components of IIASs are applied at varying degrees by LCBs. Among them, attribute and implementation standards were at moderate level while weak application of performance standards was noted. Accordingly, it can be concluded that LCBs apply IIASs in their internal audit function and among the IIASs, attribute standards and implementation standards are applied moderately while performance standards are applied at a weak level. To the best knowledge of the researchers, there had been no any research work carried out in the Sri Lankan context with regard to

application level of IIASs. Hence, the contribution of this research is utmost important to the “auditing” profession and to the banking industry as a whole. This research has contributed to fill the existing contextual gap in the internal auditing in the form of IIASs application. The research findings evident that LCBs apply IIASs at varying degrees. However, there is no legal requirement for Sri Lankan banks to apply IIASs. Therefore, LCBs may not fully devoted to ensure the compliance towards these international standards as a mandatory requirement. However, the company’s ordinance no 07 of 2017, has mandate all the registered companies to follow SLAuSs and to state the same by the statutory auditor of the LCB in their annual reports as well. But for IIASs, there is no such binding requirement. Yet, application of SLAuSs automatically led application of IIASs to a greater extent as the SLAuSs are based on IIASs.

However, IIASs have greater acceptance in the global context relative to the country-specific SLAuSs. As per CBSL, LCBs are the single largest player in the economy and they determine the health of the financial sector. Hence, it is undoubtful that the health and the openness of these LCBs to vulnerabilities should be carefully controlled and evaluated. for which it is essential to apply IIASs. As such, it would be beneficial for banks to apply IIASs to assess the potential vulnerabilities. Similarly, it would be essential in facing the open competition in the global financial market.

The limitation of the study includes that it was geographically confined to Sri Lanka. Hence, generalization of the results in to global context may be somewhat questionable. The conclusions applied only to banking industry but not to other industries. Further, study focused only the commercial banks while specialized banks, development banks and other financial institutions operating in Sri Lanka were not considered. Additionally, sample didn't include foreign LCBs operating in Sri Lanka. Future researchers are invited in breaking through these limitations. As such, future researches can be directed towards considering different geographical areas as well as different industries.

Internal auditing is an important function and as well a reputed profession in Sri Lanka. But it is yet to receive the attention of scholars. The finding of the present study are expected to lay the seeds for policy reforms to promote the application of all three components of IIASs and as well to guide a new stream of financial researches in Sri Lanka.

## REFERENCES

- Anon., 2019. Cambridge Dictionary. [Online] Available at: <https://dictionary.cambridge.org/dictionary/english/audit?q=Audit> [Accessed 02 04 2019].
- Anon., 2019. English Oxford Living Dictionary. [Online] Available at: <https://en.oxforddictionaries.com/definition/audit> [Accessed 02 04 2019].
- Anon., 2019. Macmillan Dictionary. [Online] Available at: [https://www.macmillandictionary.com/dictionary/british/audit\\_1](https://www.macmillandictionary.com/dictionary/british/audit_1) [Accessed 02 04 2019].
- Asian Development Bank, 2002. Diagnostic Study of Accounting and Auditing Practices in Sri Lanka. Diagnostic Study of Accounting and Auditing Practices.
- Bandara, G. R. E. L., 1988. Internal Audit. Colombo 7: Municipal press.
- Basu, S. K., 2007. Auditing Principles and Techniques. India: Pearson Education.
- CA Sri Lanka, 2018. Sri Lanka Auditing Standards (SLAuSs). [Online] Available at: <https://www.casrilanka.com> [Accessed 02 04 2019].
- Calema, P. and Michael, L., 2004. Risk-based capital requirements for mortgage loans. Journal of Banking & Finance, pp. 647-672.
- CBSL, 2018. Banking Sector. [Online] Available at: <https://www.cbsl.gov.lk/en/financial-system/financial-system-stability/banking-sector> [Accessed 02 04 2019].
- CBSL, 2019. [www.cbsl.gov.lk](http://www.cbsl.gov.lk). [Online] Available at: <https://www.cbsl.gov.lk/en/about/about-the-bank/bank-history> [Accessed 02 04 2019].

- CBSL, 2019. [www.cbsl.gov.lk](http://www.cbsl.gov.lk). [Online] Available at: <https://www.cbsl.gov.lk/en/financial-system/financial-system-stability/overview> [Accessed 02 04 2019].
- Chambers, A. D., Selim, J. M. and Vinten, G., 1987. *Internal Auditing*. London: Bath Press.
- COSO, 2013. *Internal Control-Integrated Frame work*, Darham: American Institute for Certified Public Accountants.
- COSO, 2019. [www.coso.org](http://www.coso.org). [Online] Available at <https://www.coso.org/Pages/default.aspx> [Accessed 10 04 2019].
- Dellai, H. and Omri, M. A. B., 2016. Factors Affecting the Internal Audit Effectiveness in Tunisian Organizations. *Research Journal of Finance and Accounting*, 7(16).
- Edirisuriya, P., 2007. Effects of Financial Sector Reforms in Sri Lanka: Evidence from the Banking Sector. *Asia Pacific Journal of Finance and Banking REsearch*, 1.
- Gamage, C. T., Lock, K. L. & Fernando, A. A. J., 2014. *International Journal of Scientific Research and Innovative Technology*, 1.
- Gunathilaka, A. G. C., 2012. Audit Expectation Gap in Sri Lanka: The Role of Policy Makers. *International Journal of Multidisciplinary Research*, 2(10), p. 2.
- Hemachandra, W. M., 2010. *Competition and Financial Sector Development in Sri Lanka*. *Sri Lanka Journal of Advanced Social Studies*, 2.
- IFAC, 2018. *2018 Handbook of International Quality Control, Auditing, Review, Other Assurance, and Related Services Pronouncements*. [Online] Available at: <http://www.ifac.org> [Accessed 02 04 2019].
- IIA, 2015. *International Professional Practice Framework (IPPF)*, USA: Chartered Institute of Internal Auditors.
- Jain, D. P., 1996. *Auditing*. s.l.:Konark Publishers.
- Jayaweera, R. A., 1989. *Auditing*. Colombo 10: S Godage and Brothers.
- Kagermann, H., Kinney, W., Kuting, K. and Weber, C. P., 2008. *Internal Audit handbook*. Texas: Springer.
- Knechel, W. R. and Saltario, S. E., 2017. *Auditing Assurance and Risk*. In: *Auditing Assurance and Risk*. New York: Routledge, p. 12.
- Kumar, R. and Sharma, V., 2011. *Auditing Principles and Practice*. New Delhi: PHI Learning.
- Liyanarachchi, G. A., 2009. *Accounting in ancient Sri Lanka. Accounting History*.
- Makgatho, K. E., 2016. Effectiveness of internal control mechanisms in

- monitoring financial resources at the Gauteng Department of Education. p. 3.
- Standards: a worldwide perspective. Meditari Accountancy Research.
- Marais, M. et al., 2009. Usage of Internal Auditing Standards and Internal auditing Activities in South Africa and all Respondents. Managerial Auditing Journal.
- Sarbanes-Oxley-101, 2019. [www.sarbanes-oxley-101.com/](http://www.sarbanes-oxley-101.com/). [Online] Available at: <https://www.sarbanes-oxley-101.com/> [Accessed 17 04 2019].
- Metlib, A. S. A. and Turki , A. A., 2017. A Theoretical Discussion of Internal Audit Effectiveness in Kuwaiti Industrial SMEs. International Journal of Academic Research in Accounting, Finance and Management Sciences, 7(1).
- Shaban, O. S., 2013. British Journal of Applied Science and Technology.
- Millichamp, H. A., 2002. Auditing. London: ELST.
- The Institute of Internal Auditors Research Foundation, 2012. Sawyer's Guide for Internal Auditors. Florida: The Institute of Internal Auditors Research Foundation.
- Moor, D. S., Notz , W. I. & Flinger, M. A., 2013. The basic practice of statistics. New York: W.H.Freeman and Company.
- Turaev, A., 2017. Adoption of International Internal Audit Standards in Uzbekistan:. Research Journal of Finance and Accounting, 07(02).
- Prem, W. S. Y., Sarath, L. U. J. and Siriwardhane, P., 2017. The professionalisation of auditing in less developed countries:The case of Sri Lanka. Emerald insight.
- U.S. Embassies abroad, 2019. <http://export.gov/usoffices>. [Online] Available at: <https://www.export.gov/article?id=Sri-Lanka-Banking-Systems> [Accessed 17 04 2019].
- Ramamoorthi, S., 2003. Internal Auditing:History, Evolution and Prospects, USA: The Institute of Internal Auditors Research Foundation.
- Zengin, S. and Yu ksel, S., 2016. Affecting factor of liquidity Risks: An examination. Istanbul Ticaret University Social, 15(29), pp. 77-95.
- S Calem, P. and Michael, L., 2004. Risk-based capital requirements for mortgage loans. Journal of Banking & Finance, pp. 647-672.
- Salder, E., Fourie, H. and Marais, M., 2008. Internal auditor's compliance with the IIA

## **Inter-Personal Trust, Transaction Cost and Livelihood Success of the Members in Community-Based Organizations<sup>1</sup>**

**H.M.S. Priyanath<sup>1</sup> & H.R.N.R. Habaragamuwa<sup>2</sup>**

<sup>1</sup>Department of Economics & Statistics, Sabaragamuwa University of Sri Lanka,  
Belihuloya.  
SRI LANKA

<sup>2</sup> AHEAD DOR SUSL 47 Project, Department of Economics & Statistics,  
Sabaragamuwa University of Sri Lanka, Belihuloya.  
SRI LANKA  
[priya@ssl.sab.ac.lk](mailto:priya@ssl.sab.ac.lk)<sup>1</sup>

### **Abstract**

This study attempted to study how interpersonal trust affects transaction costs and livelihood success of the members in community-based organizations (CBOs). Data were collected from 164 members of CBOs (76 from Samurdhi, 53 from Farmers' Organizations, and 35 from Sanasa) selected from three Divisional Secretariate Divisions in Ratanapura District. The data were collected by a structured questionnaire having the face to face interviews and analyzed using Partial Least Square Structural Equation Modeling. The results revealed that interpersonal trust has a negative influence on TC and it has a positive influence on the livelihood success of the members in CBOs. The results further confirmed that transaction costs play a mediator role in the relationship between interpersonal trust and the livelihood success of the members in CBOs. Thus, the study makes important contributions to the literature by providing empirical evidence related to the role of interpersonal trust on TC and the livelihood success of the members in CBOs.

**Keywords:** Community-Based Organizations, Livelihood, Inter-Personal Trust, Transaction Cost.

### **1. INTRODUCTION**

Community-based organizations (CBOs) are not for profit, organizations on a local and national level, facilitating community efforts for community development (Hussain, Khattak & Khan, 2008). CBOs work through people-centered modes of

development such as availability of micro-finance, community participation in development ensuring community health education, and infrastructure improves over time. The purpose of CBOs is to improve the social and economic condition of members by providing technical and financial help to the communities

---

<sup>1</sup>**Acknowledgments:** This research was supported by the Accelerating Higher Education Expansion and Development (AHEAD) Operation of the Ministry of Higher Education funded by the World Bank.

