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From the Desk of the Chief Editor.....

Dear Readers,

Greetings from IJAR&D

I am much delighted to present Issue IX of **International Journal of Academic Research and Development (IJAR&D)** under my Chief Editorship. This issue arrives at a time of when world in feeling the pinch of economic recession, leaving people worried at large. In this issue, the editing team has strived to ensure collection of articles and research papers on varied subjects that reflect the diversity of topics implicated by these changing circumstances across the globe. In line with the unflinching commitment of IJAR&D's interdisciplinary approach, we have tried to cover both micro and macro level issues to come out of not only a depressed economy but also paving the way for more sustainable future of world at large and India in particular.

The Journal's latest issue highlights many contemporary and emerging areas with each or author and contributor seemingly trying to further the cause of advancing some aspect of sustainable policy and economy. The journal and its editorial board has carefully examined each paper and selected those who are willing to invite reader to identify the most convincing approach to the ever-complex task of sustainable development.

In the first piece of the issue, *"Emotional Intelligence and Employee Intention to Retain: A Case Study of a Organization in Fast Moving Consumer Goods in Sri Lanka"* examines the relationship between the Emotional Intelligence (EI) of managers and retention intention of their direct reports in Srilanka. At the national level,

No less relevant is Palliam's examination of a sustainable path forward for Gulf countries facing the economic pressure of low oil prices. In his opinion piece, Porter posits an environmentally inclusive economics needed to adjust growth along such a sustainable trajectory.

The second one is an attempt to ascertain "The Generational Gap and its Impact on Employee Motivation". It offers as to how the gap should be reduced and used for better performance in the attainment of organizational goals.

The third contribution by two doctoral scholars Karishma and Panda focus on "An Econometric Study on Effect of Industrial Growth on Technological Innovation in India". The fourth paper analyses "Globalization with Responsibility: Impact of Globalization on Human Rights". It examines how the new world order under Globalization can be responsible and responsive to needs of the society at different parameters. The next is also a relevant study on "Factors Influencing Job Seeker's Intention to use E-recruitment." It is a timely study and in tune with the trend in job market world over. The last but not the least is Amarjeet's "Study on Importance of ICT in Women Empowerment". Each contributor has tried to be as original as possible in is approach and tried to work in accordance with new UGC guidelines that emphasizes on promoting ethical research and "Zero Tolerance" policy against any sort of plagiarism. The journal expects future contributors to strongly believe in ethical research and selection of topic with the intention of making significant contribution to development of area under the study. They should not only focus on increasing their academic score but also make meaningful contribution to the society through their studies.

I hope that together these pieces, as well as their equally insightful companions, inspire dialogue that will facilitate the emergence of sustainably minded academic leadership as envisaged in the proposed "New Education Policy" of Government of India. Since inception, it has been policy of IJAR&D to welcome

constructive feedback and hope that our work inspires you to engage with the issues. Please feel free to put forward questions, comments, or concerns and do contact us.

I extend a cordial invitation to you to consider a range of topics across polity levels and engage with a diverse set of actors. I would like to conclude with a brief announcement that IJDAR has embarked upon an ambitious mission to figure among the top ranking multidisciplinary research journals in academic world and seek cooperation of all the stakeholders. I intend to introduce additional features and partnership with likeminded journals in the forthcoming issues.

I look forward to a mutually satisfying association with fellow academicians and wish all of you the very best in your ongoing endeavors.

With best Regards,

Prof. (Dr.) Mazhar Naqvi

Editor-in-Chief

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Emotional Intelligence and Employee Intention to Retain : A Case Study of a Organization in Fast Moving Consumer Goods in Sri Lanka

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Abstract

The purpose of this study is to examine the relationship between the Emotional Intelligence (EI) of managers and retention intention of their direct reports. The findings are discussed in terms of a business case and it was conducted in one of the leading organization in the field of Fast Moving Consumer Goods in Sri Lanka, targeting the head office staff employees. The employees were given questionnaires to complete in order to assess their retention intention and to rate the level of EI of their leaders as how they perceived it. Correlation analyses were then performed with the data.

The statistical results showed that the leaders' EI has a significantly moderate and positive impact on the retention intention of their direct reports. The results of this study contribute to current insights about the interrelationships on managers' EI and employee outcomes, showing the importance of improving EI within organizational leaders.

Keywords : *Emotional Intelligence, Intention on Retain*

Introduction

The heart of every organization is its people, why because the success or failure of an organization is largely dependent on the caliber of the people working therein. Getting the right employees into an organization may be challenging, however, the retention of employees has become much more challenging to organizations (Chitra, 2013). Retention of employees has become one of the major concerns for organizations because of the high rate of employee turnover in organizations. Employees leaving an organization might be replaced physically by recruiting another; however their skills and tacit knowledge cannot be exactly replaced by the person replacing them, as each individual possesses a different and a unique set of skills and experience. Therefore, staff retention takes a higher concentration of the management since employee

efficiency and their talent determines the place and the future survival of a company.

Employee retention is not influenced by a single factor, but there are hosts of factors which are responsible for retaining employees in an organization. Out of these bulk of reasons, the role of leaders in employee retention has become critical since literature indicates that staffs leave leaders and not organization (Beardwell, Holden, & Claydon, 2007). Therefore organizations cannot leave the responsibility of keeping well performing employees wholly into the hands of the Human Resource Department any longer. Similarly the leaders have a big responsibility to properly deal with and properly handle their staff in order to maintain and enhance the staff retentions. They should possess with suitable qualities and characteristics to induce a willingness within their

subordinates to stay longer with the organization. Prior research has recognized the leader's vital contribution in influencing an employee's intention to stay on the job (Vecchio, 1985). Accordingly, one of the most vital relationships in a business context is the link between the employees and their immediate boss/supervisor or the leader to whom the employee has to report. These leaders have the greatest influence in building this relationship. The quality of relationship an employee has with his or her immediate managers elongates employee stay in an organization (Ferreira, 2007 as cited in Michael, 2008).

Retention of employees is not a matter that can be dealt by the reports or records, it is purely depends on how they understand individual concerns and how they react on them. Further it is becoming very tough as well as difficult for the employers to satisfy and retain them since there are ample of opportunities available for the skilled and talented human resources whenever they're looking for. Therefore every organization tries its level best to provide enough facilities to their employees to make them happy and retain them. It is not an easy task to get to know, what is going on in the human mind and what are they actually need or expect from the employer time to time (Das & Baruah, 2013). Therefore the leaders are expected to have emotional intelligence (EI) traits that allow them to better understand themselves and their team members as well. Goleman et al., (2004), while expounding their theory of "primal leadership", remarked that: Great leadership works through the emotions... No matter what leaders set out to do – their success depends on how they do it... if leaders fail in this primal task of driving emotions in the right direction nothing they do will work as well as it could or should (p.3). This clearly implies the importance having EI in becoming a good leader. Further leadership is fundamentally declared as an emotion-management process wherein leaders manage their own emotions and those of their followers (Yukl, 2002). Thus it can be finally concluded that different employees have different expectations, therefore it's inevitable to have good leaders who can understand the needs and behavior of each employee and mould their leadership style accordingly in order to make them happy and to retain them.

In the olden days someone was regarded as intelligent if he or she could "read, write and do arithmetic". Now we know it is surely not the case.

People pass exams but fail in life. They strive for results but struggle in their relationships. The original Latin root of intelligence means 'to understand'. It is in fact an umbrella term that encompasses many abilities of the brain. One such key type has emerged prominently as Emotional Intelligence (Daily FT, 2018).

Two psychologists Peter Salovey and John Mayer first introduced EI in 1990 and they defined EI as "a form of intelligence that involves the ability to monitor one's own and other's thinking and actions" (Carmeli, 2003). The soundest approach to emotional intelligence is the abilities model also suggested by Salovey, Mayer and colleagues (Salovey & Mayer, Emotional intelligence, 2004; Caruso, Mayer, & Salovey, 2002). The abilities model consists of four general emotional abilities:

- Identifying emotions, which involves the ability to recognize emotions in oneself and others, as well as the ability to express emotions;
- Using emotions to facilitate thinking, which involves using emotions to improving thinking processes and harness the power of positive moods;
- Understanding emotions, including the complexities and subtleties of emotions as well as their interrelationships; and
- Managing emotions, which involves skills in regulating and controlling felt emotions in a positive fashion.

In 1995, Daniel Goleman opened the eyes of the world about the concept of EI and he defined EI under the trait perspectives or mixed model as "one's ability to motivate oneself and persist in the face of frustration; to control impulses and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope. EI can lead to enhanced functioning in a variety of aspects of life such as achievement and close relationships (Goleman, 1995). If you have a high level of emotional intelligence you'll find it easier to build stronger relationships, create success at work, and achieve your career and personal goals. Emotional intelligence can help you navigate the social complexities of the workplace, lead and motivate others, and excel in your career. In fact, when it

comes to gauging job candidates, many companies now view emotional intelligence as being as important as technical ability and require EI testing before hiring. Therefore this article would be much useful to individuals in order to have a proper understand about emotions plus the value of improving it for their personal benefit.

Literature suggests that the leader's EI has a great impact on employees' outcomes such as their job satisfaction, organizational commitment and job stress. Along with that literature support the current study aims to investigate the relationship between leader's emotional intelligence and the employee retention. Through the literature review it was able to found that a great deal of researches have been carried out on EI, transformational leadership style and effects on individual employees. Still there is limited literature that shows the relationship between the two variables of leader's EI and their subordinates' retention intention in the context of Sri Lanka. Therefore the researcher decides to carry out a survey investigation to explore the relationship between these two variables. The results of this study will contribute to the current insights about the interrelationships on managers' EI, leadership style and employee outcomes, showing and the power of managers' EI in order to produce positive employee behavior. And also to get realized about the significant impact it would have on talent retention. These findings will endorse the validity of incorporating EI interventions alongside the recruitment and selection process and the training and development process of managerial personnel.

Research Context

In order to carry out this empirical research study that looked at how the employee retention intention got affected or got an impact particularly from their immediate boss's emotional intelligence behavior, the researcher decides to carry out a survey investigation selecting a particular organization in Sri Lanka by targeting its employees. For that purpose the researcher has selected a Sri Lankan well established Fast Moving Consumer Goods (FMCG) manufacturing and distribution company namely, E B Creasy & Company PLC (EBC) to conduct the study based on both executive and non-executive employees in the head office premises. EBC has developed their operations over nine business sectors since 1878 and the Company is

among the pioneers of The Ceylon Chamber of Commerce having joined in 1890, while Darley Butler – a wholly-owned subsidiary - enjoys the distinction of being one of the three oldest members since 1852. Over the years E. B. Creasy has expanded by organic growth as well as by strategic acquisitions and now constitutes a diversified Group spanning a wide spectrum of activities ranging from import, export, distribution and freight forwarding to formulating trading in chemicals and hoteliering. Therefore the research findings were discussed in terms of a business case targeting this particular organization in Sri Lanka.

