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CONTENTS

Technology Orientation and Inbound Open Innovation at LMT Firms: An Empirical Study in Sri Lanka

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Abstract

Despite the growing interest in open innovation, previous studies have ignored the role of firms' strategic capability in evoking open innovation, especially in low and medium-low technology (LMT) firms from technologically less advanced countries. This study rectifies this problem by examining the impact of technology orientation on the implementation of inbound open innovation. Also, assessing the effect of the environment on the relationship between technology orientation and inbound open innovation, this study considers technology turbulence and market potential. The hierarchical regression analysis, based on cross-sectional survey data collected from 272 LMT firms in Sri Lanka reveals that LMT firms adopt inbound open innovation at a moderate level. LMT firms value technology and face above-average level technology turbulence and market potential. Results show that both technology orientation and market potential have a significant positive effect on the implementation of inbound open innovation, but no evidence from technology turbulence. Also, technology turbulence negatively, and market potential positively moderate the relationship between technology orientation and inbound open innovation. The findings indicate that LMT firms in Sri Lanka should exploit technologically superior products to meet customers' needs and attract the market. Also, technology orientation plays a salient role in attractive markets but not in technologically turbulent environments.

Keywords: Technology orientation, Technology turbulence, Market potential, Inbound open innovation.

1. INTRODUCTION

During the latter part of the twentieth century, the innovation landscape underwent a drastic change due to the growing mobility of highly experienced and skilled workers, presence of private venture capitals, shorten time to market (Chesbrough, 2006a), short innovation and product life cycles, the rising cost of research and development (R&D), the dearth of resources, etc. (Drechsler & Natter, 2012). Those changes caused to erode the underpinnings of closed innovation and emerge open innovation (Chesbrough, 2006a). The firms implement closed innovation by strictly controlling R&D activities. Contrary to that, open innovation

works through cooperating with outside firms over more porous organizational boundaries. Thus the way, the firms manage innovation and commercialize knowledge, underwent a fundamental shift (Chesbrough, 2003; Chesbrough, 2006a).

The resource-based view highlights that the firms apply assets and capabilities to achieve competitive advantages (Hunt & Morgan, 1995). Prior researches also show distinctive capability can promote innovation (Zhou, Yim, & Tse, 2005) and generate competitive advantages (Barney, 1991; Zhou et al., 2005). Irrespective of its reliability and validity, a few studies focus on the role of capabilities in implementing open innovation. Though the present literature discusses the effect of some capabilities such as absorptive and desorptive capabilities, a few studies have inquired about the effect of strategic capabilities on open innovation (i.e. Deegahawature, 2014b; 2014c).

On the other hand, open innovation studies lack in certain contexts though the scholars' speculate that open innovation applies across firms and countries irrespective of their technology and R&D intensity (Chesbrough & Crowther, 2006; Santamaría, Nieto, & Barge-Gil, 2009). Many studies focus on high-tech firms and ignore low and medium-low technology (LMT) firms (Heidenreich, 2009; Santamaría et al., 2009; Vrande, Jong, Vanhaverbeke, & Rochemont, 2009). West and Bogers (2017) also highlight the need for investigating open innovation in different firms such as small, new, and

not-for-profit firms. Though there are a few open innovation studies (Hossain & Kauranen, 2016, Santoro, Ferraris, Giacosa, & Giovando, 2018), yet the open innovation at small and medium-sized enterprises is to be investigated (Hossain, Islam, Sayeed, & Kauranen, 2016). Thus, limited studies on LMT firms appeal to this study (i.e. Deegahawature, 2014b, 2014c; Santamaría at al., 2009; Robertson, Smith, & von Tunzelmann, 2009). Further, many studies focus on the context of developed, technologically advanced economies (Karo & Kattel, 2010), and emerging economies (i.e. Kafouros & Forsana, 2012; Lee, Park, Yoon, & Park, 2010; Li & Kozhikode, 2009). However, except in a few studies (i.e. Deegahawature 2014a, 2014b, 2014c), open innovation literature largely neglected technologically less advanced countries. After reviewing the open innovation literature, Hossain et al. (2016) identify the contexts of developing countries and beyond high-tech industries as an avenue for future studies.

Aimed at filling this gap, this study attempts to explain how strategic orientation affects open innovation. Particularly, this study focuses on the role of technology orientation in implementing inbound open innovation at LMT firms in technologically less advanced countries. Also, environmental uncertainty stimulates changes in business strategies. Thus, this study considers the external environment to further assess how technology turbulence and market potential moderate the effect of technology orientation over inbound open

innovation. This study contributes to the present literature in three ways. Firstly, it helps to understand inbound open innovation at LMT firms in technologically less advanced countries, and their trend towards the technology orientation. Secondly, it promotes to comprehend the effect of capabilities on implementing inbound open innovation in low technology and low R&D intensity contexts. Consequently, it broadens our understanding of the role of technology orientation in open innovation. Finally, it deepens our knowledge on the effect of the external environment on open innovation implementation and technology orientation in the selected context.

This paper has been arranged as follows. The next section reviews the relevant literature on open innovation, technology orientation, technology turbulence, and market potential, and develops study hypotheses. The third section describes the methodology employed in this study. The fourth section reports and discusses the analysis and results of the empirical study, whereas the final section outlines the discussion, conclusions, and directions for future studies.

2. LITERATURE REVIEW AND HYPOTHESES

"Most innovations fail. Companies that don't innovate die" (Chesbrough, 2006a, p. xvii). It emphasizes innovation and its close link with firms' performance. Innovation plays a significant role at different levels such as global, national, firm, group, and individual (Herzog, 2011; West,

Vanhaverbeke, & Chesbrough, 2006). At the firm level, it impels firm growth and sustainability (Elmquist, Fredberg, & Ollila, 2009) and enhances organizational competitiveness and success (Edwards, Battisti, McClendon Jnr, Denyer, & Neely, 2005; Essmann & Preez, 2009; Smith, Busi, Ball, & Meer, 2008).

The OECD (2005, p.46) defined innovation as "the implementation of a new or significantly improved product (good or service), or a process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations". Innovation exists in any new or significantly improved product, process, marketing method, and organizational method. Technological innovation alone has a limited effect on firm performance, thus firms should also innovate in terms of organizationally to create appropriate business models (Kolk & Püümann, 2008).

Chesbrough (2006a) highlights that the firms need to change the way they generate and commercialize new ideas. Accordingly, prior research used a linear innovation model, called closed innovation assuming innovation is a product of internal R&D efforts. Closed innovation believes in internal innovations, investing heavily on resources in internal R&D departments (OECD, 2008). In contrast, open innovation focuses on linking with outside firms over the more porous organizational boundaries. Open innovation refers to the "use of purposive inflows and

outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively. Open Innovation assumes that firms generate new ideas by using internal and external means, and commercializes them by internal and external paths, as the firms look to advance their technology" (Chesbrough, 2006b, p. 1).

A firm can link with external firms by adapting inbound and outbound open innovation. Accordingly, this study distinguishes two open innovation strategies. Inbound open innovation uses purposive inflows of knowledge/ technology to enable firms to acquire new knowledge and competencies, whereas outbound open innovation uses purposive outflows of knowledge to commercialize the technology enabling firms to seek out different paths to market. The former uses external technologies to advance internal innovation while the latter uses external pathways to commercialize internal technologies. This study focuses on outbound open innovation.

Firm performance depends on both opportunities and resources. As pointed out earlier, resources consist of assets and capabilities. This study distinguishes capabilities from other resources, and defines it as a "firm-specific resource – an organizationally embedded nontransferable resource which contributes to improve the productivity of other resources possessed by the firm" (Makadok, 2001, p. 389). Firms can only build capabilities (Teece, Pisano, & Shuen,

1997). As the resource-based view suggests, distinctive capabilities bring competitive advantages to firms. On the other hand, according to the dynamic capability perspective, firms should have an "ability to integrate, build and reconfigure internal and external competencies to address rapidly changing environment" (Teece et al., 1997, p. 516). Firms equipped with dynamic capabilities will respond to the erosion factors, which undermine closed innovation and promote open innovation, and finally, adopt open innovation. Among various capabilities, strategic orientation counts for innovation (Zhou et al., 2005).

Previous studies establish a causal link between strategic orientation and innovation (i.e. Bryan, 1999; Kumar, Boesso, Favotto, & Menini, 2012; Matsuno & Mentzer, 2000). Strategic orientation focuses on some principles that direct and influence a firm to generate intended behavior (Hakala, 2011; Hakala & Kohtamäki, 2011). These principles guide the firm to conduct its business with deeply rooted values and beliefs that motivate the firm to achieve superior performance (Gatignon & Xuereb, 1997). And technology orientation can represent strategic capabilities (Gatignon & Xuereb, 1997; Salavou, Baltas, & Lioukas, 2004; Zhou et al., 2005; Hakala, 2011).

Technology orientation reflects the inclination of a firm towards introducing or using new technologies, products, and innovations (Gatignon & Xuereb, 1997; Hult, Ketchen, & Slater, 2005). This adapts the 'technology pull'

strategy and assumes that customers prefer technologically superior products or services (Zhou et al., 2005). Two significant features of technology-oriented firms include: their willingness to acquire new technologies and apply state-of-the-art technologies. Thereby, such firms achieve product differentiation or cost advantages to satisfy and attract customers (Gatignon & Xuereb, 1997). Creativity and inventions become norms and values guiding the activities and strategies of the technology-oriented firms. Thus, such firms are proactive in acquiring new technologies and applying the latest sophisticated technologies in product developments (Gatignon & Xuereb, 1997). When attempting to acquire new technologies, they may willingly turn to outside since by default, LMT firms are weak in internal knowledge creation by R&D. Thus, a technology-oriented firm may prefer inbound open innovation through acquiring and using state-of-the-art technologies. Based on this argument, the theoretical speculations of the resource-based view and dynamic capability perspective, this study postulates the following hypothesis.

H1: Technology orientation has a positive effect on implementing inbound open innovation.

Turbulent Environment:
Environmental turbulence reflects the magnitude of change in the elements of environment. A dynamic, threatening, and complex environment is challenging the traditional approaches of management (Davis, Morris, & Allen, 1991). Due to the implications of a turbulent environment, firms tend to learn new ways to do business and compete (Davis et al., 1991) and create new strategies. The uncertainty created by the turbulent environment stimulates firms to change present strategies and be innovative in management approaches (Ettlie, 1983). The present study focuses on two aspects of environment turbulence: technology turbulence and market potential. Technology turbulence refers to the speed of change and unpredictability of technology in an industry environment (Jaworski & Kohli, 1993). Market potential indicates the extent of attractiveness of the market place, and is characterized by growth in customer demand and size (Song & Parry, 1997). A highly turbulent environment in terms of technology and market potential creates opportunities and challenges. Firms may change their present business strategies to utilize opportunities and face challenges, and finally to retain and sustain in the market (Ettlie, 1983; Li & Calantone, 1998). But some erosion factors such as high technology turbulence and difficulty in adapting to the rapid changes inhibit closed innovation and promote open innovation. Higher market potential spurs faster innovation resulting in higher market share and profit growth (Acemoglu & Linn, 2004; Song & Parry, 1997). Growing market demands firms to use new sophisticated knowledge to meet growing current and especially, latent needs of customers. LMT firms lack internally created knowledge due to weak R&D intensity, and therefore, have to rely on external knowledge sources. Thus, firms in a more technologically turbulent

environment and having higher market potential may tend to adopt inbound open innovation. Thus, this study postulates the following hypotheses.

H2: Technology turbulence has a positive effect on implementing inbound open innovation.
H3: Market potential has a positive effect on implementing inbound open innovation.

The turbulent environment in terms of technology and market potential creates opportunities for the firms. This helps firms enhance their customer base by meeting their current and future latent needs. Customers in a turbulent environment change their product preference and consistently seek new products, and firms appeal to potential customers and maintain current customers with new and upgraded products (Hanvanich, Sivakumar, & Hult, 2006). Firms' survival in such an environment, therefore, depends on the firms' ability to respond to the varying requirements of present and potential customers. Technology-oriented firms in turbulent environments incline to introduce and use new technologies, products, and innovations. Due to weak internal R&D capacity, LMT firms have to seek external knowledge sources to handle the changing technology requirements. Thus, technology orientation has a stronger effect on inbound open innovation in a technologically turbulent environment. In an attractive market, LMT firms need new knowledge to capture growing customer demand and market share. Particularly, they

may need such knowledge to meet the current and latent needs of customers in attractive growing markets. Thus, technology orientation may have a stronger effect on inbound open innovation in a highly potential market. Therefore, the study postulates the following hypotheses.

H4: Technology turbulence positively moderates the relationship between technology orientation and implementing inbound open innovation.
H5: Market potential positively moderates the relationship between technology orientation and implementing inbound open innovation.

3. METHODOLOGY
3.1 Sample and Data Collection

This study aims to investigate the effect of technology orientation, technology turbulence, and market potential on implementing inbound open innovation, and evaluate the moderating effect of technology turbulence and market potential focusing on LMT firms in technologically less advanced countries. LMT firms in Sri Lanka were selected as the empirical setting.

This study collected data through a questionnaire based on the cross-sectional survey method. In accordance with OECD categorization of industries, five industries out of nine in the LMT category (Hatzichronoglou, 1997; Hirsch-Kreinsen, 2008) were selected based on the number of firms in the industry. Selected industries were Rubber and plastics products, Basic

metals and fabricated metal products, Wood, pulp, paper, paper products, printing and publishing, Food products, beverages and tobacco, Textiles, textile products, leather, and footwear. Other industries were dropped due to a lower number of firms. This study selected 660 firms employing 25 or more employees as the sample by proportionate stratified random sampling method (population was 2,496 firms). Allowing for a 50 percent non-response and rejection rate, the study planned to gather 330 responses. However, only 312 firms responded (yielding 47.3 percent response rate), and 40 responses were discarded due to incompletion. Finally, 272 useable questionnaires were retained for the analysis (yielding 41.2 percent net response rate).