(Hussain, Khattak & Khan, 2008). Scholars highlighted that performance of CBOs depends on the voluntary base collective action of the members and the strength of the social capital among them the members (Haque, 2007). The powerful dimension of social capital is considered as inter-personal trust developed among members over a period with regular interaction. Inter-personal trust, often characterized by a variety of elements such as strong bonds, information sharing credibility, and other special characteristics that develop among a group of people due to maintaining long term relationships (Bromiley & Harris, 2006). The importance of these characteristics of a relationship has been widely recognized as a dominant paradigm in investigating the impact of socially embedded qualities on economic development. Important dimensions of inter-personal trust include integrity, benevolence, ability, loyalty, etc. (Alzola & Robaina, 2005; Butler and Butler & Cantrell, 1984; Mayer, Davis & Schoorman, 1995). This element is imperative at both individual and societal levels, and it is an important component for the smooth functioning of society, as it contributes to the development, maintenance, and sustainability of the social quality of people's lives (Mayer, et al., 1995). Moreover, as a core aspect of social capital, trust appears as a main driver of community development and influence greater livelihood outcomes (Yip, Subramanian, Mitchell, Lee, Wang, & Kawachi, 2007) by providing effective protection against transaction cost and information asymmetry (Zaheer, McEvily & Perrone, 1998; Priyanath & Premaratne, 2017a).

Many scholars (Barney and Hansen, 1994; Gulati, 1995; Uzzi, 1997; Dyer, 1997) have highlighted that inter-personal trust influences mitigating transaction cost. Zaheer et al. (1998) highlighted that inter-personal trust among exchange parties mitigates the searching costs in exchange by allowing more open and honest sharing of information for a continuing relationship. Zaheer et al. (1998) have further argued that the relationship between inter-personal trust and contact costs is likely to be negative. When unforeseen contingencies arise from the external environment, such as costs not explicitly covered by the terms of a contract, high levels of trust facilitate the development of a common understanding about the contingencies and solve problems in a cooperative manner (Zaheer et al., 1998). Also, negotiations will likely be more efficient because the partner will have greater confidence that information provided by the other partner is accurate (Dyer, 1997). Under conditions of high trust, trading partners will spend less time and resources on monitoring to see if the other party is fulfilling the conditions of the agreement. If each exchange partner is confident that the other party will not be opportunistic, then both parties can devote fewer resources to monitoring. If trust is high then each party will assume that the other party is acting in good faith and will interpret behaviors more positively (Uzzi, 1997). Quality of relationship leads to mitigate opportunism on the one hand and avoid the breaking of the previous agreement (Gulati, 1995). More trusted exchange partners do not make mistakes in the transaction

because a trusting relationship averts such behavior (Dyer, 1997). Therefore, time and money for monitoring transactions should not be incurred (Gulati, 1995a; Barney and Hansen, 1994; Dyer, 1997). Sufficient evidence exists around the world that inter-personal trust improves economic efficiency by reducing transaction costs (Narayan & Pritchett, 1997; Grootaert & van Bastelaer, 2002). However, despite the growing literature on the influence of social capital, empirical evidence on the influence of interpersonal trust on transaction cost and the livelihood outcomes of the members in community-based organizations in Sri Lanka is largely scarce. The limited knowledge about the SC which is developed by CBOs and the impact of SC on transaction cost and livelihood improvement was a major problem to understand the implications of SC in a different social context. Therefore, this paper attempts to explore empirically how does inter-personal trust affects the transaction cost and livelihoods of the members in CBOs in Sri Lanka. The remainder of the paper is organized as follows: The first section provides the background, research problem and objectives. The second part reviews the theoretical background and hypotheses are presented in the third section. The research methodology used are presented in the fourth step and the results are presented the section five. Finally, the study concluded, as well as the implications are presented.

## 2.THEORETICAL BACKGROUND

This section reviews the theoretical background of the variables: interpersonal trust, transaction cost, and livelihood success.

**Interpersonal Trust:** Primarily, trust can be defined under two categories as interpersonal trust and inter-organizational trust. Which, with the development of interpersonal trust, develops and generates inter-organizational trust over time (Zaheer et al., 1998). In most of the relational models and social relationships, trust has been defined as a fundamental building block (Brashear et al., 2003; Chen and Barnes, 2007; Conway and Swift, 2000; Morgan and Hunt, 1994), and a central element in the social exchange process (Hallen et al., 1991) and improve the performance of any entity (Chow and Chan, 2008). Universally, trust can be defined as,

*“Willingness of a party to be vulnerable to the action of another party based on the expectation that the other will perform a particular action important to the trustor, irrespectively of the ability to monitor or control that other party.”* (Huang and Dastmalchian, 2006, p.363)

Trust as a concept has a comprehensive sense of exchange relationships. It plays an important role in facilitating economic exchanges (Anderson and Weitz, 1989; Dwyer et al., 1987). Several studies have suggested that trust is better to commentate and treated as a



multi-dimensional concept (Cannon & William, 1999; Ganesan, 1997). Although, several factors have been proposed to represent the trust factor in the past literature. These scholars have identified benevolence (Alzola and Robaina, 2005; Cao and Zhang, 2011; Mayer et al., 1995), credibility (Alzola and Robaina, 2005; Cao and Zhang, 2011; Zaheer et al., 1998), and ability (Mayer et al., 1995) as the most appropriate dimensions to represent the trust factor.

According to Lindsfold (1978), benevolence simply gives the meaning that the words of a person are trustworthy and correspond to their deeds, besides it does not necessarily mean giving something free to the other party. Typically, people may engage in an exchange, but they can have some underlying attachment to the trustor or a willingness to help each other (Mayer et al., 1995). That is, the trustee cares about the benefits for the trustor (Ganesan, 1994; Mayer et al., 1995). Instead, credibility mainly deals with promises among exchange partners. How far the engaging parties are capable of keeping promises to the other parties on exchange depends majorly upon the characteristics of the parties, and one's competency to guide others with better leadership (Rempel et al., 1985) can be explained as credibility. According to Mitchell et al. (2007) ability to trust, defines the willingness to share confidentiality between exchange partners. Moving forward, it has also been defined as the ability of a party to produce or to achieve desired outcomes. With some expectations of other scholars, the ability is a group of skills a party can

have to perform a task successfully in any area. However, this should come with little aptitude, knowledge, training, experience, as well as a better communication competency (Mayer et al., 1995). As a set, these three dimensions appear to explain a major portion of trustworthiness. Each donates an exceptional viewpoint from which to consider the trustee, while this set provides a solid foundation to study trust among different parties.

### **Transaction Cost Theory:**

Williamson (1985) has defined transaction cost as a transfer of a good or service between technologically separable interfaces. An organization needs to incur costs for any economic transaction (Dyer, 1997). The producers should search for information about the lowest prices of inputs and the highest prices to sell their products to earn a profit. The cost incurred to find out the supplier who offers the lowest price is called the searching cost (Hobbs, 1996). Sometimes in a situation where both suppliers with a low material cost and a buyer offering a higher price are found, there is a certain occasion where there a request to provide goods the parties have to sign legally binding agreements or contracts which involves contractive cost or negotiation cost as there is a payment to be made to the lawyer and other payments (Hobbs, 1996; Williamson, 1985).

The exchange relationship consists of another cost and that is monitoring cost which is the cost concerning the monitoring of the organizational activities (Hobbs, 1996). The contract

should be registered under government regulations and the cost involved in this process is identified as enforcement cost (Hobbs, 1996; Williamson, 1985). There are certain that has to be paid to the government when making a transaction that is also called enforcement cost which cost that emerges as a result of the transaction (Hobbs, 1996; Williamson, 1985). Thus, producers need to incur costs for searching buyers and suppliers, negotiating with exchange partners, long-term contracting, and monitoring the transaction agreements due to the asymmetrical information (Dyer, 1997; Hobbs, 1996; Williamson, 1985). Those costs are termed as transaction cost (Dyer, 1997; Williamson, 1985; Zhang, 2006). The main reason for transaction cost is the lack of information (Dyer, 1997; Zhang, 2006). If the information about suppliers who offer the lowest prices are readily available there is no reason to spend time and money searching for them and that reduces the cost.

Asymmetrical information blocks community members to make rational decisions which are called bounded rationality on the one hand and encourages exchange partners to behave opportunistically (opportunism) against the focal firm (Williamson, 1985). These reasons (bounded rationality and opportunism) appeared due to the asymmetrical information and therefore transactions tend to become costly. Therefore, TC is the costs incurred by a firm when using market mechanisms due to opportunism in the market and limitations of decision-makers in solving complex problems processing

information (bounded rationality) (Zhang, 2009).

**Livelihood Success:** In most simple terms' livelihood can be explained as various activities that people likely to be involved in their day to day life to fulfill their necessities and desires. However, this does not mean involving only an income-earning activity but a wider range of activities such as dealing with hazards and vulnerabilities, having strong interactions within household members, different external parties, communities, and institutions while managing strong social networks (Beall and Kanji, 1999). From an individual or household livelihood perspective, livelihood is all about achieving necessities; finding food, water, shelter, and clothes for human survival. Even if livelihoods do not exclusively depend on money or income, it largely impacts on determining an individual's livelihood phases. Wealthy people are more probable to achieve their livelihood success than people who are termed as poor, as they can easily reach their needs, resources, knowledge, and skills under prevailing economic circumstances.

As Scoones (1998) concludes:

*“The framework shows how, in different contexts, sustainable livelihoods are achieving through access to a range of livelihood resources (natural, economic, human and social capitals) which are combined in the pursuit of different livelihood strategies (agricultural intensification or extensification, livelihood diversification and migration)”*

To achieve sustainable livelihood, we must use remaining resources efficiently while using them most beneficially, for that institutions need to implement sound livelihood strategies to gain the most successful livelihood outcomes.

According to the sustainable livelihood analysis framework (Scoones, 1998), assets that influence livelihoods can be categorized into five major types named Human, Financial, Natural and Physical. Similarly, Moser (2006) has been identified this resource endowment includes two groups; tangible (natural, financial) and intangible (human, social) assets. This asset-based approach has been used by many scholars' (e.g. Scoones, 2009; Carney, 1998) in different contexts mainly in evaluating poverty, vulnerability, assessing livelihood strategies, risk management and improve livelihood outcomes. These effects would include gaining more income for the targeted population, better well-being, less vulnerability, better food security, more sustainable use of natural resources (Scoones, 2009).