Problem Statement

One of the most critical issues that almost every organization are struggling with and are lookout for solutions is employee retention. Organizations are trying out for many different methods for attracting efficient people and use various tactics to retain them. Currently the literature has revealed that leaders and their skills is a key to answer why people stay or what usually drives them away from a company. Thus now the companies' number one priority is to look at their management and more focus is made on understanding their characteristics and behavior of the leaders prevailing in the company.

Although there has been a substantial amount of research on leadership and emotional intelligence as separate constructs, limited research has been conducted on the relationship and/or linkage between EI of leaders and the impact that can have on employee retention intention. While there have been a few studies in academia, to our knowledge there is only one published research article in measuring on the possible association between manager rated EI and subordinate self-rated employee engagement combining with talent retention which was conducted using samples from three large companies in USA, India and Australia.

Having considered the situation discussed above, the current researcher identified the research gap. This is one of the most critical issues that almost every organization are struggling with and lookout for solutions while many have lack of knowledge about the real importance of a leaders' EI could do with their employees. So that current researcher identified that empirical gap and at the same time

there is no any research conducted under the current issue in Sri Lankan context. Accordingly the current researcher will try to test it within the Sri Lankan context.

Hence the research problem addressed in this study can be derived as:

To assess the impact of the leaders' perceived emotional intelligence on employee retention intention of the head office staff employees in a leading organization in the field of FMCG.

Objectives of the Study

General Objective

The main objective of this study is to examine the interrelated association between the managers' EI involved with their leadership behavior and employees' retention intention. Further to measure the impact of leaders' EI could have on their subordinates' retention intention.

Specific Objective

- To identify the extent to which the leader's emotionally intelligent role influences to create positive employee attitudes and behavior.
- To identify the significance of improving EI within organizational leaders
- To examine whether the leaders' emotional intelligence and their behavior affected to determine whether the employees will stay longer or quit.
- To determine recommendations for organizations to be applied in order to improve the leadership styles of existing leaders.

Literature Review

"People join companies and leave managers," Marcus Buckingham, senior managing consultant at Gallup -Global performance-management consulting company. Research indicates that EI in the leadership of an organization directly affects the retention of quality employees and overall productivity. A study by Gallup Organization reveals that most workers rate having a caring boss is even higher than money or fringe benefits. In interviews with two million employees at 700 companies,

Gallup found that the length of time employees stay at companies and their level of productivity are directly related to the relationship they have with their immediate supervisor (Expedite, Human Resources).

Employee Retention Intention

In simply employee retention intention can be defined as, employees' intention to stay in the present employment relationship with their current employer on long term basis. Similarly Hewitt (2004) reflects that "Intention to stay mirrors the employee's level of commitment to his organization and the willingness to remain employed". However this is the converse of the turnover intention or intention to quit (Kim, Price, Mueller, & Watson, 1996). According to Mobley (1982); Steers & Mowdays (1981) intention to stay was significantly negatively correlated with turnover. Since intention to stay was referred to as employees' willingness to stay with an organization and it consistently demonstrated a stronger relationship with turnover than did other turnover precursors (Tett & Meyer, 1993).

Retaining employees has become much important in today's competitive business context. Employees are considered as the life blood of an organization since they can make or even can break an organization. Therefore retaining them will help for the growth and survival of an organization in long run. In the study of Fitz-enz (1997) indicated that when direct and indirect costs are combined, the total turnover cost of an exempt employee ranges from a minimum of one year's pay and benefits to a maximum of two years' pay and benefits. Thus, there is significant economic impact when an organization loses any of its critical employees, especially given the knowledge that is lost with the employee's departure. Fitz-enz (1990) The Retention factor can be divided into three broad dimensions as social, mental and physical.

- The mental dimension of retention consist of work characteristics, employees always prefer flexible work tasks where they can use their knowledge and see the results of their efforts which, in turn, helps in retaining the valuable resources.
- The social dimension consists of the contacts that the employees have with other people, both internal and external.

- The physical dimension consists of working environment and pay.

Moreover, Goleman (1998b) suggests that emotional intelligence plays a substantial role in leadership. A leaders' effectiveness will depend on how well they can manage themselves and how well they are able to manage or deal with others. Studies have already disclosed that successful leadership is not about intellectual ability or technical expertise; rather it is about personal characteristics and human qualities that include empathy and compassion, flexibility and influence. It is these personal characteristics and human qualities that are encompassed in the definition of emotional intelligence. Therefore, understanding the effects of a leader's EI for a business organization and the potential impact it has on subordinates' retention intention is explored in this study.

Leaders' Emotional Intelligence

EI is one of the strongest drivers of leadership and excellence. People often use to undervalue the importance of feelings and emotional processes in a workplace, rather than in their personal life. Yet it's essential to remember that our professional relationships with clients, colleagues or with our team members are largely influenced by the persons' overall emotional state and their awareness of it. So that in order to develop solid, trusting relationships in the business arena, it is essential to increase an effective use of EI.

In simple terms EI is the ability to understand and manage your own emotions, and those of the people around you. People with a high degree of emotional intelligence know what they're feeling, what their emotions mean, and how these emotions can affect other people (Expedite, Human Resources). When it comes to leaders in a workplace, might be a manager or a supervisor, having EI is indispensable for them to be success. EI is that much essential for leaders because it is clear to anybody that, who is more likely to succeed, whether a leader who shouts at his team when he's under stress or a leader who stays in control and calmly assesses the situation. Definitely the answer would be the second person since no one likes to work under a querulous and fussy leader.

Daniel Feldman explains in his *Handbook of Emotionally Intelligent Leadership*, "Effective leaders

use their personal power to influence others, as much as their position power. Position power is based on the authority from the formal position that one holds. Personal power is based upon one's relationship with others. Personal power is built through the use of the skills of emotional intelligence."

Even though there are a lot of definitions of EI, the current study has been constructed on the basis of Salovey & Mayer's (1990) and Goleman's (1998) approaches to EI. Goleman (1998, p.317) defines the EI as "The capacity for recognizing our own feelings and those of others, for motivating ourselves and for managing emotions well in ourselves and in our relationships." Similarly Peter Salovey and John D. Mayer (1990, p. 189) define EI as "The ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions." Further it describes that EI does not include the general sense of self and appraisal of others. Rather it focuses on the processes described specifically above, that is, the recognition and use of one's own and others' emotional states to solve problems and regulate behavior. Moreover they have operationalized portions of EI and propose that mental processes included with a) appraising and expressing emotions in the self and others, b) regulating emotion in the self and others and c) using emotions in adaptive ways. Although these processes are common to everyone, the given model also addresses individual differences in processing styles and abilities (Salovey & Mayer, 1990).

Dimensions of Emotional Intelligence

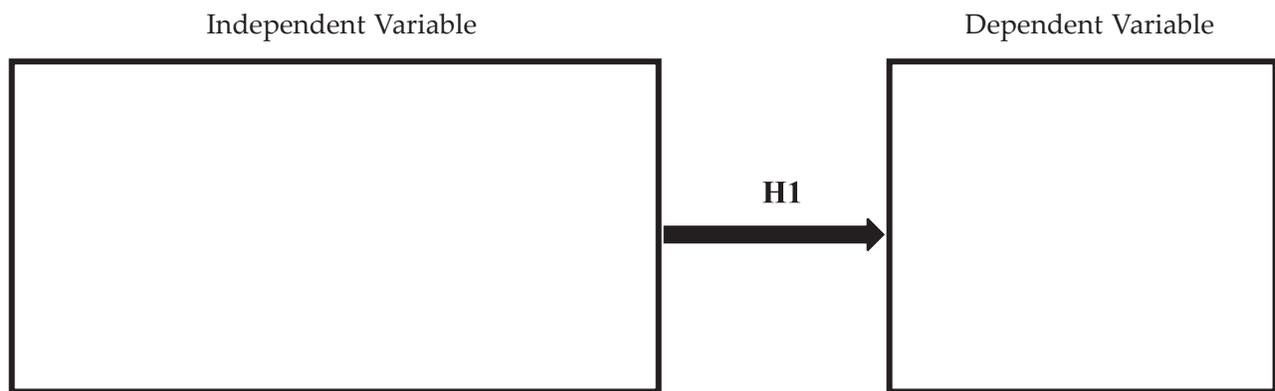
Among all of the EI models developed so far, the Goleman's (2001) refined model appears to be the most prominent. Boyatzis et al., (2000) refined Goleman's, 1998a emotional intelligence model from five dimensions (self-awareness, self-regulation, motivation, empathy and social skills) down to four (self-awareness, self-management, social awareness and relationship management), to capture the full scope of emotional competencies. This has become a commonly used model of emotional intelligence. These four domains are shared by all the main variations of EI theory, although other researchers might use different terms to refer the same thing. The authors had forward features domains of EI by using a chart to encapsulate this perspective.

- *Personal Competence*
 - a. Self-awareness is supported by the ability to read one’s emotions and recognize their impact. It involves accurate self-assessment that allows cognizance of one’s strengths and limits, as well as self-confidence.
 - b. Self-management draws from competencies of emotional self-control, transparency, adapt ability, achievement, initiative, and optimism.
- *Social Competence*
 - a. Social awareness is supported by empathy, organizational awareness that enables the leader to discern the relationships and politics of the organization, and service that meets the needs of those connected to the organization.
 - b. Relationship management requires developed skills in inspirational leadership to motivate, influence that allows for persuasion, developing others through feedback and guidance, change catalyst, conflict management, building bonds that cultivate and maintain relationships, and teamwork and collaboration that support cooperation and team building.

Conceptual Framework

In the current research study the variable of leader’s emotional intelligence is taken as the independent variable while employees’ retention intention is taken as the dependent variable. Further, in order to assess the relationship between these two variables, following figure 1 conceptual framework has illustrated while assuming that other facts are remaining constant.

Figure 1: Conceptual Framework of the Study



(Source : Author, 2018)

Development of Hypotheses

Based on the above literature support and considering the descriptive review of literature the current study has hypothesized that the more emotionally intelligent a manager was (as rated by their direct reports), the more likely their staff would be to retain longer with the organization. Thus the following hypothesis has advanced by the researcher to be tested with empirical data collected from employees in a well-worn company in Sri Lanka. Moreover the hypothesis formed as,

H1a= There is a significant relationship between the leaders’ emotional intelligence and employee retention intention.

H1b = There is a significant impact of leaders’ emotional intelligence to the employee retention intention.

Overall Research Design

As the current research attempts to establish a causal relationship between variables by testing the formulated hypothesis, it would be considered as an explanatory research. In particular, the researcher wanted to explain the extent to which the organizational leaders’ emotionally intelligent behavior had influenced upon its employees’ retention intention. Hence the research work is launched as an explanatory study since it emphasizes on getting a clearer view of the relationship.

