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CONTENTS

	Page No
Demographic Factors towards Employee Engagement of Government University Lecturers in Sri Lanka P.A.B.H Amarathunga	01-11
Impact of Physical Ergonomic Factors on Employee Productivity: Special Reference to in Apparel Industry of Gampaha District D.A.S.M. Silva & D.M.T.D. Dissanayake	12-22
The Factors Impact on Internet Banking Adoption with special reference to Kurunegla District R.P.H.D.Chandrasiri & T.K. Karandakatiya	23-34
Management Graduates Employability (With a Special Reference to State Universities in Sri Lanka) W.D.M.B.K. Dissanayake	35-48

Demographic Factors towards Employee Engagement of Lecturers in the State Universities of Sri Lanka

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Abstract

Employee engagement is one of the key determinants fostering high levels of employee performance, as constantly shown in a number of studies. University lecturers are playing a vital role in shaping the knowledge, skills and attitudes of the most intelligent young generation in the country. Accordingly, analyzing whether there are influences of demographic factors for determining the level of employee engagement of government university lecturers was the primary purpose of the present research. Three hundred and eighty-eight government university lecturers were selected as prescribed by Krejcie and Morgan (1970) using stratified sampling method with representation of all the government universities in Sri Lanka. Findings showed that there are no differences of employee engagement among four groups of educational qualification and two types of genders. Findings further elaborated that the level of employee engagement is different in terms of four types of age groups.

Keywords: Demographic Factors, Employee Engagement, Lecturers

1. INTRODUCTION

Employee engagement has been defined as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively and emotionally during role performances" by Kahn (1990). Employee engagement is one of the key determinants fostering high levels of employee performance, as constantly shown in a number of studies (Mone and London, 2010). Employees with high level of engagement are vital assets to the

organization within competitive business scenario. Every organization should select employees with having high level of employee engagement as they are likely to be able to work effectively for being excellent within their role and engagement directly linked with job satisfaction, employee commitment, turnover intention and organizational citizenship behavior (Saks, 2006).

Highly engaged employees are found more committed and motivated than others. High employee engagement makes an individual the sense of worth

his/her existence in the organization and this will lead to increase the organizational performance as well. Increasing job performance is an undesirable outcome of employee engagement (Judge, Bono & Thoresen, 2003).

1.1 Research Problem

University lecturers are playing a vital role in shaping the knowledge, skills and attitudes of the most intelligent young generation in the country. If the lecturers are more engaged and committed to perform their responsibilities that will lead to increase the quality of both teaching and learning processes. When considering the Sri Lankan context, there are 15 government universities and around 4900 lecturers are working in Sri Lanka according to the University Statistics published by University Grant Commission at the end of 2016.

Through personal observations and having discussions with the heads of the departments and deans, the researcher found that government university lecturers have not engaged evenly to their works. But the working conditions, compensation and rules and regulations are not significantly different in each university. However, the composition of demographic profiles of the government university lecturers such as age, gender and educational level were found to be different. Accordingly, researcher tends to analysis whether there is an influence from demographic factors for determining the level of employee engagement.

Piyasena and Kottawatta (2018) have studies that the impact of employee engagement on the level of commitment of non-academic staff members instate universities of Sri Lanka due to the problem of different levels of engagements of the non-academic staff members. However, similar study has not been conducted regarding the level of employee engagement of the academic staff members in state universities of Sri Lanka.

Accordingly, present research was designed to analyze whether there are influences of demographic factors for determining the level of employee engagement of government university lecturers. Findings of the present research will be benefitted to planners, educational policy makers and administrators in Sri Lankan higher education sector.

1.2 Objectives

Primary purpose of present study was analyzing the association between demographic factors (age, gender and educational qualification) and the level of employee engagement of government university lecturers in Sri Lanka. Basic objectives of the present research can be listed as follow.

1. To determine the association between age and employee engagement of government university lecturers in Sri Lanka
2. To determine the association between gender and employee engagement of government university lecturers in Sri Lanka
3. To determine the association between educational qualification and employee engagement of

government university lecturers in Sri Lanka

1.3 Hypotheses

Following three hypotheses were used to test the empirical data which are collected on the present research.

1. Alternative Hypothesis 1 (H_1 1): There is an association between type of gender and the level of employee engagement of government university lecturers in Sri Lanka.
2. Alternative Hypothesis 2 (H_1 2): There is an association between different ages and the level of employee engagement of government university lecturers in Sri Lanka.
3. Alternative Hypothesis 3 (H_1 3): There is an association between educational qualification and the level of employee engagement of government university lecturers in Sri Lanka.

1.4 Employee Engagement

Employee engagement topic was emerged as an attractive concept over the past two decades. Employee engagement has been defined by Maslach and Leiter (1997) a concept characterized by energy, involvement and efficacy. According to Vance (2006), the definition of employee engagement varies across different researchers, consultancies, and organizations. In his study, engagement has been defined as "the extent of employees' commitment, work effort, and desire to stay in an organization".

Further, Kahn (1990) has been explained that psychological

conditions of employee engagement can be divided into three elements as meaningfulness (sense of experiencing return on investment of self in role performance), safety (sense of being capable to portray without worry of negative consequences to self-image, status or career) and availability (sense of ability to contribute physical, emotional and psychological resources in role performance).

According to Schaufeli and Bakker (2004) employee engagement comprised with three sub dimensions called vigor, dedication and absorption. Vigor refers to high level of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence in the face of difficulties, dedication refers to being involved in one's work, finding meaning in one's work, being challenged, and experiencing sense of enthusiasm, inspiration and pride and absorption refers to being fully concentrated and engrossed in one's work, whereby time passes quickly and one has difficulties detaching oneself from work (Schaufeli & Bakker, 2004)

On the other hand, employee disengagement is the opposite side of the employee engagement. Employee disengagement refers to the harmonized withdrawal of an individual during role performance which characterized by a lack of connections between physical, cognitive, and emotional with his job in an organization (Kahn, 1990).

However, Gallup (2002) has been identified three types of people in

organizations based on the level of employee engagement. They are engaged employees, not engaged employees, and actively disengaged employees. Engaged employees are giving continuous efforts and dedication to give excellent service. Not engaged employees attempt to fulfill the basic given tasks rather than the goals of the organization. Actively disengaged employees are most dangerous employees as they are not performing their duties as well as demotivating the performance of other employees ultimately reducing the performance of entire organization. In order to reduce employee disengagement leaders should create a value system, bridge the gap between expectations and realities and eliminate organizational politics (Rao ,2017).

Engaged employees are creating numerous benefits to the organizations. Highly engaged workforce causes to increase employee retention, employee loyalty, organizational citizenship behavior, organizational performance, productivity, and customer satisfaction. On the other hand, it helps to reduce employee turnover. Eventually, it paves the way to improve shareholders' value of the organization (Rao ,2017).

Moreover, employee engagement is a sustainable source of creating competitive advantage for the organizations (Macey, Schneider, Barbara & Young, 2009). People is one factor that cannot be duplicated or imitated by the competitors and is considered the most valuable asset if managed and engaged properly

(Anitha, 2014). Employee engagement has been found positively correlated with significant job attitudes such as job satisfaction and organizational commitment as well as negatively correlated with turnover intentions (Saks, 2006). Not only that but also employee engagement has been found positively correlated with employee health and well-being as well. Accordingly, employee engagement causes to reduce the level of employee work related anxiety, depression and stress (Bakker, Albrecht & Leiter, 2011).

2. METHODS

2.1 Sampling

The present research was used stratified sampling method for selecting the sample as there is a heterogeneous population taken into account in the present research. The population of the present research comprised with total number of government university lecturers in Sri Lanka. Total population comprised with different strata levels such as 15 government universities as well as different educational qualification categories of lecturers (Bachelor Degree with Post Graduate Diplomas, Master Degree & MPhil and Doctoral Degree).

The sample of the present research has been designed considering the different strata levels of the population. According to the Morgan's table produced by Krejcie & Morgan (1970) in order to determine the sample size for a finite population, 357 has been given as the appropriate

sample size for the population of 5,000. Even though the population of the present research was 4,900, researcher has decided to select 400 as the sample in order to increase the generalization of the findings as well as for allowing invalid and incomplete questionnaires which can be given by the respondents. Accordingly, following equation has been utilized to calculate the sample size of each category proportionately.

Sample size = (Population of each category / 4900) × 400

Even though 400 questionnaires were distributed only 388 completed questionnaires were received. Accordingly, actual sample size of the present research is 388 government university lecturers.

A questionnaire with two sections was applied to collect primary data of the present research. Section one was designed to collect information regarding gender, age and educational qualification of the respondents. Section two consisted with measures of employee engagement. Level of employee engagement measured through the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003) comprised 17 items to measure three subscales of employee engagement; vigor, dedication and absorption. Out of 17 items included in the questionnaire, six items designed to measure vigor, five items measuring dedication and six items measuring absorption. According to Saeed, Yousafzai & Engelen (2014) reliability value obtained for this scale was $\alpha=0.74$.

Secondary data for the present research has been collected from the University Statistics – 2016 published by the University Grants Commission of Sri Lanka.

2.2 Methods of Data Analysis

The data gathered from 388 respondents of the present research were analysed from the Statistical Package for Social Sciences (SPSS) version 22. In order to determine whether there are significant differences of employee engagement with gender independent samples t-test was performed. Accordingly, Alternative Hypothesis 1 ($H_1 1$): There is an association between type of gender and the level of employee engagement of Government University lecturers in Sri Lanka were tested using independent samples t-tests.