**Human Capital:** In many recent studies human capital has been highlighted as a major driving force determining livelihood success (Mushongah & Scoones, 2012; Avila-Foucat & Rodríguez-Robayo, 2018). This is simply the labor resources included in households which have both qualitative and quantitative dimensions. Dimensions as household size, age, number of individuals engage in earning activities in a household can be defined under quantitative. Qualitative aspects mean

the level of education, health care, population growth, urbanization, displacement and skill of the members of a community. Among all education is the priority factor among most of the communities.

**Natural capital:** Natural resources that are useful for maintaining improved livelihoods can be broadly classified into three main categories; Land resources, Water resources, and forest resources, as well this includes other environmental resources, especially general pool resources. In addition, it also means for investing, accumulating wealth and transferring it between generations. In reality, the natural capital of households includes much more than land and water. Specifically, wildlife is important not only for daily consumption and survival (López- Feldman, 2014) but also for diversification into wildlife tourism activities (Avila-Foucat et al., 2018) and other features of biodiversity.

**Financial Capital:** This explains the financial resources accessible to people which provide them with different livelihood options. Total income, credit accumulations, savings, subsidies, remittances and pensions are some of the major determinants of financial capital. In the absence of markets for financial intermediation, people save in the form of liquid assets such as cash balance, or lumpy property such as livestock for their future benefit (Devereux, 2001).

**Physical Capital:** Physical or produced capital is basic infrastructure (transportation, shelter, water, energy, communication) and production

equipment and tools enable people to pursue their livelihoods. Physical capital is also related to the infrastructure necessary for agricultural production and transportation, along with household living conditions such as house infrastructure, appliances and basic needs (Ansoms & McKay, 2012). Moreover, the hand tools and machinery necessary for productive activities are the variables used to describe physical capital. communications infrastructure, roads and distance to urban centers are critical to market and service access and are also can be included in this category (Riveros-Cañas, Rodríguez-Robayo, and Cesín, 2016).

**Social Capital:** Amongst all types of capital under livelihood assets social capital has been identified as an increasingly important aspect by scholars (Avila-Foucat & Rodríguez-Robayo, 2018). Key aspects of this include cooperation among households (Mushongah & Scoones, 2012) membership within different groups, institutional networks, relationships of trust, norms and reciprocity.

However, these concepts have never been extended to create activities of productive assets or economic returns. Such contributions will have a direct impact on improving the livelihood status of the people. Sen (1997) noted that the possession of human capital not only means that people produce more efficiently; It also gives them the ability to connect with the world more meaningfully. A social capital debate too helps in developing the SL framework, which helps to expand

relationships between access, institutions and livelihoods. Thus, claim Serageldin and Steer, the notion of natural capital began to take a place, albeit subsidiary, alongside those of human and physical capital. On the one hand; each asset interacts with the others. Collaborations can also be devastating: when the investment of financial capital on the environment and social quality is harmful; Or where financial capital is produced in ways that reduce social capital (such as increasing inconsistencies, or promoting violence), weakening social networks through which people use different types of resources.

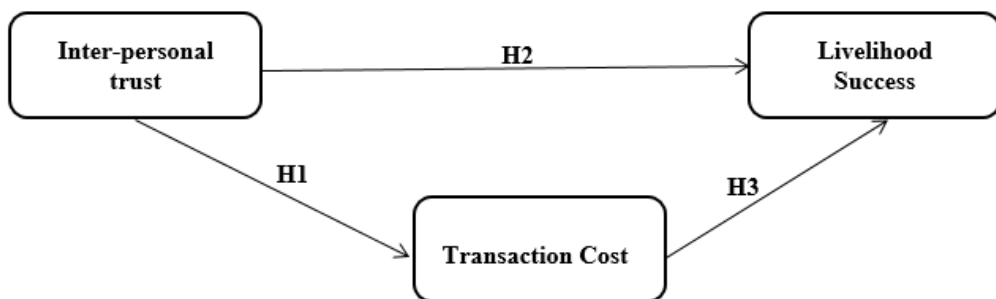
### 3. HYPOTHESES

This study analyses the impact of the relational aspect of social capital particularly inter-personal trust on transaction cost and livelihood success of the members in CBOs. Transaction cost economics as developed by Williamson (1985) focuses on the relationship between attributes of transactions and characteristics of the governance structures used to accommodate these transactions. A business firm needs to incur costs in searching for new buyers and suppliers, negotiating with exchange partners, long-term contracting and monitoring transaction agreements due to the asymmetrical information generated by imperfect market mechanisms (Dyer, 1997; Hobbs, 1996; Williamson, 1985). Those costs are termed as TC (Dyer, 1997; Williamson, 1985, 1985; Zhang, 2009). Further, Zaheer et al. (1998) have argued that the relationship between interpersonal trust TC to be negative. And trust in exchange

relationships has been hypothesized to be a valuable economic asset because it has been described as an important antecedent to effective inter-organizational collaboration.

A livelihood system is a dynamic realm that integrates both the opportunities and assets available to a group of people for achieving their goals and aspirations as well as interactions with and exposure to a range of beneficial or harmful ecological, social, economic and political perturbations that may help or hinder groups' capacities to make a living. Balatti & Falk (2002) highlighted that CBOs lead to generating relational social capital among members. Because the relationship among members develops

through frequent interaction, relational qualities including interpersonal trust and relational norms, collaborations, collective action among members develop with mutual understand (Abban et al., 2013). This study attempts to explore the nature of the relationship among inter-personal trust with TC and the livelihood success of the members in CBOs. The conceptual framework of this study is presented in figure 01 below. Based on the conceptual framework; the study constructed four hypotheses connecting those variables. According to the model, TC performs as a mediate variable between the independent variable (inter-personal trust) and the dependent variable (livelihood success of the members in CBOs).



**Figure 1. Conceptual Framework**

**3.1 Interpersonal Trust and Transaction Cost:** A trust-based relationship is favorable to the finding of mutually beneficial, integrative solutions for unforeseen contingencies of the transaction and to reaching agreements quickly when transaction partners trust each other (Doucette, 1996). Interpersonal trust produces reliability that can eliminate unnecessary administrative processes

to facilitate future transactions (Gu et al., 2008). Scholars have discovered that interpersonal-trust developed between exchange parties with continuous interaction is the most important element in mitigating the relational risk and opportunistic behaviors of exchange partners (Gambetta, 1998). Proving the above facts Dahlstrom and Nygaard (1999), with sufficient empirical evidence,

clearly explained that opportunistic behavior increases TC continuously and trust mitigates the opportunism. Zaheer et al. (1998) highlighted that relational ties mitigate the searching costs in exchange by allowing more open and honest sharing of information for a continuing relationship. In addition, negotiations will likely be more efficient because the partner will have greater confidence that information provided by the other partner is accurate (Dyer, 1997). Under conditions of high trust, trading partners will spend less time and resources on monitoring to see if the other party is fulfilling the conditions of the agreement. If each exchange partner is confident that the other party will not be opportunistic, then both parties can devote fewer resources to monitoring. If trust is high then each party will assume that the other party is acting in good faith and will interpret behaviors more positively. Thus, this study predicts that:

***H1** Interpersonal trust has a negative effect on the transaction cost of the members of CBO.*

**3.2 Interpersonal trust and livelihood success:** Interpersonal trust is useful and significantly affects the livelihood success of the members of community-based organizations. Members can access and evaluate information which improves livelihood because of inter-personal trust between the member of CBOs and exchange partners which directly affects the reduction of information asymmetry and opportunism. Trusting information improves livelihood performance minimizing TC

(Gunasekara, Premaratne & Priyanath, 2017). High trust relations imply more efficient exchange governance in the form of eased negotiations (Zaheer et al., 1998). As in literature, trust leads to enhance sustainable livelihoods through accessing information and resources (Priyanath & Lakshika, 2020). Previous researchers have stated that SC including trust makes a positive relationship with household welfare especially in rural poor (Grootaert et al., 2002). Therefore, inter-personal trust becomes one of the important factors among livelihood successes in order to mitigate TC (Priyanath & Lakshika, 2020). Thus, interpersonal trust facilitates the livelihood success of the members in CBOs. Therefore, the study proposes that:

***H2** Interpersonal trust has a positive effect on the livelihood success of the members of CBO*

### **3.3 Transaction cost and livelihood success**

Williamson (1985) defined TC as a transfer of a good or service between technologically separable interfaces, and North (1990) described as the costs of measuring the valuable attributes of what is being exchanged and the costs of protecting rights and policing and enforcing agreements (Dahlstrom and Nygaard, 1999; Hobbs, 1996). Members of CBOs who involve in livelihood activities need to incur a cost for searching new buyers and suppliers, negotiating with exchange partners, long-term contracting and monitoring the transaction agreements due to the asymmetrical information generated in imperfect market mechanism (Dyer,



1997; Hobbs, 1996; Williamson, 1985). Those costs are termed as TC which averts the livelihood success of the members in CBOs. TC may go high and it may significantly affect the economic performance (Priyanath & Premarathna, 2017c). Priyanath & Buthsala (2017) confirmed that a firm faced high transaction costs which discourages the firm's success. Yu, Zhu, & Chen (2015) found that the minimizing TC of households will increase their performance. If TC is low, performance is higher. Therefore, the study assumes that:

***H3 Transaction cost has a negative effect on livelihood success of the members of CBO***

### **3.4 Mediate role of transaction cost:**

The study discusses the relationship between the three variables as interpersonal trust and its impact on TC and livelihood success of CBOs. According to the conceptual framework, TC acts as the mediate variable between the dependent variable (livelihood success of the members in CBOs) and the independent variable (interpersonal trust). Under conditions of high trust, exchange partners will spend less time and resources on monitoring to see if the other party is fulfilling the conditions of the agreement. Interpersonal trust mitigates opportunism on the one hand and avoids the violation of the previous agreement on the other hand (Gulati, 1995). Therefore, developing a sound interpersonal trust always affects to mitigate transaction costs resulting from the success in livelihoods of the members in CBOs. Therefore, the study hypothesized that:

***H4 Transaction cost has a mediate effect on the relationship between Interpersonal trust and Livelihood success of the members of CBO.***

## **4. MATERIALS AND METHODS**

This was a survey-based study in which members of community-based organizations in Ratnapura District in Sri Lanka were interviewed by using a structured questionnaire. The study mainly selects the quantitative approach to make valid statistical conclusions between the variables. In addition, the study obtains the support of a qualitative approach to validate the operational definitions and improve the operationalization of constructs and questionnaire items. In order to test the hypothetical relationships, the study carefully planned to collect accurate data to analyze the research problem in order to present the effect of interpersonal trust on TC and the livelihood success of the members of CBOs in Sri Lanka.

Key measures of inter-personal trust included were credibility (Ganesan, 1994; Zaheer et al., 1998), ability (Mayer et al., 1995) and benevolence (Ganesan, 1994; Mayer et al., 1995) in institutional networks. Accordingly, credibility is evaluated employing the components honesty, flexibility, fairness and the assurance that the member will in no circumstance purposely do anything to damage the relationship), and three items are used to measure benevolence - all of which have been adopted from Ganesan (1994); Zaheer et al. (1998).