3.2 Variables and Measures

This research uses reflective measures to operationalize constructs. The measure of technology orientation was adapted from Zhou et al. (2005) who developed it based on Gatignon and Xuereb (1997), and Hurley and Hult (1998). Several studies have used and validated this scale in innovation (i.e. Gatignon & Xuereb, 1997; Zhou et al., 2005). This scale consists of four items, and captures the inclination of a firm towards introducing and using new technologies, products, and innovation. The measure of technology turbulence was derived from Zhou and Wu (2010) who developed it based on Jaworski and Kohli (1993). Using four items, this scale measures the extent to which the technology in an industry varies. This

scale is appropriate since the same has been used in several open innovation studies (i.e. Hung & Chiang, 2010; Lichtenthaler, 2009). The measure of market potential was adapted from Song and Parry (1997), and it captures the extent of attractiveness of the market in terms of growth in customer demand and size. Previous open innovative studies have used this four-item scale (i.e. Hung & Chiang, 2010). A seven-point Likert scale ranging from 1 = "strongly disagree" to 7 = "strongly agree" captured the responses. Also, the extent of implementing inbound open innovation was measured by adapting the procedure of Laursen and Salter (2006). Finally, this study converted it to a 10-point index where one indicates 'use of no inbound open innovation strategy' while ten indicates 'use of inbound open innovation strategy at the highest degree'.

Construct Validity: This study adapted Anderson and Gerbing (1988)'s two-step approach to refine and assess construct validity. Firstly, exploratory factor analysis was used to assess the multi-item scales (technology orientation, technology turbulence, and market potential). Communalities of all items exceeded the cutoff point of 0.50 (Hair, Black, Babin, & Anderson, 2009). Also, the factor loadings of all items were adequately higher than the theoretically expected valve (minimum was 0.81). Thus, all items were retained after the exploratory factor analysis. Secondly, confirmatory factor analysis was run for all focal variables. After deleting one item due to higher cross-loading,

the measurement model achieved a satisfactory fit to the data ($\chi 2$ [41] = 221.65, p < .001; goodness-of-fit index [GFI] = 0.89, root mean square residual [RMR] = 0.06; incremental fit index [IFI] = 0.96, normed fit index [NFI] = 0.95, comparative fit index [CFI] = 0.96). All factor loadings were statistically significant (p < .001). The composite reliability of

each construct measure (over 0.86) exceeded the minimum threshold point of 0.60 (Bagozzi & Yi, 1988). Also, the average variance extracted (AVE) of all constructs (0.78 – 0.91) was well above the minimum cut-off-point of 0.50 (Hair et al., 2009). Thus, the results confirmed adequate convergent validity and reliability of each construct (Fornell & Larcker, 1981).

Table 1. Basic Descriptive Statistics and Correlations

Variable	Mean	SD	1	2	3	4	5
1. Inbound open innovation	5.69	1.80	1				
2. Technology orientation	5.12	1.28	.54**	1			
3. Technology turbulence	4.48	1.17	.45**	.66**	1		
4. Market potential	4.60	1.06	.49**	.58**	.76**	1	
5. Firm age	17	9	.14*	.11	.13*	.24**	1
6. Firm size	107	365	.10	.17**	.17**	.17**	.20**

Notes: *N = 272; **p < 0.01, * p< 0.05*

Discriminant validity of the measures was tested by calculating the shared variance between all possible pairs of the construct, and then comparing them with AVE to determine whether they were lower than the AVE of the individual constructs (Fornell & Larcker 1981). Results show that all AVE values (0.78 – 0.91) were sufficiently higher than the shared variance with other constructs (0.34 – 0.55), supporting the discriminant validity. Accordingly, the results confirm adequate reliability and validity of the measures.

Also, the study considered two control variables focusing on the characteristics of the firms: firm age and firm size. The number of years from the start of the business was used to measure firm age. Firm age ranged from 1 to 60 years. 25 percent of the

firms were below 11 years of age while 25 percent were above 22 years of age. Firm size was determined by the number of employees in the firm. The number of employees in the firm ranged from 25 to 6000. 25 percent of the firms in the sample employed 42 employees while 25 percent of the firms employed over 95 employees.

4. ANALYSIS AND RESULTS

Table 1 presents descriptive statistics and correlations of focal variables. Results show that LMT firms in technologically less advanced countries adopt inbound open innovation at a moderate level (M = 5.69, SD = 1.80). LMT firms demonstrate a moderate level of technology orientation (M = 5.12, SD = 1.28). Also, they face an above-average level of environment

turbulence (technology turbulence: $M = 4.48$, $SD = 1.17$; market potential: $M = 4.60$, $SD = 1.06$). Results indicate that 13 correlations out of 15 are positive and significant. Also, technology orientation, technology turbulence, and market potential show a significant positive association with inbound open innovation ($p < .01$), supporting the posited relationships. Both technology turbulence and market potential are positively and significantly associated with technology orientation ($p < .01$). Though the firm age is positively and significantly associated with inbound open innovation ($p < .05$), firm size has an insignificant effect on inbound open innovation ($p = .103$).

The present study employed the hierarchical regression analysis to test hypotheses and assess the explanatory power of each variable (Aiken & West, 1991). This method is appropriate since it can explain whether interaction terms have significant effects over and above the direct effect, and thereby the existence of interaction effect (Wiklund & Shepherd, 2003). The scales, which were used to test the interaction effect, were mean-centered aiming at alleviating the possible effect of multicollinearity and explaining the effect of interaction terms (Aiken & West, 1991). The effect of multicollinearity was tested by the variance inflation factor (VIF), and calculated for all constructs in each regression model. The maximum VIF value within the models was 3.59, and it is far below the threshold value of 10 (Neter, Wasserman, & Kutner, 1990). Thus, the results alleviate the issue of multicollinearity. The results of the hierarchical regression analysis are presented in Table 2.

Table 2. Results of Hierarchical Regression Analysis

Variables	Model 1		Model 2		Model 3	
	b (s.e)[a]	β	b (s.e)[a]	β	b (s.e)[a]	β
Control Variables						
Firm age	.03 (.01)	.13[*]	.01 (.01)	.04	.01 (.01)	.07
Firm size	.00 (.00)	.07	−8.91E-5 (.00)	−.02	−8.40E-5 (.00)	−.17
Direct Variables						
Technology orientation			.56 (.09)	40[***]	.54 (.10)	.39[***]
Technology turbulence			−.03 (.13)	−.02	−.24 (.14)	−.15
Market potential			.45 (.14)	27[***]	.66 (.15)	.39[***]
Interaction effects						
Technology orientation × Technology turbulence					−.29 (.10)	−.22[**]
Technology orientation × Market potential					.26 (.10)	.19[**]
R	.16		.59		.60	
R²	.03		.34		.37	
Δ R²	.03		.31		.03	
R² (adj)	.02		.33		.35	
F	3.53[*]		27.61[***]		21.76[***]	

Note: Dependent variable: Inbound open innovation; N = 272; ***p<.001, **p<.01, *p<.05

[a] Unstandardized coefficients with standard errors in the parentheses and standardized coefficients are reported

Model 1 includes control variables only. Firm age shows a significant positive effect on implementing inbound open innovation ($\beta = 0.13$, $p < .05$), but no significant effect from firm size ($\beta = 0.07$, $p = .23$). Control variables account for only 3 percent variance in implementing inbound open innovation ($R^2 = 0.03$, $p < .05$). In model 2, the effect of direct variables is considered. Both technology orientation ($\beta = 0.40$, $p < .001$) and market potential ($\beta = 0.27$, $p < .001$) indicate significant and positive effects on inbound open innovation, but no significant effect from technology turbulence ($\beta = -0.02$, $p = .80$). This results support hypothesis 1 and hypothesis 3. However, results do not support hypothesis 2. Adding direct variables increases the R-squared significantly, indicating that direct variables explain a significant level of variance in implementing inbound open innovation ($R^2 = 0.34$, $\Delta R^2 = 0.31$, $p < .001$). Model 3 considers the interaction effect of environment turbulence: technology turbulence and market potential. The results show that technology turbulence has a significant negative moderating effect ($\beta = -0.22$, $p < .01$), contrary to the hypothesis 4. The results indicate that market orientation has significant positive moderation effect ($\beta = 0.19$, $p < .01$). This supports hypothesis 5. However, interaction terms account for only 4 percent of variance in implementing inbound open innovation ($R^2 = 0.37$, $\Delta R^2 = 0.04$, $p < .001$). Adjusted R^2 increases gradually from model 1 to 3, indicating that each model has a significant influence on the dependent variable even after considering the effect of other variables in the model (Tarling, 2009).

5. DISCUSSION AND CONCLUSION

Yet, open innovation in LMT firms and technologically less advanced countries has been less researched. Though prior literature has investigated several antecedent conditions for open innovation, they ignored the role of strategic capabilities in implementing open innovation. This study attempts to bridge this gap by investigating the effect of technology orientation on implementing inbound open innovation. Drawing on resource-based view and dynamic capability perspective, this research posits a positive causal link between capabilities and implementing inbound open innovation. Also, this study considers the role of environment turbulence by investigating the effect of technology turbulence and market potential, and consider their moderating effect.

Theoretical Contributions

Present study extends innovation literature in several ways. Firstly, this article broadens our knowledge about open innovation endeavors of LMT firms in technologically less advanced countries, and the effect of both firm age and firm size. The findings reveal that LMT firms in technologically less advanced countries are moderately inclined to inbound open innovation. This supports the scholars' speculation that open innovation counts across firms and countries irrespective of their technology and R&D intensity (Chesbrough & Crowther, 2006; Santamaría et al.,

2009), and at present, it is a global trend (Hung & Chiang, 2010). Also, results show that LMT firms are technology-oriented and thereby, proactive in acquiring and using new and sophisticated technologies, products, and innovations. Technology orientation in LMT firms in technologically less advanced countries is comparable to the same in China's emerging economy (Zhou et al., 2005). Results show that technology turbulence in LMT industries in Sri Lanka equal to that in medium and large industries in Germany, Austria, and Switzerland (Lichtenthaler, 2009), and it even exceeds Taiwanese electronic manufacturing firms (Hung & Chiang, 2010). Though LMT firms have attractive market potential, it is lower to the same in Taiwanese electronic manufacturing firms (Hung & Chiang, 2010). Compared to the high-tech firms in electronic, information technology and telecommunication industries in China, LMT firms in Sri Lanka mark relatively lower technology turbulence and market potential (Zhou & Wu, 2010). Further, the findings reveal that firm age influence implementing inbound open innovation. Older firms prefer open innovation than young firms. However, firm size shows an insignificant influence.

Secondly, present study adds to innovation literature by investigating technology orientation as an antecedent condition to inbound open innovation. Technology orientation shows an influential effect. Firms introducing and using sophisticated technologies in their development endeavors are more inclined to inbound open innovation. Accordingly, this finding confirms the reliability and validity of capability perspective in inbound open innovation, particularly firms' capability to satisfy the customers who seek technologically improved products. Since LMT firms are lagging in internally developed knowledge by R&D, they have to depend on the external knowledge to meet the growing and changing demand of current and potential customers for technologically superior products. Thus, confirming the theoretical speculations, the results suggest that technology orientation influence firm strategy - a pivotal resource in implementing inbound open innovation. Investigating the market orientation and open innovation, Arrigo (2018) concluded that market driven firms are inclined towards open innovation. This finding is in line with the previous finding that technology orientation positively influences the firm-performance (Masa'deh, Al-Henzab, Tarhini, & Obeidat, 2018).

Thirdly, this study widens our understanding about the influence of environment on open innovation by examining the effect of technology turbulence and market potential. The environment factors show inconsistent results. Technology turbulence shows a negative but insignificant effect while market potential shows a high positive effect on inbound open innovation. This may be attributed to frequent changes in technology increasing the cost of LMT firms in terms of accessing external technology assets (Lee et al., 2010). Also, in a turbulent environment,

firms face certain unfavorable situations creating threats such as smaller decision windows, changing decision constituencies, lack of predictable technology resource needs, etc. (Davis et al., 1991). LMT firms may be unable to cope with those threats since technology turbulence demands to acquire dissimilar knowledge from other sources. However, LMT firms may be immune to those unfavorable conditions since highly potential markets create opportunities. Opportunities created by attractive markets increase the need for new technological knowhow to satisfy customers' evolving current and latent needs, making LMT firms turn to external sources of knowledge. This explains the different influences of various unstable environments on inbound open innovation. Also, higher market potential increases the inclination of LMT firms towards inbound open innovation.

Fourthly, this study broadens our understanding of how environment factors moderate the effect of technology orientation on implementing inbound open innovation. The findings strongly suggest that the relationship between technology orientation and implementing inbound open innovation is weakened by increasing technology turbulence, and strengthened by increasing market potential. Technology orientation has a stronger effect in a technologically stable environment because an unfavorable turbulent environment discourages LMT firms to handle the threats. Also, opportunities created by highly attractive market spur LMT

firms to introduce and use new technologies and innovation to satisfy the evolving present and latent customer demand by creating new products.

Finally, this study adds to the open innovation literature by testing the proposed model with data from LMT firms in technologically less advanced countries. Many open innovation research focuses on high-tech firms (Heidenreich, 2009; Santamaría et al., 2009) and technologically advanced, developed countries (Karo & Kattel, 2010) and emerging economies (Kafouros & Forsans, 2012; Li & Kozhikode, 2009), limiting the generalizability of the findings despite the scholars' claim that open innovation is applicable across the firms and countries irrespective of their dissimilarities. The unique characteristics of LMT firms in technologically less advanced countries may enrich the open innovation theories. The findings confirm that irrespective of its originated context, the resource-based view work in LMT firms in technologically less advanced countries. Also, it confirms the effect of environment on strategic choice.

Managerial Implications

The study provides several managerial implications for LMT firms to facilitate implementing inbound open innovation. First, the findings provide empirical evidence that LMT firms in technologically less advanced countries adopting open innovation may implement and benefit from inbound open innovation — a feasible strategy in LMT firms. Second, technology orientation in LMT firms

indicates that customers desire to learn and try products embedded with new features that offer unique experience over existing products. This encourages LMT firms to introduce creative products rather than merely responding to customer preference. Third, the results suggest that firms can foster inbound open innovation by promoting technology orientation. Also, managers may understand the role of technology orientation in achieving competitive advantages. Fourth, the findings warn managers implementing inbound open innovation to consider the effect of environment. LMT firms would like to adopt inbound open innovation in an attractive market. Finally, findings show the different effects of the environmental factors, thus LMT firms should consider different environmental conditions. Firms' ability to respond to the customers' preference for technologically superior products or services is hindered by technological instability but is spurred by an attractive market with growth opportunities.