In order to determine whether there are significant differences of employee engagement among different age categories and different levels of education one – way analysis of variance (ANOVA) test was conducted. Accordingly, Alternative Hypothesis 2 ($H_1 2$): There is an association between different ages and the level of employee engagement of government university lecturers in Sri Lanka and Alternative Hypothesis 3 ($H_1 3$): There is an association between educational qualification and the level of employee engagement of government university lecturers in Sri Lanka were tested using one – way analysis of variance (ANOVA) test.

3. RESULTS

3.1 Results of Alternative Hypothesis 1 (H₁ 1)

In order to test alternative hypothesis 1 (H₁ 1): There is an association between type of gender and the level of employee engagement of government university lecturers in Sri Lanka, an independent samples t-test was performed. It was tested whether there is a significant difference of employee engagement among male and female lecturers. The results of the statistical analysis presented in Table 1.

Table 1. T-test for Gender and Employee Engagement

Variable	Groups	n	t	Sig. (.2-tailed)
Employee Engagement	Male	126	2.23	0.590
	Female	262		

Source: Survey Data, 2017

Results of the t-test indicated that test is not significant, $t(388) = 2.23$, $p > 0.05$. Accordingly, hypothesis 1 is rejected and it was revealed that there is no significant difference of employee engagement among male and female government university lecturers in Sri Lanka.

3.2 Results of Alternative Hypothesis 2 (H₁ 2)

In order to test alternative hypothesis 2 (H₁ 2): There is an association between different ages and the level of employee engagement of government university lecturers in Sri

Lanka, one – way ANOVA test was performed. It was tested whether there is a significant difference of employee engagement among the lecturers in different age groups. The results of the statistical analysis presented in Table 2.

Findings provided the evidence to accept hypothesis 2. Accordingly, lecturers' employee engagement is different among four age groups, $F(3, 388) = 6.27$, $p < 0.05$. In other word age have an impact on employee engagement of lecturers. Findings further proved that lecturers above 60 ages are more engaged than other three categories of ages which are below to 60 ages. Post Hoc test revealed that the mean values of the employee engagement in different age levels indicated that the level of employee engagement has been increased gradually when increasing the age of the lecturers.

Table 2. ANOVA test for Ages and Employee Engagement

Variable	Age Groups	N	Mean	F	Sig.
Employee Engagement	21 - 30	17	214.7	6.27	.002
	31 - 40	11	6		
	41 - 50	1	224.2		
	51 - 60	13	3		
	Above 60	4	227.3		
		12	5		
		0	228.9		
	6	8			
			232.57		

Source: Survey Data, 2017

3.3 Results of Alternative Hypothesis 3 (H₁ 3)

In order to test alternative hypothesis 3 (H₁ 3): There is an association between educational qualification and the level of employee engagement of government university lecturers in Sri Lanka, one – way analysis of variance (ANOVA) was performed. It was tested whether there is a significant difference of employee engagement among the lecturers with having different educational qualification. The results of the statistical analysis presented in Table 3.

Table 3. ANOVA test for Level of Education Qualification and Employee Engagement

Variable	Level of education	N	Mean	F	Sig.
Employee Engagement	Bachelor Degree & PGD	52	209.32	5.38	0.160
	Master & MPhil	147	207.29		
	Doctoral Degree	109	206.71		

Source: Survey Data, 2017

Findings provided the evidence to reject alternative hypothesis 3. Accordingly, lecturers' employee engagement is not significantly different among different educational qualifications.

4. DISCUSSION

Findings of the testing for association between gender and employee engagement were revealed that there is no significant difference of employee engagement among male and female government university lecturers in Sri Lanka.

However, according to the findings of the study conducted in order to analyse the factors affecting to employee engagement of the lecturers, Pitt-Catsouphes & Matz-Costa (2009) revealed that the most important factor for influencing employee engagement as age (being older) and second important factor is gender. Same research further, found that older female academics are showing more engaged behavior in order to be recognized as valuable human capital to the universities after fulfilling their basic roles in the family. Female academics are turn to be devoted employee as well as uplift their career development. The reason for the contradictory findings might be cultural, social environmental factors of the country the research was carried out. It is because the females in Sri Lankan culture have to play dual role in their daily life. Females have the total responsibility to fulfil all the household activities and taking care the children and older parents in the family. In Sri Lankan culture, females are considered as the responsible persons for the well- being of the children and the whole family.

Therefore, Sri Lankan females have to scarify their time, energy and efforts to the family rather than their career obligations.

Accordingly, mechanisms for creating conducive education environment, should be provided for all the lecturers without considering their gender as gender is not a determinant of employee engagement.

Based on the findings of testing the association between age and employee engagement, it was found that teachers' employee engagement is different among five age groups and lecturers in above 60 age group are more engaged than others and lecturers who are 21-30 age group are less engaged than others. Accordingly, age is a determinant factor of employee engagement of the government university lecturers in Sri Lanka. It was revealed that when the lecturers getting older, level of engagement for the profession is increasing and the intention to leave the organization is low. The reason might be it is difficult to find alternative job opportunities in the similar profession when getting older in a developing country like Sri Lanka. There are limited opportunities available for government university lecturers to joint to the private universities, due to few well established private universities in Sri Lanka. Therefore, lecturers may more engage with the prevailing job when they are getting older. On the other hand, findings have been proved that the level of engagement of young government university lecturers in Sri Lanka is lower than others. The reason may be the young lecturers can find lot of alternative opportunities and scholarships in local as well as foreign universities. Accordingly, it is necessary to increase the level of commitment of young lecturers through various motivational methods such as proving regular training and development opportunities and providing more attractive reward system and increments and incentives based on the performance of the lecturers in order to retain them within

the government universities to create better service to the country.

Similarly, according to the findings of the study conducted in order to analyse the factors affecting to employee engagement of the lecturers, Pitt-Catsouphes & Matz-Costa (2009) revealed that the most important factor for influencing employee engagement as age (being older). It is also in lined with the studies carried by Bezuidenhout and Cilliers (2011).

Findings of the alternative hypothesis 3, was revealed that teachers' employee engagement is not significantly different among different educational levels. In other word levels of education have not an influence in determining employee engagement of government university lecturers in Sri Lanka.

Findings of the present research showed that the level of employee engagement among young lecturers is lower than the older lecturers. In addition to that problem, currently, Sri Lanka is experiencing the brain drain of young lecturers as they are attracting to the job opportunities and scholarships at foreign universities with fascinating working environments and attractive remuneration packages. Therefore, it is necessary to use different mechanisms in order to increase the level of employee engagement of young government university lecturers in Sri Lanka. When considering the factors affecting to employee engagement, Anitha (2014) has identified seven basic determinants which are determining the level of employee engagement in an

organization. Those factors are work environment, leadership, team & co-workers, training & career development, compensation, organizational policies and work place well-being. Among them, work environment, leadership, training & career development and compensation are the significant determinants of employee engagement (Anitha, 2014).

Accordingly, it is recommended to create open, supportive and motivating working environment for the lecturers in order to physically and emotionally attract them to the organization to provide better service. Because of the best working environment comprised with both physically and emotionally safe environment motivating employees to provide engaged works (Holbeche & Springett, 2003). Moreover, a supportive working environment provide opportunities to the employee to practice innovative methods without fear of the consequences even though it is failed (Kahn, 1990). Inspiring leadership and attractive compensation package also identified as the significant factors affecting to employee engagement (Anitha, 2014).

Therefore, it is necessary to create working environment with stimulating culture, good working teams, inspiring leaders, attractive physical surroundings with required physical resources such as computers, printers, scanners, related equipment, foods and beverages within the working place at the universities. Furthermore, it is recommended to leaders of the university lecturers such as heads of the departments, deans and vice chancellors to conduct unbiased

performance appraisals, appreciate the lecturers' additional and innovative efforts, communicating the remarkable accomplishments of the lecturers to others, provide required information and resources to gain effective output and encourage them to maintain work life balance.

When considering the current compensation package of the government university lecturers in Sri Lanka any financial reward is not paying to the government university lecturers based on the level of performance, skills, innovative efforts or extraordinary contributions for the betterment of the higher education sector. Therefore, it is recommended to introduce incentives based on the level of performance and additional efforts in order to create engaged lecturers within the government university sector in Sri Lanka. Because of the lecturers with having high level of employee engagement will be able to provide a quality service for the students and work effectively with co-workers, administrators and general public with minimizing organizational conflicts.

Accordingly, the decision makers, planners and policy makers of the government higher education sector should consider implementing the findings of this study because it may assist for enhancing the level of employee engagement of government university lecturers in Sri Lanka. Finally, the results of the study add knowledge to the existing literature and therefore act as a catalyst for future studies aimed at investigating the factors affecting to and determine the level of employee engagement.

5. CONCLUSION

Present research was focused to study the association between demographic factors and employee engagement of government university lecturers in Sri Lanka. Findings of the present research will be added to the literature on the level of employee engagement of the lecturers in state universities of Sri Lanka. This research can be further expanded into other categories of government employees in Sri Lanka because it is obvious that most of the government organizations in Sri Lanka are suffering with disengaged employees and seeking solutions for increasing employee engagement. Present research has been measured the level of employee engagement under the same working conditions. Therefore, further research can be conducted to determine the association between demographic factors and employee engagement under the different working conditions and situations such as job stress, job satisfaction and motivation.

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Impact of Physical Ergonomic Factors on Employee Productivity: Special Reference to in Apparel Industry of Gampaha District

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Abstract

A well-designed work environment is a prerequisite for any organizational employee retention and quality maintenance. Businesses do not operate in a vacuum but rather in a dynamic environment that has a direct influence on how they operate and whether they will achieve their objectives. In today's context, apparel industries pay a greater attention toward physical ergonomic factors. Ergonomics is designed to ensure that the work situation is in line with the worker's activities. Thus, the present research was conducted to determine the impact of physical ergonomic factors on employee productivity in apparel industry of Gampaha district. The variables included in the framework were internal Environmental factors, Working Equipment and workplace design. The primary data was gathered by distributing 323 questionnaires to employees who work in apparel manufacturing companies located in Gampaha district. The findings determined that, all three factors: internal environmental factors, working equipment and workplace design, were significant variables and has a positive impact on employee productivity of apparel manufacturing industry. The research paper provides apparel industry on how knowledge about the physical ergonomics factors influencing employee productivity.