The study measured TC at the unit level, adopting Williamson's (1985) classification i.e. searching costs,



negotiation costs, monitoring costs and enforcement costs. Six items (adopted by Dyer and Chu, 2003) were used to measure searching cost. Five items adopted by Dyer and Chu (2003); were employed to measure negotiation cost. Four items (adopted by Dyer and Chu, 2003; Nguyen and Crase, 2011) were used to measure monitoring cost. Four items (adopted by Dyer and Chu, 2003) were used to measure enforcement cost. Livelihood Success: Livelihood success was measured based on five dimensions including physical capital, human capital, financial capital, natural capital and social capital (Gunasekara, Premaratne & Priyanath, 2017).

The survey will be undertaken to ascertain the interpersonal trust, transaction cost and livelihood of the members of CBOs. To determine the success in livelihood, members of CBOs will be used as the unit of analysis. Therefore, the population of this study comprises the members of CBOs. In Sri Lanka, there is no accepted registered list of CBOs, but at least a few CBOs functions at the village level. Therefore, the study selected popular and common three CBOs Samurdhi, Sanasa and Farmers' Societies to collect data. The study randomly selects three Divisional Secretariate Divisions Imbulpe, Pelmadulla and Nivitigala in Ratnapura district in order to conduct the survey. Then, contact the DS of respective divisions and obtain the list of CBOs engaged in income-generating activities. Based on it, the study collects data from at least twenty members of each CBOs. Accordingly, 164 members of CBOs (76 from Samurdhi, 53 from Sanasa and 35

from Farmers' Society) were interviewed. The data collection tool used in the study is a structured questionnaire administered by an enumerator to individual respondent in the sample.

Partial Least Square - Structural Equation Modelling (PLS-SEM) was used to test the hypothetical relationships. The measurement model is evaluated employing reliability and validity tests and the efficiency of the structural model was evaluated by multi-collinearity issues, R<sup>2</sup>, effect size (f<sup>2</sup>) and predictive relevance (Q<sup>2</sup>). The smart PLS (version3) software was used to analyses data.

## 5. RESULTS

The measurement model was tested under PLS-SEM to establish the construct reliability and validity of the outer model. The overall assessment was done under two steps, as first-order analysis and as the second-order analysis. As the first step, under first-order analysis, reliability scores between questionnaire items with construct were generated. Table 01 proves that all generated outer loading values are above the minimum threshold criterion of 0.7. On the other hand under the T-test, posits that factor loadings are statistically significant (all are above 1.96) at a 95% confidence level demonstrating that altogether constructs under first-order analysis satisfy the indicator reliability. Under internal consistency reliability, table 01 further depicts that both Cronbach's  $\alpha$  and composite reliability values are above 0.7. Then it can conclude the construct have internal consistency reliability as

Cronbach's alpha and/or Composite reliability should be 0.7 or higher to have internal consistency reliability of a construct. Further, table 01 confirms the convergent validity of the first-order constructs of the dependent variable as all the values are above 0.5 (AVE should be equal or greater than

0.5). On the other hand, regarding the discriminant validity, the table 02 depicts that none of the inter-construct correlation values are above the square-root of the AVE and then this satisfies the criterion of the discriminant validity of first-order constructs.

**Table 1. Analysis of the first-order constructs**

Construct	Loadings	t-Statistics	CR	$\alpha^*$	AVE
1. Livelihood Success (LS)					
1.1 Financial Capital			0.856	0.766	0.748
Increase secondary income due to CBO	0.836	23.79			
Increase savings due to CBO	0.893	57.09			
1.2 Human Capital			0.966	0.957	0.825
Improve professional knowledge due to CBO	0.959	192.34			
Improve general knowledge due to CBO	0.879	52.38			
Improve skills due to CBO	0.952	150.39			
Increase experiences due to CBO CBO	0.816	23.40			
Improve efficiency due to CBO	0.916	44.65			
1.3 Natural Capital			0.923	0.834	0.857
Sufficient water resources are available for agriculture	0.929	8.529			
The risk of natural disaster is low in this area	0.923	8.767			
1.4 Physical Capital			0.841	0.718	0.639
Increase water supply due to CBO	0.756	14.83			
Increase building condition due to CBO	0.858	32.97			
Increase land assets due to CBO	0.781	13.34			
1.5 Social Capital			0.886	0.758	0.648
Increase the mutual corporation among members of CBO	0.821	9.68			
Increase the trusting relationship among members due to CBO	0.789	7.55			
2. Interpersonal trust (TRUST)					

2.1 Ability			0.893	0.821	0.736
I have confidence about the exchange partners	0.86	36.41			
Exchange partners have much knowledge regarding my capacity and need	0.832	31.38			
2.2 Benevolence			0.892	0.838	0.673
Exchange partners are giving higher attention to my request	0.829	30.78			
Exchange partners are sacrifice time, energy and resources to fulfill my request	0.827	28.61			
They always ready and willing to offer me their assistance and support at any time	0.847	31.73			
2.3 Creditability			0.964	0.953	0.842
Exchange partners are honest	0.822	27.47			
Exchange partners can be trusted	0.799	20.53			
Exchange partners do not break the previous agreement	0.891	50.88			
Exchange partners are flexible	0.846	37.60			
Exchange partners are honest	0.857	42.74			
3. Transaction cost (TC)					
3.1 Searching Cost					
Labor cost for searching exchange partners	0.941	135.72			
Traveling cost for searching exchange partners	0.897	56.81			
Communication cost for searching exchange partners	0.925	105.92			
Time cost for searching exchange partners	0.929	101.42			
3.2 Negotiation Cost			0.950	0.934	0.796
Labor cost for negotiation with exchange partners	0.918	65.07			
Traveling cost for negotiation with exchange partners	0.936	109.29			
Communication cost for negotiation with exchange partners	0.761	21.49			
Time cost for negotiation with exchange partners	0.932	114.89			
3.3 Monitoring Cost			0.960	0.945	0.858
Labor cost for monitoring transaction	0.947	97.04			
Traveling cost for monitoring transaction	0.939	110.69			

Communication cost for monitoring transaction	0.892	50.79			
Time cost for monitoring transaction	0.926	74.29			
<b>3.4 Enforcement Cost</b>			<b>0.956</b>	<b>0.939</b>	<b>0.844</b>
Labor cost to resolve transaction disputes	0.906	58.24			
Traveling cost to resolve transaction disputes	0.92	76.29			
Communication cost to resolve transaction disputes	0.926	96.96			
Time cost to resolve transaction disputes	0.923	91.92			
Labor cost to resolve transaction disputes	0.906	58.24			

\*Cronbach's  $\alpha$ . (n=164).

Source: Survey data, 2020.

**Table 2. Discriminant validity of first-order constructs**

	1	2	3	4	5	6	7	8	9	10	11	12
1. FC	<b>0.864</b>											
2. HC	.665	<b>0.908</b>										
3. NC	.328	.269	<b>0.925</b>									
4. PC	.616	.509	.490	<b>0.799</b>								
5. SC	.252	.257	.225	.216	<b>0.805</b>							
6. Ability	.441	.502	.096	.391	.209	<b>0.858</b>						
7. Benevolence	.501	.515	.086	.476	.252	.793	<b>0.870</b>					
8. Creditability	.491	.570	.041	.508	.205	.766	.854	<b>0.863</b>				
9. Enforcement	.703	.729	.124	.626	.393	.510	.609	.619	<b>0.918</b>			
10. Monitoring	.728	.732	.051	.580	.263	.526	.631	.656	.892	<b>0.926</b>		
11. Negotiating	.721	.773	.147	.620	.368	.508	.608	.616	.917	.900	<b>0.891</b>	
12. Searching	.738	.747	.073	.575	.349	.497	.606	.593	.908	.916	.909	<b>0.917</b>

(n=164).

Source: Survey data, 2020

The study measured the validity and reliability of five constructs of the

dependent variable (LS) at the first-order level. Based on the latent variable scores of first-order

constructs, three constructs at the second-order level were formed under the dependent variable (LS). And same reliable and validity tests were conducted (See table 03). Accordingly, altogether indicator reliability of the ten latent variables, including three constructs under dependent variable (LS), four constructs under mediate variable (TC) and three constructs under independent variable (TRUST) at the second-order was evaluated.

According to table 03, all path coefficients (standardized factor loadings) were well above the

threshold value of 0.7. On the other hand, all the T-statistics are above 1.96 and it depicts that all are significant at 95% confidence levels. Table 03 further displays that Cronbach's  $\alpha$  was higher than the required value of 0.7 and composite reliability was also higher than the recommended 0.7 value. With a higher level of Cronbach's  $\alpha$  and composite reliability, second-order constructs were developed in a reliable manner. Further, the results confirm the convergent validity of the second-order construct demonstrating the AVE above 0.5.

**Table 3. Analysis of the second-order construct**

<i>Construct</i>	<i>Loadings</i>	<i>t-statistics</i>	<i>CR</i>	<i><math>\alpha^*</math></i>	<i>AVE</i>
<b>1. Livelihood Success</b>			0.891	0.816	0.731
Financial Capital	0.895	52.793			
Human Capital	0.864	34.354			
Physical Capital	0.805	25.335			
<b>2. Inter personal Trust</b>			0.952	0.925	0.869
Ability	0.905	64.284			
Benevolence	0.949	118.664			
Creditability	0.942	112.664			
<b>3. Transaction Cost</b>			0.984	0.978	0.938
Searching	0.979	283.312			
Negotiating	0.969	309.744			
Monitoring	0.957	161.71			
Enforcement	0.967	184.069			

(n = 164)

Source: Survey data, 2020

Then the discriminate validity of the second-order constructs is presented in table 04 and it shows that none of the inter-construct correlation values were above the

square-root of the AVE and satisfied the criterion of the discriminant validity of the second-order constructs.

**Table 4. Discriminate validity of the second-order constructs**

Variable	LS	TC	TRUST
LS	<b>0.855</b>		
TC	0.837	<b>0.968</b>	
TRUST	0.615	0.647	<b>0.932</b>

Source: Survey data, 2020

The study assessed the multicollinearity of the structural model. It calculated VIF and tolerance level referring to the linear regression option in SPSS in order to check multicollinearity issues. Collinearity indicates that two constructs are measuring the same variable and it occurs when correlations among constructs are high (Hair et al., 2012). On considering the collinearity among the dependent variables in the structural model, VIF values of both TRUST and TC are 1.722 and Tolerance values are 0.581 for both variables. As VIF lower than the recommended threshold value 5 and the Tolerance value is higher than the recommended threshold value 0.2 for

both TRUST and TC; so it can prove that there is no multicollinearity issues were detected among variables.