There is no any straightforward academic demonstration carried out in order to investigate the relationship between these two variables in Sri Lankan context though it was indirectly well explained ample of studies conducted in foreign contexts. Therefore it is important to test the relationship between this both variables relating to a sample taken by the Sri Lankan workforce.

A survey strategy has been used with deductive approach to the current research as it allows having collection of a large amount of data from a sizeable population in a highly economical way. According to Malhotra and Birks (2003) quantitative research is suitable for measuring both attitudes and behavior. Therefore the current study is also carried out as a quantitative research work. Further it has utilized descriptive statistical techniques such as mean, mode, variation and standard variation. Specifically the data was subjected to statistical tests such as correlation and regression to ensure the most validated determinants.

A structured questionnaire is used as the data collection technique since it's a quantitative study that deals with numerical data. It is probable a cross-sectional study as it focuses on describe a particular phenomenon at a particular time.

Questionnaires are distributed to sample of 62 employees among the head office staff of the selected company. Stratified random sampling is preferred for deciding sampling technique since the population is included with both executive and non-executive staff. Therefore the sampling frame is divided into two subsets and a random sample is then drawn from each of the strata. A standardized questionnaire is occupied for data collection purposes but with some modifications to the original scheme, after doing the validation test.

Unit of analysis taken for the current study is the "individual employee from the head office staff who is currently working for E B Creasy and Company PLC".

Population

The target population for this study consisted with the head office staff of EBC; which is a well-established organization in Sri Lanka since 1878 with 100-300 on site employees. Of that 300, approximately 150 were belongs to the head office staff located in Colombo 10. Hence the total population for the current study is 150 of employees at EBC head office. This target workforce is included with executives and non-executives across all functions covering up their all business sectors.

Sample and Sampling Technique

The sample for this study included all the executive and non-executive employees of head office staff with a total of 150 participants approximately. Of the 75 questionnaires distributed 66 employees responded, giving an 88 percent response rate. Of the returned questionnaires 4 were excluded from the analysis because of incomplete pages. Therefore the remaining valid sample of 62 responses was used for the analysis. For effective coverage of the population stratified random sampling technique was used to select respondents to the sample. Here it was divided the population into two categories as executives and non-executives in order to make the sample is more likely to be representative, as it can ensure that each of the category is represented proportionally within the selected sample.

Data Analysis and Presentation

Testing of Hypotheses

During the current research project the author used a structured questionnaire which was designed in a way to empirically test the hypotheses developed previously, based on the existing measurement scales in the literature which are already tested and validated widely by various researchers in the domain of EI and employee retention. The researcher has used the Schutte Self Report Emotional Intelligence Test (SSEIT) to assess EI of leaders. This is developed by Schutte, et al., (1998) and focuses on measuring the four aspects of emotional intelligence as defined by Salovey & Mayer (1990). The questionnaire was converted into a form of which the subordinates are able to rate their leader's level of emotional intelligence as how they perceived it or how they actually feel it. Further, correlation and regression models were used to test the advanced hypotheses and to draw conclusions.

Sample Composition

The final data set that was used for statistical analysis was made up with a total sample of 62 questionnaires including both executive and non-executive employees. The study initially sought to ascertain the general information on the respondents involved in the study with regards to the number year of they worked, age, employment grade and gender. The demographic information points at the respondents' suitability in answering the questions and it also much useful to develop the overall picture of the respondents from which the data were gathered. According to the calculations done, the study recorded a higher response rate from males, with a majority of 54.8% and 45.2% of female

employees in the selected sample. The results of the gender analysis indicates other than the modern organizations, outmoded organizations originated from long ago in Sri Lanka are still continuing to be dominated by males. According to that statistical table figure 4.1 showed the summary of the total results. The findings indicate that majority (32.3%) of the sample were aged between 26 and 35. Therewith 29% of employees belong to the age group of between 36 and 45. Yet 21% of the respondents are 46 to 56 years old. Further, age below 26 respondents are 12.9% and there were 3 employees who were at the age of above 56. When considering the above facts and figures it implies that the EBC head office staff is consisted with a majority of matured and ripe people rather than a young crowd. When looking at the length of service years of employees it reflects with different seniority levels, forming a good proportion of the population. When analyzing their seniority or organizational experience it could be identified that most of respondents have been joined the company within last the 5 years, indicating a 32.3% of the sample. There were 16.1% with working experience of more than 5 years, but not beyond 10 years. According to the frequency rates it would display a diminishing pattern of the total number of employees when moving to upper numbers of service years. There is 30.7% of employees with more than 20 years of service to the current organization indicating that the retention rate is not much bad at the moment.

Validity & Reliability

Construct validity of the questionnaire was tested by using factor analysis while the content validity

of the current research study was ensured by the conceptualization and operationalization of the variables based on the previous literature. The Kaiser-Meyer-Olkin (KMO) is the measure of sampling adequacy. In here the KMO values for both variables' measurements produced with values closer to 1, which indicates that the sample is adequate and researcher can proceed with the Factor Analysis. Therewith the Bartlett's Test of Sphericity is the test for null hypothesis. Taking a 95% level of significance both the p-values (Sig.) are less than 0.05.

One of the famous method for analyze internal reliability or used to get the inter item consistency is Cronbach's Alpha test. The Cronbach's alpha coefficient was calculated for aggregate sample of 62 respondents and it would able to gain a value of .922 as Cronbach's alpha for the twenty six items of leaders' EI and .766 of a Cronbach's alpha value for the eight items in employee retention intention. Since each variable or for each instrument was gained values above 0.7 it can be concluded that the internal reliability of the instrument is satisfactory.

Testing of Hypotheses

Methodology of Pearson's correlation coefficient was used to analyse the relationship and to quantify the strength of relationship between the variables. Thereafter through simple regression analysis researcher try summarize how far the independent variable affects to the dependent variable.

H1a = There is a significant relationship between the leaders' emotional intelligence and employee retention intention.

Table 1: Result of Correlation Analysis of the Leaders' Emotional Intelligence and Employees' Retention Intention

Correlations			
		Leaders' Emotional Intelligence	Employees' Retention Intention
Leaders' Emotional Intelligence	Pearson Correlation	1	.571**
	Sig. (2-tailed)		.000
	N	62	62
Employees' Retention Intention	Pearson Correlation	.571**	1
	Sig. (2-tailed)	.000	
	N	62	62

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

Source: Survey Data, 2018

According to the table 1 Pearson Correlation is positive 0.571 researcher can conclude that when the level of leaders' EI increase, the employees' retention intention also increases, means there is a positive relationship between the variables. The Sig. (2-tailed) value represents 0.000 which is less than the base line value (0.01). Therefore we can statistically accept the alternative hypothesis by rejecting the null hypothesis and can conclude that there is a statistically significant linear relationship between the level of leaders' EI and the employees' retention

intention. Further the magnitude or strength of the association is approximately moderate since the Pearson Correlation value is closer to 0.5. So, there is statistical evidence to claim that there is a moderately positive relationship between leaders' EI and employee retention intention. . Therefore, H1a hypothesis can be accepted.

H1b = There is a significant impact of leaders' emotional intelligence to the employee retention intention.

Table 2: Result of Simple Regression Analysis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.571 ^a	.325	.314	.50136
a. Predictors: (Constant), Leaders' Emotional Intelligence				

Source: Survey Data, 2018

According to the above table 2, R square is 0.325, which implies the variance in employees' retention intention, is explained by the independent variable of their leaders' EI. Further the independent variable that was studied explains only 32.5% of the employee retention intention as represented by the R square.

This therefore means that other factors which are not studied in this research contribute 67.5% to the employees' retention intention. Therefore, further research should be conducted to investigate the other factors that affect employee retention intention.

Table 3: ANOVA Table of Regression

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.277	1	7.277	28.951	.000 ^b
	Residual	15.082	60	.251		
	Total	22.359	61			
a. Dependent Variable: Employees' Retention Intention						
b. Predictors: (Constant), Leaders' Emotional Intelligence						

Source: Survey Data, 2018

This Anova table reports how well the regression equation fits the data. Considering the Sig. value of above table 3, it indicates the statistical significance of the regression model that was run before. Here the Sig. value is 0.000, which is less than 0.05, and it indicates that overall the regression model statistically significantly predicts the outcome variable or simply it means to be accepted the R square statically. According to the above explanations the leaders' emotional intelligence has a significant

moderately positive impact on employee retention intention. Thus, hypothesis two (H1b) also accepted based on the above mentioned evidence.

Regression Equation

$$Y = mX + c$$

Employee Retention Intention = 1.188 + 0.571
Leaders' Emotional Intelligence

Where;

Y = Employee Retention Intention and X = Leaders' Emotional Intelligence

In determining the effectiveness of improving the organizational leaders' EI to retain employees, the study further intends to develop the regression equation using regression analysis results in order to determine the nature of relationship between the variables.

According to the regression equation established, taking all factors into account and leaders' EI is at zero, employee retention intention will be 1.188. The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in leaders' EI will lead to a 0.571 increase in employees' retention intention. This supposes that leaders' EI contribute most to the employees' retention intention. At 5% level of significance and 95% level of confidence, leaders' EI was a significant factor in predicting the employee retention within an organization.

Findings

As usual the sums and average rates of participant's responses to the employee retention and leaders EI questions were calculated. According to the corresponding percentages of employees associated with each of the four levels of retention it can be observed that, with respect to total retention, 24.2 percent of employees have a high retention intention, 56.5 per cent have a moderate intention to retain, 17.7 per cent do not have an intention to retain and 1.6 per cent have none of intention to retain. The percentage of employees who were having an intention to retain in this sample is considerably higher (total of 80.7%). While considering the average values of leaders EI, 21% of employees have rated as their leaders are having high EI. 69.4% of employees have rated as their leaders are having satisfied level of EI and 9.7% of employees are not satisfied about their leaders EI level.

As it was described in the above sections, the leaders' EI was found to correlate positively with total retention intention at 0.571. Thus, 32.5 per cent of the variability in employees' retention intention scores was accounted for by direct report rated manager EI. Thus, the hypothesis was accepted that there is a significant relationship and also a

moderately positive impact from leaders' EI (as rated by their direct reports) to the employees' retention intention.

Indeed this research is confirming that one person's definition of an effective boss could be someone else's worst nightmare (Palmer & Gignac, 2012). According the literature it reveals that a manager's EI may be an underlying attribute that helps them both to identify individual drivers of engagement or the reasons for retention. So EI is necessary for a leader to identify the relevant leadership style that works best for an individual and, subsequently, adopt that leadership style in management of them. Indeed, previously, we have shown that up to 57.1% of an individual's retention score can be accounted for by the "fit" between desired and experienced leadership. That is the employees are working for a boss who demonstrates the type of leadership style which the employees are more prefer or which is motivated them to retain. Complementing a company wide an EI development program for managers may equip managers to better identify and facilitate with the most suitable leadership style at an individual level.