Keywords: Physical Ergonomic Factors, Employee Productivity, Apparel Manufacturing Industry

1. INTRODUCTION

Nowadays, ergonomics is one of the least recognized facts in country's industrial and services community. It lays the groundwork for many policies and programs in management and engineering. The purpose of applying ergonomic data is to reach appropriate and logical relation between

employees and environment, machine, job as well as organization.

Having an appropriate physical work environment condition, it helps in reducing the amount of absenteeism and consequently can expand the employees' productivity which will prompt the expanding number of profitability at the working environment. Ergonomics is a science,

concerned with the fit 'between people and their work. It puts people first, taking account of their capabilities and limitations. Ergonomics aims to make sure that tasks, equipment, information and the environment fit each worker (Britain, 2014)

A conducive physical work environment condition, it helps in reducing the quantity of absenteeism and consequently can expand the employees' productivity which will prompt the expanding number of profitability at the working environment. Thus, it is so critical to discover what factors of work environment conditions cause for the employees' productivity. In the world, there are international organizations who debate the rights of employee.

Most people spend fifty percent of their lives within indoor environments, which greatly influence their mental status, actions, abilities and performance (Dorgan, 1994). Better outcomes and increased productivity are assumed to be the result of better workplace environment. Better physical environment of office will boost the employees and ultimately improve their productivity.

Employee productivity, also called workplace productivity, is an assessment of an employee's or a group of employees' efficiencies. It is evaluated by looking at the total workforce or employee output in a given time. In most cases, the productivity of an individual will be assessed in comparison to the average output of other employees doing similar work. When employees are

productive, it can increase the company's revenue, and in turn, a company may choose to offer incentives to its employees. Failing to reward a productive staff can demotivate the whole team.

1.2 Problem Statement

It is believed that employee efficiency and increased productivity are the products of a stronger workplace environment. Employees should be supported with comfortable working atmosphere to do their level best. Lack of comfortable working conditions Employees are suffering from job satisfaction. This issue affects not only employee performance, but also employee absenteeism and turnover work dissatisfaction and employee health and safety related issues directly or indirectly. A well-designed work environment, as well as maintaining the organization's profitability, is important for the prevention of diseases related to poor working conditions. Information technology is being updated and the creation of new forms of organizations.

One of the most important factors in employee performance is to achieve goals. Successful employees always tend to achieve organizational objectives. There is no doubt about the fact that the human asset is the key intangible asset for any organization. In today's dynamic and continuously changing business world, it is the human assets and not the fixed or tangible assets that differentiate an organization from its competitors. Noble (2009) states that more attention should be paid in identifying

and dealing with working environment because when employees have negative perception to their environment they sometimes suffer from chronic stress. Literature on the study of multiple offices and office buildings indicate that factors such as dissatisfaction, cluttered workplaces and the physical environment are playing a major role in the loss of employees' productivity (Carnevale 1992, Clements-Croome 1997).

According to the McCoy & Evans (2005), if employees dissatisfy with their working environment and once the employees become stressors at the workplace, the employees tend to do their work very slowly. This will directly affect for the employee's performance and as well as for the overall productivity of the organization. The problem which reveal by McCoy & Evans (2005) also can be observed in the apparel industry of Sri Lanka. However, there is no enough research in this area in Sri Lanka. Researcher's effort was to investigate the impact of physical ergonomic factors on employee productivity in apparel industry of Gampaha District. Therefore, this research empowers the researchers to recognize physical ergonomic factors on employee productivity in apparel industry of Gampaha District.

1.3 Research Objectives

The objectives for the present study as follow,

To analyze the impact of Internal Environmental Factors towards employee Productivity in Apparel Industry of Gampaha district

To analyze the impact of Working Equipment towards employee Productivity in Apparel Industry of Gampaha district

To analyze the impact of Workplace Design towards employee Productivity in Apparel Industry of Gampaha district

1.4 Contribution of the paper

The study helps to understand the impact of physical ergonomic factors on employee productivity in apparel industry of Sri Lanka and, it helps to find out possible solutions for the impact of physical ergonomic factors which increase the employee productivity. Therefore, the company managements of apparel industry can focus on the research findings and it will help the managements to be more success. Also, management in the apparel industry can use this study to understand a better development and the Human Resource aspect from the findings of the study.

1.5 Literature Review

In the study of Brill *et al* (1985), he reveals that a physical work environment can result a person to fit or misfit to the environment of the workplace and it is also known as an ergonomic workplace. There are some factors of physical work environment which help employees to perform their job more effectively and which leads to enhance their job satisfaction, such as lightings, the floor configuration, office layout and also the furniture layout.

According to the Vischer (2007), physical work environment is one of

the most important factors which influences on work performance. Evidence accumulated that the physical work environment in which people work affects both job performance and job satisfaction. And also, he reveals that employees affect by the environment of the place they are working and by having a good environment, the employees could apply their energy and their full attention to perform work.

McCoy & Evans (2005) explained that if employees dissatisfy with their working environment and once the employees become stressors at the workplace, the employees tend to do their work very slowly. This will directly affect for the employees performance and as well as for the overall productivity of the organization.

According to Mohr, (1996) to achieve high levels of employee productivity, organizations must ensure that the physical environment is conducive to organizational needs facilitating interaction and privacy, formality and informality, functionality and cross-disciplinarily. Consequently, the physical environment is a tool that can be leveraged both to improve business results and employee well-being

In the study of Huang, Robertson and Chang (2004), he ensuring adequate facilities are provided to employees is critical to generating greater employee commitment and productivity. The provision of inadequate equipment and adverse working conditions has been shown to affect employee commitment and intention to stay with the organization.

Ismail *et al.* (2010) opine that the conditions of physical workplace environment influence the employees' functions and it will determine the well-being of organizations. They add that the physical work environment includes the internal and external office layout, temperature, comfort zone and also the work setting or arrangement.

Niemela *et al.* (2002) found out that there is decrement in work performance when temperatures are high, and low temperature has relation to performance of manual tasks.

Tamessek (2009) analyzed the extent to which employees perceive their workplace environment as fulfilling their intrinsic, extrinsic, and social needs and their need to stay in the organization. He also analyzed the impact of perception of workplace environments on employee commitment and turnover in the organization, he concluded that if the employees are provided with enabling workplace environmental support, they will be highly satisfied and show high level of commitment towards their organization and hence low turnover rate.

A research by Roelofsen (2002) indicates that improving the working environment reduces complains and absenteeism while increasing productivity. Better physical workplace environment will boost the employee and ultimately their performance. A study done by Chevalier (2004) revealed that when environmental supports are sound, employees are better equipped to do what is expected of them.

Findings by Ajala (2012) indicated that workplace environmental elements such as sufficient light, absence of noise, proper ventilation and layout arrangement substantially increase employees' productivity. Hameed and Amjad (2009) in a survey of 31 bank branches showed that comfortable and ergonomic office design motivates the employees and increased their performance substantially.

2. METHODS

There are approximately 2000 employees available in the selected two garment manufacturing organization in the Gampaha district. According to Krejcie & Morgan table (1970), 323 employees were selected based on purposive sampling method. Data were collected through primary sources using the questionnaire method and questions were arranged according to five-point Likert scale to gain the responses. 100% valid responses were gained. The conceptual model of the study can be presented as follows.

2.1 Conceptual Framework

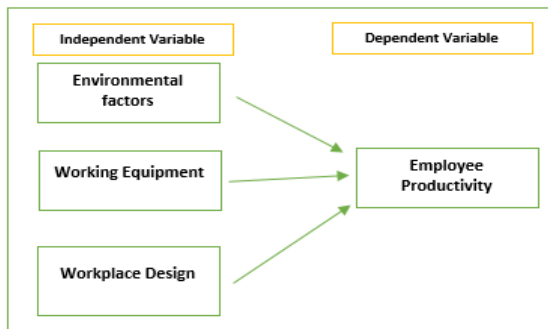


Figure 1. Conceptual Framework

2.2 Development of Hypothesis

Based on the literature, the researcher has developed three hypotheses as follows.

H₁: There is a significant effect of Environmental factors on employee productivity in Apparel industry of Sri Lanka.

H₂: There is a significant effect of Working Equipment on employee productivity in Apparel industry of Sri Lanka.

H₃: There is a significant effect of Workplace Design on employee productivity in Apparel industry of Sri Lanka.

3. RESULTS

To measure the reliability and validity in this study the researcher uses “Cronbach's Alpha” separately for “the drivers of impacted to the Employee Productivity such as Environmental Factors, Working Equipment and Workplace Design as well as dependent drivers of the Employee Productivity of the Employees in Apparel Industry of Sri Lanka”.

Reliability of questionnaire has been measured by using Cronbach's' alpha and to identify In order to find out the relationship between Physical ergonomic factors and Employee productivity, correlation coefficient is used.

The Cronbach's' alpha value for the observed independent variables are 0.755 for internal environmental

Factors, 0.755 for Working Equipment, 0.734 for Workplace Design, where all the values are in the satisfactory level of reliability.