Then the study assessed the significance of the path coefficients. Path coefficients show how strong the effect of one variable is on another variable. Using  $\beta$  value and t-

statistics, table 05 demonstrates the significance of path coefficients. In view of both path coefficients and t-statistics, all hypothetical relationships were accepted. Considering the  $R^2$ , LS has 71 percent of explanatory power. As the next step considering Q2, it resulted in the value as 0.515 which displays a substantial higher explanatory power.

**Table 5. Path coefficients and hypotheses**

Hypotheses	Path Coefficients	T Statistics	Decision
TRUST -> TC	-0.647	13.11**	Accepted
TRUST -> LS	0.127	1.89*	Accepted
TC -> LS	-0.755	13.71**	Accepted

(n= 164),  $R^2=0.71$ ,  $Q_2=0.515$

Source: Survey data, 2020

Finally, under the mediate effect (table 06), the coefficient of indirect effect takes -0.488 value and the coefficient under  $\beta$  depicts 0.127 amount. As the t-statistic takes 1.89 it is significant under the

90% confidence level. The VAF value reveals the strength of mediation. As it has taken 79.2 percent, a Complementary mediation of TC can be observed.

**Table 6. Mediate Effect**

Path	Direct effect model		Indirect effect <sup>s</sup>	$S_e^d$	t-stat <sup>e</sup>	Total effect <sup>f</sup>	VAF	Type of mediation
	$\beta^a$	t-stat	$axb$	(SD)	$(axb)/S_e$	$(axb) + c$		
TRUST- LS (c)	0.127	1.89	-0.488*	0.045	1.965	-0.612	-0.792	Complementary mediation
TRUST-TC (a)	-0.647	13.11						
TC - LS (b)	-0.755	13.70						

Source: survey data, 2020

As the results depicted in Table 05, reveals that there is a significant negative direct relationship between interpersonal trust and transaction cost. (The path coefficient = -0.647 or 64.7 percent) And t-statistics (t-value = 13.11) show a significant negative relationship between interpersonal trust and transaction cost. The generated results address the hypothesis H1 accordingly and provided evidence that interpersonal trust has a negative effect on the transaction cost of the members of CBO. Some scholars have also provided similar results showing the relationship between inter-personal trust and various types of transaction costs shows a negative relationship. Zaheer et al. (1998) empirically found that interpersonal trust is associated negatively with the negotiation costs. Dyer and Chu (2003)

empirically justified that the trust correlates inversely with the monitoring and the enforcement costs. Dyer and Chu (2003) explained that under the conditions of high trust among exchange partners will spend less time on ex-ante contracting because they are confident that the payoffs will be fairly divided.

The theoretical relationship between interpersonal trust and the livelihood success of the members in CBOs was tested using the second hypothesis H2. The generated results depict that a direct positive relationship is there between TRUST and LS of the members in CBOs. (Path coefficient = 0.127 or 12.7 percent) It shows a positive relationship among TRUST and LS of the members in CBOs and according to the t-statistic (t-value = 1.89), it is



significant under 0.10 significance level. Therefore, with reference to the study findings, it proves the second hypothesis; H2 interpersonal trust has a positive effect on livelihood success of the members of CBO. Abenakyo et al. (2007) found that interpersonal trust has the influence to improve livelihood.

Members of CBOs are unable to achieve their goals by themselves alone (Priyanath, 2017). To do so, they expect information, supports, resources and ideas from other members (Priyanath, 2017). Members of CBOs usually get support from other members to gather information, evaluate information, and get ideas and advice for their livelihood activities (Baker, 1990). Close members provide opportunities for interpersonal contact and lead to more positive feelings about providing supports, sharing information and resources with those with whom they develop a close relationship (Chow and Chan, 2008, Priyanath, 2017). Members of the CBOs who have strong trust would perceive greater social pressure for supporting and sharing their knowledge and information, because a good relationship based on trust results in high expectations of colleagues, including favorable actions (Chow and Chan, 2008). Thus, the members of CBOs have the ability to access information and get the

support to evaluate information. As a result, the ability to improve the livelihood of the members of CBOs becomes improve.

As demonstrated in Table 05 above, there is a significant negative direct relationship between transaction cost and Livelihood success of the members in CBOs ( $\beta = -0.755$  and  $t\text{-value} = 13.707$ ). As the path coefficient takes a negative value it proves that there is a negative relationship between TC and LS of the members in CBOs. Further, it describes that, if TC increases in one the LS of the members in CBOs will retard by 0.75. According to the literature, it is proven that increase of TC influence to decrease the performance of a particular economic activity. Hennart (1993) mentioned if a firm minimizes the TC, it has greater performance. Therefore, according to the study, it satisfies the hypothesis H3, TC has a negative effect on the livelihood success of the members of CBO.

According to table 06, it can observe the mediate effect of the transaction cost in between interpersonal trust and livelihood success of the members in CBOs. As per the findings of the study, it reveals that TC acts as the mediate variable between the independent (TRUST) and dependent variable (LS of members in CBOs). The

results discussed above show that there is a significant impact of interpersonal trust on mitigating transaction costs and improving the success of livelihoods of the members in CBOs. A situation in which the VAF is larger than 20 percent and less than 80 percent could be characterized as a typical partial mediation (Hair et al., 2017), and VAF above 80 percent indicates a full mediation. Therefore, according to table 06, TC has a complementary mediation between the interpersonal trust and LS of the members in CBOs. Accordingly, the study reveals that interpersonal trust and transaction cost have an impact to achieve success in the livelihoods of the members of community-based organizations.

## 6. CONCLUSION

This study attempted to identify how interpersonal trust affects transaction costs and the livelihood success of the members in community-based organizations. The results revealed that interpersonal trust has strongly contributed to mitigate the TC and thereby enhance the livelihood success of the members in CBOs. The results further confirmed that interpersonal trust leads to decrease transaction cost showing a negative relationship between trust and TC. Further, the results confirm that interpersonal trust increases the livelihood success of

the members in CBOs indicating a positive relationship between them. Moreover, TC plays a mediator role between interpersonal trust and the livelihood success of the members in CBOs. Thus, the study makes important contributions to the literature by providing empirical evidence related to interpersonal trust, TC and livelihood success of the members in CBOs. The study extends the understanding of the relative efficacy of social capital (inter-personal trust) and transaction cost economics into a different social and economic context. The study provides several valuable insights for policymakers revealing that livelihood success can be boosted by encouraging relational social capital (inter-personal trust) among members of CBOs because inter-personal trust facilitates livelihood success by mitigating TC. Interpersonal trust reflected by ability, benevolence and credibility will create a greater impact on reaping the success of livelihoods of the members in CBOs. Therefore, the study suggests policymakers to direct CBOs to arrange more activities to improve interpersonal trust among the members of CBOs. The study observes that most of the members of CBOs have developed close relationships with a few reliable members and exchange partners for regular transactions expecting to minimize TC. The study further suggests the members of CBOs to

establish direct linkages among other associates to create a better relationship between CBOs and new exchange partners organizing network formation activities. However, future researches are recommended to carry out more researches on focusing the relational social capital, transaction cost and economic success of other economic sectors as well.

**Acknowledgments:** This research was supported by the Accelerating Higher Education Expansion and Development (AHEAD) Operation of the Ministry of Higher Education funded by the World Bank.

## REFERENCES

- Abban, R., Omta, S.W.F., Aheto, J. B. K. and Scholten, V.E. (2013). Connecting the dots: a multiple case study of the network relationships of small and medium-sized enterprises (SMEs) in the non-traditional agricultural export (NTAE) sector of Ghana. *African Journal of Economic and Management Studies*, 4(1), 74-94.
- Alzola, L. M., & Robaina, V. P. (2005). "Servqual: its applicability in electronic commerce B2C". *Quality Management Journal*, 12(4), 46-57.
- Anderson, E., & Weitz, B. (1992). "The use of pledges to build and sustain commitment in distribution channels". *Journal of Marketing Research*, 29(1), 18-34.
- Ansoms, A. & McKay, A. (2012). A quantitative analysis of poverty and livelihood profiles: The case of rural Rwanda, *Food Policy*, 35(6), 584-598. DOI: 10.1016/j.foodpol.2010.06.006
- Avila-Foucat & Rodríguez-Robayo, (2018). "Determinants of livelihood diversification: The case wildlife tourism in four coastal communities in Oaxaca, Mexico". *Tourism Management*. 69, 223-231, DOI: 10.1016/j.tourman.2018.06.021
- Balatti, J., & Falk, I. (2002). "Socioeconomic contributions of adult learning to the community: A social capital perspective". *Adult Education Quarterly*, 62, 281- 298.
- Beall, J. & Kanji, N., (1999). *Households, livelihoods and urban poverty*, Birmingham, UK: International Development Department, University of Birmingham.
- Brashear, T., Boles, J., Bellenger, D., & Brooks, C. (2003). "An empirical test of trust-building processes and outcomes in sales manager-salesperson relationships". *Journal of the Academy of Marketing Science*, 31(2), 189-200.
- Bromiley, P. & Harris, J. (2006). *Trust, Transactions Cost Economics, and Mechanisms*. Handbook of Trust Research: Edward Elgar. DOI: 10.4337/9781847202819.00014

- Butler, J., & Cantrell, S. (1984). "A behavioral decision theory approach to modeling dyadic trust in superiors and subordinates". *Psychological Reports*, 4(2) 80-89.
- Carney, M. (1998). "The competitiveness of networked production: the role of trust and assets specificity". *Journal of Management Studies*, 35(4), 457-479.
- Cao, M., & Zhang, Q. (2011). "Supply chain collaboration: Impact on collaborative advantage and firm performance". *Journal of Operations Management*, 29(3), 163-180.
- Chen, Y. H., & Barnes, S. (2007). "Initial trust and online buyer behavior". *Industrial management & data systems*, 107(1), 21-36.
- Chiles, T., & McMackin, J. (1996). "Integrating variable risk preferences, trust, and transaction cost economics". *The Academy of Management Review*, 21(1), 73-99.
- Chow, W., & Chan, L. S. (2008). The social network, social trust and shared goals in organizational knowledge sharing. *Information & Management*, 45(7), 458-465.
- Coleman, J. (1988). "Social capital in the creation of human capital". *Journal of Sociology*, 94, 95-120.
- Conway, T., & Swift, J. (2000). "International relationship marketing, the importance of psychic distance". *European Journal of Marketing*, 34(11/12), 1391-1414.
- Dahlstrom, R. and Nygaard, A. (1999). "An empirical investigation of ex-post transaction costs in franchised distribution channels". *Journal of Marketing Research*, 36(2), 160-170.
- Devereux, S. (2001). "Livelihood Insecurity and Social Protection: A Re-Emerging Issue in Rural Development". *Development Policy Review*, 19(4), 507-519.
- Doucette, W. R. (1996). "The influence of relational norms and trust on customer satisfaction in inter firm exchange relationship". *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, 9(5), 95-103.
- Dwyer, R., Schurr, P., & Oh, S. (1987). "Developing buyer-seller relationships". *Journal of Marketing*, 51(2), 11-27.
- Dyer, J. (1997). "Effective interim collaboration: how firms minimize transaction costs and maximize transaction value". *Strategic Management Journal*, 18(7), 535-556.
- Gambetta, D. (1988). *Can we trust?* New York: Blackwell.
- Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58(2), 1-19.
- Ganesan, S., & Hess, R. (1997). "Dimensions and levels of trust:

- Implications for commitment to a relationship". *Marketing Letters*, 8(4), 439-448.
- Gunasekara, R.W.M.N., Premaratne, S. P. & Priyanath, H. M. S. (2017). "Impact of social capital on livelihood success of the members of community-based organizations in Sri Lanka", *International Journal of Academic Research in Business and Social Sciences*, 7(12), 1156 - 1167. DOI: 10.6007/IJARBSS/v7-i12/3746.
- Grootaert, C., Bastelar, V. & Thierry. (2002). "Understanding and Measuring Social Capital : A Multidisciplinary Tool for Practitioners. Directions in Development. Washington, DC: World Bank.
- Hallen, L., Johanson, J., & Mohamed, N. (1991). "Interfirm adaptation in business relationships". *Journal of Marketing*, 55, 29-37.
- Haque, A.K.I. (2007). "Better Relationships, Enhanced Development: The Role of Social Capital and Community Based Organizations in Development for Rural Bangladesh". Master's Thesis, Lund University, Bangladesh.
- Hobbs, J. (1999). "A transaction cost approach to supply chain management". *Supply Chain Management: An International Journal*, 1(2), 15-27.
- Huang, H. J., & Dastmalchian, A. (2006). "Implications of trust and distrust for organizations: Role of customer orientation in a four-nation study". *Personnel Review*, 36(4), 361-377.
- Hussain, A., Khattak, N. & Khan, A.Q. (2008). "The role of community-based organizations in rural development: A case study of selected CBOs in district Swat". *Sarhad Journal of Agriculture*, 24(4), 149-154.
- Lindskold, S. (1978). "Trust development, the GRIT proposal, and the effects of conciliatory acts on conflict and cooperation". *Psychological Bulletin*, 85(4), 772-793.
- López- Feldman, A. (2014). "Shocks, Income and Wealth: Do They Affect the Extraction of Natural Resources by Rural Households?". *World Development*, 64(1), 91- 100.
- Mayer, R., Davis, J., & Schoorman, D. (1995). An integrative model of organizational trust. *The Academy of Management Review*, 20(3), 709-734.
- Mitchell, P., Ferketich, S., & Jennings, B. (2007). "Quality health outcomes model". *Journal of Nursing Scholarship*, 30(1), 43-46.
- Morgan, R., & Hunt, S. (1994). "The commitment-trust theory of relationship marketing". *Journal of Marketing*, 50, 20-38.
- Mushongah, J. & Scoones, I. (2012). "Livelihood Change in Rural Zimbabwe over 20 Years", *The Journal of Development Studies*, 48(9), 1241-1257,

- DOI:10.1080/00220388.2012.671474
- Narayan, D. & Pritchett, L. (1997). "Cents and sociability: household income and social capital in rural Tanzania," Policy Research Working Paper Series 1796, The World Bank.
- Nielson, C. (1998). "An empirical examination of the role of "closeness" in industrial buyer-seller relationships". *European Journal of Marketing*, 32(5), 441 - 463.  
doi.org/10.1108/03090569810215812
- Priyanath, S., & Premaratne, S. (2017). "The effect if interpersonal trust on transaction costs of owner-managed small enterprises in Sri Lanka". *Sri Lanka Journal of Economic Research*, 5(1), 1-29.
- Priyanath, H. M. S., & Butsala, W. K. A. (2017). "Information, opportunism and business performance: A case of small businesses managed by women entrepreneurs in Sri Lanka". *Asian Journal of Multidisciplinary Studies*, 5(11), 330-339.
- Priyanath, H.M.S. & Lakshika, L.P.C. (2020). "Social Capital, Transaction Cost and Livelihood Success: A case of Samurdhi Community Based Organization in Sri Lanka", *International Journal of Management Studies and Social Science Research*, 2(2), 69 – 83.
- Priyanath H. M. S. (2017). "Effect of network structure on transaction cost of small enterprises in Sri Lanka: An empirical study". *Journal of Small Business and Entrepreneurship Development*, 5(1), 1-10. DOI: 10.15640/jsbed.v5n1a3.
- Putnam, R. D. (1995). *Making democracy work: Civic traditions in modern Italy*. Princeton: Princeton University Press.
- Rempel, J., Holmes, J., & Zanna, M. (1985). "Trust in close relationships". *Journal of Personality and Social Psychology*, 49(1), 95-112.
- Riveros-Cañas, Rodríguez-Robayo, & Cesín, (2016). "The role of bromeliads in rural livelihoods: An experience in Oaxaca, Mexico". *Journal of Sustainable Forestry*, 35(6), 451-468. DOI: 10.1080/10549811.2016.1203338
- Scoones, I., (1998). *Sustainable Rural Livelihoods: A Framework for Analysis*.
- Scoones , I. (2009). "Livelihoods perspectives and rural development", *The Journal of Peasant Studies*, 36(1), 171-196, DOI: 10.1080/03066150902820503
- Stone, W. & Hughes, J. (2002). "Social capital; Empirical meaning and measurement validity". Australian Institute of Family Studies: Melbourne.
- Svensson, G. (2004). "Vulnerability in business relationships: The gap between dependence and trust". *Journal of Business & Industrial Marketing*, 19(7), 469 - 483.

- Williamson, O. (1985). *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. New York, NY: The Free Press.
- Yip W, Subramanian SV, Mitchell AD, Lee DTS, Wang J, Kawachi I. (2007). "Does social capital enhance health and well-being? Evidence from rural China". *Social Science & Medicine*, 64, 35–49.
- Yu, C. J., and Liao, T., and Lin, Z. D. (2006). "Formal governance mechanisms, relational governance mechanisms, and transaction-specific investments in supplier–manufacturer relationships". *Industrial Marketing Management*, 35(2), 128- 139.
- Zaheer, A., McEvily, B., & Perrone, V. (1998). "Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance". *Organization Science*, 9(2), 141-159.
- Zhang, F. (2006). "Information uncertainty and stock returns". *The Journal of Finance*, 61(1), 105-136.



## **Impact of Service Quality Dimension on Customer Satisfaction of Domestic Electricity Consumers in Sri Lanka**

**U.S.Samaraweera<sup>1</sup> & R.A Rathnasiri<sup>2</sup>**

<sup>1</sup>Ceylon Electricity Board,  
SRI LANKA

<sup>2</sup>Department of Banking and Finance, Faculty of Business Studies & Finance,  
Wayamba University of Sri Lanka

Kuliyapitiya  
SRI LANKA

[udarasulakshana@gmail.com](mailto:udarasulakshana@gmail.com)<sup>1</sup>, [rathnasiri@wyb.ac.lk](mailto:rathnasiri@wyb.ac.lk)<sup>2</sup>

### **Abstract**

Electricity is becoming an essential part of life considering the increasing needs and wants of human beings. In Sri Lanka, Electricity is widely used for domestic purposes by Domestic Consumers. Customers are always expected to get the new connections within a short period of time, un-interrupted service at any time, affordable tariff system, easy payment facilities and customer-oriented attitudes of employees etc. Evidences do not prove that Ceylon Electricity Board (CEB) has been able to meet the above customer expectations fully. The problem was the gap between expected service and perceived service delivered to domestic electricity consumers by CEB. In some extent CEB is lacking behind of understanding about the customer expectations and thereby encountering difficulties in transforming customer expectations in to superior service quality specifications that employees can understand and execute. This study is an effort to come up with the solution to the major research problem that was identified by the authors as service quality identification through customer satisfaction. Current study desires to develop an empirical model of service quality in terms of electricity services that may form a basis for a better understanding of its determinants. Specifically, this study aims to identify the dimensions of service quality of electricity services provided by the Ceylon Electricity Board in North Western Province. Accordingly, scope of the present research is confined to service marketing concept: customer satisfaction. Customers are not only buying the product or arriving at the organization but including industry owners outside agencies, other outside personnel who are beneficiaries in the service offered by CEB. This study is based on the domestic electricity consumers in North Western Province in Sri Lanka. The North western province is divided in to seven areas. These seven areas are subdivided into twenty five consumer service centers. There were 863,581 consumers at the end of 2016. Using Johnson & Kubly (2007) simple sampling technique, sample size was found as 300. Therefore, 300 respondents were selected for 25 consumer service centers proportionate to the population of each consumer service center. Data were collected using a questionnaire, from 300 respondents. Customer satisfaction is measured with service quality dimensions of tangibility, empathy, responsiveness, reliability, assurance. Correlation analysis and multiple regression analysis were used

to analyze the data. The model framework developed based on the SERVQUAL model invented by Parasuraman, Zeithamal and Berry (1988). The results showed that tangibility, empathy, responsiveness, reliability and assurance had significant positive relationships on customer satisfaction. Based on the findings some suggestions for electricity utility were discussed. Findings will be useful to CEB for enhancing its effectiveness and to build up the high level of customer satisfaction. Moreover, findings of the study enrich the empirical literature and provide important messages for the policy makers and enlightening substantial scope for future research.

**Keywords:** Ceylon Electricity Board, Customer Satisfaction, Electricity Services, Service Quality.

## 1. INTRODUCTION

Consumer satisfaction is a key aspect in ensuring the continuity of liberalization and privatization policies set up during the last decades in the public service sector. Citizens' support to public policies must be ensured since after all, citizens are the end users. During the past few years, low satisfaction of citizens towards public services have made policy makers to consider changes in the way the public services are provided, including some relevant changes (Akinboade et al., 2012).

In Sri Lankan context, the Ceylon Electricity Board is a government sector monopoly organization. Especially, in the South Asian Region, Sri Lanka has been ranked the best one in terms of electrification rate according to the Central Bank Report (2013). Meanwhile, as a whole, public sector organizations have been stressed to deliver quality services and improve efficiencies (Randall, 2004). In addition, Since Sri Lanka gained independence in 1948, the public sector has undergone a number of transformations. The public sector is

under increasing pressure to demonstrate that their services are

customer-focused and that continuous performance improvement is being delivered. Importantly, In the Asian region, China and India have already achieved 8 percent of growth level (Gowan et al., 2001). The recorded average growth rate for the period 1977-2018 was 5.6 per cent in Sri Lanka (CBSL, 2018). Thus, with the expansion of economic activities, there will be greater demand for electricity or power generation in the country. This will signal out for more customer oriented quality service for the customers.

Generally, electricity power supply for the domestic and industrial sector took a vital role in economic development. In nutshell, electricity services are recognized as the live blood to the nation and its development. Further, it provides the power or energy to other industries to do the functions properly and perfectly. If there is a problem in terms of power supply, the whole economy will be in danger. Due to that, the government should focus on electricity services as a prominent and fundamental one.