Implications

Today employee retention has become an important strategic aspect for each and every organization due to the increasing competition. To manage and to retain top talent it requires a constant balance between the human desires and the strategic and financial needs of the business. Therefore this research finding would be much useful to those who are challenged with the task of improving employee engagement for the purpose of enhancing talent retention basically. When the employees are well engaged with their job and the organization they willingly perform beyond what is expected of them and not intending to quit even when the conditions in which they work become difficult. Indeed the findings of this investigation suggest that engagement and its outcomes might increase from increasing the EI of an organization's management.

According to Goleman's model managers those with higher EI are considered to be self-aware which means they are conscious of the impact they can have on others. And also empathetic which means they can accurately perceive and understand the feelings of others and demonstrate this

understanding to others. Moreover they can effectively regulate and manage their own emotions and also can positively influence the feelings of others. So such array of a behavior is really important for a leader since they should be a role model with appropriate behavior in most times. Therefore more emotionally intelligent a manager was as perceived by their direct reports; the more likely their staff would be to demonstrate the value creating behaviors that define as employee engagement. Hence the study finding further implies to the organizations, in order to inculcate that adherence feeling within the staff towards their organization, first the leaders should be a role model to the other by displaying appropriate behaviors. In that case the organizations should be more concentrate on increasing the EI of the organization's leaders.

The current study would have implication not only for the organizations but also into our personal life too. By understanding your emotions and how to control them, you're better able to express how you feel and understand how others are feeling. This allows you to communicate more effectively and forge stronger relationships, both at work and in your personal life. Therefore by improving EI you would be able to retain your loved ones with you for a longer period of time. You would be able to maintain effective relationships at your workplace without getting worried or being break up due to tiny issues or misunderstandings.

Recommendations

As a manager or a leader it is must that to have a proper understanding about the personality of each of their team member and that of their own as well. With that they would be able to form better teams for certain tasks. By being emotionally intelligent the leaders can figure out who is under stress during work and how to relieve that stress so they can perform better. Therefore the study recommends to get necessary actions to improve the EI of leaders, not only for the purpose of retaining employees but also to get a better outcome from them.

Basically the researcher would provide two options for organizations to increase the EI of its management in two prominent ways. First, by hiring and promoting people into management rolls those are with high EI and secondly by improving the EI of managers through a learning and development

intervention. In fact we suggest the organizations, when it comes to gauging job candidates especially into supervisory and managerial positions they can view emotional intelligence as being as important as other qualifications or abilities and also can use EI testing before hiring. Selecting managers who have high EI would definitely have a positive impact on the extent to which an organization succeeds in retaining its most critical workforce as the study reflects.

In previous investigations, it has been demonstrated that the frequency with which managers demonstrate emotionally intelligent workplace behaviors can be increased by on average 10-20 per cent (Gignac, Harmer, Jennings, & Palme, 2007). Both Mayer and Salovey (1997) and Goleman (1998) have noted that EI is potentially incremental skill or ability and can be developed through training and experience. Therefore it is recommended to the organizations to take necessary steps in this regard to improve EI. They can implement the awareness programmes on EI to the whole staff rather than involving the leaders only.

These interventions should be typically involved with a mixture of pre and post intervention 360-degree assessments in order to create insights into how often EI behaviors are being displayed by participants (by the leaders specially) in pre and post interventions. Further it is suggest implementing workshop sessions where participants could practice applying techniques to improve their EI and also individual coaching sessions to deepen the learning and insight with regard to EI.

Limitations

The sample of this study was consisted with 62 employees who work in the systemically one of the leading organization in the field of FMCG Sri Lanka. The sample was limited only to that small context. The other organizations in the field of FMCG were not considered due to the limited time frame and because of the practical difficulty of collecting the data from all organizations. The generalizing the result was the main limitation for the current research study.

Many research articles conducted under the topic if EI tend to mentioned one of their limitation as, it was relying on self-reported data since it could occur a self-biasness when people evaluating them by their

own self. However in the current study researcher was able to overcome that limitation by providing opportunity to evaluate the managers' actual level of EI from the employees' point of view since they are the ones who work under the manager. Thereafter another limitation was occurred because the level of self-awareness and self-management competencies of the manager were difficult to be evaluated by the employees because the managers are the judges of their own personal competencies.

Conclusion

In this research paper it was aimed to present the findings of a study examining the relationship between the EI of managers and levels of employee retention intention amongst their staff involved with one of the leading organizations in fast moving consumer goods (FMCG) industry.

The major conclusion of this study was that there's a moderately positive relationship between the leaders' EI and employee retention intention. Since the correlation between variables is moderately positive it implies that there may be some other factors or reasons that would impact the employees' retention intention more intensely. However it would be much essential for organizations to pay their attention to this aspect too, since they would definitely get an added advantage by improving EI of not only within leaders but also within the whole staff. Finally based on the all the evidence stated and statistical explanations both hypotheses were accepted by rejecting the null hypotheses.

Finally through the survey investigation the researcher was able to find that the EI of managers or organizational leaders has a meaningful correlation with employees' retention intention. This information may prove useful to those who are challenged with the task of improving employee retention and organizational performance more broadly. The findings of the research may also prove useful to those who are passionate about developing the EI of managers but find it difficult to convince budget decision makers of the value this can create.

Most people tend to think that retention of employees is a part of human resource management and planning efforts. Turnover, as the opposite of retention, often has been seen as a routine HR matter requiring records and reports. Indeed, retention of employee is not a matter that can be dealt by the

reports or records, it is purely depends on how we understand individual concerns and we react towards them. Nonetheless, the results of this study suggest that a manager's EI has a positive influence on the retention intention of their staff and that improving the EI of management within an organization may have a positive impact on its performance and its capacity to retain talent.

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The Generational Gap and its Impact on Employee Motivation

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Abstract

The purpose of this research paper is to assess the impact of X and Y generation difference on employee motivation in ABC Private Hospital. In this study, X and Y generation difference was taken as the independent variable and employee motivation was taken as the dependent variable and assess the impact of the generation difference on five motivation factors from the Herzberg Motivation Theory; Growth, Achievements, Job Itself, Recognition and Advancement Motivation. The main objective of the study is to assess the impact of X and Y generation difference on employee motivation and there are five specific objectives. Six hypothesis were developed in this study. The data was collected from 50 back office staff members from the hospital by using the convenient sampling technique. A structured questionnaire was distributed to collect primary data and the data was analyzed using the Independent Sample T Test. The study revealed that there is a difference of each generation's motivation factors. X generation employees prefer Achievement motivation while the Y generation employees prefer Job Itself motivation. It is recommended that the employer should have a sound knowledge on each generation's preference and should satisfy two distinct generations according to their preference in order to retain them for a long time.

Keywords : X generation, Y generation, Employee Motivation

Introduction

Every organization needs a satisfied workforce in order to achieve long term goals and objectives. So that organizations should focus their attention on transforming their working environments to motivate the workforce to engage in behavior that is consistent with their goals and objectives in order to survive in the market rivalry (Amar, 2004). There is a significant difference between motivating employees in the past and in the present (Agarwal et. al., 2001) since each generation have their own preference in the working environment. The organizations should not only concern on the employee's motivation but also should concern on the variances of the motivational factors between different generations. Failure in satisfying the above

mentioned aspect causes to decrease the organizational effectiveness and as a result it creates unwanted working environments that declines the employees' contribution (Kian&Yusoff, 2012).

Motivation is defined as the willingness to exert high levels of effort, toward organizational goals, conditioned by the effort's ability to satisfy some individual need (Saraswathi, 2011). Modern day most of companies focus their attention on motivating employees. There is a question regarding why companies allocate more money and other resources to motivate employees. Employee motivation is extremely important in that motivated employees are most often than not, able to produce efficient and effective result (Markova & Ford 2011 as cited in Muriuki 2016). To understand how their

employees, need to be motivated, employer should have a proper understanding on unsatisfied needs. The level of motivation affects all aspects of the overall performance of the organization. Among all content and process theories of motivation, Frederick Herzberg's well known Two-Factor Theory has introduced distinctive factors of employees' motivations. According to this theory employees' motivation factors into Extrinsic and Intrinsic. Extrinsic Factors also well known as job context factors are extrinsic satisfactions granted by other people for employees (Robbins, 2009). Intrinsic factors on the other hand are the one that actually contribute to employees' level of job satisfactions. It has widely being known as job content factors which aims to provide employees meaningful works that are able to intrinsically satisfy themselves by their works outcomes, responsibilities delegated experience learned, and achievements harvested (Robbins, 2009).

Today's workforce is diverse, not only with respect to gender, ethnicity, culture and workstyles, but also with respect to age (Kapoor& Solomon, 2011). We are living in a world of generations. The generation difference as discussed in many forums as usual a creation of human ingenuity and imagination which cannot be inevitable. Generation is defined as cohorts of individuals who were born and raised in the same time period and were thus exposed to similar social and historical environments (Murphy et al., 2010 as cited in Dwyer &Azevedo, 2016). Crumpacker and Crumpacker (2007) stated that although not every member of a generation feels the impact of the historically import events equally and all the members of a specific generation are having a shared awareness on the events common to that generation. According to the changes in employee demographics, the workforce is now consisting with four generations: Traditionalists, Baby Boomers, Generation X and Generation Y (Kapoor& Solomon, 2011). Generations are classified as above by considering the birth dates of individuals.

Several findings have identified preferences of Intrinsic and Extrinsic Motivation Factors for

Generation X and Generation Y. From a research conducted by Ringer and Garma (2006), Generation X was have higher preference for intrinsic motivations compared to Generation Y. They are more likely to leave their jobs when another company provides better Extrinsic factors such as pay and benefits.

Then why there is difference of preference of motivation factors? The researcher is going to find whether there is a difference in motivational factors of X and Y generation. In order to continue the study, the researcher has selected ABC Private Hospital PLC as the population. It is a reputed private hospital in Sri Lanka. The sample is consisted with 55 back office staff members who come under Executive, Non-Executive, Assistant Manager and Manager level representing X and Y generation. The sample is the 55 employees while the population is the all staff of ABC Hospital.

Research Context

As Kian&Yusoff (2012) Substantial changes on extents of satisfactions for both Intrinsic and Extrinsic Factors on Generation X and Generation Y respondents have being confirmed from statistical calculations. According to Denny et.al (2013) the factors that motivate Gen Y students differ from those that motivated their Gen X. Gursoy et.al (2008) said that employees from same generation are likely to share similar norms as their values and attitudes are influenced by the generation they belong to.