Table 1. Descriptive Statistics

Descriptive Statistics				
	Internal environmental Factors	Working Equipment	Workplace Design	Employee Productivity
Mean	2.3100	2.3131	2.2874	2.1669
N	321	321	321	321
Std. Deviation	.42757	.52451	.52679	.50753
Minimum	1.00	1.00	1.00	1.00
Maximum	5.00	5.00	5.00	5.00
Variance	.183	.275	.278	.258
Skewness	1.459	.831	.963	1.097

As per table number 1 descriptive were analyzed. This result leads the study with the non-parametric for individual driver analysis. In this study data are categorical and not normally distributed. Therefore, examination should be done with Chi – Square test results, (Gujarati and Porter 2009).

Chi – Square test were used with 05.00% significance level for the

study. The individual drivers such as Environmental Factors (Chi-Square Statistic – 337.255) (Sig. – 0.000), Working Equipment (Chi-Square Statistic – 412.801) (Sig. – 0.000), Workplace Design (Chi-Square Statistic – 487.380) (Asymp. Sig. – 0.000) have an effect on Employee Productivity at the Apparel Industry of Sri Lanka at 05.00% level of significance.

To find the individual drivers’ sign of the effect which is positive or negative to the Employee Productivity; researcher has used correlation analysis with Spearman Correlation Coefficient due to the data categorical and not normally distributed.

According to the Spearman rank-order correlation analysis the drivers of the Independent factors such as the Internal environmental Factors are strong positively (Correlation Coefficient – 0.756) (P) – 0.000 < 0.05 correlated with on Employee Productivity. Working Equipment are weak positively (Correlation Coefficient – 0.510) (P) – 0.000 < 0.05 correlated with on Employee. And Workplace Design are weak positively (Correlation Coefficient – 0.569) (P) – 0.000 < 0.05 correlated with on Employee Productivity at the Apparel Industry of Sri Lanka.

As per the above result most impacted variable is Environmental Factors on the Employee Productivity due to it has the highest Correlation Coefficient: A Case of the Apparel Industry of Sri Lanka at 05.00% level of significance.

Table 2. Model Summary

Model Summary ^b					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error			
(Constant)	.027	.107		.247	.805
Environmental Factors	.389	.059	.328	6.68	.000
Working Equipment	.195	.047	.201	4.19	.000
Workplace Design	.346	.046	.359	7.53	.000
a. Dependent Variable: Employee Productivity					

According to the table of model summary, the selected independent variables are explained the total variation of the Employee Productivity; A Case of the Apparel Industry of Sri Lanka by 57.10% and which results overall significance due to P-value of ANOVA table (0.000) and (F value – 143.081) is less than 0.05. In this analysis, R² cannot be used to measure the goodness of fit

due to multiple linear regression model.

Table 3. Regression Coefficients

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.758 ^a	.575	.571	.33235
a. Predictors: (Constant), Workplace Design, Working Equipment, Internal Environmental Factors				
b. Dependent Variable: Employee Productivity				

Regression coefficients represent the mean change in the response variable for one unit of change in the independent or predictor variable while holding other predictors in the model are constant. According to the regression results, all the independent variables have a significant impact on Employee Productivity. The most impacted variable is Internal Environmental Factors due to it has the highest B value (Regression Coefficient) on Employee Productivity:

There is a significant impact of all the Independent variables on Employee Productivity in Apparel Industry of Gampaha District. According to the regression analysis, p value of all the Independent factors was 0.000 (less than 0.05), hence the null hypothesis was rejected. Alternative hypothesis was accepted. It means that, the changes in Independent variables have a significant impact on Employee

Productivity in Apparel Industry of Gampaha District.

So according to above Results, All the Hypothesis formulated in this Study were Accepted.

4. DISCUSSION

According to the analysis, it was found that there is a significant Impact of Physical Ergonomic Factors on Employee Productivity in Apparel Industry of Gampaha District.

The normality test was done with the values of Skewness. Here the data of the selected sample were not completely normally distributed, however those were distributed in a sufficient level to go for further analysis techniques.

The first and main objective of the study was to investigate the Impact of Physical Ergonomic Factors on Employee Productivity in Apparel Industry of Gampaha District. To achieve that objective, Chi-Square Test, Correlation Analysis & the Regression Analysis has been used by the researcher. According to the Chi-Square test, all the independent factors have an Impact of Physical Ergonomic Factors on Employee Productivity in Apparel Industry of Gampaha District. Under Correlation Analysis, only the Environmental Factors are strong positively correlated while others correlated weak positively at 05.00% level of significance.

As per the results in regression analysis, all the Independent factors have significant impact on Employee Productivity in Apparel Industry of Gampaha District. And the

Environmental Factors have the highest significant impact since it has the highest Regression Coefficient at 05.00% level of significance.

From this study, the researcher has found that, In Most of companies, employees have an appropriate, healthy working environment to perform well & it is affecting to increase the productivity. So, it decreases resting time during working hours, reduction in human concentration, tiredness, and absence from work for being monotonous. It means, work environment should be safe and healthy along with providing human health and comfort and increasing their productivity will increase organization productivity and also will increase quality and quantity of its products and services.

Companies provide necessary equipment and tools to facilitate employees' works to be done quickly & secure materials and equipment to be done works more easily.

There are safe working equipment in the workplaces of most companies, since most of workplace injuries are occurring as a result of using unsafe working equipment. So, safe Machineries, masks, cutting tool protection & hearing protection equipment are used.

In Most Companies in Apparel Industry of Gampaha District, Workplace interior design elements are integrated successfully & workplace machines design is convenient for the job performance & workplace is designed to minimize motions.

5. CONCLUSION

The major purpose of this study is to find out about the Impact of Physical Ergonomic Factors on Employee Productivity in Apparel Industry of Gampaha District. The Employee Productivity can be improved through addressing to the specific challenges as follows.

The findings of the research are confined with Niemela *et al.* (2002) as the selected variables may have a positive impact on employee productivity. As per the present study, the internal environment positively impact on employee productivity and the result were similar to the study conducted by Ismail *et al.* (2010).

Also, the study found that the working equipment may also have a impact on the employee productivity and the finding of Tamessek (2009); Ajala (2012)' Roelofsen (2002) also confirm the results of this study. Also, this research shows there is a positive relationship between workplace design and the employee productivity and the findings of Hameed and Amjad (2009) confined the results were similar to the present study.

When Employees must work in an inappropriate, unhealthy working environment, it will negatively effect on human performances. It means it will increase resting time during working hours, reduction in human concentration, tiredness, and absence from work for being monotonous. So, Companies have to pay more attention about the Temperature & Lighting & it should be kept at the level which helps to maintain the normal level of performance positively & as it

supports to the productivity and morale. It means, work environment should be safe and healthy along with providing human health and comfort and increasing their productivity will increase organization productivity and also will increase quality and quantity of its products and services.

Employees should use safe working equipment's in the workplace, since most of workplace injuries are occurring as a result of using unsafe working equipment. So, safe Machineries, masks, cutting tool protection & hearing protection equipment can be used.

Organizing workplace environment and design properly is also a major thing which is directly affecting to the Employee Productivity. Therefore, should provide staff with adjustable desks, options for lighting and temperature control, and variety work rooms to increase job satisfaction and it will affect to increase the Employee Productivity. It's necessary to use well-designed workplace, since it is more convenient for employees' job performance & it will also reduce the motion of employees.

So, the present resect fills the empirical gap by finding the solutions for managing physical ergonomics in organizations towards achieving the productivity.

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The Factors Impact on Internet Banking Adoption with Special Reference to Kurunegla District

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Abstract

The emerging technology has made a phenomenal growth of the Internet which has changed the pattern of organizations performing their business with customers. The banking industry could not survive without accepting the growth in technology. In order to gain competitive advantage, the banks have introduced internet banking services. However, the customers have not adopted this concept as the banks expected. Literature available in that issue shows a wide range of variations in the understanding of internet banking adoption in different context confirming the inherent nature of such behavioural issues. In the Sri Lankan context as well such variations is available and a shortage of knowledge is available on the impact of factors affecting the internet banking adoption by bank customers. Consequently, the purpose of this study is to identify the factors which impact on internet banking adoption in Kurunegala district having the third largest population density in Sri Lanka. Available research in the Sri Lankan context in this regard is mainly focused on western province. A conceptual model was developed with the support of available literature. Structured questionnaire was administered to collect data from 200 Internet banking customers in Kurunegala district through convenience sampling. Descriptive statistics, correlation analysis and regression analysis are used in the data analysis. This study found that perceived ease of use, perceived usefulness, security, perceived risk and social influence have impact on internet banking adoption in Kurunegala district. Further results of multiple regression analysis reveal that most significant predictor was social influence. This study recommends that banks should use awareness programs to increase social influence and provide knowledge to the customers regarding the usefulness of internet banking service than using other banking channels such as mobile and traditional banking.

Keywords: Perceived Ease of Use, Perceived Risk, Perceived Usefulness, Security, Social Influence, Internet Banking Adoption

1. INTRODUCTION

Internet banking is one of new trends that banks increasingly respond (Fernando, 2016). The Internet banking service can play a major role in banking industry which makes customers easier to perform their day to day banking transactions with finger tips without visiting to the premises of banks. As a matter of fact, internet banking service in banking industry is a very fast-growing trend in developed countries (Yeow, 2010). Since the Internet banking service is fast growing and expanding, the low usage rate on internet banking service still exist in the Sri-Lankan banking industry (Kariyawasam & Jayasiri, 2016). Banks try to improve customer adoption in internet banking but customers do not use it in a sufficient way. Although few studies were carried out in order to address that issue, a mix of results can be seen regarding the causes or factors affecting the internet banking adoption in the Sri Lankan context (Dasanayaka & Mahesh, 2016; Mangalee, & Wijenayake, 2017). Hence, still there is a gap in our knowledge on the factors that may have impact on the adoption of internet banking service in specific context like Kurunegala district. Further such understanding would be highly useful in promoting internet banking service and there by retaining valuable customers. As well as it would provide valuable knowledge and information to banks, service developers and software engineers to enhance customers' intention to use internet banking service in the future.