Limitations and Further Research

This study has several limitations that demand further investigations. First, this study focuses mainly on technology orientation and inbound open innovation. Further research can expand the present study by adding other capabilities — market orientation, entrepreneurial orientation, learning orientation, political and business ties, and outbound innovation. The collective effect of capabilities deserves our attention. Also, this study can be improved by incorporating the firms' assets such as physical resources.

Second, this study concentrates on environmental effect by considering only technology turbulence and market potential. It opens further research opportunities to consider the effect of other environmental conditions such as the government support, the intensity of competitive rivalry, industry characteristics and national culture. Third, the empirical findings are based on firms in five LMT industries (out of nine) in Sri Lanka. This study leaves out dissimilarities across the LMT industries, low-and-medium-low technology industry categories, and countries. However, the unique characteristics of industries, industry categories and countries may influence the present findings. This limits the generalizability of the findings and opens further research opportunities for cross-industry, cross-industry-category, and cross-country studies. Finally, this study postulates a causation mechanism from technology orientation as a strategic capability for implementing inbound open innovation. Though research in this nature prefers a longitudinal approach, this study adopted cross-sectional approach. Thus, the author appeals for additional longitudinal research design.

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Impact of an Organizational Culture Towards Job Performance: A Study on Colombo District Multinational Banking Employees

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Abstract

Banks play a critical role within the Sri Lankan financial system, as they are engaged in provision of liquidity to the entire economy, while transforming the risk characteristics of assets. This study is on defining and measuring of organizational culture and its impact on the employee performance. The objective of this study was to demonstrate conceptualization, measurement and examine various concepts on organization culture and performance. Therefore, the present research used cultural variables of values, believes, norms and subcultures and the impact on employee job performance. For the purpose of analyzing the data,100 respondents who were selected by using Stratified random sampling, from 5 multinational banks in Colombo district. Pearson Correlation and Liner regression were used as the tools to measure the performance. According to this study there was strong positive relationship between organizational norms and employee job performance. And there were moderate positive relationships between organizational values, believes, subcultures and job performance. Research shows that if employee were committed and having the same norms and value as per organizations have, can increase the performance toward achieving the overall organization goals. And organizational norms were most influential variable to employee job performance. Managers and leaders are recommended to develop the strong culture in the organization to improve the overall performance of the employees and organization.

Keywords: Organizational Culture, Job Performance, Values, Norms, Banking Industry

1. INTRODUCTION

Today's organization is predominantly dynamic as it poses large opportunities and challenges to the corporate practitioners and policy makers. Understanding such dynamism is very crucial to pursue the organizational strategic objectives. Banks also engaged in providing payment services, thereby facilitating all entities to carry out their financial transactions. Therefore, 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 economy.

Organizational culture is a pattern of basic assumptions that are considered valid and that are taught to new member as the way to perceive, think, and feel in the organization. Robbins (2011) stated that a system of shared meaning held by members that distinguishes the organization from other organization as organizational culture. Organizational development has certain factors that improve sustainability on basis of effectiveness.

The improvement in productivity leads to employee commitment as norms, values and objectives helps in improving culture of an organization. The system of organization was based upon effective establishment of culture that keep learning environment strong. The performance of employees improves by establishment of strong culture of an organization.

The loyalty of employee depends on upon knowledge and awareness of culture that improves behaviour of organization (Brooks, 2006). Organization culture have first time been identified by Administrative Science quarterly (Pettigrew, 1979). The value and norms of employee's basis upon management identification that help in improving employee performance. The different attributes of culture have been arranged on basis of norms and attitudes which help in differentiating one firm from another. (Forehand and von Gilmer, 1964). The awareness of quality helps in improving organizational and employee development.

The banking industry operates in a very competitive environment and as a result, job performances are very useful for flexible and just-in-time responses to competitive challenges. Traditionally, the banking industry has been more focused toward quantitative and technology mechanisms and organizational culture has not been very highly prioritized. Results of this study indicate that they will benefit from a focus on fostering an innovative, open, and risk supporting organizational culture.

1.1 Research Problem

Organizational culture has become an important segment in an organization which directly influences the performance. There were several studies have been done in organizational culture and organizational identity, job attitudes, innovation strategy etc. Most of studies have been taken cultural types for investigating the impact between organizational culture and job performance. As clan culture, hierarchical culture, adhocracy culture and market culture. But there were few studies organizational cultural variables and job performance. Such as Cultural norms, values, beliefs, subcultures, leadership etc.

The relationship between organizational culture and performance has engaged the attention of researchers for many years (Zakari, Poku & Owusu-Ansah 2013). While many culture researchers have devoted numerous articles to the nature and definitions of culture, relatively fewer articles have

contributed towards culture and performance research (Lee & Yu 2004). Majority of existing studies on organizational culture and performance have concentrated on developed countries (Zakari, Poku & Owusu-Ansah 2013) and very little has been done in developing countries (Davidson, 2003 as cited in Zakari, Poku & Owusu-Ansah 2013). Ojo (2009) emphasizes in his study that corporate culture is very important for every organization and that it has positive impact on employee job performance.

This is the gap researcher had identified and try to investigate more on that. The banking industry is the most competitive service industry in Sri Lanka. This competitive environment makes banking industry necessarily innovative, so the organizations in banking industry adopt innovations faster than their counterparts in any other service industry in Sri Lanka. Individual customers constitute a large part of banking portfolios in Sri Lanka. So many of the innovative practices target individual customers and online banking related products are among the most important new and innovative offerings in the banking industry.

1.2 Research Objectives

 1. To identify how cultural norms have effects on job performance in a multinational banking industry

2. To identify how cultural values have effects on job performance in a multinational banking industry

3. To identify how subculture has effects on job performance in a multinational banking industry.

4. To identify cultural beliefs have effects on job performance in a multinational banking industry

1.3. Significance of the study

This study will significant for business level managers how to develop the favorable culture within the executive level employees and how they maintain satisfied employee pool within the organization. In the future the organizational culture takes value in effecting performance in the Bank and directly effects on the employee performance and their career development.

It also helps employer that effect behavior of the employee in the organization and set different goals for achieving it. This research is purely based on the different factors and show direct relationship and impact on employee job performance and will ensure to cover all the possible factors in the research.

Now a day's organization culture has generally been interrelated to management. (Kotter and Heskett, 1992). The two essential factors that lead to effective culture management include structural stability and integration of superior standard of organization culture. (Schein, 1995) Certain characteristics of organization culture have been established in which set of norms, values and beliefs helps in perfect association between them. (Hodgetts and Luthans, 2003) At different level of organization culture different background, ethics and racial

differences impact upon performance. The similar organization culture with different backgrounds has common set of values and beliefs to be affected by organization systems. (Robbins & Sanghi, 2007) The attraction of organization norms, values and beliefs have strong affect upon performance and sustainability. (Stewart, 2010) The norms of employees' impact upon sustainable performance and management of organization culture as it leads to attainment of profitability.

2. LITERATURE REVIEW

Organization culture is widely considered to be one of the most significant factors of organization variables. Every organization has its unique organization culture to differentiate them from others and the culture reflects the behavior of employees in organization. The challenge of today's managers is managing diverse cultures work force employees from which have significant influence on the behavior at work, managerial practices, organizational effectiveness and efficiency. Despite the importance to researchers, managers, and policy makers of how organization culture contributes to organization variables, there is uncertainty and debated about what is known and not known.

2.1 Cultural values

O'Reilly & Chatman (1991), clarify Organizational culture as shared values that inform organizational members about how to behave appropriately. Organizations with a strong culture create clear and coherent values (Chatman & Cha, 2002; Saffold, 1988) and expect that members agree with and care intensely about those values (Jackson, 1966; O'Reilly, 1989), even if core values emphasize dissent and creativity (Flynn & Chatman, 2001; Sutton & Hargadon, 1996). The cultural values have an ability of influencing organizational human activities. Hofstede (1998) also mentioned that it has an ability to guide the human activities. Every culture is having unique collection of values. Those values are having high capability of influencing people activities.

2.2 Cultural norms

According to the investigations of Kotter and Hesket (1992) most successful companies are those directed and managed within very strong cultural norms. The activities and missions of organizations that have worked well in the past and which translate into norms, behavior and expectations about what is desirable ways of thinking can influence organizational culture.

2.3 Cultural beliefs

Shared beliefs which are in directly opposite to the values and beliefs of the broader organizational culture recognized as countercultures, it mostly formed around a forceful manager or leader (Kerr, J., & Slocum, J. W., Jr. 2005). This type of culture may be bearded by the firm whenever positively contributing to the improvement of the organizational performance. But it is considered as a danger for the original organizational culture. According to Deal and

Kennedy (1982), Culture of organization is considered strong, where the greater part of the employees holds the same type of beliefs as concern to the organization.

2.4 Subcultures

Subcultures have certain properties that can even strengthen an organization's overall organizational culture. First, subcultures vary in the extent to which they disrupt the overarching culture. Second, subcultures often emerge in response to changing demands and can serve as an outlet for members to express conflict and dissent arising during turbulent times. Thus, subcultures may provide a mechanism for changing fewer central values. Indeed, that subcultures are potentially important with respect to affecting core values may further substantiate how difficult it is to change an organization's culture (Trice & Beyer, 1984). Reducing change-induced disruption can be particularly advantageous if the overarching culture is strategically aligned and effective.

2.5 Relationship between organizational culture and performance

The relationship between organizational culture and performance has engaged the attention of researchers for many years (Zakari, Poku & Owusu-Ansah 2013). While many culture researchers have devoted numerous articles to the nature and definitions of culture, relatively fewer articles have contributed towards culture and

performance research (Lee & Yu 2004). Majority of existing studies on organizational culture and performance have concentrated on developed countries (Zakari, Poku & Owusu-Ansah 2013) and very little has been done in developing countries (Davidson, 2003 as cited in Zakari, Poku & Owusu-Ansah 2013).

3. METHODS

This research study follows a quantitative research approach with an exploratory research design as this study is going to investigate the impact of the independent variable (Organizational Cultural Norms, Values, Beliefs and Subcultures) on the dependent variable (Employee Job Performance).

Accordingly, the Research Model is depicted as below,
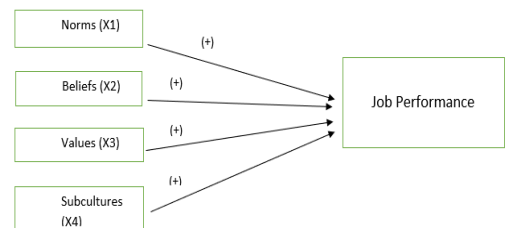
Figure 1. Research Model

Relevant data were collected through a self-administered questionnaire from bankers who were working in selected top 5 multinational banks in Colombo district. Accordingly, the sample consisted of 100 Executive level bankers were selected through Stratified random sampling method. Constructs of the questionnaire were operationalized through this rigorous literature review, and all scales were measured with five-point Likert scale.

Collected data were analyzed using Statistical Package for the Social Sciences (SPSS) 21 version. Data were analyzed using regression to measure the impact of variables and ANOVA was used to test the fitness of the model.

4. RESULTS

Cronbach's Alpha test of reliability was applied to test the reliability and it indicates the values above 0.7 which means higher internal consistency of the research and the questionnaire. Kolmogorov test was used to test the normality and calculated significant value of normality tests is greater than 0.05 (0.273 > 0.05) it can be concluded that data are normally distributed.

4.1 Regression Analysis

Table 1. Model Summary

	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
Model	.749a	.561	.542	.46954	1.640

The result from the Regression analysis shows the value of Pearson's correlation between organizational cultural variables and employees' performance is 0.561. It means all the independent variables are describing 56.1% of Dependent variable.

Table 2. ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.236	4	6.559	29.751	.000b
	Residual	20.503	93	.220		
	Total	46.740	97			

If the Probability of the model (F Statistic) of an overall significance test is less than the Significance level of 74% confidence level, then can reject the null hypothesis and accept that the model provides a better fit than the intercept-only model. Probability of the model (F Statistic) is .000b which indicates that overall model is significant under 0.1 significant level in determining the impact of convenience factors in organizational culture on employee job performance among bankers in Colombo district multinational banks.

4.2 Hypothesis Testing

Table 3. Coefficient Table

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	128	.455		282	.009
AV	.275	.131	.186	2.101	.038
AB	.221	.119	.169	1.861	.000
AN	.391	.088	.403	4.460	.000
AS	.178	.097	.165	1.839	.000

$$EP = C1 + C2(CV) + C3(CB) + C4(CN) + C5(S)$$

Where EP denotes employees' performance and has been treated as a dependent variable. On the other hand, (CV) Cultural Values, (CB) Cultural Believes, (CN) Cultural Norms, (S) Subcultures are independent variables in the model. In this model, C1 is intercepted, which shows EP is not influenced by CV, CB, CN and S.

According to the above results, C2, C3, C4 and C5 are significant, which define that organizational culture significantly affects employees' performance. Moreover, the value of adjusted R square is 0.542, which represents that 54.2 per cent variation in employee performance is explained by organizational cultural variables. Analysis of variance table shows the significant level at 0.000, which indicates that the applied model is a good fit. (Table 3)

EP = 128+ 0.275CV+ 0.221CB+ 0.391CN+ 0.178S

Table 4. Correlations

		AJP	AV	AB	AN	AS
Pearson Correlation	AJP	1.000	.551	.553	.671	.571
	AV	.551	1.000	.587	.479	.439
	AB	.553	.587	1.000	.477	.497
	AN	.671	.479	.477	1.000	.594
	AS	.571	.439	.497	.594	1.000
Sig. (1-tailed)	AJP	.	.000	.000	.000	.000
	AV	.000	.	.000	.000	.000
	AB	.000	.000	.	.000	.000
	AN	.000	.000	.000	.	.000
	AS	.000	.000	.000	.000	.
N	AJP	98	98	98	98	98
	AV	98	98	98	98	98
	AB	98	98	98	98	98
	AN	98	98	98	98	98
	AS	98	98	98	98	98

H_1a- There is a significant impact of organizational cultural values on employee job performance in multinational banking employees in Colombo district. According to Pearson's Correlation table 3, the relationship between cultural values and employee job performance was significant since, P=0.000<0.05. Also, as per table 4, the P value of cultural values was 0.551 and has significant impact on employee job performance. Therefore, the conclusion was derived as there is a significant impact of cultural values on employee job performance in multinational banking sector employees in Colombo district. Then, the alternative hypothesis was accepted.