Furthermore, in third world countries, many cases of violations of the rights, such as incorrect calculation of bills (increasing penalties, calculation on power capability, etc.) are reported.

An unreasonable restriction of power supply, is not adequately addressed by the electricity consumers (Balakrishnan et al., 1999).

Ceylon Electricity Board (CEB) is the largest electricity supplier in Sri Lanka, a body corporate established under the Parliament Act No.17 of 1969. With a market share of nearly 100 percent and it controls all major functions of generation, transmission and distribution of electricity energy to reach all categories of consumers nationwide. It is one of the only two on-grid electricity companies in the country; the other being Lanka Electricity Company. CEB earned approximately LKR 188 billion in 2016 with a total of nearly 5.64 million consumer accounts (www.ceb.lk).

Ceylon Electricity Board (CEB) manages all its business activities in such a manner which cares for the natural and manmade environment and contributes to sustainable development. By means of openness in dealing with environmental issues, they intend to create confidence in their activities on the part of the public, customers, authorities, employees and owners. Ceylon Electricity Board actively pursues a policy of incorporating and integrating environmental considerations into their activities. CEB have planned to develop and maintain an efficient, coordinated and economical system of electricity supply to Sri Lanka, while adhering core values of quality, efficiency and effectiveness, commitment, safety, professionalism and sustainability.

When analyzing the load curve of the daily electricity consumption in Sri Lanka, it is obvious that most of the electricity consumers are domestic users. However, when considering the developed countries in the world, electricity consumption is highly used for industrial purposes. Therefore, those countries get an economic benefit by utilizing electricity. Accordingly, the use of electricity for most developed countries is profitable. However, CEB presently faces a non-profitable situation but it serves the nation.

Electricity is becoming an essential part of life considering the increasing needs and wants of human beings. In Sri Lanka, Electricity is widely used for domestic purposes by Domestic Consumers. Because, Sri Lanka is now just above the level of a developing country and yet, electricity consumption for industrial purposes is relatively low. The main problem facing CEB is most of its consumers are found not to be satisfied with the services provided by CEB.

**Table 1. Consumer complaints in North-Western Province**

Year	No of Complaints
2010	9533
2011	10435
2012	12118
2013	12584
2014	13059

Source: Summary of Consumer Complaints- 2014

Above table shows the complaints which the Ceylon Electricity Board had for their services throughout the last few years in NWP. Also the gap

between a customer's expectation before and after service consumption affects the level of a customer's satisfaction or dissatisfaction (Clow & Vorhies, 1993). Therefore, an attempt was made to find the Impact of the Service Quality Dimensions towards Customer Satisfaction. The questions of this research to find out relationships between each service quality dimension with customer satisfaction, How service quality dimensions effect on customer satisfaction & find out the most influential service quality dimension which can affect for the satisfaction.

## 2. LITERATURE REVIEW

In present service quality is considered as one of the major determinants in measuring the success of any industry and majority of the marketers agree that service quality has created a significant influence on customers to differentiate the organizations which are competing and contributing towards the customer satisfaction effectively (Parasuraman et al., 1985). Asubonteng et al., (1996), has mentioned that service quality is the difference between customer expectation for service performance before they encounter the service and their perception of the received services. Service quality can be described as the delivery of excellent or superior service in relation with the customer expectation (Zeithaml et al., 1996). Some researchers have described service quality as a multidimensional construct and this is considered as a result of the comparison which customers make between the expectations and the perception of the way the services are

being performed. There is a positive correlation between service quality and customer satisfaction (Khan & Fasih, 2014). SERVQUAL Scale is one of the most accepted service quality assessment scales. It was developed by Parasuraman, et al., (2005). It is used in five categories (tangibles, reliability, assurance, empathy and responsiveness) to measure service quality.

Many researchers have given various definitions relevant to the word "Service" under different dimensions. As mentioned by (Arslan et al., 2015) in their research service quality is considered as one of the main factors which affects customer satisfaction and due to that reason, this is considered as an important factor in the Service Industry. As mentioned by them further among the variety of researches which were done in relation with service quality the researches which were done by (Zeithaml et al., 1988) are considered as the important ones. Arslan et al., (2015) further mentioned that Zeithaml, Parasuraman and Berry worked together and introduced a model to analyze the service quality named as "SERVQUAL Model". This model includes main factors such as Tangibility, Reliability, Responsiveness, Assurance and Empathy.

Eshghi, (2008) and Glaveli et al., (2006) define service quality as an overall assessment of service by the customer and they show that by defining service quality the companies are able to provide services with high quality resulting increased customer satisfaction. According to

Parasuraman et al., (1985) and Ladhari, (2009) when understanding the service quality, it involves acknowledging the characteristics of services such as intangibility, heterogeneity and inseparability. Thus, based on their views service quality can be measured easily. Further service quality can be described as the difference between a customer's expectation for service performance before encountering the service and their idea on the services received.

In the developing world service industry is considered as the backbone of the economy and this has an important place in the economy to support various fields such as agriculture and industrial sector. In a competitive business environment delivering quality services is the key to the success of the business and long-term survival of the business. (Parasuraman et al.,1985). Personalized, quality and friendly relationships with service providers are considered the best way to enhance customer satisfaction and attract new customers and the retention of the existing customers.

### **3. RESEARCH METHODOLOGY**

This study attempts to identify the link between the service quality and customer satisfaction related to CEB which is the main utility provider in

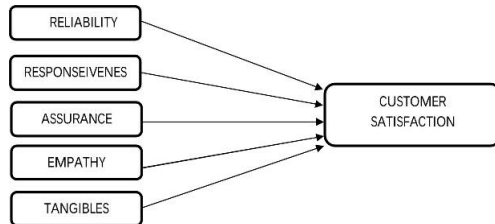
Sri Lanka. As per the administration purpose of CEB, North Western Province has been divided into seven areas. Namely Kurunegala, Wariyapola, Chilaw, Kuliyaipitiya, Wennappwa, Puttalam and Narammala. There are approximately 863,581 Electricity consumers in the province. A sample of 300 consumers out of total consumers were selected according to the Johnson & Kuby, (2012) sample calculator at 95 percent of confidence level. These 300 respondents were selected in 25 consumer service centers at several areas according to the consumer ratio.

Survey method is employed using a standard questionnaire, which has a set of questions as Part 1 & Part 2. Part 1, questions consist of demographic factors like age, gender, material status, education level. Part 2 consists of 26 statements, measuring the Tangibility, Reliability, Responsiveness, Assurance and Empathy. All items are measured on the likert scale and respondents are requested to indicate their choice on a 5-point scale, ranging from strongly disagree (1) to strongly agree (5).

First normality of the distribution would be analyzed to ensure the data is normally distributed. Then descriptive statistics would be performed to ensure averages and deviations of the collected data by using mean and the standard

deviation. Requirement of finding out reliability of the data Cronbach's alpha would be used.

The conceptual model of the study as follows.



**Figure 1. Conceptual Framework**

As shown in Figure 1, it illustrates that tangibility, reliability, assurance, empathy, responsiveness are the five service quality dimensions that can impact customer satisfaction (Khan & Fasih, 2014). Satisfaction, on the other hand, is more inclusive: it is influenced by perception of service quality, product quality and price as well as situational factors and personal factors. The gap between a customer's expectation before and after service consumption affects the level of a customer's satisfaction or dissatisfaction (Clow & Vorhies, 1993). Support of the view of customers who are exposed to a service could have their expectations of service quality influenced.

Research Hypothesis can be express as below:

H1: There is a positive relationship between Tangibility and customer satisfaction.

H2: There is a positive relationship between Empathy and customer satisfaction.

H3: There is a positive relationship between Responsiveness and customer satisfaction.

H4: There is a positive relationship between Reliability and customer satisfaction.

H5: There is a positive relationship between Assurance and customer satisfaction.

The analysis of data is based on the multivariable analysis which is a critical section of the research. The correlation analysis would be used to find out the relationship between different service quality dimensions and customer satisfaction. Secondly, multiple regression analysis is used to identify the impact of service quality on customer satisfaction.

#### 4. FINDINGS AND DISCUSSION

This sample consists of 59 percent male (177) and 41percent female (123) respondents. Among those 7 percent are under 21 years, 23 percent are belonging to the 21-30 age group, 31percent are belonging to the 31-40 age group, 21percent are belonging to the 41-50 age group & 18 percent are more than 50 years old.

The summary of personnel variables, which include gender, age, marital status, educational level is recorded in Table 1.

**Table 1. Summary of Sample Profile**

Personal variables		No.of Consumers	Percentage%
Gender	Male	177	59%
	Female	123	41%
Age	Under 21 years	21	7%
	21 to 30 years	69	23%
	31 to 40 years	93	31%
	41 to 50 years	63	21%
	Over 50 years	54	18%
Marital status	Single	63	21%
	Married	234	78%
	Other	3	1%
Educational level	Primary	12	4%
	Secondary	186	62%
	Graduate	48	16%
	Other	54	18%

Source: Survey Data

**4.1 Descriptive Statistical Analysis**

Since it is required to find the confidence of data mean and standard deviation has been found using SPSS. On this basis it can be decided whether views can be accepted or not. Table 2 in Appendix 1 shows the mean and Standard deviation calculated to each factor.

According to Table 2 in which all the variables are brought together, here it is obvious that for all the questions, participants have agreed, that conclusion found through the mean on each. For all the questions the mean has exceeded 2.5 which can be considered as the middle, which it exceeds 3.7 and gone up to 4.7 for all the cases. So that it is obvious that

almost all the participants agreed with the relevant statements.

**4.2 Reliability of Data**

Although data has been gathered and listed down, before processing them it is required to find the validity and reliability of data. It has been done through Cronbach's Alpha using SPSS.

**Table 3. Statistics of Reliability Coefficient.**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.912	.911	26

Source: Survey Data



According to Table 3, it is obvious that alpha value, which is known as reliability coefficient has exceeded 0.9. which means that there is very high consistency within the data. (Cronbach's Alpha > 0.7) Therefore, it is obvious that views collected in the current research are valid and having very high reliability therefore those can be used to further analysis.

#### 4.3 Correlation Analysis

Pearson correlation is calculated to find the association between the independent variables and dependent variable. Therefore, all dependent variable has been tested with its statements derived from the indicators (Table 4). According to the above table 4, there is Correlation between Customer satisfaction upon Tangibility, Empathy, Responsiveness, Reliability &

Assurance and that is within 99% confidence level. The correlation analysis revealed that all service quality dimensions have positive association with the customer satisfaction.