Therefore, the aim of this research is to identify the determinants of customer adoption of internet banking and their impact on internet banking adoption with special focus to Kurunegala district.

Internet banking

Internet banking is, "to give customers access to their bank accounts via a web site and to enable them to enact certain transactions on their accounts, given compliance with stringent security checks" (Essinger,1999). Internet Banking allows customers to conduct financial transactions on a secure website operated by their retail or virtual bank, credit union or building society. This is usually conducted through a personal computer that connects to a banking web site via the Internet. Internet Banking can also be conducted via wireless technology through both personal digital Assistants and cellular phones.

Ability to transfer money between accounts, bill payments, pawning inquiries, loan requesting, view statements and perform other financial transactions over the Internet. Internet banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television (Eriksson, 2007).

Customer adoption of internet banking

Individual's decision to become a regular user of a product which may be an innovation in form of a good, service or idea or consumer adoption is the process of consumers use to determine whether or not to adopt an innovation. Among the different models that have proposed, in the field of IT adoption and usage, the frameworks of dominating literature are such as the Technology Acceptance Model (TAM) by (Davis, 1986) adapted from the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980) appears to be the most widely accepted among information systems related researchers.

According to Rogers (1995) the theory of Diffusion of innovation was to mention the foundation for conducting research on innovation acceptance and adoption. Rogers did diffusion studies and finally build "Diffusion of Innovation" theory for the adoption of innovations through individuals and organization. The basic Technology Acceptance model tested and included two important variables like perceived usefulness and perceived ease of use.

The external variables in the TAM are influenced to the belief of the person towards a System. Venkatesh and Davis (1996) formed the final version of TAM (See for example, Venkatesh,2000).

Factors Impact on Internet banking adoption

The researcher discovered several factors that impact on internet banking adoption in terms of perceived usefulness, perceived ease of use, security, perceived risk, social influence.

Perceived usefulness

Perceived usefulness is one of the critical elements of TAM. There are various number of definitions have been given for the term usefulness. According to the earlier studies, suggested that there is a positive relationship between Perceived usefulness and intention to use (Wang,et al, 2003). Using a particular system will enhance one's job performance (Davis-1989).

The perceived usefulness with the adoption of information technology has a positive effect (Safeena, Date and Kammai, 2011).Therefore; it is highly predictable that people use Internet banking services because they find it useful. The degree to which a person believes that using a particular system would enhance their performance" (Dholakia & Dholakia, 2004). It is clear that new technology should be cost effective than the prevailing method in order to make a choice to adopt new technology. (Davis,Bagozzi and Warnshaw, 1989).

Perceived ease of use

Perceived ease of use means the degree to which an individual believes/ thinks that using a selected system would be free from mental and physical efforts. Davis (1986) suggested that the Technology Acceptance Model (TAM) shows the power of ease of use in technology adoption. Specifically, Davis defined ease of use as the degree to which a person believes that using a particular service would be free of effort (Davis, 1989). According to Venkatesh (2000), the perception of use is an important determinant of user's intention to use something that related to the Internet applications. Base on Eriksson et al., (2005) "ease of use" is one of the main determinants of popularity of usage. They reviewed the ease of use as one of the determinants that should not neglect its relationship with technology anxiety. Thus, Adoption of Internet banking is more likely to occur if the process of usage is easy for customers.

Security

Security is one of the very valuable factors in determining the intention to use of Internet banking. Internet banking faced with this particular issue and it leads to reluctance of Internet banking usage. People still have a weak understanding of managing the use of e-banking facilities at the best conduct of practice (Pikkarrainen et al., 2004). One of the major influencing factors around the establishment and use of new technologies for financial

transactions is that of security and trust (Brown et al., 2001). The need for security of personal details and financial information is therefore critical to the success of Internet banking.

Perceived risk

Perceived Risk refers to the degree of uncertainty about the benefits of Internet banking (Priya, Gandhi, & Shaikh, 2016). Luo et al. (2010) mention that there were four dimensions including in perceived risk.

Social Influence

Social influence also appears to have an impact on perceptions about the innovation in voluntary settings (Venkatesh, Morris, Davis & Davis, 2003). That is social networks and position of the adopter in them has a strong influence on adoption. Furthermore, Social Influence could study from personal influence. According to Baines et al. (2013) defines, Social Influence is a phenomenon-explaining customer imitating behavior studied from social learning.

Research Framework

Based on the literature, the following conceptual framework has been developed.

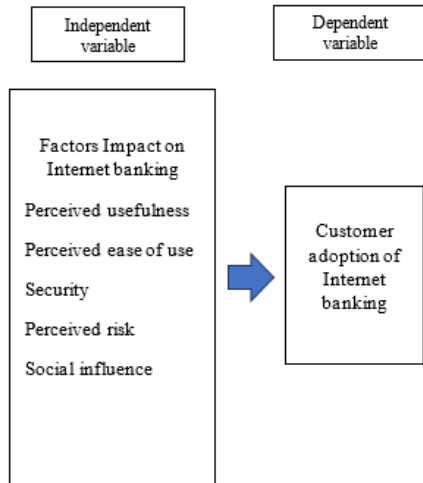


Figure 1. Conceptual Framework

Based on the research framework, following hypothesis were developed to answer the research questions.

H₁: There is a significant relationship between perceived usefulness and adoption of internet banking in Kurunegala district in Sri Lanka.

H₂: There is a significant impact of perceived ease of use on adoption of internet banking in Kurunegala district in Sri Lanka.

H₃: There is a significant relationship between perceived ease of use and adoption of internet banking in Kurunegala district in Sri Lanka.

H₄: There is a significant impact of perceived usefulness on adoption of Internet banking in Kurunegala district in Sri Lanka.

H₅: There is a significant relationship between security and adoption of internet banking in Kurunegala district in Sri Lanka.

H₆: There is a significant impact of security on adoption of Internet banking in Kurunegala district in Sri Lanka.

H₇: There is a significant relationship between perceived risk and adoption of internet banking in Kurunegala district in Sri Lanka.

H₈: There is a significant impact of perceived risk on adoption of Internet banking in Kurunegala district in Sri Lanka.

H₉: There is a significant relationship between social influence and adoption of internet banking in Kurunegala district in Sri Lanka.

H₁₀: There is a significant impact of social influence on adoption of internet banking in Kurunegala district in Sri Lanka.

2. METHODS

Sample

The population of this study is the banking customers in the Kurunegala district. For this study, the researcher was unable to consider a random sampling technique due to the absence of a sample frame for research purposes in the industry. Consequently, convenience sampling method was employed for the purpose of study. Convenience sampling (also known as availability sampling) is a specific type of non-probability sampling method that relies on data collection from population members who are conveniently available to participate in study. The researcher selected 200 internet banking customers in the Kurunegala district

using convenience sampling technique for the study.

Instrumentation

Variables considered in the model were measured using standard instruments (Venkatesh & Zang, 2010; Aboelmaged & Gebba, 2013; Luarn & Lin, 2005; Yu, S.2009; Priya, Gandhi & Shaikh 2018; Chiu, Bool & Chiu, 2017). For this research, both primary data sources and secondary data sources were used in the data collection. Form of questionnaire is used as the main instrument for data collection. The survey questionnaire comprised two sections as part A and part B. Part A of the questionnaire contained questions relating to demographic factors such as gender, age, education qualification and so on. Part B included questions relating to five independent variables and the dependent variable.

3. RESULTS

The data analysis of this research conducted through SPSS version 21. Mainly this research used the Pearson correlation and the regression analysis. Reliability analysis also tested to assure the reliability of the questionnaire. 200 questionnaires were returned marking 76% response rate. Necessary action has made with regard to the incomplete questionnaires and normality test was conducted and assured that data were normally distributed.

Initially, the researcher analyzed the demographic data to get an idea regarding the respondent profile. Where, the age, gender, educational qualifications, income level of

respondents were analyzed. The survey consisted with 130 male respondents and 70 female, where majority of them were around the 26-35 age group. Most of respondents were work at private sector with diploma level qualification. Most of the people used internet banking service for period of 1-3 years and bill payment facility was the most preferred facility enjoyed by the respondents

Reliability test is used to assess the inter item internal consistency of instruments. According to the Cronbatch's alpha value, perceived usefulness, perceived ease of use, security, perceived risk, had good reliability because the Cronbatch's alpha value is ranged from 0.70 to 0.80. And the values of social influence, and internet banking adoption had very good reliability because alpha value is ranged in between 0.80-0.90. Therefore, reliability of all the instruments were at accepted level.

According to the mean values of perceived ease of use, perceived risk and social influence were 3.8760, 3.7775 and 3.6263 respectively and these values were neared to the 'agree' side in the five-point Likert scale. Mean values of perceived usefulness and security were 4.0240 and 4.2888 respectively and are headed to the strongly agree side of the Five-point Likert scale. However, all the mean values were represented by positive side. Standard deviation of perceived usefulness, perceived ease of use, security, perceived risk and social influence were 0.4829, 0.46960,

0.55144, 0.40629, and 0.6072 respectively

The Pearson’s Correlation is used to analyze the relationship between independent variables and dependent variable. To support the hypothesis, the p-value of the r-path coefficient should be significant at the 0.05 level” Yu (2009). Considering the Pearson Correlation value, it can be identified the strength of the relationship. If Pearson Correlation value is positive it indicates that there is a positive relationship between two variables, if it is negative it indicates negative relationship between variables. According to the analysis all the independent variables namely perceived usefulness, perceived ease of use, security, perceived risk and social influence showed positive relationship with the internet banking adoption with marking highest relationship by the variable of social influence (See table 2).