H_2a- There is a significant impact of organizational cultural believes on employee job performance in multinational banking employees in Colombo district. According to Pearson's Correlation table 4, the relationship between cultural values and employee job performance was significant since, P=0.000<0.05. Also, the B value of cultural values was 0.553 and has significant impact on employee job performance. Therefore, the conclusion was derived as there is a significant impact of cultural values on employee job performance in multinational banking sector employees in Colombo district. Then, the alternative hypothesis was selected.

H_3a- There is a significant impact of organizational cultural norms on employee job performance in multinational banking employees in Colombo district. According to Pearson's Correlation table 4, the relationship between cultural values and employee job performance was significant since, P=0.000<0.05. Also,

the B value of cultural values was 0.671 and has significant impact on employee job performance. Therefore, the conclusion was derived as there is a significant impact of cultural values on employee job performance in multinational banking sector employees in Colombo district. Then, the alternative hypothesis was selected.

H_4a- There is a significant impact of organizational subcultures on employee job performance in multinational banking employees in Colombo district. According to Pearson's Correlation table 4, the relationship between cultural values and employee job performance was significant since, P=0.000<0.05. Also, the B value of cultural values was 0.571 and has significant impact on employee job performance. Therefore, the conclusion was derived as there is a significant impact of cultural values on employee job performance in multinational banking sector employees in Colombo district. Then, the alternative hypothesis was selected.

5. DISCUSSION FINDINGS

Hypotheses testing results reveal that all of the organizational cultural variables (values, norms, believes and subcultures) are related to employee job performance (contribution, efficiency). Where the highest influencing variable is cultural norms. And least influencing variable is subculture. The relationship was confirmed in this study based on correlation and regression analyses results. The hypotheses related the cultural variables-performance were

confirmed either. Beta coefficients reflected significant positive sign for culture (norms, values, believes and subcultures) and performance relationship and significant positive sign for the culture and job Performance. The result from this study also supports the empirical studies that showed the indirect effect of organizational culture on performance (Han et al., 1998; Tseng, 2010; Zheng et al., 2010).

Research findings provide direct support for these theoretical and empirical studies, it concludes that organizational cultural variables affect performance outcomes considering the relatively small sample size and measuring the performance based on figures in the study. Instead of jumping to a conclusion that there is direct relationship between organizational culture and performance outcomes, as well the positive impact on job performance. it is more reasonable to suggest that it is advisable to further explore direct and indirect culture-performance relationship in different contexts with different measurements and research designs. Organizational believes and subcultures have positive impact on employee job performance but not as much as norms and values. Managers need to consider organizational believes and how employees are trusting organizational structure on their point of view. Specially managers need to address ethical conflicts and try to give best solutions for that.

Subcultures create working place more enjoyable with their unique values. But managers should combine

these all subcultures for one direction. Since organizational vision, mission, goals and objectives are same for all.

6. CONCLUSION

Every person or employee in the organization has own different values and beliefs that he/she works with them. Whenever join any organization he/she allowed himself to internalize first with the organization's culture to know whether he come up with them or not. Culture is being investigated to impact of organizational process. Organizational culture has a significant impact on the performance of employees that can cause to improve in the productivity and enhance the organizational performance. Results of studies mostly show positive association between strong culture and performance improvement.

Overall influence of organizational culture on job performance as identified in a number of past researches carried out in non-Asian cultures (Aycan *et al*., 1999; Lund, 2003; Ogbonna & Harris, 2000; Shehzad *et al.,* 2013) have been substantiated in Saudi cultural environment as well. However, the impact of each element on the job performance was not found similar to these same researches.

Based on the findings, the study recommends that the management on multinational banks should consider adopting involvement culture traits as an organizational culture during job performance. This will allow the management to create a comprehensive understanding that can

be leveraged to influence stakeholders and create better decisions. The study recommends that the management keeps on adapting to change as well as re-assessing the effect and frequency of mitigation measures adopted. This will help to identify whether the adopted counteractive culture are making any acceptable difference.

Based on this study researcher can conclude that organizational culture has a positive impact on the employee's job performance. Research shows that every individual in the organization has different culture and he/she first try to adjust him with the norms and values of the organization. The adoption of culture of the organization is helpful for the employees to do their work efficiently and effetely. Positive development is easier to achieve when everyone is on a common path in the organization.

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The Relationship between Effective Communication and Employee Retention of Operational Level Employees in Apparel industry in Sri Lanka

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Abstract

Human resource is the most valuable asset for every organization, which is generating unique competitive advantages. Retention of operational level employees has become a severe problem in apparel industry in Sri Lanka. The managements of most of the companies assume that weaknesses or deficiencies of internal communication system may be the reason for this unsolved turnover issue. Accordingly, primary objective of present research was analysis the relationship between effective communication (EC) and employee retention (ER) of operational level employees in Apparel industry, Sri Lanka. In this research 248 operational level employees were selected based on convenient judgment sampling method. Data was collected through a structured questionnaire and analyzed using SPSS. Effectiveness of the communication has been measured through supervisor support (SS), upward communication (UC) and quality of information (QI).Findings of the hypothesis 1 (There is a significant relationship between EC on ER) revealed that there is a strong positive relationship between EC and the retention intention of employees, hypothesis 2 (SS has significant relationship with ER) revealed that there is a strong positive relationship between SS and the retention intention of employees, hypothesis 3 (UC has significant relationship with ER) revealed that there is a weak positive relationship between UC and the retention intention of employees and hypothesis 4 (QI has significant relationship with ER) revealed that there is a moderate relationship between QI and the retention intention of employees. Based on the findings, SS has the highest positive relationship with ER. Demonstrating care about employees, providing counselling, strengthening connection between managers and employees and encouraging two-way communication are possible action for the company to improve communication. In order to establish healthy upward communication procedure within the organization, problem card system, employee satisfaction survey, and suggestion box systems can be introduced.

Keywords: Apparel Industry, Effective communication, Employee Retention, Operational level employee

1. INTRODUCTION

Human resource is the most valuable asset for every organization, which is same as the foundation of a building. Skilled and talented employees are great value for every organization. According to Gberevbie, (2010) the human factor is very fundamental and has an important role for the success of the organization. That means it is very important in order to achieve the organizational goals and objectives. Physical capital resources, organizational capital resources and human capital resources are the basic three types of resources which provide competitive advantage for an organization (Liyanage & Galhena, 2012). Barney and Wright, (1997) identified firm's people as the most important asset of a company (as cited in Liyanage & Galhena, 2012).

Riordan et al., (2005) stated that, the human resource processes, skills, values, attitudes, knowledge, experiences strive to add economic values to the organizations and the industries (Gberevbie, 2010). As a result, it becomes very essential for organization in order to retain their workforce within the organization (Peterson, 2005, as cited in Gberevbie, 2010). As concerning the above arguments, the current researchers are able to argue that talented employees are great value for the companies.

Employee retention data reveals that 19.9% of Asian employees, 28.9% Europe employees and 14% USA employees intended that retention of current job is not an issue (Manhertz, 2011). When consider those statistics, it is clear that there is a problem of retaining skilled and talented employees within the organization. According to the previous studies based on the different financial and non-financial factors employees may tend to leave their organizations. It can be indicated those factors as cultural dimensions of the organization, supervisors' leadership styles, welfare facilities, communication, remunerations, working arrangements as the moderating factors to the employee attitudes on retaining or leaving the organizations (Dasgupta et al., 2012). These different factors may be influenced to the employee's attitudes and the behavior.

According to the Govaerts et al., (2011) the process of retention is very important for the future of the company in order to achieve the desired goals and objectives. Simply retention means, the effort of the employer to keep the most effective employees within the organization for achieving organizational objectives (Govaerts et al., 2011, as stated by Frank et al., 2004) and the previous researchers have identified that many organizational and employees' factors are affected to the employee retention (Govaerts et al., 2011). According to Bird et al, (2004) the organizational side factors which influence employee retention are meaningful work, opportunity for advancement, empowerment, new opportunities/challenges and Walker, (2011) has stated that compensation, recognition, appreciation on the works, opportunity to learn, positive relationship with the peers, good communication with the managers, rewards, leadership styles, and work-life balance can be influenced on

employee retention (as cited in Govaerts et, al.,2011).

On the other hand, the factors at the employee level which affected to the employee retention have been identified in the previous studies as age, seniority, level of education (Govaerts et al., 2011). According Christiaensenet al., (2009) age has positive impact on the retention (Van Hamme, 2009) have found there is a positive impact of seniority on employee retention. But when it comes to the level of education results are not aligned. Some studies have identified there is a negative relationship between retention and the level of education (as cited by Govaerts et al., 2011).

Garment industry has an important place in Sri Lankan economy (Dheerasinghe, 2009). Sri Lankan garment industry has a strong commitment to welfare of its employees. It is guided by visionary slogan "Garments without Guilt" (Export Development Board , 2016). Garment industry is the largest export industry in Sri Lanka. Total export value of textiles and garments is 4,884 Dollar Million for the year 2016 (Central Bank Anuual Report, 2016). The industry provides more 300,000 direct employment opportunities and more and 600,000 indirect employment opportunities for peoples (Export Development Board , 2016). The major problem associates with the garment industry is problems in developing and maintaining the required manpower (Dheerasinghe, 2009).

In order to retain skilled and talented employees within the organization employee retention factors such as remuneration, welfare facilities, communication, leadership style, working conditions are important. Gberevbie, (2010) recommended several employee retention strategies for organizations as "humane treatment of employees through words of encouragement, informing employees on a regular basis on why certain actions are taken". Effective communication is much useful for above all tasks. Communication is much important function for every aspect of any organization. Drucker, 1954 explained that five functions of management; planning, organizing, staffing, leading and controlling are totally dependent on the communication (Conrad, 2014).

According to Wyatt, (2006) "Effective communication is the lifeblood of a successful organization" (as cited in Dasgupta et al., 2012). Because effective communication generates the relationships and moderates the attitudes and behavior of the employees. Interpersonal relationship with one another is very essential part of an organizational life and the sustainable success. So effective communication builds the relationships within the organization. Supportive communication is needed for getting maximum contribution from the employees. Because if there is a collaborative effort with the supervisor and the subordinates it can be overcome the desired goals and objectives successfully.

Based on the empirical evidence most in every organizations use many of retention strategies in order to retain their employees and increase the retention ratio within the organization.

They focus on many factors to drive positively within the organization in order to retain the valuable employees. This research is going to be touched the retention of employees.

Voluntary turnover occurs when employee chooses to leave the job and involuntary turnover occurs when employer takes the displacing decision. Exit of substandard performers is considered as functional turnover and exit of effective performers is considered as dysfunctional turnover (Loquercio, 2006). Loquercio, (2006) identified family move, childbirth, serious illness or death are the causes for unavoidable turnover. Avoidable turnover is the manageable and important turnover which companies should be concerned.

Voluntary turnover is a major problem for companies in many Asian countries such as Hong Kong, South Korea, Malaysia, Singapore, and Taiwan and Sri Lanka (Rosse & Miller 1984, Janssen et al., 1998, as cited in Liyanage & Galhena, 2012). Accoring to Vandenberg, (1999) "Turnover occurs when an employee leaves a specific job or organization permanently and his/her services are no longer available" (Taylor et al, 2006). Turnover is "the termination of an individual's employment with a given company" (Tett & Meyer, 1993).

There may be several factors that affected to employee turnover such as low level of job satisfaction, workload, job mismatch etc. Direct and indirect costs of turnover can be identified such as hiring cost, training cost, cost of temps etc. Those costs are affected to whole company in many ways.

High level employee turnover is costly for organizations. Cost may be financial and non-financial. Otherwise employee turnover or law employee retention have direct and indirect cost on organization (Mercer, 2004 as cited in Loquercio, 2006). Labor turnover cost can be classified as separation cost, replacement cost, training cost and hidden cost (Mathis & Jackson, 2006, as cited in Liyanage & Galhena, 2012). Merck and company, the pharmaceutical giant, has estimated that its turnover costs are between 150 % and 250 % of the employee's annual salary (Mello, 2011, as cited in Iqbal, 2010).

High turnover ratio can be seriously hurdle productivity, quality, and profitability for any size firm (Iqbal, 2010). Tangible negative consequences of employee turnover are cost of recruitment, selection, training, production lost and intangible cost of employee turnover are moral impact, workload impact and team performance disruption (Achoui and Mansour, 2007, as cited in (Iqbal, 2010). Every time an employee quits form a company, a replacement must be recruited, selected, trained and permitted time on the job to gain experience (Samuel & Chipunza, 2009). When productive

employees quiet, organizations lose productivity, social capital and suffer customer defection (Sutherland, 2004, as cited in Samuel & Chipunza, 2009). When consider about the employee composition of garment industry in Sri Lanka, operational category comprised 94% of the total workforce and 90% from them are females (Dheerasinghe, 2009). According to Dheerasinghe, (2009) average employee turnover per garment factory in Sri Lanka 60% per annum and leaving from industry 25% per year.

Actual cost of turnover is difficult to estimate. But most obvious expenses such as advertising cost, recruitment cost and supervisory time are indication of the turnover cost (Ampomah & Cudjor, 2015). Furthermore, many researchers shown that high turnover might have negative effects on the profitability on organization if not managed properly (Wasmuth and Davis, 1993).

According to the previous researchers it has identified the employee retention situated in both organizational level and employee level (Govaerts et al., 2011). Birt et al., (2004) pointed out some organizational factors that are influenced to the employee retention are meaningful work, opportunities for career advancement, empowerment, responsibility, managerial integrity and new opportunities or challenges (as cited in Govaerts et al., 2011).

Moreover Walker, (2001) found seven factors that influence employee retention: compensation and appreciation of the performed work, provision of challenging work,

chances to be promoted and to learn, invitational atmosphere within the organization, positive relations with colleagues, a healthy balance between the professional and personal life, and good communications (as cited in Govaerts et al., 2011).

1.1 Hypotheses
Four hypotheses tested at the present research can be mentioned as follow,

Hypothesis 1: There is a significant impact of EC on ER.
Hypothesis 2: SS has significant impact on ER.
Hypothesis 3: UC has significant impact on ER.
Hypothesis 4: QI has significant impact on ER.