Under this situation the study was conducted based on the ABC Private Hospital PLC. It is one of the leading private hospital located in the Colombo region and it has near 1000 employees. The population is the total staff members of the ABC Private Hospital PLC. The workforce is diversified since it is consisted with people who are highly educated like Consultants and people who have less education level like Housekeeping employees. When considering the gender breakdown of the staff it has 359 male staff and 599 female staff. As a percentage it has 37% male staff and 63% female staff.

Table 1.1 Staff Composition

Managerial	Consultants	Medical & Para - Medical	Operational	Admin	Total Staff Count
18	2	415	486	37	958

(Source: Annual Statistics Report-ABC Private Hospital 2018)

Operational level employees are less educated and most of them could not read and write even. It is difficult to take a time from Medical staff. So that the researcher has selected Managerial and Admin employees (back office staff) for this study though it has five categories of employees.

Problem Statement

Human resource is the most precious asset of an organization. Even though an organization has many tangible and intangible assets, the optimum usage from those assets cannot be taken alone. There should be a proper utilization of the human resource in order to gain the competitive advantage. Any organization has a diversified workforce regarding age, gender, race and any more. Although many organizations spend time and resources into achieving and encouraging diversity, many limit their definition of diversity to gender and ethnicity. Generational diversity is one of the unaddressed area in the workforce diversity. When considering different generations, they have their own characteristics which are originated from the birth. They have their own value system and their preferences are changed from one generation to another. There is a difference between the motivational factors of each generation. There are very few empirical researches have been carried out in Sri Lankan context to identify the impact of generational difference on motivational factors.

When referring the Annual Statistics Data of the ABC Private Hospital, it is visible that there is high Labor Turnover Rate (LTO) during the past few years. According to that the trend of high LTO can be shown by table 1.2 stated in below. The data were obtained from the Annual Statistics Report 2015, 2016, 2017.

Table 1.2 Annual LTO Rates

Year	LTO Ratio
2015	29%
2016	35%
2017	33%

(Source: Annual Statistics Report-ABC Private Hospital 2018)

Most of the resigned employees are in the age between 20-40 years. At the exit interview the

employees were asked on the reason behind their resignation. Different aged people revealed different reason. They revealed that they have resigned due to the lack of recognition and promotion opportunities, insufficient salary and bad working conditions. Those are motivational factors and it ensures that there is an impact of the difference between each generation towards the motivational factors.

Even though the company provides different welfare activities to enhance motivation to their employees, it is useless unless they identify the preference of each age. So that it is essential to address the need of each generation's preference. There is a shortage in Sri Lankan literature regarding this issue. Therefore the current research fill the knowledge gap.

This research focuses on addressing following specific research questions:

- What is the impact of X, Y generation difference on employee motivation?
- What is the impact of X, Y generation difference on Growth Motivation?
- What is the impact of X, Y generation difference on Job itself Motivation?
- What is the impact of X, Y generation difference on Achievement Motivation?
- What is the impact of X, Y generation difference on Recognition Motivation?
- What is the impact of X, Y generation difference on Advancement Motivation?

Objectives of the Study

Main Objective

- The main purpose of the study is to assess the impact of X, Y generational difference on employee motivation.

Specific Objectives

- To assess the impact of X, Y generation difference on Growth motivation.
- To assess the impact of X, Y generation difference on Job itself motivation.
- To assess the impact of X, Y generation difference on Achievement motivation.

- To assess the impact of X, Y generation difference on Recognition motivation.
- To assess the impact of X, Y generation difference on Advancement motivation.

Literature Review

Motivation is the most important factor that determine employee performance and the retention of employees. According to Kian and Yusuf (2012) as cited evidence from Wregner and Miller (2003), motivation is described as something that energizes individuals to take actions and which is concerned with the decisions the individuals make as part of his or her goal oriented behavior. In recent, Saraswathi (2011) stated that motivation is the consent to give high level of effort to achieve organizational goals, conditioned by the effort's ability to satisfy some needs of individual. According to Fuller et.al. (2008), motivation is the person's strength, direction and persistence of efforts to attain a specific objective. Money is not the only motivator that an employee can inspire. There are other incentives which can also serve as motivators (Acar (2014) as cited in Tella, Ayeni&Popoola 2007: 2).

The workplace motivation theories are classified as either process theory or content theory (Campbell et. al., 1970 as cited in Yusoff, Kian&Idris (2013)). In the content theory, it highlights on factors and needs that boost and motivate employees' behavior as well as performance. On the other hand, process theory illustrates that employees' behavior are driven by their individual needs and employees are contented when their expectations and values are met in their job.

According to (Kian, T.S., & Yusoff, W.F.W., 2012), among all content and process theories of

motivation, Frederick Herzberg's well known Two-Factor Theory has presented distinctive factors of employees' motivations. Herzberg defined two factors named Motivation and Hygiene Factors which decides employee working attitudes and level of performance (Robbins, 2009). Motivation Factors are known as Intrinsic Factors that will increase employees' job satisfaction; while Hygiene Factors are known as Extrinsic Factors to prevent any employees' dissatisfaction. Herzberg fostered that satisfying Hygiene Factors will not necessary result in employees' job satisfaction.

When considering those factors separately, Extrinsic Factors are also well known as job context factors and these factors give direction for employers in creating a satisfactory working environment where employees feel contented. Extrinsic motivation can be defined as doing something because it leads to a divisible outcome. It means that outside reinforcement or rewards are earned from performing a task than actual enjoyment of the task (Acar, 2014). According to College (2009), Extrinsic factors such as money and pay rewards support employees to decide whether to stay in the job or not.

On the other hand Intrinsic factors are the one that contribute to employees' level of job satisfaction. It is known as job content factors that focuses on providing employees meaningful works that are able to inherently satisfy themselves by their works consequences, responsibilities delegated, experience gathered and achievements obtained (Robbins S. P., 2009). Intrinsic Factors are very effective in creating and maintaining more long-lasting positive effects on employees' performance towards their jobs as these factors are human basic needs for psychological growth.

Table 1.3 Intrinsic Factors (Motivators) in the workplace (According to Herzberg)

Achievements	This includes the personal satisfaction of completing a job, solving problems, and seeing the results of one's efforts.
Recognition	This is the recognition by others for a job well done or personal accomplishment.
Work Itself	The actual content of the job and its positive or negative effect upon the employee whether the job is characterized as interesting or boring, varied or routine, creative or stultifying, excessively easy or excessively difficult, challenging or non-demanding.
Advancements	The opportunity for advancement or promotion based on one's ability.
Growth	This includes actual learning of new skills, with greater possibility of advancement within the current occupational specialty as well as personal growth.

X and Y Generation Difference

Kupperschmidt (2000) defined generation as an identical group of people who share birth years, age, location and significant historical events that occurred during their life time. The groups are known to as cohorts whose members are bound to each other and sharing the life experiences they gathered during their life time and the cohort ages are influenced by generational markers (Kian&Yusoff, 2012). The workplace is consisted with four generations since the past decades until now (Ching, 2012). They are, Traditionalists, Baby Boomers, Generation X (Gen X) and Generation Y (Gen Y). These generations represent four groups of people who were born in four different range of years. Traditionalists are the one who were born between 1925-1945. According to Ching 2012, they are known as World War II Generation since they have experienced the World War II. Baby boomers were born between 1946 -1964 and they have unpleasant life experiences relating to the post-World War II. Generation X are those who were born between 1965 -1980 and the Generation Y people were born after 1980. According to Ching (2012) as cited evidence from Kowske, Rasch and Willey (2010) suggested that there are significant differences between Gen X and Gen Y in terms of the job satisfaction and turnover intention. The study done by Kian and Yusoff (2012) concluded that there is a significant difference on extent of satisfaction for both Intrinsic and Extrinsic factors between Gen X and Gen Y. thus the researcher will be focusing on Gen X and Gen Y in the current study.

Generation X

As mentioned above Generation X people were born between 1965 -1980. According to Kian and Yusoff (2012) as cited evidence from Dougan et.al., (2008) stated that Generation X learnt from their elders that following company rules and regulations is least likely secure their jobs. During their childhood they saw the worries of the adults caused by recession, inflation and stagflation (Ching (2012) as cited evidence from Association of American Retired Persons (2007)). Kupperschmidt (2000) revealed that the Generation X is the children of Boomers the workaholic parents and who inherited boomers' social debris. The role of women has also changed. Generation x grew up alone as latchkey kids and they faced the life independently (Glass, 2007).

The historical incidents which affected Generation X in their childhood caused to create identical traits and characteristics within them. According to Kupperschmidt (2000) Generation X are multitasking parallel thinkers that able to do several tasks in one time. Not only that but also they are risk takers and entrepreneurial. Gursoyet.al. (2008) Generation X employees seek work life balance. They are very keen on problem solving and prefer not to take extra work. Smola and Sutton, 2002 found that Generation X members may have more commitment towards their own career rather than the organization they work and prefer to work in an organization which values skill development, productivity and work life balance than status and tenure. According to Tay (2011), Generation X employees are more money-oriented and skeptical than the Boomers. According to Kian and Yusoff (2012) s cited evidence from Santos and Cox (2000) suggested that generation X like to work in a flexible working environment with high autonomy, interesting yet challenging work, and giving opportunity for career growth. They want to maintain a career security and increase the marketability through challenging jobs in which the employer provide on the job training to enhance the job related knowledge (Kupperschmidt, 2000). They prefer face-to face communication as the Baby Boomers (Ching, 2012). They like to talk to the superior directly instead of sending mails and waiting replies from them (Tay, 2011; Glass, 2007). Altimier (2006) found that much of the Generation X employees do not struggle job hopping and are less interested to remain long in an organization, but believe that with their sufficient and competitive capabilities, job hopping will provide higher promotion opportunities and higher salary. Asian Financial Crisis which occurred in 1997 was a remarkable incident that affected Generation X employees and they suffered from the limited job opportunities in their young age (Kian&Yusoff (2012) as cited evidence from Lager (2006)).

Generation Y

Generation Y are the group of people who were born after year 1980. They are also known as Millenials. They are the youngest employees in the current labor force. In future they will be replacing the Baby Boomers who are going to retire in the next few years (Ching, 2012). When comparing to

Generation X, Generation Y is much larger group and emerged during the period of economic growth and technological progress (Bristow et.al. 2011). According to Kian and Yusoff (2012) it is perceived that Generation Y employees are more cooperative and optimistic than their elders since they have high educational background or professional training. William (2008) revealed that most of them are having either a diploma.

Most of Generation Y members were grew up with the modern technology and therefore they were much more familiar with the mobile phones and other devices. They try to make network throughout social media and prefer to search new information by using internet rather than traditional newspaper or a book. So that Glass (2007) suggested that they are the first adapter since they easily embrace new gadgets and technological equipment.