Table 1. Regression Analysis

Model	R	R ²	Adjusted R square	Std. Error of the estimate
1	.670	.449	.435	.6275

There is .670 R value. The value of (R²) of the regression model was 0.449 which means 44.9% of the total variance in the internet banking adoption is explained by the model.

In regression analysis, unstandardized coefficient indicated that how much the dependent variable varies with an independent variable when all other independent variables are held constant and following table 2 showed

the outcome with regard to the hypothesis testing.

Table 2. Summary of Hypotheses Testing

Hypotheses	Accepted / Rejected
H1: There is a significant relationship between perceived usefulness and adoption of internet banking in Kurunegala district in Sri Lanka. (r=0.376,p<0.01).	Accepted
H2: There is a significant Impact of perceived ease of use on adoption of internet banking in Kurunegala district in Sri Lanka.(β=0.594,p<0.01)	Accepted
H3: There is a significant relationship between perceived ease of use and adoption of internet banking in Kurunegala district in Sri Lanka. (r=0.356,p<0.01).	Accepted
H4: There is a significant Impact of perceived usefulness on adoption of Internet banking in Kurunegala district in SriLanka. (β =0.199,p>0.01).	Rejected

H5: There is a significant relationship between security and adoption of internet banking in Kurunegala district in Sri Lanka. (r=0.378, p<0.01).	Accepted
H6: There is a significant Impact of security on adoption of Internet banking in Kurunegala district in SriLanka. (β =0.312,p<0.01).	Accepted
H7: There is a significant relationship between perceived risk and adoption of internet banking in Kurunegala district in Sri Lanka. (r=0.379, p<0.01).	Accepted
H8: There is a significant Impact of perceived risk on adoption of Internet banking in Kurunegala district in Sri Lanka. (β =0.372,p>0.01).	Rejected
H9: There is a significant relationship between social influence and adoption of internet banking in Kurunegala district in SriLanka. (r=0.463, p<0.01).	Accepted
H10: There is a significant Impact of	Accepted

social influence on adoption of internet banking in Kurunegala district in SriLanka. (β =0.365,p<0.01).	
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4. DISCUSSIONS

The research study was conducted to identify factors impact on internet banking adoption with special reference to the Kurunegala district. The results showed that there is positive relationship between perceived usefulness and internet banking adoption, between perceived ease of use and internet banking adoption, between security and internet banking adoption, between perceived risk and internet banking adoption, between social influence and internet banking adoption.

According to the regression analysis, perceived ease of use, security and social influence were significant and, perceived usefulness and perceived risks were insignificant. Findings of Mangalee, and Wijenayake (2017) substantiate the findings of the present study. However, Brown.et al. (2001) point out perceived risk is the most influential factor affecting the internet banking adoption. Chiu, et al (2017) also point out that security and trust are the most influential factors affecting the internet banking adoption. Dasanayaka & Mahesh.(2016) as well substantiate the same. However, the present study has a deviation from their findings with respect to the perceived risk.

Consequently, mix results indicate that internet banking adoption is dynamic in nature and more general model is less effective.

5. CONCLUSION

This study identified certain factors that influence in adoption of Internet banking in Kurunegala district. In the present, consider only five variables in terms of perceived ease of use, perceived usefulness, security, perceived risk and social influence. However, there are various factors influencing to the adoption of Internet banking. The future researchers can implement new studies through other variables (compatibility, structured assurance, service quality, users' experience) not covered in this study. According to the outcome of this research, it showed that perceived usefulness, perceived ease of use, perceived risk, security and social influence have relationship with the internet banking adoption and among them except perceived usefulness and perceived risk, other factors showed significant impact on internet banking adoption.

Banks can use following options to attract or to adopt customers towards the internet banking by focusing much on most significant factors which were identified. Business promotion officers in the bank can provide announcement about the usefulness and ease of use of the internet banking service. Banks can distribute leaflets about the usefulness and ease of use in internet banking service around the Kurunegala district. Bank can play

video clips in front of the bank premises to get customer attraction towards the internet banking. Banks should use announcement campaigns and awareness programs regarding internet banking service. This will help to increase social awareness and increase social influence for customer to adopt this service. Internet banking service system should contain separate assistance service section to manage any problem that can be happened. It will be most important for the customers to solve their problems in case of problem. As well as banks should get actions to increase accessibility of internet banking service in everywhere at any time. Banks should focus on reducing the gap between customer's expectations and their satisfaction when considering the future internet banking service. Proper steps should be taken to make the internet banking service more efficient and user friendly

The present study can be further extended in future research endeavors by expanding to banking industry throughout the country. Additional empirical research seems to be required to identify and examine factors that may impact on customers' adoption of internet banking services as findings indicated general model of adoption of internet banking is less effective.

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Management Graduates Employability (With a Special Reference to State Universities in Sri Lanka)

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Abstract

Unemployment among graduates is a burning problem in the Sri Lankan economy. It is argued that the degree programs have been confined to conventional subject areas and conventional teaching-learning methods. The private sector and even the public sector are more concerned with skills and attitudes rather than knowledge possessed by graduates. This research is specially focused on the implications of industrial training on bridging this competency gap among local university graduates. This study explores the implications of industrial training on the employability of the management graduates who are passing out from the state universities in Sri Lanka. Although a considerable amount of literature addresses employability skills, much of the information is theoretical and offers prescriptive advice. The paper presents findings of a survey that investigated graduates who went through industrial training and the substance implications of the training towards employability. The quantitative approach was used in this study where the findings were quantified and presented in a more precise manner. A total of 300 sample populations were selected for this study following the convenience sampling technique. Data were gathered through a survey using a Likert scale questionnaire. Survey data was analyzed using descriptive statistical tools such as mean, median, variance, and standard deviation. The findings suggest that there is a direct and significant implication from the industrial training towards the potential employability of the graduates. Further, the findings suggest that the chances of being successful in finding employment and sustainability will be based on the richness of the training that the graduate holds.

Keywords: Graduate, Industrial Training, Employability, Industry, Sri Lanka

1. INTRODUCTION

Education is a key determining factor in the prosperity and development of a country. One of the main objectives of the higher education sector in a

country is to groom students to actively engaging in economic activities through pursuing successful careers. Contribution from the higher education sector is in the immense value of achieving the aforementioned

objective. University education is the core of higher education and is expected to facilitate for higher intellectual needs of a community as in both academic knowledge and professional training aspects. Therefore, the university system of any country must be able to address the contemporary needs of a country through a well-organized curriculum. Ballantine (1997) describes universities as communities with overall academic programs, centralized physical settings, and an institute, which teaches the entire knowledge and spreads the knowledge.

As per university grants commission (UGC) statistics, the country's total undergraduate enrolment in universities and higher education institutes in 2015 was around 86,321 spreading among fifteen universities and ten higher education Institutes (UGC, 2015). This segment of students is known to be the finest intellect among Sri Lankan advanced level students and is the prospected prominent drivers of the country. These privileged few are the cream of the nation with all the potential to take the country to new heights (Hennayake, 2008). However, many students, who are privileged to enroll in university education, have to face numerous challenges especially at the end of graduation in seeking suitable employment.

The recent experience reveals that even talented graduates have to wait for a long time to be employed after graduation. Some graduates including management graduates are waiting to be employed by government

recruitment schemes (Ariyawansa, 2008). Many of the graduates have passed out obtain a certificate, which does not help enough them to find suitable employment. Even if one of the main objectives of university education is to improve the skills of students to face the challenges in external society, they have to leave the university without having sufficient self-confidence and assurance for better employments (De Silva, 1977). The employability skills by graduates are essentially demonstrated through the various programs taken by graduates and university lecturers during the undergraduate degree programs (Wickramasinghe and Perera, 2010).

Under this circumstance, graduates' unemployment has become a severe problem in Sri Lanka during the last few decades. Figure 1 shows the employability percentages of the graduates by the university. There is an unemployment rate that varies between 57.1% - 4.3% in all the universities.