2. METHODS

The total number of operational level employees within appeal industry in Sri Lanka was the population of the present research. Researcher has selected 260 OL employees as sample according as there is unknown population in the present research. Finally, researchers have selected 248 valid questionnaires for analyzing purpose. Samples have been selected from population by using Stratified Random Sampling technique. Data collection has been done through primary sources and secondary sources for current study.

The validity of the constructs and the reliability of the scales were tested using data from the current sample through SPSS version 20. Other descriptive analysis (mean, standard deviation) has been done for the scale type item related to the constructs.

Correlation indicated the strength and the direction of a relationship between variables.

3. RESULTS

Pearson's correlation was applied to test the strength of association between independent variables and ER. Table 1 shows the results.

Table 1. Correlation Coefficients

		EC	SS	UC	QI
ER	Pearson Correlation	0.639**	0.637**	0.326**	0.546**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000
	N	248	248	248	248
**. Correlation is significant at the 0.01 level (2-tailed).

Hypothesis 1: There is a significant impact of EC on ER.

Pearson's correlation coefficient between EC and EC is 0.639 at 0.01 level of significance. It indicates strong positive relationship between EC and the retention intention of employees.

Hypothesis 2: SS has significant impact on ER.

Pearson's correlation coefficient between SS and ER is 0.637 at 0.01 level of significance. It indicates strong positive relationship between SS and the retention intention of employees.

Hypothesis 3: UC has significant impact on ER.

Pearson's correlation coefficient between UC and ER is 0.326 at 0.01

level of significance. It indicates weak positive relationship between UC and the retention intention of employees.

Hypothesis 4: QI has significant impact on ER.

Pearson's correlation coefficient between QI and ER is 0.546 at 0.01 level of significance. It indicates moderate relationship between QI and the retention intention of employees

Calculated correlation value between EC and ER indicates strong positive relationship (R = 0.639, P = 0.000) between EC and the retention intention of OL employees in apparel industry. And there is a 45.7 % positive influence (r^2 = 0.457, P = 0.000) of EC on operational level ER in the apparel industry.

4. DISCUSSION

Calculated correlation value between effective communication and employee retention indicates strong positive relationship (R = 0.639, P = 0.000) between effective communication and the retention intention of operational level employees in apparel industry. The previous literatures are proven that there is a significant relationship between effective communication and employee retention.

According to Hom, (1995) supervision, promotion process, fringe benefits as well as employee communication are negatively correlated with intent to leave and voluntary turnover (As cited in Taylor et al., 2006). Therefor positive correlation with the retention. According to the survey data, the

current researcher argued that there is a positive relationship between communication and employee retention.

According to Moncarz et al., (2009) work's finding there was a moderate positively correlation between communication and employee retention. (Retention of non-managers r=0.320 and retention of managers r=0.443). The current researcher has found the strong positive correlation between communication and the employee retention (r=0.639). Although there is positive correlation between communication and employee retention, the correlation value is greater than the Moncarz et al. (2009) study.

The independent variable, effective communication was comprised of three dimension and study has revealed the relationship between each dimension of effective communication and employee retention in the apparel industry.

Supervisor support has strong positive relationship (R = 0.788, P = 0.000) between the retention intention of operational level employees. Upward communication has a weak positive relationship (R = 0.326, P = 0.000) with the retention intention of operational level employees. Finally, quality of information has moderate positive relationship (R = 0.546, P = 0.000) with the retention intention of operational level employees.

The finding of correlation analysis is used to provide answer for second research question, "what is the most influencing variable of effective communication on employee retention

with reference to the apparel industry. Supervisor support is the most influencing factor on employee retention with reference to the apparel industry. It indicates higher R value than other factors and indicates strong positive relationship (R = 0.637) between the employee retention. Regression value also can be used to identify the most influencing factor on employee retention. R value 0.637 of supervisor support indicates that, there is 63.7 % positive influence of supervisor support on operational level employee retention in the apparel industry.

5. CONCLUSION

ER is one of the primary parameters to measure the health of many organizations. When employees leave an organization, they take along with them knowledge capital, relationships and investments. Talented employers never undermine the importance of retaining the best talent. Business strategies in general and HR policies and practices in particular must be framed in such a way that they ensure retention of key performers. Although there are so many factors that affected to ER such as compensation & rewards, job security, training & developments, work environment and organization justice etc., current study has focused only on effectiveness of communication.

Based on the results it has been identified that there is a positive significant impact of EC on operational level ER. The researcher recommended that there should be a very strong internal communication system within the organization. The

SS is very much important to build a strong relationship and establish an EC bridge between superior and the employees. Therefore, company should take action to improve SS. Demonstrating care about employees, providing help when individual have problems, strengthening connection between managers and employees, getting outside of the office, and encouraging two-way communication are possible action for the company to improve communication. In addition to that, it should be strengthening the open-door policy, where managers can give the fair attention on each and every problem related to the job and work environment. UC is much important to retain the current employees within the organization. In order to establish healthy upward communication procedure within the organization, problem card system, employee satisfaction survey, and suggestion box systems can be introduced. QI is very special factor to establish effective communication within an organization. Company is able to improve QI by making objectives and goals public, making internal knowledge and documents easily available, creating an internal language, and scheduling status meetings regular basic. Also using online tools instead of meeting and training peoples in the language of sharing are another effective method to improve QI.

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An Analysis of Demand for Microfinance in Sri Lanka

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Abstract

Necessity of microfinance services is upraising with the increased complexity of rural life style. Economic pattern of rural communities and the performance of informal financial sector are two cornerstones of the modern microfinance services. It is expected that the demand for microfinance will be increased as the complexity of rural life thrived. Yet, a downward trend is noted in the demand for microfinance by the rural community of Sri Lanka with the introduction of social benefit programmes particularly, the "Samurdhi" Programme. Thus, the motive of this study was to empirically evaluate the factors affecting the demand for microfinance. In particular, it was based on the clients of Samurdhi Prajamula Banking Societies (SPBSs) in Diganwewa Division, Puttalam District of Sri Lanka. The study was quantitative and used the survey research method. The sample was randomly drawn from Samurdhi beneficiaries who are currently the members of SPBSs. The data were gathered by administering a close-ended questionnaire while univariate and bivariate analysis analysed them. The results indicated that the general literacy & income of potential borrowers and also receipt of social benefit by the potential borrowers are significantly predicting the intention to obtain microfinance. Additionally, demand for loan securities, service features and interest charged for the microfinancing facilities are affecting the demand for microfinance. Among the factors related to borrower, literacy level and income of them found positively and significantly affecting the microfinance demand. Yet, a negative influence was noted with respect to receipt of social benefits on the demand for microfinance. All the factors, except service features of the credit facility, negatively affecting the demand for microfinance.

Keywords: Microfinance, Demand, Social benefit funds, Rural community, Samurdhi Programme

1. INTRODUCTION

Alleviation of poverty is first and foremost Sustainable Development Goals (SDGs) by the United Nations (UN, 2015), so do Sri Lanka. However, the government is facing a great challenge in poverty alleviation especially in creating appropriate employment opportunities for the growing labour force. It has been accepted universally that microfinance is an effective tool in creating employment, especially among

women and landless. Experiences from many developing countries show that microfinancing has significantly contributed towards alleviating poverty. Therefore, encouraging microfinancing and development of microenterprises have been one of the key strategies of the governments in the past. There are number of governmental, non-governmental, private, co-operative organizations and community-level groups involved in providing microfinance in Sri Lanka. Economically less-privileged people manage to mobilize resources to develop their enterprises and their dwellings slowly over time. Financial services could enable the poorer to leverage their initiative, accelerating the process of building incomes, assets and economic security etc. However, conventional finance institutions seldom lend down-market to serve the needs of low-income families and women-headed households. They are very often denied access to credit for any purpose, making the discussion of the level of interest rate and other terms of finance irrelevance. Resultantly, so much of unaffordable terms of loan itself leads to the lack of access to credit. The lack of access to credit for the impoverished people is attributable to practical difficulties arising from the discrepancy between the mode of operation followed by financial institutions, and to the economic characteristics & financing needs of low- income households (Omboi and Wangai, 2011). For example, commercial lending institutions require that borrowers have a stable source of income out of which principal and interest can be paid back according to the agreed terms. However, the income of many

self-employed households is not stable, regardless of its size. A large number of small loans are needed to serve the poor, but lenders prefer dealing with large loans in small numbers to minimize administration costs (Vetrivel and Kumarmangalam, 2010). They also look for collateral with a clear title - which many low-income households do not have. In addition, bankers tend to consider low income households a bad risk imposing exceedingly high information monitoring costs on operation. The primary problem that poor people face as money managers is to gather a 'usefully large' amount of money. Building a new home may involve saving and protecting diverse building materials for years until enough are available to proceed with construction. Children's schooling may be funded by buying chickens and raising them for sale as needed for expenses, uniforms, bribes etc. Because all the value is accumulated before it is needed, this money management strategy is referred to as 'saving up'. Often, people don't have enough money when they face a need, so they borrow. A poor family might borrow from relatives to buy land, from a moneylender to buy rice, or from a microfinance institution to buy a sewing machine. There are various obstacles to access formal financial sector for people who are too poor (Mpuga, 2010). So, the needy people are discouraged to reach financial services from formal financial sector (Vetrivel and Kumarmangalam, 2010). And also, low-income households had to suffer within more traps of debt. It seems to be that the microfinance has evolved with the help of continuous efforts towards

experiments and innovations of microfinance services in various countries because of the need of the most efficient and effective mechanism which is the better way of delivering financial services with requirements of the needy people.

Microfinance institutions can broaden their resource base by mobilizing savings, accessing capital markets, loan funds and effective institutional development support. A logical way to tap capital market is securitization through a corporation that purchases loans made by microenterprise institutions with the funds raised through the bond issuance on the capital market (Chen, Rasmussen and Reille, 2010). Savings facilities make large scale lending operations possible. On the other hand, studies also show that the poor operating in the informal sector do save, although not in financial assets, and hence value access to client-friendly savings service at least as much access to credit (Chen, Rasmussen and Reille, 2010). Savings mobilization also makes financial institutions accountable to local shareholders.

Therefore, adequate savings facilities both serve the demand for financial services by the customers and fulfil an important requirement of financial sustainability to the lenders. Microfinance institutions can either provide savings services directly through deposit taking or make arrangements with other financial institutions to provide savings facilities to tap small savings in a flexible manner.

1.1 Microfinance

The purpose of microfinancing is only to provide the capital to economically improvised people and reducing the poverty level. These institutions are driven by the goal of providing the financial services to those people who are not capable to gain the formal credit facilities (Modoran, Grashof, Fernando and Tennakoon, 2009; Chen, Rasmussen and Reille, 2010). Microfinance has emerged as a larger movement whose object is to form a world in which as everyone, especially the poor and socially marginalized people and households have access to wide range of affordable, high quality financial products and services, including not just credit but also savings, insurance, payment services, and fund transfers (Chowdhury, 2009). Many of those who promote microfinance generally believe that such access will help poor people out of poverty. For many, microfinance is a way to promote economic development, employment and growth through the support of micro entrepreneurs and small businesses. For others it is a way for poor to manage their finances more effectively and take advantage of economic opportunities while managing the risks (Chen, Rasmussen and Reille, 2010; Chowdhury, 2009). To the extent that microfinance institutions become financially viable, self-sustaining, and integral to the communities in which they operate, they have the potential to attract more resources and expand services to clients. Although there is demand for credit by impoverished people and women at market interest rates, the

volume of financial transaction of microfinance institution must reach a certain level before their financial operation becomes self-sustaining (Kausar, 2013). In other words, although microfinance offers a promising institutional structure to provide access to credit to the needy people, the scale problem needs to be resolved so that it can reach the vast majority of potential customers who demand access to credit at market rates. The question then is how microenterprise lending geared to providing short term capital to small businesses in the informal sector can be sustained as an integral part of the financial sector and how their financial services can be further expanded using the principles, standards and modalities that have proven to be effective. The term 'microfinance' refers to small scale financial services, primarily credit and savings to the economically active low income clients to produce goods and provide services (Hermes and Lensink, 2007). In addition to credit and savings, some microfinance institutions provide other financial services such as micro money transfer and micro insurance and also provide social intermediation such as development of social capital (through groups formation, training in financial and enterprise management and development of management capabilities) and external support services (Wrenn, 2007). The general features of microfinance are, small size of the loan not based on collateral or legally enforceable contracts, group guarantee, compulsory & voluntary savings, informal appraisal of borrowers & investments and access to repeat & bigger loans based on

repayment performances (Chen, Rasmussen and Reille, 2010). In general terms, microfinance is the provision of a broad range of financial services to those excluded from the formal financial system. Microfinance lending technologies are developed primarily around an analysis of clients' character, cash flows, and commitment to repay a loan, rather than on collateral requirement characteristic of asset-based lending technologies of traditional banks.

1.2 Microfinance in Sri Lanka

The formal rural financial sector in Sri Lanka comprises a large number of Micro Financial Institutions (MFIs). These MFIs, play an important role in meeting the rural credit needs in rural sector in Sri Lanka (Modoran, Grashof, Fernando and Tennakoon, 2009). MFIs have gained an increasing share of financial assets, which has been particularly helpful for satisfying the growing demand for loans and advances in economically improvised people in the country. However, performance of MFIs in Sri Lanka is less than satisfactory and highly criticized today (Modoran, Grashof, Fernando and Tennakoon, 2009; Fernando and Madurapperuma, 2009; Zeller, 1999). Poor performance has been attributed to poor management of assets and consequently, the sustainability of these institutions is uncertain (Fernando and Madurapperuma, 2009). Moreover, an attention to the efficiency of MFIs in Sri Lanka is more concern to the general public given collapses of several formal and informal MFIs. So, microfinance is increasingly being considered as one

of the most effective tools of reducing poverty.

Sri Lanka's formal rural finance sector is characterized by a diverse set of institutions comprising of Thrift and Credit Cooperative Societies (TCCSs), Cooperative Rural Banks (CRBs), Regional Development Banks (RDBs), and Samurdhi Banking Societies (SBSs). CRBs and TCCSs account for nearly half the microcredit market in terms of active borrowers and but many of the banks are unsustainable (Annual Report of SBS, 2014). Samurdhi with a vast outreach, is a social benefit government programme focused on alleviating poverty. Despite the long history and large number of institutions providing microfinance services particularly to the poor, there is limited knowledge on the impact of microfinance, reaching the poorest in Sri Lanka. The microfinance movement in Sri Lanka dates as far back as 1906 with the establishment of TCCSs under the Co-operative Societies Ordinance introduced by the British colonial administration. These were the first credit co-operatives to be established in Sri Lanka. The network of TCCSs was weak and in decline by the late 1970s and there were plans to wind up many societies while later the same were re-organized under a new brand: SANASA.