In addition, generation Y are great team workers and showing a high favour in teamwork (Dougan et al., 2008) and prefer to follow directions as long as there is flexibility for them to get the work done (Gursoy et al., 2008). Their motivations rely much on good teamwork with their team members (Murphy, 2010). Since they experienced an equal status and opportunities to voice in schools' extra-curriculums, they are also showing their capabilities

in group activities, practicing instant communication and expecting feedback in their workplaces (Gursoy et al., 2008).

According to the study done by Kian and Yusoff (2012), "Generation X and Y and their work motivation", it has been found that both X and Y generations show some differences in their Intrinsic and Extrinsic motivation factors. Not only that but also it suggested that generation cohorts have their own groups of characteristics, aspirations and workplace expectations that creates a difference in motivation factors.

As per the study conducted by Ching (2012), "The association between generation X and Y and intention to leave, it was conveyed the idea that the X and Y generations' expectation of motivational factors is different from each other.

Conceptual Framework

Here in this study, the independent variable is the X and Y generation and the dependent variable is employee motivation. Growth, Job itself, Achievement, Recognition and Advancement is considered as the dimensions of employee motivation. The conceptual framework of the study is shown in the below figure.

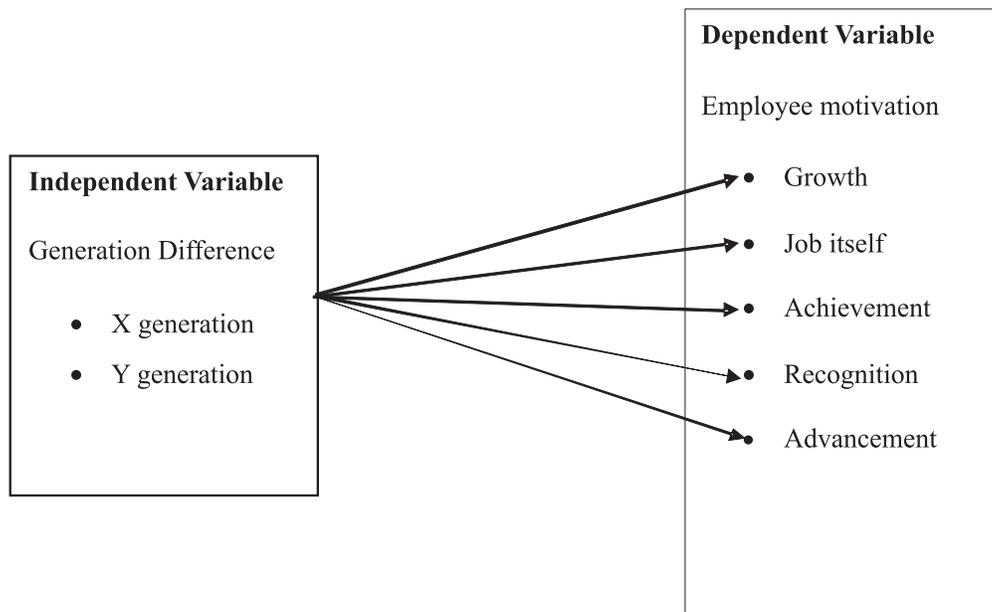


Figure 1.1 Conceptual Framework

(Source: Author, 2018)

Advancing of Hypotheses

Having considered the evidences in literature recorded in chapter two of this research, X and Y generation is recognized as the independent variable and the employee motivation is identified as the dependent variable and based on that, following hypotheses have been advanced.

- H1: There is a significant difference of X and Y generation on Growth motivation.
- H2: There is a significant difference of X and Y generation on Job itself motivation.
- H3: There is a significant difference of X and Y generation on Achievement motivation.
- H4: There is a significant difference of X and Y generation on Recognition motivation.
- H5: There is a significant difference of X and Y generation on Advancement motivation.
- H6: There is an impact of X and Y generation difference towards employee motivation.

Overall Research Design

This study is named as "The impact of the X and Y Generation difference on employee motivation". This is a quantitative type study which tries to find out the solution for the research problem of "What impact does the X and Y generation have on the employee motivation?" Since this study tries to find out the formulated hypotheses and the established relationships in the research model, this would be considered as an explanatory research.

Current study is a descriptive study. Mainly, the research will describe the data and characteristics and further, it will study the averages, mean values, frequencies and other statistical calculations. The research will be based on a quantitative explanatory research design.

Further, the required primary data will be collected at a single point of time and therefore, the study will be a cross sectional study. The interference of the researcher will be minimum in the study. Unit of analysis will be done at individual level. The study will be conducted among 55 back office employees of a reputed private hospital in Sri Lanka and the sample will be drawn through simple random sampling. Data will be collected pre- tested, standard

questionnaire which has met the accepted standards of validity and reliability. Collected data will be analyzed through SPSS.

Population

The population of the study includes all the employees who come under X and Y generation (born between 1965- 2000) of a reputed private hospital in Sri Lanka, out of which a representative sample will be taken.

Sample and the Sampling Technique

Simple random sampling would be used to select a representative sample. A total of 55 back office employees from the whole staff have been selected.

Testing of Hypotheses**Sample composition**

The questionnaire was distributed among 55 back office employees of the ABC Hospital PLC. Fifty two (52) has responded to the questionnaire and all the responses were eligible for the purpose of analysis through SPSS. As such, it resulted an 88% response rate out of the total sample.

In here, whether the respondent is belonged to X generation or Y generation is derived from age. Y generation is derived from the age between 20-37 and the X generation is derived from age between 38-55. There are equal amount of X and Y generation respondents. According to the data collected, majority of the respondents are females and it is 59.6%.

The highest educational attainment is categorized into five levels. Majority of the sample consists with post graduates. It is approximately 32.7% of the entire respondents. There were only 1.9% of employees attained up to secondary school.

Majority of the respondents have 3-5 years of working experience. It is approximately 28.8%. There is only 11.5% respondents have 9-10 years of working experience.

When considering the no of company working with, the majority of the respondents have been working with two companies. It is nearly 32.7%. There are 3.8% of the respondents have been working with four companies.

Majority of the respondents are Executives and the percentage is 34.6%. Assistant Managers and Managers are in same amount and the percentage is approximately 17.3%.

There are 53.8% respondents from the sample have been working in this company between 0-2 years. The least no of respondents have been working in this company for 9-10 years and as a percentage it is 1.9%.

Table 1.4 Testing of Hypotheses

	Independent Samples Test				t-test for Equality of Means					
	Levene's Test for Equality of Variances		t	df	sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of		
	F	Sig.						Lower	Upper	
Growth	Equal variances assumed	3.326	.074	-4.885	50	.000	-.65385	-.13384	-.92268	-.38501
	Equal variances not assumed			-.4885	34.413	.000	-.65385	-.13384	-.92573	-.38196
Job Itself	Equal Variances assumed	3.496	.067	-7.369	50	.000	-1.50000	.20356	-1.90885	-1.09115
	Equal variances not assumed			-7.369	49.614	.000	-1.50000	.20356	-1.90885	-1.09115
Achievement	Equal Variances assumed	22.375	.000	6.042	50	.000	1.8269	.19575	.78952	1.57586
	Equal variances not assumed			6.042	29.266	.000	1.18269	.19575	.78250	1.58288
Recognition	Equal Variances assumed	.472	.495	-.422	5.	.675	-.10577	.25051	-.60918	.39739
	Equal variances not assumed			-.422	49.038	.675	-.10577	.25051	-.60918	.39764
Advancement	Equal Variances assumed	10.459	.002	3.937	50	.000	.73077	.18563	.35793	1.10361
	Equal variances not assumed			3.937	33.004	.000	.73077	.18563	.35311	1.10843
Motivation	Equal Variances assumed	2.664	.109	-.673	50	.040	-.06923	.10282	-.27576	.13730
	Equal variances not assumed			-.673	38.693	.041	-.06923	.10282	-.27727	.13880

(Source: Survey Data, 2018)

The above table presented the result of t-test for X and Y generation motivation Factors. Given below is the analysis of each motivation factors.

Growth Motivation: The value of Levene's Test for Equality of Variance is 0.074 and is higher than 0.05, then the row labeled Equal variances assumed are further being referred. Since results arrived from t-test has detected significant where sig (2-tailed) value=0.000 and $p < 0.05$, hence, the null hypothesis is rejected and alternative hypothesis is accepted. In conclusion, at significant level .05 there is a significant difference of X and Y generation on growth motivation.

Job Itself Motivation: The value of Levene's Test for Equality of Variance is 0.067 and is higher than 0.05, then the row labeled Equal variances assumed are further being referred. Since results arrived from t-test has detected significant where sig (2-tailed) value=0.000 and $p < 0.05$, hence, the null hypothesis is rejected and alternative hypothesis is accepted. In conclusion, at significant level .05 there is a significant difference of X and Y generation on Job itself motivation.

Achievement Motivation: The value of Levene's Test for Equality of Variance is 0.000 and is less than 0.05, then the row labeled Equal variances not assumed are further being referred. Since results arrived from t-test has detected significant where sig (2-tailed) value=0.000 and $p < 0.05$, hence, the null hypothesis is rejected and alternative hypothesis is accepted. In conclusion, at significant level .05 there is a significant difference of X and Y generation on Achievement motivation.

Recognition Motivation: The value of Levene's Test for Equality of Variance is 0.495 and is higher than 0.05, then the row labeled Equal variances assumed are further being referred. Since results arrived from t-test has detected significant where sig (2-tailed) value=0.675 and $p > 0.05$, hence, the null hypothesis is accepted while alternative hypothesis is rejected. In conclusion, at significant level .05 there is no significant difference of X and Y generation on Recognition motivation.

Advancement Motivation: The value of Levene's Test for Equality of Variance is 0.002 and is less than 0.05, then the row labeled Equal variances not assumed are further being referred. Since results arrived from t-test has detected significant where sig (2-tailed) value=0.000 and $p < 0.05$, hence, the null hypothesis is rejected and alternative hypothesis is accepted. In conclusion, at significant level .05 there is a significant difference of X and Y generation on Advancement motivation.

Employee Motivation: The value of Levene's Test for Equality of Variance is 0.109 and is higher than 0.05, then the row labeled Equal variances assumed are further being referred. Since results arrived from t-test has detected significant where sig (2-tailed) value=0.040 and $p < 0.05$, hence, the null hypothesis is rejected while alternative hypothesis is accepted. In conclusion, at significant level .05 there is a significant difference of X and Y generation on employee motivation.