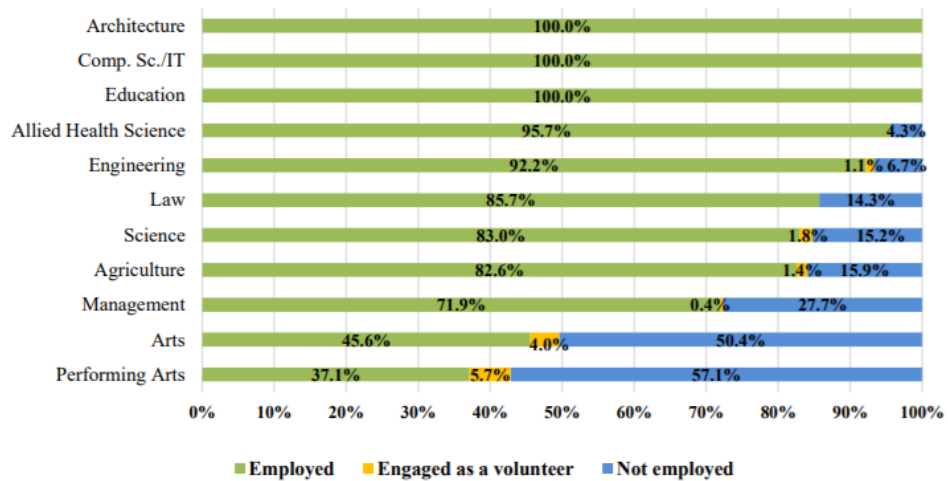


Figure 1. Employment Status by Academic Stream – State Universities

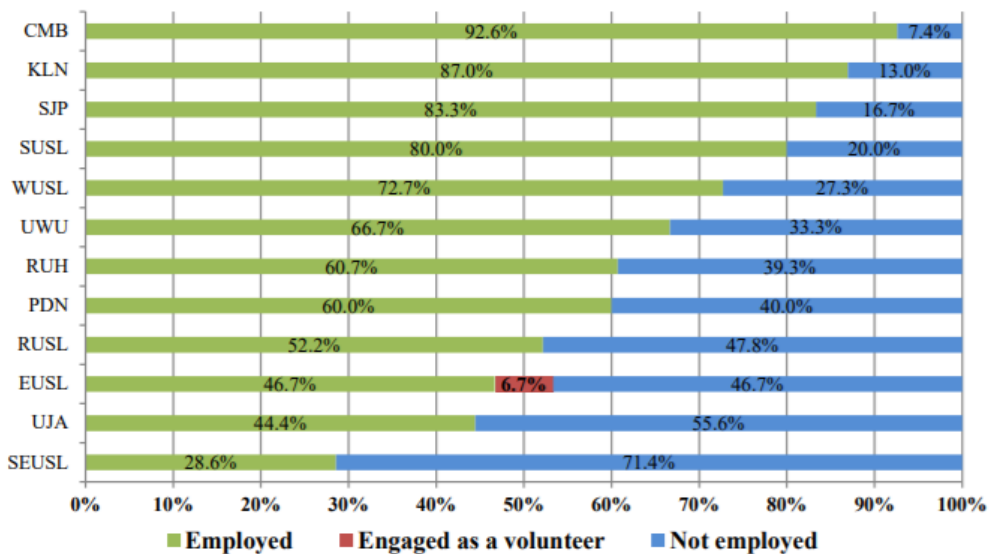


Figure 2. Employment Status by Academic Stream – Management

Figure 2 shows the employment status of the graduates by the management discipline. Percent employed is denoted the lowest of 28.6% and highest of 92.6%. However, in the stream of Management, it is evident that there exists an unemployment rate

of 27.7% which is a very crucial situation.

Research Problem

In Sri Lanka, the current education sector, particularly the higher

education sector faces a challenging situation concerning the employability of graduates. Finding an employability opportunity in the private sector and the public sector organizations for university graduates is becoming a difficult task. Unemployment and underemployment of graduates became a widely criticized aspect in the higher education sector (Weligamage and Siengthai, 2003). This situation is more serious in the case of some graduates. There is a common problem among most Sri Lankan local university graduates as they lack most of the skills required by the companies. The majority of the responsibility is imposed on local universities.

In many situations, the reality is that the qualification alone does not help enough to find a job because of the mismatch between the demand and the supply of the job market. Therefore, some graduates have to engage in irrelevant jobs mostly under low salaries while some of them have to be unemployed and wait for a long time mostly until the government provides opportunities. Such graduates will become a burden not only for their families but also to the whole country. The effects of this would have arisen as frustration, youth unrest, violence, and other forms of anti-social behaviors. Furthermore, the consequences of this would be prevailing in society as short term or/and long term social, cultural, economic, demographic, and political issues.

Unemployment among graduates is becoming a burning problem in today's Sri Lankan economy. It is

argued that the degree programs have been confined to conventional subject areas and conventional teaching-learning methods. Furthermore, the graduates' incompetence is the fact that makes graduates less attractive. Also, without having a proper sense of the needs and wants of the job market, the mere production of graduates has intensified the problem. In a fast dynamic and globalized society, having only paper qualifications, which is highly limited to theoretical knowledge, is not adequate. The private sector, NGOs, and even the public sector are more concerned with skills and attitudes rather than knowledge possessed by graduates. To overcome those obstacles universities can adopt various types of methodologies. This research is specially focused on the usage of industrial training on bridging this competency gap among local university graduates.

Within this context, it is important to identify why graduates cannot find suitable jobs as soon as they pass out from universities. And why is the country's employment sector not capable to absorb such graduates into the development process? Therefore, the main objective of this paper is to focus on the implications of providing productive industrial training within the fourth academic year of their under graduation period as a mean of enhancing graduates' employability.

As a solution for this and with a view on further enhancing students' competencies some universities provide industrial training to their undergraduates in the final academic year/semester while some of the

universities do not. Considering all the above-mentioned factors related to the current higher educational scenario the researcher thought to research how this industrial training implicate on the employability of the graduates who passed out from local universities in Sri Lanka to fill the vacuum of insufficient consideration given to this area by the majority of scholars especially within the Sri Lankan context.

Industrial training is a greater opportunity for students to gather relevant experience from the industry and therefore students can apply their theoretical knowledge that they have gained during the first three years at the universities. From the industry point of view: this is a very good opportunity for them to train and recruit suitable employees for the employment available in the future.

However, it is noted that very little attention being received by relevant parties and it is clear that the effort made by the universities to develop linkages between them and the industry has not yielded aspired results in ensuring the graduates' employability.

It was also found that industries have not been able to absorb those undergraduates even after the graduation of such trainees who have undergone training at the relevant organization. Therefore present research was designed to find solutions for the below-mentioned questions.

Research Questions

- What are the critical success factors triggering the employability of graduates?
- What are the implications of industrial training on the graduates' employability?

Furthermore, the research findings will be beneficial for different levels in the society as policymakers and the key decision-makers in the higher education ministry level, vital decision-makers in the private and public sector organizations, university grant commission, state university administrators, and the current and potential university undergraduates who are pursuing their academics.

Literature Review

Graduates should have the capability of steering the world of work and self-manage the career-building process (Archer and Davison, 2008), and higher education institutions have a big contribution in developing that aforesaid capacity of a graduate. As a country's population attains a higher educational level, it adds to its skilled labor force. Universities are known to be centers of wisdom and capable of backing a country's innovation system (Esham, 2008). There is a strong linkage between knowledge and competitive advantage and planning for the future is the key to success. It was noted that the primary role of higher education is to guide and train the students through knowledge, skills, attitudes, and ability enhancement and empower them to pursue themselves as critical and reflective learners throughout their

span of life (Harvey, 2000). However, it is established that the existence of a supply and demand mismatch for graduate employment in Sri Lanka is caused by the higher education system which is less relevant to prospects of employers in the private sector. This has hindered the employment opportunities which would have created for a substantial number of graduates (Ranasinghe, 1992).

Under this context, it seems that the university system is in a continuous quest in finding a solution to the amplifying unemployment problem of the country. Criticizing the responsibility of the university system regarding graduates' employability, De Silva (1977) further mentioned that it has tried to respond by hastily conceived ad-hoc solutions which have only aggravated the situation.

Gunawardana (1997) explains the relationship between education and employment. Generally, the graduates who followed job-oriented courses such as law, medicine, engineering, architecture, valuation, and accountancy could find jobs without having a longer waiting time compared to the other degree holders especially in the areas of social sciences and humanities. Ideally speaking academia and industry should share similar goals. The most common goals would include, understanding the employers' need, developing specific skills relevant to the market needs, training requirements, and top-level interaction between the two (Matlay and Rae, 2007). The academia-industry interface could be defined as interactive and collaborative

arrangement between academic institutions and business corporations for the achievement of certain mutually inclusive goals and objectives (Irfan and Ashita, 2005). The importance of the linkage between industry and higher education institutions cannot be underestimated. Quality of education surely hinges upon the active involvement of the business sector with higher educational institutions. Not only does this active cooperation and collaboration produce meaningful results in the form of real solutions to problems, but also boosts business performance besides enhancing education quality.

Universities—industry collaboration is the interaction between the higher education system and industry in a country to exchange knowledge and technology between both parties (Siegel, Waldman and Link, 2003). Collaboration provides the industry with how to have access to advance technology and know-how at a lower cost and with less inherent risk as universities possess a large pool of expertise (Esham, 2008). Beard (1994) suggested several recommendations to improve linkages between academia and industry, which include, a greater degree of collaboration between the two, real involvements with industry to give exposure of practical experiences to students, arranging guest speaker sessions, and encouraging faculty to undertake consultancy work.

As seen from the industry's point of view, collaboration with academia is needed because the industry lacks in-house R&D, limited finance, and

shortening of the product life cycle. Universities also have shown interest to work closely with the industry to create funds to keep the R & D department humming. One important reason to bring academia and industry together is to gain access to students as potential future employees and to aid in product development (Siegel, Waldman, and Link, 2003; Ankrah and Omar, 2015).

Universities play three major roles within an innovation system. These include undertaking the general process of scientific research, partly producing knowledge, and providing major inputs for industrial innovation processes (Schartinger et al, 2002). Researchers outline several opportunities, for strengthening the academia-industry interface. For the academic community, it was suggested to bring the real world into the classroom or take the classroom into the real world; students need to be educated in international studies, stay connected to industry and continue to explore new research opportunities. For industry, it has been suggested that industry try offering more work opportunities to interested students and professors, build deeper relationships with students, and redistribute the funding. Both academia and industry expand collaboration, halt the impending identity crisis, expand the diversity of the design community and modify academic rewards structures to encourage collaboration (Wickramasinghe and Perera, 2010; Siegel, Waldman and Link, 2003; Ankrah, and Omar, 2015).

Conceptual Framework

Based on the above literature it was conceptualized the implication of industrial training on graduate employability as depicted in figure 3 which is presented below. It suggests that industrial training will root for gaining experience regarding the industrial world, motivation to work improves the practical know-how and enhance the general & specific job-related skills which are required to perform a job better than an average person. Ultimately it influences to the employability of the graduate. On the other hand, a person who does not go through industrial training does not have the experience, de-motivated to do the tasks he/she is assigned with, do not equipped with practical know-how, do not enhance skills which will assist to perform the job well & finally headed to a low level of employability. The underlying argument of the research study has been illustrated below with the aid of a graphical illustration of the conceptual framework.