The Government plays a key role in the delivery of microfinance services. Various Government initiatives in the microfinance sector have been implemented from time to time. The Samurdhi Development Programme (SDP) was introduced in 1995, replacing the previous Janasaviya Programme, one of the largest of these initiatives. The Program had a savings and credit component which was administered through the network of 1,038 member-owned, SBSs. Commencing in 1985, the government established 17 Regional Rural Development Banks (RRDBs) through a parliament act. These institutions were given the task of reaching rural areas and smallholders who lacked access to formal financial services. These are of particular bank category registered under the governance of the Central Bank of Sri Lanka. By aggregating several RRDBs in to larger ones, six Regional Development Banks were formulated. Implementation of special microfinance programs was supported directly by the incorporation of these banks. Thereafter, establishment of specialized banks of such nature were commenced. These banks of special purposes, time-to-time staged social beneficial programmes. Janasaviya, Samurdhi program and Gamidiriya were outstanding programs among them. Supply of funds to microfinance institutions which are employed at small lending activities established under Janasavi trust fund in 1991 was commenced. So, a mechanism that is procured funds easily to microfinance institutions was created. The government's support too was received in promoting the activities of that field as the world recognition for microfinance services as an effective tool for poverty alleviation increases. During late 1980s and early 1990s, the entry of several local and international NGOs into the microfinance business was improved. Many of these NGO-MFIs originally combined microfinance activities with other social and community development

activities. Setting organizations aggregated the people of rural areas in to different community development programmes such as Sarvodaya Sramadana Campaign, and Lanka Mahila Samithi. Afterwards, NGOs too seemed engage in community development activities in rural areas. In 1980s, these rural organizations were accommodated to distribute credit and collect the deposits by various organizations. Therein, after 1980s, a remarkable growth of microfinance sector was noted (IPS, 2005)

1.3 Samurdhi Prajamula Bank (SPB)

Sri Lanka Samurdhi Authority established under the Samurdhi Authority Act No. 30 of 1995. It started to function with effect from 01st February 1996.The Samurdhi Movement which has the building of a prosperous Sri Lanka through a comprehensive development among disadvantaged groups in the society as its mission has kept numerous progressions as a pilot project towards sustainable development. Thus, it has contributed to bring in positive changes in the economic and social levels of low income families. This stipulated that the main functions of the Samurdhi National Programme are to improve; the economic & social conditions of youth, women, & disadvantaged groups of the society by broadening their opportunities for income enhancement & employment; integrating them into economic & social development activities; linking family level economic activities with community development projects at village, district, divisional, &

provincial levels; mobilizing their participation in the planning & management of projects & schemes for their upliftment; fostering co-operation among them; promoting savings amongst them and assisting them to obtain credit facilities,; facilitating the delivery of inputs & services of government departments, public corporations, local authorities, private sector organizations, & non-governmental organizations to beneficiaries of the programme; and to implement the governmental poverty alleviation programmes.

The administration of the program was armed by the Ministry of Samurdhi, Youth, and Sports. Three departments within the ministry coordinate various Samurdhi functions namely, the Department of Poor Relief, the Department of the Commissioner General of Samurdhi, and the Samurdhi Authority. These institutions offer small to medium volume credit facilities mostly to their members who can't afford collaterals to get loans from other financial institutions. Additionally, they offer various deposit catagories such as Member's deposits, Non member's deposits, Group deposits, Kekulu (Minor's accounts) deposits, Sisuraka, and Diriya Matha deposit. On averrage, these institutions satisfy amost all the fiancialng needs of the rural cummmity at their satisfaction.

From the theoretical and piratical perspectives, it is important to identify the way in which microfinance links with human life of rural community. Moreover, any further development in this field needed to back by the understanding on it in terms demand

for microfinance and the drivers of it. Additionally, issues related to microfinance of the members of SPBSs should be addressed in light of the knowledge on why they have asked / not asked for microfinancing. The role of field officers here in offering a good service is also not clear for policymakers. Intervention of other microfinancing institutions also yet to study. Specially, the impact of social benefit funds given to the members of Samurdhi programme has received the attention of neither administrators nor the researchers. Resultantly, we know very little about the status of the microfinancing taking place among the rural community, in terms of its drivers. Despite these concerns only few studies have been conducted to ascertain the demand for microfinance through SBs.

Necessity for microfinance services has been increasing along with the swelling complexity of rural lives (Modoran, Grashof, Fernando and Tennakoon, 2009; Tilakaratna, Wickramasinghe and Kumara, 2005).

Although it seems that there is a growth in the demand for microfinance by the rural community, no numerical evidences support that claim. Additionally, informal discussions that the researchers had with the field officers also suggest that there is a drop in the demand for microfinance by the rural people. Particularly, the demand for microcredits by the SBSs in Diganwewa Division showing a downward trend over the last few years (Table 1).

Table 1. Percentage of Credit Growth

Loan category	Growth of credit granted		
	31/12/14	31/12/15	31/12/16
Self-eemployment	38%	32%	25%
Agricultural loans	41%	36%	27%
Housing loans	25%	21%	16%

Source: Annual reports - SPB - Diganwewa

All categories of granted credits over the three years showed a downward trend. Therefore, it is important to identify the factors driving the lowered demand for credits facilities. Accordingly, this study aimed at detecting the factors affecting the microfiance demand in the context of SPBSs.

Specifically, it looked in how the borrower's income, literacy, receipts of social benefit funds (Samurdhi), and the service features of the lending organization, interest charged for the facilities & demand for loan securities affect the demand for microfinance. Findings would be beneficial to SBSs in specific and to other microfinance companies in general in shaing their lending plans and strategies. Further studies will also be encouraged in the feld of mcrofanance within the Sri lankan context.

The conceptual framework of the study expected to address the identified theoretical and empirical gaps in the existing literature. The hypothesized relationships and the connecting variables of the conceptual framework are shown by the figure 1.
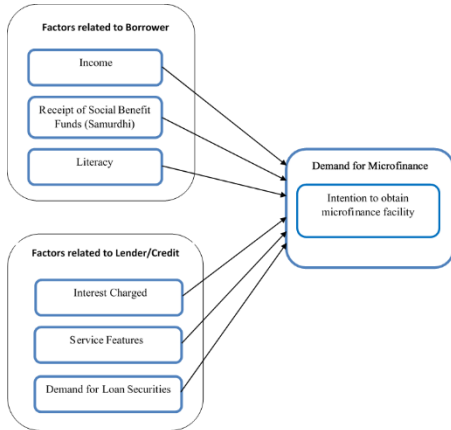
Figure 1. Conceptual Framework

As per the conceptual framework, two groups of factors assumed to be affecting the microfinance demand, namely, factors related to the borrower and the factors related to the lender/credit facility. Based on the conceptual framework and prevailing literature review, the following hypotheses were developed to address the research problem.

H1: The income of the borrower affects the demand for microfinance

H2: Receipt of Social benefit funds (Samurdhi) by the borrower affects the demand for microfinance

H3: The literacy of the borrower affects the demand for microfinance

H4: The interest charged for the credit facility affects the demand for microfinance

H5: The service features of the credit facility affect the demand for microfinance

H6: The demand for loan securities by the lender affects the demand for microfinance

The methodological approach adopted by the study is elaborated next.

2. METHODS

This study tested the factors influencing demand for microfinance services through SPBSs with reference to the Diganwewa Division, of Puttalam District of Sri Lanka. Diganwewa Division consists of six Grama Niladhari Divisions namely, Eliwitiya, Kumarakattuwa, Dematapitiya, Diganwewa, Mukkandaluwa,and Karukkuliya.

The study followed the deductive reasoning. and quantitative approach in reaching research objectives. It employed a filed survey in gathering data. Six independent variables, under two categories (1. Factors related to borrower: i. Income ii. Literacy, & iii. Receipt of social benefit funds 2. Factors related to lender/ credit: i. Interest charged, ii. Service features, & iii. Demand for loan securities) were tested against the dependent variable: demand for microfinance which was assessed through the respondent's intention to obtain microcredit facilities (Figure 1). The study was performed as a cross-sectional study where the unit of analysis was individuals who are the members of SPBSs. The target population of the study was the members of SBSs for which accurate figures were not presented with respect to entire Sri Lanka. Hence, an unknown population was assumed. The sample size as 132 from the population at a 95% level of confidence and the margin error 5% (Saunders, Lewis, and Thornhill, 2005). Using simple random sampling

technique, sample items were drawn from list of member IDs of SPBSs. Survey instrument was a self-administrative questionnaire of 28 items (3 items x 7 variables + 7 items for demographic variables). Response scale was a 5- point Likert scale ranging from 1 to 5 in which "1" denoted "Strongly Disagree" and "5" denoted "Strongly Agree". Instrument showed sound measurement properties in terms of reliability and validity. Internal consistency of all the instruments evidenced to be high and well above the standard (Cronbach Alpha coefficients > 0.7) (table 2).

Table 2. Reliability Statistics of the Instruments

Variable	Cronbach's Alpha	No of items
Income	0.877	3
Literacy	0.701	3
Receipt of social benefit funds	0.804	3
Demand for loan securities	0.882	3
Interest charged	0.849	3
Service features	0.789	3
Intention to obtain credit facility	0.797	3

Face validity ensured that the instruments were well-formed and were free of grammatical and language errors. To summarize and analysis data, MS Excel and SPSS statistics software packages used. General information has been codified, quantified, analysed and evaluated using the SPSS. Descriptive statistics, Correlation analysis and regression analysis were used in arriving the conclusions. The correlation and regression results were interpreted based on Cohen (1992).

3. RESULTS

The demographic profiles of the respondents are examined in observing the sample characteristics (Table 3).

Table 3. Demographic Profile of the Sample

Variable	N	%
Gender		
Male	49	37
Female	83	63
Age (years)		
< 25	8	6
26-35	44	33
36-45	66	50
> 45	14	11
Marital Status		
Single	9	7
Married	123	93
Employment		
Employed	23	17
Self-employed	63	48
Owned a business	22	17
Other	24	18
Education Level		
Primary Level	18	14
Ordinary Level (G.C.E. O/L)	76	58
Secondary Level (G.C.E. A/L)	38	29
Income Level		
< 15, 000	55	42
15, 000 – 25, 0000	62	47
25, 000 – 35, 000	12	9
> 35, 000	3	2

Majority of the respondents was female (63%). It is noteworthy to mention that the rural women

involvement in banking and financing activities are greater compared to that of male counter partners of them (Herath, Guneratne and Sanderatne, 2015). Additionally, the sample represented vastly by middle age respondents such as age groups 26-35 years (33%) and 36 – 45 years (50%). Almost all the participants were married except 9 of them. Only few of the respondents seems to be having steady income based on their employment as majority of them were self-employed rural people (48%). Private or government employment is rarely evidenced among rural community of Sri Lanka which may be attributable to their low educational level and restricted access to information sources of potential employments them (Herath, Guneratne and Sanderatne, 2015). This is reflected by their educational level where only 29% of the respondents have reached their secondary level of education system in Sri Lanka. They become victims of their low educational background resulting poor social and economic status. This is confirmed by the income level of the respondents which is mostly cantered on an average of Rs. 20000.00. Rural community in general earns less relatively to the urban people (ADB, 2005). This then again has a cyclical effect on the lower social and economic development of them. Resultantly, they find it hard to get off from the trap of the poverty which is the ultimate aim of establishing the microfinancing institutions.

Having analysed the sample attributes, the researchers then tried in exploring the nature of the study variables. Two main descriptive measures namely, mean and the standard deviation were obtained and presented (Table 4).

Table 4. Descriptive Statistics of the Independent Variables

Variable	N	Mean	Std. Deviation
Income		2.59	.921
Literacy		2.57	.867
Receipt of social benefit funds		3.22	.892
Demand for loan securities	132	2.48	.767
Interest charged		3.77	1.128
Service features		2.01	.765
Intention to obtain credit facility		1.98	.879

Table 4 indicates that the level of borrower's income, literacy and receipt of social benefit funds were correspond to disagree level of the response scale. Further, loan attributes namely, demand for loan securities, interest charged, and service features were also at the disagree level. Moreover, the dependent variable; intention to obtain credit facility was also in the disagree level. All the variables showed a less variance implying the homogeneity of the responses among the respondents. These data implied that rural community experience hardships in their day to day life caused by lack of income, lack of knowledge about financing, and low literacy.

Many opportunists use these vulnerabilities in to their advantage and accordingly they are been cheated

by various fraudulent activists. Resultantly, they compel to borrow at higher interest rates and unfavourable conditions without even knowing it. Their inability to reach the credit facilities of the commercial banks lead them to obtain credit from informal third parties under unfavourable conditions. Further, service features are also not sufficient as per their needs. Most of the respondents agreed that they could not obtain sufficient credit facilities due to their inability to present guarantees. Microfinancing expected to solve these complications experienced by the rural community and to facilitate them in fulfilling their financing needs. Yet, the records show that there is lower penetration to obtain credit facilities by the members of SPBSs in recent past. So as to ascertain the leads of the poor microfinance demand by the rural community, the association between predictor variables and the endogenous variable was tested using the Pearson's correlation analysis.

Correlation analysis showed the extent to which factors influenced and microcredit accessibility both variables vary together including the strength and direction of their relationship. The strength of the relationship refers to the extent to which independent variables relates with the demand for microfinance.

Table 5. Results of Correlation Analysis

Variable	Demand for Microfinance	
	Coefficient	Significance
Income	-.689**	.000
Literacy	.637**	.000
Receipt of Social benefit funds	-.756**	.000
Interest charged	-.549**	.000
Demand for loan securities	-.604**	.000
Service features	0.710	.000

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

The coefficients of Karl Person's Product Movement correlation analysis evidenced the relatedness of microfinance demand and the independent variables. Borrower's literary, and the service features of the credit facility found positively related to the demand for microfinance. Both literacy of the borrower (r = 0.637, p = .000) and the service features of the loan facility (r = 0.710, p = .000) showed moderately related with the demand for microfinance. Both relationships evidenced to be statistically significant too. In contrast, borrower's income, receipt of social benefit funds by the borrower, interest charged, and demand for loan securities reported to be negatively correlated with the demand for microfinance.