#### 4.4 Regression Analysis

Multiple regression analysis has been performed to assess the impact of service quality on customer satisfaction. Accordingly, in the regression model customer satisfaction regressed against the tangibility, empathy, responsiveness, reliability and assurance. The outcome of the regression analysis is useful to identify significant factors in explaining customer satisfaction on electricity consumption. The table 5, 6 and 7 reflect the outcome of the regression analysis.

**Table 5. Results of Regression Analysis -Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.924 <sup>a</sup>	.853	.850	.19944

a. Predictors: (Constant), Relibilit\_All, E\_All, T\_All, Assur\_All, Res\_All

**Table 6. Results of Regression Analysis -ANOVA Table**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	67.625	5	13.525	338.125	.000 <sup>b</sup>
Residual	11.615	294	.040		
Total	79.239	299			

a. Dependent Variable: CS\_All

b. Predictors: (Constant), Relibilit\_All, E\_All, T\_All, Assur\_All, Res\_All

According to the above table 5, Multiple regression of Customer satisfaction upon Tangibility, Empathy, Responsiveness, Reliability & Assurance obtained using SPSS. As results; Dependent variable which is Customer satisfaction has been shown to have an R Square value of 0.853 & Adjusted R Square value of 0.850. Which means 85% of the variation in the customer satisfaction is explained by the five factors of Tangibility, Empathy, Responsiveness, Reliability & Assurance.

According to the above table 6, ANOVA table of multiple regression of Customer satisfaction upon Tangibility, Empathy, Responsiveness, Reliability & Assurance obtained using SPSS. According to the table P value is less than 0.001 ( $P < 0.001$ ). This proves that the overall regression model is significant.

**Table 7. Results of the Regression Analysis-Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.419	.122		11.648	.000
T_All	.170	.025	.225	6.848	.000
E_All	-.094	.023	-.138	-4.054	.000
Res_All	.123	.037	.123	3.323	.001
Relibilit_All	-.101	.030	-.108	-3.391	.001
Assur_All	.035	.021	.060	1.672	.096

a. Dependent Variable: CS\_All

Source: Author Constructed

According to the above table 7, Coefficients table of multiple regression of Customer satisfaction upon Tangibility, Empathy, Responsiveness, Reliability & Assurance obtain using SPSS. As per

the results; Tangibility, Empathy, Responsiveness, Reliability have P values are less than 0.05. Assurance has P value of less than 0.1. Therefore, if we consider all predictors individually (Tangibility, Empathy,

Responsiveness, Reliability and Assurance) it proves that;

- There is a positive relationship between Tangibility and customer satisfaction.
- There is a positive relationship between Empathy and customer satisfaction.
- There is a positive relationship between Responsiveness and customer satisfaction.
- There is a positive relationship between Reliability and customer satisfaction.

## 5. CONCLUSION

The research presents the results of a study carried out on Impact of service quality dimensions towards customer satisfaction of the electricity service provided by the Ceylon Electricity Board in North Western Province of Sri Lanka. Customer satisfaction is the feeling or attitude of a customer towards a product or service after it has been used. SERVQUAL instrument developed by Parasuraman, Zeithamal and Berry (1988) is used to measure customer satisfaction. SERVQUAL addresses many elements of service quality divided into the dimensions of tangibles, reliability, responsiveness, assurance, and empathy. Descriptive statistics analysis was conducted to determine the characteristics of the data set. Then test the reliability of data by Cronbach's Alpha. Then Multiple regression analysis has been performed.

Research concludes that service tangibles such as modern looking equipment, physical facilities, service performed in promised time, neat

appealing of delivery personnel, the comfort at the service delivery point influenced directly and indirectly to the customer satisfaction. This means there should be well facilitated consumer service areas with A/C facility, car parking facility, modern electronic devices to carry out one day new service etc.

Service empathy such as individual attention, convenient operation hours, consider needs of customers at the service delivery point influenced directly and indirectly to the customer satisfaction. It is useful to develop a web based system to get new service connections, change the billing method, apply for bulk supply etc.

Service responsiveness such as not spending much time in line, employees are willing to help, eliminating potential errors, quick response at the service delivery point influenced directly and indirectly to the customer satisfaction. CEB introduced electronic meters (smart meters) with remote reading facilities which can overcome the potential errors of large scale bulk supply industries. Government should facilitate CEB to introduce smart meters to all domestic consumers as well. On the other hand CEB should well train their staff to maintain good service to their consumers.

Reliability such as correctly performing the service, error free records, solving the problems influenced directly and indirectly to the customer satisfaction. Consumers are always willing to have reliable service. As an example consumers are not aware of how to get a new single phase connection, new three phase

connection, change the account, if their electricity bill is correct or not, etc.

Service assurance such as employees should be trustworthy, feeling safe, employees consistently courteous influenced directly and indirectly to the customer satisfaction. These days CEB has introduced many protection systems to their switch gears and equipment. But still some people get electric shock due to lack of knowledge & illegal tapping. CEB should educate people using the media about these bad practices. On the other hand, employees should be well trained to provide trustworthy and courteous service to the consumer. Government & CEB should try to develop these facilities to increase the customer satisfaction.

## REFERENCES

- Achchuthan S., Sivathaasan N., Jayasundara J. M. R. S., (2014), "Service Quality Dimensions of Electricity Services: Evidence from Electricity Board in Sri Lanka", Asian Social Science; Vol. 10(17), Canadian Center of Science and Education, ISSN 1911-2017 E-ISSN 1911-2025
- Akinboade O.A., Kinfack E.C., Mokwena M.P., (2012), "An analysis of citizen satisfaction with public service delivery in the Sedibeng district municipality of South Africa, International Journal of Social Economics, Vol.39(3), 182-199 - <https://doi.org/10.1108/03068291211199350>
- Arslan M., Iftikhar M., Zaman R., Heilbronn H., (2015) "Effect of Service Quality Dimensions on Customer Satisfaction: A Comparative Analysis of Pakistan Telecom Sector.", University of Strathclyde.
- Asubonteng P., McCleary K.J., Swan J.E., (1996), SERVQUAL revisited: a critical review of service quality, Journal of Services Marketing, Vol. 10 (6): 20.
- Balakrishnan N., Kanet J.J Sridharan S.V., (1999), "Early/tardy scheduling with sequence dependent setups on uniform parallel machines", Department of Management, Clemson University, Clemson, USA.
- Central Bank Annual Report, 2013. Central Bank of Sri Lanka
- Central Bank Annual Report, 2018. Central Bank of Sri Lanka
- Clow, K. F. & Vorhies, D. W. (1993). Building a Competitive Advantage for Service Firms. Journal of Services Marketing, 7(1), 22-32 Vol. 3(1). Eshghi A., (2008), "Service Quality and Customer Satisfaction: An empirical investigation in Indian mobile telecommunication service.", Bentley University Sanjith Kumar Roy, Bentley University Shirshendu Ganguly, ICFAI University, India.

- Glaveli N., Petridou E., (2006), "Bank service quality: evidence from five Balkan countries", *Journal of Service Theory and Practice* 16(4):380-394
- DOI:  
10.1108/09604520610675711
- Gowan M., Seymour J., Ibarreche S., (2001), "Service quality in a public agency: same expectations but different perceptions by employees, managers, and customers" *Journal of Quality Management*, 6: 275–291.  
<http://www.ceb.lk>
- Johnson Kuby, (2007). *Elementary Statistics*, Brooks/Cole20, USA ISBN-13: 978-0-538-73350-2
- Khan M.M., Fasih M., (2014), "Impact of Service Quality on Customer Satisfaction and Customer Loyalty: Evidence from Banking". *Pakistan Journal of Commerce and Social Sciences*, Vol. 8 (2), PP:331- 354.
- Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1988). SERVQUAL: A Multi-Item Scale for Measuring Consumer Perceptions of Service Quality. *Journal of Retailing*, 64 (Spring), 21-40.
- Riadh Ladhari A., (2009), "Service quality, emotional satisfaction, and behavioural intentions: A study in the hotel industry" *Managing Service Quality: An International Journal*, Vol. 19 No. 3, pp. 308-331. <https://doi.org/10.1108/09604520910955320>
- Zeithaml, V.A., Bitner, M.J., (1996) *Services Marketing*. McGraw-Hill, New York.
- Zeithmal V.A., (1988), Consumer Perceptions of Price, Quality and Value, *Journal of Marketing*, Volume: 52 (3): 2-22, <https://doi.org/10.1177/002224298805200302>
- Zeithmal V.A., Bitner M.J., Gremier D.D., Pandit A., (2013), *Services Marketing, Integrating customer focus across the firm*, 6th Ed, New Delhi.

**Appendix 1****Table 2. Descriptive Statistics**

Code	Factor	Statement	Mean	Std. Deviation
T1	Tangibility	Do you think that electricity board should have modern-looking equipment	4.28	1.0481
T2		Do you think that electricity board's physical facilities should visually appealing	4.3	1.0199
T3		Do you think that electricity board's employees should neat appearing	4.41	0.7941
T4		Do you think that the materials associated with the service (forms, electricity bill etc.) should visually appealing	4.21	0.7937
T5		Do you think that Electricity board services should performed within the promised time	4.14	0.9794
E1	Empathy	Do you think that electricity board should provide you an individual attention	4.33	1.0061
E2		Do you think that electricity board should have convenience operating hours to your needs	4.1	1.0251
E3		Do you think that electricity board should have employees who give your personal attention	4.2	0.9386
E4		Do you think that electricity board should considers your wishes and needs	4.08	1.1613
E5		Do you think that electricity board employees should understanding of your specific needs	4.28	0.8864
Res1	Responsiveness	Do you think that in the electricity board you should not spent much time waiting in line	4.46	0.777
Res2		Do you think that electricity board employees should always willing to help	4.08	0.8382
Res3		Do you think that electricity board employees should quick in eliminating potential errors	4.67	0.6237
Res4		Do you think that electricity board employees should quickly respond to your requests	4.62	0.6132
R1	Reliability	Do you think that when you have a problem, the electricity board's employees should show sincere interest in solving the problem	4.71	0.5306
R2		Do you think that electricity board should correctly performs the service right the very first time	4.38	0.8274
R3		Do you think that electricity board should provide its service right the first time	4.52	0.7244
R4		Do you think that electricity board should insists on error free records (calculate electricity bill)	3.87	1.08182
A1	Assurance	Do you think that electricity board employees should trustworthy	3.93	0.96491
A2		Do you think that you should feel safe in using electricity power	3.75	1.24135

A3		Do you think that electricity board employees should consistently courteous towards you	3.93	0.99562
CT	Tangibility	Do you think that Customer satisfaction is depending on Tangibility	4.25	0.8926
CE	Empathy	Do you think that Customer satisfaction is depending on Empathy	4.39	0.8283
CRes	Responsiveness	Do you think that Customer satisfaction is depending on Responsiveness	4.7	0.5256
CR	Reliability	Do you think that Customer satisfaction is depending on Reliability	4.41	0.7938
CA	Assurance	Do you think that Customer satisfaction is depending on Assurance	4.43	0.8487