Ranking Motivation Factors

Table 1.5

Age		Growth	Job Itself	Achievement	Recognition	Advancement
X generation	Mean	3.9808	3.1346	4.6731	3.6923	4.4872
	N	26	26	26	26	26
	Std. Deviation	.62419	.70082	.28080	.83758	.35566
Y generation	Mean	4.6346	4.6346	3.4904	3.7981	3.7564
	N	26	26	26	26	26
	Std. Deviation	.27596	.76561	.95781	.96441	.87716

According to the table 1.5 there is a mean difference of motivational factors of generation X. Achievement motivation was ranked in the highest place by

showing the highest mean value of 4.6731. Then the Advancement motivation was ranked at the 4.4872 mean value.

Among the five motivational factors, Growth and Recognition were reported as third and fourth important factor to motivate Generation X while the least important factor is Job Itself with mean value of 3.1346

According to the table 1.5 there is a mean difference of motivational factors of generation Y. Growth and Job Itself motivation was ranked in the highest place by showing the highest mean value of 4.6346. Among the five motivational factors, Recognition and Advancement were reported as third and fourth important factor to motivate Generation X while the least important factor is Achievement with mean value of 3.4904.

Findings

The hypotheses were carried out using the results obtained from Independent Sample T Test analysis. As a whole, the results have proved that four hypotheses from the six hypothesis were accepted.

According to the descriptive statistics obtained, Achievement was considered to be as the vital dimension of Generation X, as it resulted the highest mean value of 4.6731. Simultaneously, Job Itself was the least significant dimension which resulted a mean value of 3.1346.

Job itself and Growth motivation were considered to be as the highest significant dimension of Generation Y, as it resulted the highest mean value of 4.6346. On the other hand Achievement was the least significant dimension for generation Y which resulted a mean value of 3.4904.

Implications of the Study

Employees are the life blood of an organization which gives the birth to its operations. Every organization has a diversified workforce with gender, age, religion, personality type, attitudes etc. Age difference is something inevitable and according to the age, it can be derived the generation they belong to. Most of the current workforce is consisted with generation X and generation Y. They have unique characteristics based on the life experiences they felt.

As an employer, he or she has a responsibility to satisfy the employees and retain them for a long time within the company. In order to manage the

staff turnover, understanding the antecedents of the employees' intention is very crucial. This study tries to provide in-depth measurement and analysis to help the employers to understand the Gen X and Gen Y in their staff. Based on the research results, it could provide the impact and idea to employers to better understand the desire in the workplace among the two generations. With the analysis, researcher hopes that it would be able to help the organizations to well-manage their employee turnover issues.

Recommendations

This study is mainly discussing about the impact of X and Y generation difference on employee motivation. Most of the time employers think the employees are resigned from their job since they are dissatisfied with the jobs. Therefore employers increase the benefit package more and more and think only about the financial side of the employees. However there may be any other reason beyond that. In fact, to manage the staff turnover in a multi-generation workforce, employers or managers could not manage their employees separately based on the generation. They should make these two generations interact well with each other. An employer can do several things to manage these generation difference in the workplace.

- *Understand them*

Every employer should have a better understanding on their employees and they put into the employees' shoes to see the view point of employees. First of all the employer should aware on the composition of their workforce. After that the employer should understand the intention of employees. Their preferences are changed according to the generation they belonged. So that the employer should identify the needs of the employee and should accommodate the needs and wants of the employees.

- *Serve their need*

When the employer understands the staff expectation, he or she has a better know how to motivate the subordinates and he or she should better know how to motivate the subordinates to be more productive and committed by serving them their needs. By identifying the generation wise motivation factors, the employer can focus on the true need of the employee very easily.

- *Analyze them from time to time*

Analyzing the human behavior should be part of HR functions. Individual is changing his or her attitude, behavior and expectation from time to time. So that HR department could conduct evaluation session to identify the issues with them. Some staff might be worried that organization would take action against if negative comments are given. Hence, the survey form must be filled in anonymously. By doing this, genuine answers could only be obtained.

However, this method does not allow HR to understand each of the staff but general views would be obtained. Nevertheless, HR could know the thinking of majority of the staff and come out with better policies to benefit both organization and employees.

Limitation of the Study

There are some limitations of this research paper. These limitations are highlighted in order to improve the future research in the relevant field.

First, researcher found difficult to gain the relevant articles especially related to the X and Y Generation employees' motivation. Hence, it would affect the comparison and interpretation between the current study and past studies.

Second, this research was conducted in relation to Generation X and Generation Y, and yet it excludes other working generations in Sri Lanka. Hence, the results are not applicable to the entire workforce in the country.

Third, the dependent variables are limited to five factors. There are plenty of motivational theories and motivational factors have been studied since decades ago. This research paper chose only five factors from Herzberg's Two Factor Theory. Other factors such as company culture, management style, Human Resources Management System (HRMS), reward systems, etc., have not been analyzed and yet these factors are also very important to influence the employee's intention to stay or leave their organizations.

Fourth, the survey questionnaires in this paper were distributed via questionnaire method. There is a challenge in collecting the data in this manner.

Targeted respondents would have a doubt that it might be a research done by their employers. They had to clarify few times with the research to make sure the survey was not from their employers before they put the answers in the survey questionnaires. Some of them may play safe to give a favorable answers when asking about their opinions to the current organizations. Hence, the answers given might directly affect the accuracy of the research findings.

The limitations as highlighted above had been acknowledged and yet it will not affect the discussions of the study. It just provides a proposal for future research.

Conclusion

After some readings, research found that staff turnover is definitely a major challenge to employers. As discussed earlier, it creates a lot of unforeseen costs to an organization. Generation X and Generation Y make up a large portion in labor market when Baby Boomers retire gradually in next few years. Hence, these two generations would become the important workforce in an organization.

The purpose of this research paper is to examine the impact of Generation X and Generation Y who are currently working in the ABC Private Hospital on their motivation factors. The findings showed that X and Y generation difference is significantly influencing employee motivation. It is because both of the generations were growing up in different time and they are shaped into different lifestyle, values, attitudes and they have their own characteristics.

The findings show that Generation X employees are referred to Achievement motivation while Generation Y employees are more preferred to Growth and Job Itself Motivation.

As an employer, in order to retain the employees for a long time period should have the ability to understand the motivation intention of employees according to their age group.

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An Econometric Study on Effect of Industrial Growth on Technological Innovation in India

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Abstract

This paper examines the causal relationship between industrial growth and technological innovation of India. The study focused on whether or not industrial growth leads technological innovation in India. The methodology applied in the paper is the standard Granger causality tests and Toda- Yamamoto test for causality to time series annual data covering the period 1968 to 2016. The empirical findings reveal the absence of a long-run equilibrium relationship between the variables but there exists uni-directional short-run Granger causality running from industrial growth to technological innovation without any feedback effect. The results are confirmed by cross-checking with the Toda-Yamamoto causality approach. The findings of this study support the “demand-led” or “market-pull” approach to innovation. Therefore, the study suggests an integrated innovative-industrial policy thereby increasing the industrial growth of a developing country like India.

Keywords: Innovation, Patents, Industrial growth, Causality, Co-integration, India

Introduction

The Indian industrial sector holds a key position in the Indian economy since it is considered to be crucial for employment generation and development of the economy. To address the problem of unemployment and poverty, industrial development is vital for any country. Industrial growth plays a significant role in the overall development of any economy as it raises the productive capacity of people by creating employment opportunities, raising their standard of living, by promoting international trade, boosting national income and by pushing the overall growth of any economy into a higher trajectory. The Government of India has undertaken various economic and institutional reforms including launching ambitious programmes such as Make in India, Start-up India, reforms for improving ease of doing business which has led to

significant up-gradation of India's ranking in the Ease of Doing Business by the World Bank 2018 and pushing industrial growth. The promotion of inclusive employment-intensive industry and building resilient infrastructure are vital factors for economic growth and development. The Government is taking several sector-specific measures in this direction to promote sustainable growth of the industry. Industrial growth depends on a variety of factors like adequate infrastructure, availability of skilled labour, adequate expenditure on R&D and Innovation.

Innovation is a crucial factor for the sustained growth of a country and can also help reduce poverty. The Oslo Manual, a worldwide reference for innovation, defines it as “Implementation of new or significantly improved products (goods and services), processes, marketing and organizational methods”¹. It is a wide

known fact that innovation is integral to the long-term growth of a nation. Technology is the key to expanding the manufacturing base in the country and increasing India's presence in the global market. Also, India is a heterogeneous market with diverse needs. This heterogeneity in Indian market calls for manufacturing players to innovate. Hence, the Indian industrial sector recognizes the importance of constant innovation in order for survival in a globalised world as a long-term need². According to the World Bank report, India is increasingly becoming a top global innovation player in biotechnology, pharmaceuticals, automotive parts and assembly, IT software and IT-enabled services³. In today's knowledge world, we believe that no firm can survive without innovation.

Technological innovation is not only a way to bring the world closer and closer but it also helps to resolve problems in today's integrated world economy. In addition to trade integration and trade openness in the era of globalization, we are witnessing a technological revolution. There are a growing and large body of literature illustrating the positive impact of technological innovation on the industrial growth of a country. Artz et al. (2010) analyzed the impact of patents acquired and product innovation on firm performance in different industries of the US and Canada during the period 1986-2004 using multiple regression models. They found that product innovation had a significant impact on firm performance. Cozza et al. (2012) studied the impact of product innovation on the economic performance of firms (in terms of profitability and growth) using a large sample of Italian firms operating in Medium and High-Tech (M&HT) industries. They used Propensity Score (PS) matching methods and found out a positive and statistically significant relationship between innovation and economic performance of the firms. Atalay et al. (2013) examined the relationship between different types of innovation and performance of firms operating in the automotive supplier industry in Turkey. The data obtained from the questionnaire was analyzed through factor analysis and regression analysis. The results demonstrated that technological innovation (product and process innovation) had a significant and positive impact on firm performance, but no evidence was found for a significant and positive relationship between non-technological innovations (organizational and marketing innovation) and firm performance.

Although there exist behemoth literature on the impact of technological change or innovation on industrial growth, the causal relations among these variables remain somewhat vacuous. To fill this literature gap, this paper focuses exclusively on the causal relations between technological innovation (proxied by a number of patent applications by both residents and non-residents) and the industrial growth (measured by Industrial value added at constant 2010 US\$) in the case of India. The major contributions of this study in the present literature are: Firstly, different from previous various studies that studied the relation or impact among the variables, this study exclusively tests for the direction of causality among these two variables. Secondly, apart from this, the paper uses the most updated and longest time series data (1968-2016) from world-renowned source 'World Development Indicators' of the World Bank. Thirdly, divergent views exist in the literature regarding the effect of innovation on industrial growth but most of them are confined to developed countries. Very few researchers have attempted to describe the issue in case of a developing country like India. Fourthly, the empirical findings of this study will strengthen the understanding of causal relations between industrial growth and technological innovation which would further help the policymakers to identify sectors to be focused first thereby formulating a coherent and integrated innovative-industrial policy to foster economic growth of India. Against this background, the paper is motivated to explore the causal relationship between technological innovation and industrial growth in the case of India.