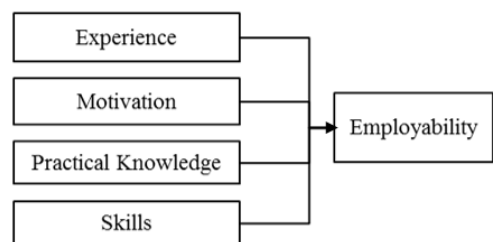


Figure 3. Conceptual Framework

Hypothesis

The objective of this study was to research whether there is a

relationship between a graduates' employability & industrial training that the student goes through. To find out whether there is any effect on the employability of graduates from the industrial training the hypothesis has been developed as follows.

H1: Experience gained from the training has an implication on the employability of management graduates of state universities.

H2: Motivation has an implication on the employability of management graduates of state universities.

H3: Practical knowledge has an implication on the employability of management graduates of state universities.

H4: Skills acquired through training has an implication on the employability of management graduates of state universities.

2. METHODS

This study is primarily an empirical analysis using a quantitative approach, which is based on the primary data collected through a survey conducted by the researcher through a self-administered Likert scale questionnaire. The questionnaire that was designed carried a detailed set of questions, to capture a wide range of information facilitating comprehensive research. The data collected through the survey were in

Table 1. Descriptive Statistics for Experience

Variable	Subcategories	Descriptive statistics				Group Mean
		Mean	Median	Mode	SD	
Experience	Experience regarding the industry	4.70	5.00	5	.466	4.2
	Assistance to find a new job	4.10	4.00	4	.712	
	Validity of training	4.20	4.00	4	.761	
	Knowledge improvement	4.00	4.00	4	.455	
	Opportunity to review talents	3.60	4.00	4	.814	
	Continuous learning	4.10	4.00	5	.845	
	Value of training	4.70	5.00	5	.466	

converted into numerical form and different views were descriptively analyzed to comprehend the magnitude of the issue.

The study population is the graduates who passed out from the state universities, by excluding the University of Moratuwa and University of visual arts & performance studies, which does not offer any degree related to management discipline. The reference group had been determined as the graduates passed out from the national universities during the 2009-2012

periods. A sample of 300 graduates has been selected from the population by using the convenience sampling technique considering the resource constraints as well as the convenience.

3. RESULTS

The data was collected from a sample survey which was conducted by a mean of structured Lickert scale questionnaire. Samples of 300 graduates' opinions were surveyed by giving 50 questions which cover four major areas of training.

In this section, the researcher analyzes each variable by using the Lickert scale to identify the influence of each variable on Industrial training upon the employability of the management graduates of Sri Lankan State Universities. There were 50 questions in the Questionnaire which represents a variable from each & every question. The questionnaire surveyed about four main variables that affect employability through training known as Experience, Motivation, Skills, and Practical knowledge. Under the main four variables, some sub-variables collectively contribute to the findings of the magnitude of the main variable. Training experience refers to the experience the respondent gain regarding the industry he/she was engaged with by going through an on the job training through Industrial Training.

The standard deviation values for all the variables were less than 1 which indicates the respondents' actual responses were closer to the mean values. The group mean was 4.2 which agrees with the overall mean of

training gave a good experience. Therefore as a whole, more than 90% of the graduates agree that the industrial training gave them a sound experience regarding the corporate world.

Table 2. Descriptive Statistics for

Motivation

Variable	Subcategories	Descriptive statistics				Group Mean
		Mean	Median	Mode	SD	
Motivation	Preference to go through training	4.0	4.0	4	.414	3.33
	Preference to go directly to a job	2.4	2.0	2	.455	
	Assistance from the management	4.0	4.0	4	.414	
	Motivated to do the training	4.3	4.0	4	.424	
	Opinion it as a wastage of time	1.2	1.0	1	.166	
	Preference add the training to the curriculums of other universities	4.1	4.0	4	.507	

This variable was primarily considered about the degree of motivation gained by the graduates through industrial training. The objective is to measure the extent to which the training would enhance the motivational level of the candidate. The group mean was 3.33 which is as a whole the respondents were in between the agreement and disagreement of the opinion that the training tends to motivate them regarding the corporate world.

Table 3. Descriptive Statistics for Skills

Variable	Subcategories	Descriptive statistics				Group Mean
		Mean	Median	Mode	SD	
Skills	Improvement of skills	4.2	4.0	4	.761	4.14
	Improvement of communication skills	4.0	4.0	4	.455	
	Increase self confidence	4.2	4.0	4	.407	
	Easy communication with others	3.9	4.0	4	.548	
	Improvement of business writing skills	4.2	4.0	4	.610	
	Leadership skills development	4.1	4.0	4	.548	
	Improvement of presentation skills	4.0	4.0	4	.455	
	Improvement of time management skills	4.2	4.0	4	.610	
	Enhancement of interpersonal skills	4.3	4.0	4	.651	
	Enhance the personality	4.1	4.0	4	.548	
	Improvement of analytical skills	4.3	4.0	4	.651	

The skills refer to the soft skills which are needed to do a job effectively and efficiently. The variable was sub categorized into several soft skills as communication skills, business writing skills, leadership skills, presentation skills, time management skills and interpersonal skills. All the standard variance values and variance values were less than 1. Therefore the actual responses have not deviated from the mean values in a significant

amount. The group Mean was 4.1 which indicated the respondents agreed that the training leads to improve their soft skills.

Table 4. Descriptive Statistics for Practical Knowledge

Variable	Subcategories	Descriptive statistics				Group Mean
		Mean	Median	Mode	SD	
Practical Knowledge	Implementation of theories	4.0	4.0	4	.455	4.08
	Assistance to do the current job	4.2	4.0	4	.761	
	Identify areas to develop	4.3	4.0	4	.651	
	Exposure to various functions	2.9	3.0	2	.845	
	Experience gain out of theories	4.7	5.0	5	.466	
	Assistance to select potential career	4.4	4.5	5	.675	

Practical knowledge is the knowledge gain apart from the theories and concepts. The know-how of the industry which is gained through the industrial training was measured from this part of the questionnaire. The group Mean was 4.08 which indicated that the respondents were agreed with the fact that they gain sound practical know-how of the industry through industrial training. Since the standard deviation values and variance values were less than 1 as per previous situations the actual values of the respondents' were not largely deviated from the Mean value.

Based on the results of the descriptive statistical analysis the hypotheses H1, H2, H3, and H4 were accepted.

4. DISCUSSION

Training provides a sound experience regarding the corporate world (Beard, 1994). The majority of the respondents were able to get a wide-spreading experience regarding the industry from industrial training. The training each of them was gone through was a great help for finding a new job because through the training the respondents received a sound knowledge and a better understanding of the corporate world. Therefore it was easier for them to grab the new openings in the corporate world and be groomed enough to successfully handle the challenges which came on the way than those who do not go through training.

The training added more validity to the life of the candidate with the sound experience they obtained. The training contributes to improving the knowledge not only the knowledge regarding the industry but also contributes to the development of common sense.

Due to the training, the candidates were able to have a review of the talents they possessed so far and whether they accomplished the things what is required by the business world, since an average person does not have the chance to review their talents, trained personnel has more probability to get the chance of employable. But there is a contradictory finding also which leads a confusing situation, the opinions of 10% of the respondents

were disagreement with the point, the reason behind it was the training schedule. With a weakly scheduled training period, the candidates would not have a chance to review their talents. In such a situation, even though the person has gone through industrial training he/she might face difficulties when finding employment. Industrial training would be one of the best periods to learn about the industry and its operations. That was confirmed from the survey. The candidates were able to continually learn throughout the training which became an advantage among the rest of the employers who do not go through training.

Through training, candidates were highly motivated to do engage in the job as in the training period they have a chance to first learn things and then to execute the operations. The high level of motivation which was developed throughout the training period would enhance their level of confidence therefore able to succeed in their future jobs.

5. CONCLUSION

The findings in compliance with Siegel, Waldman, and Link, 2003; Ankrah and Omar, 2015, confirms that industrial training must be added to every university curriculum irrespective of the disciplines because it gives the knowledge which cannot be taken from anywhere else. Every student must go through industrial training in the relevant field to get an extra edge since the industrial qualification is a major factor which would be considered in recruiting as

an employee to any of the institution around the world.

Industrial training develops the soft skills of the candidates where they cannot obtain merely by studying the theoretical concepts. With the experience of working together with co-workers, management, and the entire stakeholders, the candidate blends with the corporate society well therefore it enhances their communication skills and interpersonal skills (Beard, 1994).

In the industry time management is a crucial factor for success, by getting training in the industry the candidates' time management skills improving and as a result, they have an edge in finding a job and being successful in it. Other critical soft skills as presentation skills, leadership skills, especially analytical skills will enhance during training therefore the graduate who has gone through industrial training stands far above the average.

With the experience and the shaped up skills the overall personality also lifts by providing the door opened for lots of opportunities in the industrial world.

The candidate has a chance to implement the theories which they have learned in the classroom and experience the real-world implications of the theories. Hence those who have gone through training were well aware of the theory as well as the practicability them.

The training experience provides assistance to do the potential jobs

smoothly as the person is well aware of the work settings and adapted to the business world before they enter the job world after graduation. Most of the time during the training period candidates were not able to expose to all the functional areas but they have a chance to gain sound knowledge regarding them.

In summary of all the candidates who have gone through industrial training within their final year of the university are found more competent, well-groomed, and well prepared to accept the challenges that come on their way and able to grab the most suitable and enduring employable opportunities. Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted and the conclusion can be made as according to the research study findings it can be concluded that the Industrial training enhances the employability of the graduates.

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