Specifically, borrower's income (r = -.689, p = .000), interest charged (r = -.549, p = .000), and demand for loan securities (r = -.604, p = .000) found moderately associate with the microfinance demand. Importantly among the negatively correlated factors, receipt of social benefit funds by the borrower fund strongly and significantly related with microfinance demand (r = -.756, p = .000). These findings aid in detecting the positive and negative determinants of microfinance demand of which the regression analysis was used to assess the magnitude of their influence.

The results of the regression analysis performed to test the hypotheses are illustrated by table 6, table 7, and table 8.

Table 6. Regression Analysis – Model Summary

Model	R	R2	Adjusted R^2	Std. Error	Durbin-Watson
1	.773[a]	.615	.028	.58389	2.011

a. Predictors: (Constant), Income, Literacy, Receipt of social benefit funds, Interest, Demands for securities, Service features

b. Dependent Variable: Demand for microfinance

Table 7. Regression Analysis - Model Significance

Model	Sum of Squares	Df	f	Sig.
Regression	30.352	6	64.636	.000[b]
Residual	22.617	125		
Total	49.969	131		

Source: Survey Results

Table 8 presents the magnitude of the influence by each predictor variable.

Table 8. Regression Analysis – Coefficients

Model	Standardized Coefficient B	T	Sig.
(Constant)	3.943	8.888	.000
Income	-.183	-3.869	.031
Literacy	.172	2.873	.040
Receipt of social benefit funds	-.238	-5.279	.008
Interest charged	-.104	-2.076	.036
Demand for loan securities	-.160	-2.759	.030
Service features	.211	4.724	.042

Source: Survey results

The results of multiple regression analysis those presented by table 6, table 7, and table 8 aided in developing the regression model to predict the demand for microfinance. The model satisfies the fundamental assumptions of a multiple regression where no auto correlation, and multicollinearity among the independent variables were noted. Further, dependent variable; the demand for microfinance resembled a normal distribution and the residuals are normally distributed. Accordingly, the developed model satisfactorily accounts 61.5% of the total variance of the microfinance demand. Both factors related to borrower and the factors related to lender/credit facility found significant at explaining the variance of the dependent variable. It implies that the demand for microfinance depend on the borrower's income (B = -.183, p = .031), literacy (B = .172, p = .040), and receipt of social benefit funds by them (B = -.238, p = .008). Additionally, all the tested factors related to lender / credit facility were also found

significant in affecting the microfinance demand. Namely, the interest charged (B = -.104, p = .036), demand for securities (B = -.160, p = .030), and the service features (B = .211, p = .042) reported to contribute in explaining the demand for microfinance. The above results supported all the hypotheses those assumed to be deciding the demand for microfinance; borrower's income & literacy, receipt of social benefit funds by them, interest charged by the microfinancing institutions, service features of the credit facility, and the demand for securities by the microfinancing institutions.

4. DISCUSSION

Rurual community find it hard in reaching the credit faciltites offered by commercial bank network due to unavailability of documentary proof on loan repayment ability, acceptable level of fix flow of income, loan securities and much more (Omboi and Wangai, 2011; Vetrivel and Kumarmangalam, 2010). These in constrast were supposed to be fliexble in terms of microfinaning lending so that rural peole would consider microfinancing as an accessible alternative to commercial banks' lending (Modoran, Grashof, Fernando and Tennakoon, 2009). Howerver, the results showed that microfinancing lending terms too are negatively affecting the demand for them. For instance, interest charged for microcredit facilities relative to the their income, was perceived high by the rural people. Hence, the interest charged is restaining the demand for microfinance (Auma and Mensah, 2014; Qatinah, 2013). Similarly,

demanding loan securities by the microfinancing institutions was also appeared to be blocking the way towards obtaining microcredit. Identical findings are also reported in this connection (Modoran, Grashof, Fernando and Tennakoon, 2009). But this should not be the case with rural community as they got less/no valuables to be presented as securities.

Divergently, service features of the credit facility positively affecting the intention to obtain microfinance. Service features include support in completing documentation, translation of the terms of the loans into preferred languages, relaxation of required documentary evidences, offering mobile/ field services, providing one-to-one and / or group awareness…etc. Among the factors related to the borrower, income and receipt of social benefit funds (Samurdhi subsistence) were hindering the demand for microfinance (Tilakaratna, Wickramasinghe and Kumara, 2005). It's obvious for a wealthier to prevent been obtaining credit as long as he/she can manage their consumption and investment with the income. Moreover, for an unseen reason, in the Sri Lankan rural set up, many people don't want to be borrowers. This may be attributable the religious thoughts coming from the Buddhism. Accordingly, higher the income, lower will be the demand for any type of credit facility. Additionally, it is noteworthy to mention that the microfinance demand was greatly affected by the receipt of social benefit funds by the borrowers. These social benefit funds time-to-time were implemented via numerous social

benefit programmes such as Janasaviya, Gamidiriya, and Samurdhi with the goal of raising the socio-economical level of needy people. Even though no formal evidences on the success of these initiatives are available, it is seen that only very few portions of the recipients of these funds achieved a significant progress in their socio-economic status. Here of course, having money for managing the daily life discourage many needy people in obtaining microcredits for investment purposes. This issue seems to be having the roots in the lower psychological development of the rural people due to low educational background. Many preferred to satisfy with a low work and living profile rather than working hard to reach an upper level of socioeconomically status. This is further established as the greater literacy found pushing the demand for microfinance. Yet, it was noted that the majority of the respondents have poor level of literarcy due to their lower educational profiles (Kofarmata, Applanaidu and Hassan, 2016; Kausar, 2013).

All the results except receipt of social benefit funds by the borrower complies with the prevailing theoretical and empirical evidences. Thus, receipt of social benefit funds by the borrowers can be considered the maiden contribution of the present study.

5. CONCLUSION

The aim of the study was to identify the factors affecting the demand for microfinance in the context of Samurdi Prajamula Banking Societies. Two set of factors: factors related to borrower and the factors related to the lender/credit facility were teseted for thier relatedness to microfinance demand. Sample of rural people who are the members of SPBSs were surveryed. Results showed that the borrower's income, receipt of social benefit funds, demand for loan securities, and interest charged negatively affecting the microfinance demand while literacy of borrower, and the service features of the microcredit facility positively affecting the microfinance demand by the rural community.

The study succeeded in detecting the determinants of microfinance, particularly in the SPBSs context. The study was first to test the receipt of social benefit funds by the borrowers as a determinant of microfinance demand. Hence, the findings of the study hold greater theoretical and empirical implications for the scholars, practitioners, and to the policy makers in raising the microfinance demand. Administrators of microfinancing institutions especially that of the SPBSs, are requested to pay attention in revising unfavourable lending terms. Further, policy makers should reframe the aims and methodology of social benefit programme to minimize the potential adverse effect of them on the people's motivation to work for high-order development targets. Uplifting the knowledge and awareness of rural people too will effective in this regard. Future studies are invited to test the univariate influence of receipt of social benefit funds on the microfinance demand in depth so as to establish its position as a determinant of microfinance demand.

Additionally, it would be worth enough to test the same argument though a different research approach: qualitative as every participant got unique story of financing their investments.

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Does Personality Matter in Leadership: Impact of Big Five Personality Traits on Ethical Leadership Behaviour of Middle Managers in Sri Lanka

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Abstract

There are many studies on the consequences of ethical leadership, however, it is hard to find the traits of leaders and their influence on ethical leadership. Therefore, this research the aims to explore the role of a leader's personality in ethical leadership behaviour. Consequently, this research explores the effects of each Big Five Personality traits on Ethical Leadership behaviour. Therefore, it was hypothesized that Agreeableness, Conscientiousness, Openness to Experience, and Extraversion influence on ethical leadership behaviour positively whereas Neuroticism effects on ethical leadership behaviour negatively. 400 sample was selected. 200 respondents were selected from students of Bachelor of Labour Education (BLE) program at the Institute of Human Resource Advancement (IHRA) University of Colombo. All of them are employees. Parallelly, their leaders or supervisors were included in the sample. It was used a cross-sectional design for data collection. Leader of each respondent was asked to complete the Big Five Inventory (BFI) to measure the personality of leaders and employees were asked to complete the Ethical Leadership questionnaire to measure their insights against ethical behaviour of their leaders/superiors. Only one employee was selected if more than one employee work under the same leader/supervisor. Findings indicated that the Agreeableness, Conscientiousness, Openness to Experience and Extraversion significantly and positively effect on ethical leadership whereas the Neuroticism effects significantly and negatively on ethical leadership. These results suggest the importance of four personality traits respectively, Agreeableness, Conscientiousness, Openness to Experience, and Extraversion to become an ethical leader. Therefore, this study support for better understanding of the importance of the role of individual personality differences in leadership behaviour. Hence, the findings of this study could be considered to improve the leadership personality traits which help for ethical leadership behaviour that employees admire and thereby improve the performance of workers in organizations.

Keywords: Agreeableness, Conscientiousness, Openness to Experience, Extraversion, Neuroticism, Ethical Leadership

1. INTRODUCTION

Personality is a set of invisible qualities and performance that last comparatively stable range of behaviours responding to distinctive things existing in the situations (Barrick & Mount, 1991). Relationship between personality and leadership is well researched (Bligh, 2011; Kalshoven, Den Hartog, & De Hoogh, 2011; McCrae & Costa, 1987). For the first time, personality characteristics were classified into five categories as Extroversion or Surgency, agreeableness, Conscientiousness, culture, and emotional stability by Tupes and Christal (1961). Later by Norman (1963), personality traits were branded into five categories as Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience and ladled as Big Five factors. The big five personality trait factors explain the construction of personality traits with five factors of Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience (Digman, 1990). Numerous studies have done on big five personality traits and different types of leader behaviour (De Hoogh, Den Hartog, & Koopman, 2005; Digman, 1990). Ethical personalities of a leader have a positive impact on subordinate's behaviour and it has a positive impact on organizational performance (Trevino, Hartman, & Brown, 2000). Identifying personality types correlated with ethical leadership is important as it affects employee behaviour and organizational performance. There are numerous researches on the relationship of personality and ethical behaviour of the leader (Brown et al. 2005; Digman, 1990; Trevino, Hartman, & Brown, 2000). These research findings prove that personality traits have a significant impact on ethical leadership phenomenon. In numerous studies, openness and conscientiousness personality traits are found positively impact on leadership (Walumbwa and Schaubroeck, 2009; Brown et al. 2005).

Leadership is the main faucal force to achieve organizational aims and objectives. In leadership research, personalities were defined as to be inborn or genetic qualities of the people. Especially, ethical leadership provide the favourable working climate for the employees to perform well in their roles (Brown & Treviño, 2006). Numerous studies found that personality traits influence on leaders' behaviour (Bono & Judge, 2004; McCrae & Costa, 1987). Leader's positive influence on subordinates is the greatest motivation for employees to perform their optimal level and achieve organizational goals (Mihalcea, 2014). For years, many researchers have argued whether personality characteristics are significant predictors of emergence Or effectiveness of leadership (Zaccaro, 2007; Lord, DeVader, & Alliger, 1986). This research study addresses the question of why some leaders influence their subordinated to perform well through ethical manner while some are using unethical manner to influence subordinates to perform well. Personality characteristics may explain this question. Investigating the personality

factors that effect on ethical leadership is important because if the organization knows the most suitable personality of leader that influence on employees for best performance, the organization can influence in many stagers such as the selection of leaders, giving guidance and training for them, and development of ethical leadership qualities.

1.2 Big Five Personality and Ethical Leadership

Characteristics of ethical leaderships are mindfulness of others, thoughtful, honest, unselfish, kind, ethical, inner locus of control, positive, and supportive (Walumbwa, et al., 2011; Toor & Ofori, 2009). Ethical leadership is the normatively suitable behaviour through individual actions and interpersonal relationships, and promotion of such behaviour to subordinates through two-way interaction, reinforcement, and decision-making (Brown et al., 2005). Brown et al. (2005) labelled the ethical leadership behaviour as "normatively appropriate behaviours" which include openness, honesty, reliability and truthfulness. Ethical leaders talk about ourselves, they ask what we can do, how we live and how we could improve our living standers (Chen & Hou, 2016). High socially accountable leaders are apparent as more ethical leaders (De Hoogh & Den Hartog, 2008). Ethical values in leadership are found to be one of the most positive effects on employees' performance in organizational level (Kanungo, 2001). Trevino et al. (2000), found two indicators of ethical leadership, moral person, and moral manager. Measurements of moral person are qualities of a leader such as honesty, trustworthiness, fairness in interactions with their subordinates. A moral person has ethical values and professional values, he or she can deserve a reputation as a reasonable and kind leader. A moral manager is a person who encourages and promote ethical behaviour and conduct at the organization. Such people demonstrate the ethical performance of them and they encourage their subordinates to behave ethically. Moral manager practise rewards and punishment to promote such ethical behaver in the organization. He or she must be a role model for their subordinates. Measurements of a moral person and moral manager are essential to be perceived as an ethical leader by subordinates (Trevino et al., 2000). Ethical leaders exhibit the benefits of ethical conduct as well as the cost of unethical conduct of employees. Such leaders establish perfect standards and practice of rewards as well as reasonable punishment to keep employees responsible for their behaviour (Treviño, Brown, & Hartman, 2003). Ethical leadership positively and significantly correlated with employee commitment (Chen & Hou, 2016). According to literature, understanding leadership is multifaceted and need more studies to discover the impact of personality on ethical leadership (Brown & Treviño, 2006). According to ethical leadership theory, ethical leaders "provide followers with voice" and employees are encouraged to work rationally when leaders create a fair work climate in the organization (Brown et al., 2005). Ethical leaders express ethical values to subordinates. Due to positive conduct of behaviour of the ethical leaders, employees are

not reluctant to report their problems and issues to their leaders (Brown et al., 2005), this practice help for better job performance. Therefore, this study aims to investigate the impact of big five personality traits on ethical leadership.

1.2.1 Agreeableness and Ethical Leadership

Agreeableness is a propensity for an individual to be accommodating of others, ratifying social norms, and trusting of others (Northouse, 2015). Dimensions of agreeableness are caring, gently, honesty, and sincere (Goldberg, 1990). People with agreeableness traits are defined as helpful, kind, gentle, honest, worm, and fair to others (Bono & Judge, 2004; Costa & McCrae, 1992). Agreeableness is an essential leader characteristic for creating a justice environment in the workplace (Mayer, Nishii, Schneider, & Goldstein, 2007). Agreeableness positively relates to ethical leadership (Brown & Treviño, 2006; Walumbwa & Schaubroeck, 2009). This indicates that leaders with great agreeableness are expected to handle subordinates in an unbiased and humble way. Such leaders positively treat employees in all aspects. Agreeableness positively correlates with other positive types of leadership styles, such as transformational leadership style (Bono & Judge, 2004) and ethical form of leadership (Kalshoven, Den Hartog, & De Hoogh, 2011). It is assumed that people with greater on agreeableness is positively correlated with ethical leadership behaviour. Hence, the following hypothesis will be established;

Hypothesis 1: Agreeableness has a positive significant impact on ethical leadership behaviour.

1.2.2 Conscientiousness and Ethical Leadership

Conscientiousness is the most generally researched personality traits amid big five-factor theory (Bono & Judge, 2004). The conscientiousness comprises two main features, responsibility and ability to work hard and meet challenges (Digman, 1990). People with greater conscientious tend to think seriously before doing something and follow ethical responsibilities and perceived duties (Costa & McCrae, 1992). People with conscientious trait tend to have a high level of moral responsibility and respect for their obligations and responsibilities. They respect for genuineness and trustworthiness. they are not easily degraded by others. Conscientious people are transparent and reasonable (Kalshoven, Den Hartog, & De Hoogh, 2011). Characteristics of conscientiousness persons are vigilant, consistent, systematic, realistic, motivated, and reasonable (McCrae & Costa, 1987). This propensity indicates a relationship between conscientiousness and the behavior array that is obligatory become an ethical leader among employees. Workforces are more likely to do the correct thing for them as well as others, for the organization due to leader conscientiousness personality traits such as responsibility, thoughtfulness, hardworking, and fairness (Moon, 2001). Leaders with conscientiousness may be more expected to communicate strong and clear principles and morals for ethical

behaviour to their employees. Conscientiousness positively relates to ethical leadership (Brown & Treviño, 2006; Walumbwa & Schaubroeck, 2009). Hence, the following hypothesis will be established;

Hypothesis 2: Conscientiousness has a positive significant effect on ethical leadership behaviour.

1.2.3 Openness to experience and Ethical Leadership

People with greater openness to experience are innovative, imaginative, multifaceted, and logical (McCrae & Costa, 1987). Openness to experience is defined as a propensity to have effective creativity, and academic inquisitiveness and readiness to contemplate new viewpoints and apply innovative things, they tend to enthusiastically seek out various experiences that include different of views and thoughts (Costa & McCrae, 1992). According to Bono and Judge (2004), individuals with greater openness to experience are emotional, academically inquisitive and involve in different ideas and insight which are required to be ethical leader. They are more intelligent inspired, imaginative, and helpful to others (Silvia, Nusbaum, Berg, & Martin, 2009). Many studies found a positive relationship between Openness to Experience and Ethical Leadership. Based on the above arguments the following hypothesis will be proposed;

Hypothesis 3: Openness to experience has a positive significant impact on ethical leadership behaviour.

1.2.4 Neuroticism and Ethical Leadership

Neuroticism or emotional instability is the propensity to practice a mixture of disruptive feelings and beliefs or propensity to develop negative insights. Neuroticism has negatively correlated with ethical leadership due to its negative responsive factor. Individuals with greater neuroticism personality tend to display more anger, unconfident, worries, irritation, and frustration and they are more vulnerable to stress than low-neurotic individuals (Costa & McCrae, 1992). Individuals with great neuroticism personality are less possible to become leaders (Hogan, Curphy, & Hogan, 1994). Leaders with neurotic personality are less likely to become role models for employees (Bono & Judge, 2004). According to a research done by Judge, Erez, Bono and Thoresen (2002b), individuals with neurotic personality are having lower self-esteem and self-efficacy. They experience a greater degree of harmful effect and become annoyed easily by others, and are more likely to turn to unsuitable coping strategies (McCrae & Costa, 1987). Leaders with a high level of neuroticism tend to have undesirable sentiments, such as nervousness, and irritation more frequently and more strongly (Brown and Treviño, 2006). Neurotic people are less possible to become an ethical leader, as such individuals hold "thin-skinned and hostile toward others". People with these traits hard to become an effective role model leadership (Brown and Treviño, 2006).

People with negative traits are low effective leaders. Thus, leaders with a

greater level of neuroticism may not act ethically.

Hypothesis 4: Neuroticism has a negative significant effect on ethical leadership behaviour.

1.2.5 Extraversion and Ethical Leadership

Compassion, sociability, talkativeness, and assertiveness are the measurement of extraversion personality (Bligh, 2011; McCrae & Costa, 1987). Dimensions of extraverts display the positive aspect of behaviour among their subordinates (Bono & Judge, 2004). Further, they found that extraversion is the greatest and most constantly and positively associated with other types of leaderships such as charismatic and transformational leadership, which comprised with ethical leadership conduct (Bono & Judge, 2004). A leader with extraversion personality is identified as 'leader like' due to their personality of optimistic views about the future (Hogan, Curphy, & Hogan, 1994). Costa and McCrae (1992) define extraverts as a personality trait that demonstrate sociability and assertiveness and propensity to experience positive feelings. Individuals with greater extraversion personality tend to hold greater communication capacity and they can express their ideas very clearly and systematically (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012). Based on the above literature, it is predicted that extraversion would promote ethical leadership;

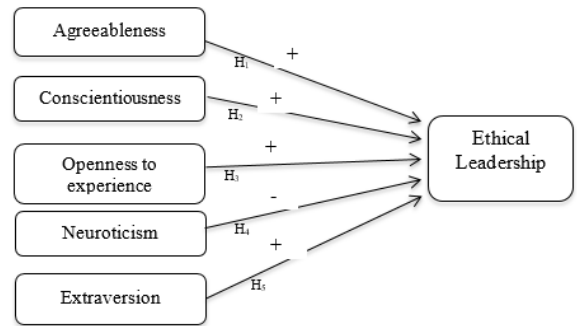Hypothesis 5: Extraversion has positive significant impact on ethical leadership behaviour.

Figure 1. Hypothesized Relationships.

Note: '+' indicates the positive effect & '–' indicates the negative effect

2 METHODS AND MEASURES

2.1 Sample and Research Design

The sample was selected from students of Bachelor of Labour Education (BLE) program at the Institute of Human Resource Advancement (IHRA), the University of Colombo, Sri Lanka. All of them are employees. They have been employing more than at least two more years (some of them have been working for more than 10 to 15 years) in the private or public sector. They do the studies while they work to enhance their skills and capacities. 200 respondents were selected based on a random sampling system. There are more females than males in the BLE degree program. Hence, 120 female and 80 males were selected from all the years of the degree program. 200 leaders of the respondents as well were included in the sample. It was used a cross-sectional design for data collection. Leader of each respondent

was asked to complete the Big five inventory questionnaire to measure the personality of leaders and respondents were asked to complete the Ethical Leadership questionnaire to measure their insights about the ethical conducts of their superiors. Before the sample selection, the consent of the employees and leaders were checked whether they agree to join the survey. Employees who work under the same leader were excluded.

2.3 Measures
2.3.1 Big Five Personality

Big five inventory was used to measure the personality of leaders. It was used the 44-item model developed by John, Donahue, & Kentle,(1991) to measure the elements of big five personality trait. Agreeableness was measured based on the nine-item subscale. A example element involved 'I see myself as somebody who is supportive and kind.' Conscientiousness was assessed by seven elements. An example element is 'I see myself as somebody comprehensive employment'. Extraversion was assessed by six elements subscale, and an example element involved 'I see myself as somebody chatty.' Openness was assessed by 10 items subscale. An example element is 'I see myself as somebody creative'. Neuroticism was assessed with six items sub-scale. A example element is 'I see myself as somebody who is miserable.'

2.3.2 Ethical Leadership

Ethical leadership was measured using the 10-item Ethical Leadership Scale (ELS) developed by Brown et al. (2005) to measure insights of employees about the ethical conducts of their leaders/supervisors. It was rated on a 5-point Likert scale, 1= strongly disagree to 5= strongly agree. Sample items include 'My boss discusses business ethics and standards with the staff', 'My boss listens to employees'.

3. RESULTS

Reliability of the scales used in the research was tested through calculating Cronbach Alpha *Coefficient*. According to Taber (2018), C*ronbach's Alpha Coefficient* of a measurement should be exceeding 0.70 for validation. The Cronbach's Alpha Coefficient of the six scales used in this research, Extraversion, Agreeableness, Conscientiousness, Neuroticism, Openness to Experience, and Ethical Leadership are roughly greater than 0.70 (Table 01). It shows that each of scales used in the study has internal reliability as values of the coefficient of all the scales are exceeding the threshold level of the reliability.

Table 1. Reliability of the Scales Used in the Research

Variables	Chi-square	*RMSEA*	*GFI*	*AGFI*	*CFI*	*TLI*	*NFI*	AVE	CR
Extraversion	3.463	0.052	0.834	0.941	0.936	0.822	0.838	.51	.87
Agreeableness	3.314	0.075	0.831	0.922	0.917	0.861	0.821	.56	.88
Conscientiousness	3.215	0.063	0.835	0.857	0.991	0.882	0.854	.54	.87
Neuroticism	3.613	0.052	0.827	0.913	0.825	0.859	0.882	.56	.89
Openness to Experience	3.522	0.067	0.884	0.963	0.931	0.821	0.876	.57	.82
Ethical Leadership	3.652	0.051	0.892	0.931	0.74	0.831	0.836	.54	.86

Means, Standard deviations (SD) for employees' responses and leaders' responses as well as inter-item correlations of all study variables are presented in Table 02.

Table 2. Mean, Standard Deviation, and Correlations of Study Variables

	Construct	Employees		Leaders						
	Construct	Mean1	SD 1	Mean2	SD 2	1	2	3	4	5
1	Extraversion	3.81	0.84	3.63	0.71					
2	Agreeableness	3.97	0.65	3.14	0.84	.28**				
3	Conscientiousness	2.84	0.92	3.81	0.66	.36**	.27**			
4	Neuroticism	3.29	0.78	3.52	0.84	-.17*	-.02	-.13*		
5	Openness to Experience	4.11	0.53	3.86	0.81	.31**	.27**	.29**	.38**	
6	Ethical Leadership	4.47	0.98	3.79	0.62	.41**	.19*	.29**	-.11*	.89**

Note: Mean1 & SD1 of employee's questionnaire, Mean2 & SD2 of leaders' questionnaire

3.1 Hypothesis Testing

As given in Table 03, regression analysis was conducted to test the hypotheses to measure the effect of leader personality on ethical leadership behaviour. The findings indicated that Extraversion (β=.259, p>.05), Agreeableness (β=.347, p>.05), Conscientiousness (β=.253,

p>.05), Openness to Experience (β=.374, p>.05) have a positive statistically significant effect on Ethical Leadership. Hence, the hypothesis 1, 2, 3, and 5 are accepted and extraversion, agreeableness, conscientiousness, and openness to Experience have a positive significant impact on ethical leadership

behaviour. However, as expected, hypothesis 4, Neuroticism (β=-.285, p>.05) has a negative statistically significant impact on ethical leadership behaviour will be accepted.

Table 3. Regression Analysis of Study Scales and Ethical Leadership

	R^2	β	t	P
Extraversion	.194	.259	2.18*	0.000
Agreeableness	.035	.347	4.51**	0.000
Conscientiousness	.182	.353	3.89**	0.000
Neuroticism	.142	-.285	-3.46**	0.000
Openness to Experience	.101	.374	3.32**	0.000

4. DISCUSSION

This research study expected to explore the impact of big five personality traits, Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience on Ethical Leadership conduct in Sri Lankan. It was found that four personality characteristics of leaders, Extraversion, Agreeableness, Conscientiousness, and Openness to Experience were positively and significantly related to employees' insights about their spurious as ethical leaders. This finding is in line with Walumbwa and Schaubroeck (2009), that there is a noteworthy association between the Big Five traits and ethical leadership. However, Neuroticism has a negative significant effect on ethical leadership. This result consists of Brown et al. (2005) finding that Neuroticism personality trait has a

negative impact on ethical leadership. Line with the findings of Walumbwa and Schaubroeck (2009), agreeableness became most influential personality trait on ethical leadership. Thus, it can be concluded that more agreeable leaders are accepted by subordinators as ethical leaders. They treat subordinators in a kind-hearted and fair manner. According to previous they cooperative, authentic, decent, reliable, empathetic, and receptive. These conducts are crucial to be an ethical leader (Brown & Trevino, 2006). Hypothesis 02, conscientiousness has a positive significant effect on ethical leadership behaviour is accepted. People with greater conscientious traits practise ethical responsibility. They care genuineness and trustworthiness. Such leaders are well methodical and accountable, such propensities indicate the relationship between

conscientiousness and the conduct of the leader which essential to be an ethical leader.

There are a few limitations of this study. One is this research was limited to middle-level managers and supervisors. The sample size also is limited, 200 subordinates and 200 managers, altogether 400 respondents. Sample would have been increased. Hence, the generalization of the results of the research is limited. Though there are limitations, these findings have significant practical implications on employees' job performance, because the leader's personality has a positive significant effect on employee job performance (Chandrasekara, 2019). This research adds knowledge to the field by evaluating the effect of Big Five personality characteristics on ethical leadership. According to previous research, most influential personality traits are agreeableness and conscientiousness. It indicates the importance of personality traits when selecting a leader. When selecting leaders, it is needed to consider whether their behaviour is fair, power-sharing and roles clarifying. In general, this study indicates the significance of better understanding of the role of individual personality differences in leadership behaviour. Further, indicate the importance of four personality traits respectively, Agreeableness, Conscientiousness, Openness to Experience, and Extraversion to be an ethical leadership behaviour. Supplementary, Neuroticism is found as a negative personality trait for an ethical leader that indicated as an avoiding personality for an ethical leader.

Hence, the findings of this study could be used to improve the ethical leadership personality that support employees job satisfaction and job performance of workers in organizations.

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