The remainder of the paper is organized as follows: Second section explains the review of the past literature; In the third section, the econometric methodology is presented; the fourth section explains the main findings, analysis and discussions; the last section concludes the paper and suggests some imperative policy implications for India which could be applicable to other developing countries as well.

Literature Review

The available empirical evidence in assessing the effect of innovation on industrial growth is limited since it is difficult to quantify the amount of innovation in any economy. When trying to identify proxy variables for innovation, researchers have used many proxies to quantify the

technological change such as expenditure on research and development activities (R&D), patent citations, imports of capital goods, royalties and license fees, accumulation of ICT capital, change in Total Factor Productivity (Vashisht, 2017).

The patent counts were taken as a proxy variable for measuring industrial innovative capabilities following Scherer, (1965), Schmookler (1966), Griliches (1984) and Crosby (2000). Patents are used to protect the firm's invention. They have the ability to reflect inventive activity and innovation. Therefore, patents can be used to examine technological change since (i) Compared to R&D expenditure, patent data is more associated with innovative output (ii) Patents data is available for a relatively longer period of time (suitable for time series analysis) (iii) Patent data is easy to measure, access and quantify (iv) Also, it is easily comparable with other countries. The major limitation of using patent data as a proxy variable is its inability to capture the whole range of innovations as not all inventions get patented nor do all patents gives rise to successful innovations. In spite of these shortcomings, as Comanor & Scherer (1969) interpreted in detail, patent data still provide valuable and significant information on innovation. A number of studies have emerged in order to study the effect of innovation on industrial growth at both the firm and industry level.

Fan et al.(2018)estimated the long run as well as short-run cointegration relationship between technological innovation, infrastructure and industrial growth in Bangladesh over the period 1974-2016 using the ARDL Bounds Test methodology and Granger Causality test in an augmented VECM framework. The results showed a positive and significant impact of infrastructure and technological innovation on industrial growth in the short run but technological innovation showed a negative impact on industrial growth in the long run. The VECM Granger causality test suggested a unidirectional causality running from industrial growth to technological innovation. The study recommended an integrated macro-variable policy instead of any single or individual policy action to ensure the sustainable growth of a developing country like Bangladesh as well as other developing countries.

Crosby(2000) explored the importance of innovation in promoting Australian economic growth by using

the VAR modelling and found that with the increase in patenting activity (proxy variable for innovation), both labour productivity and economic growth increased, though this increase could take up to 15 years. Pantano et al. (2017) provided a detailed overview of the level of innovation using text mining (i.e. the text describing the patent) and bibliometric analysis (i.e. the number of patents in a certain period of time) and showed a positive effect of innovation on retailing. They concluded their paper by suggesting the need to push more towards innovation-oriented strategies to propose innovative consumers solutions.

San & Huang(2010)analysed the causal relationship among technological innovation, capital investment, and market performance for four major industries with different technological levels, namely, the electronics, chemical, machinery and textile industries using Taiwan's annual data for the period 1988-2005 by using the Granger causality test. They found out that only in the high-tech electronics industry, a complete triumvirate causal relationship among patents, capital investment, and production value exist while there were some missing linkages in terms of technological innovation in the mid-tech and low-tech industries, thereby, suggesting taking sectoral specifications into account while considering innovation policies. Çetin (2013) examined the causal relationship between R&D expenditures and economic growth based on the standard Granger and Toda-Yamamoto tests for causality to time series data covering the period 1981-2008 for nine European countries. Their findings supported the innovation-based growth hypothesis for some European countries and recommended that the government should increase R&D intensity and apply co-ordinated, coherent and effective R&D policies for a sustainable growth.

Guloglu & Tekin (2012)investigated the causal relationship between R&D expenditure, innovation (proxied by the number of triadic patents) and economic growth in 13 high-income OECD countries for the period 1991-2007 by estimating a trivariate panel VAR model through the GMM and panel fixed effects method. The pairwise Granger Causality test suggested that R&D intensity triggers innovation which further enables economic growth, while multivariate causality revealed a multiple of causal relations among their variables implying support for

both the “demand-pull” and “technology-push” models of innovation.

Econometric Methodology

The study has employed the standard Granger(1969) and Toda & Yamamoto(1995) tests to determine the causality relationship between innovation and industrial growth. This study takes Patents counts as a proxy variable to measure technological innovation in India.

Data Construction: In order to explore the impact of technological innovation (TI) on Industrial Growth (ING) of India, data have been taken from the ‘World Development Indicators’ of the World Bank published in 2017. The study has covered the longest time period from 1968 to 2016 (that is, duration of 49 years) which is suitable for time series analysis. We have used Industrial value added (constant 2010 US\$) as a proxy variable for measuring Industrial Growth (ING) in India. The sum of the number of patents applied by residents and non-residents is taken as a proxy variable for measuring technological innovation. We have converted all-time series data to their natural logarithm form for standardization of data.

Model Framework: The empirical analysis takes into account the following linear regression models to investigate the causal link between technological innovation and industrial growth.

$$ING_t = \beta_0 + \beta_1 TI_t + u_t \quad (1)$$

$$TI_t = \alpha_0 + \alpha_1 ING_t + v_t \quad (2)$$

Where ING indicates the Industrial value added which has been used as a proxy variable for Industrial Growth and TI denotes the technological innovation; β_0 and α_0 are the intercept term and β_1 and α_1 is the coefficient of the technological innovation and industrial growth respectively; u_t and v_t are the residual terms. The subscript t denotes the time period of each variable being taken in the study. By taking the natural logarithm on both sides of the equation, our final equation becomes:

$$\log(ING_t) = \beta_0 + \beta_1 \log(TI_t) + u_t \quad (3)$$

$$\log(TI_t) = \alpha_0 + \alpha_1 \log(ING_t) + v_t \quad (4)$$

Granger Causality Procedures: A standard procedure with three steps is employed to examine the causality linkage between the two variables:

Unit Root Testing: First, in order to determine the time series properties, the unit root properties of the series are tested. In our study, we have applied two kinds of unit root tests: a. Traditional unit root test and b. Unit root with structural break. The reason being if structural breaks are there, the usual approach of unit root testing may get invalidated. The unit root test will show whether the series (LTI, LIVA) are stationary or not. The Augmented Dickey-Fuller (ADF) and the Phillips and Perron unit root testing methods were used to determine the traditional unit root of the variables and modified ADF for structural break unit root tests. The ADF test takes care of the possible serial correlation in the errors term by adding the lagged difference terms of the regressand. Phillips and Perron use the nonparametric statistical methods to take care of the serial correlation in the error term without adding lagged difference terms.

The traditional view of the unit root hypothesis assumed that the current shocks would have only temporary effects and the long-run movement in the series would be unaffected by such shocks. But, the unit root hypothesis propagated by Nelson & Plosser (1982) revealed that random shock does have a permanent effect on the long run level of macroeconomics and hence fluctuations are not transitory. Additionally, Perron (1989) showed that failure to allow for an existing break which may be due to some unique economic events leads to a bias that reduces the ability to reject a false unit root null hypothesis. To overcome this, Perron proposed allowing for a known or exogenous structural break in the Augmented Dickey-Fuller (ADF) tests. Taking these things into consideration, we checked structural breakpoints using Bai & Perron(2003) multiple breakpoint tests and conducting structural break unit tests in the modified ADF test.

Cointegration Test: Cointegration implies that despite being individually non-stationary, a linear combination of two or more time series can be stationary. If there is a long-run or equilibrium relationship between the two given series, then they are said to be cointegrated. The error correction term which is used to tie the short run behaviour to the long run value can only arise if there is cointegration. Therefore, the first step has to be testing for cointegration. If evidence for cointegration is positive, then error correction term will be present

in the equation. The simplest test for cointegration is the one suggested by Engle and Granger which is applicable only for two time series as required in our study. The Engle & Granger(1987)cointegration technique is employed to examine whether there exists the long run relationship between any two variables.

Procedure:

1. Determine whether y_t and x_t are I(d).
2. Provided they are both I(d), estimate the parameters of the cointegration relation.
3. Test to see whether the least squares residual appears to be I(0) or stationary, then the series are cointegrated and the regression equation would not be spurious.

If two or more time series are cointegrated, then there must be Granger causality between them which can either be one way or bidirectional.

Granger-Causality Test: According to Granger (1969), a variable (in this case technological innovation) is said to Granger-cause another variable (industrial growth) if past and present values of technological innovation help to predict industrial growth. The Vector Auto Regression (VAR) framework allows testing for Granger causality and explicitly includes the possibility of feedback causality.

According to Sekantsi & Thamae(2016) there are two approaches to Granger causality which are as follows:

1. If the series X and Y are individually I(1) and cointegrated, then Granger causality tests may use I(1) data because of the super-consistency properties of estimation

$$X_t = \alpha + \sum_{i=1}^m \beta_i X_{t-i} + \sum_{j=1}^n \gamma_j Y_{t-j} + u_t \quad (5)$$

$$Y_t = a + \sum_{i=1}^q b_i Y_{t-i} + \sum_{j=1}^r c_j X_{t-j} + v_t \quad (6)$$

Where u_t and v_t have zero mean, serially uncorrelated, random disturbances

For equations (5) and (6), Y Granger Causes (GC) X

if $H_0: \gamma_1 = \gamma_2 = \dots = \gamma_n = 0$ is rejected

against $H_A: =$ at least one $\gamma_j \neq 0, j = 1 \dots n$

and X GC Y if, $H_0: c_1 = c_2 = \dots = c_n = 0$ is rejected

against $H_A: =$ at least one $c_j \neq 0, j = 1 \dots r$

2. If the series is I(1) but are not cointegrated, valid Granger type tests require transformation to make them I(0). So, in this case, the equations become

$$X_t = \alpha + \sum_{i=1}^m \beta_i \Delta X_{t-i} + \sum_{j=1}^n \gamma_j \Delta Y_{t-j} + u_t \quad (7)$$

$$Y_t = a + \sum_{i=1}^q b_i \Delta Y_{t-i} + \sum_{j=1}^r c_j \Delta X_{t-j} + v_t \quad (8)$$

For equations (7) and (8), ΔY GC ΔX if,

$H_0: \gamma_1 = \gamma_2 = \dots = \gamma_n = 0$ is rejected

against $H_A: =$ at least one $\gamma_j \neq 0, j = 1 \dots n$

and X GC Y if, $H_0: c_1 = c_2 = \dots = c_n = 0$ is rejected

against $H_A: =$ at least one $c_j \neq 0, j = 1 \dots r$

The optimal lag length m,n,q and r are determined on the basis of different information criterion such as Akaike's (AIC) and/or Schwarz Bayesian (SBC) and/or log-likelihood ratio test (LR) Criterion since the results of Granger's test of causality are too sensitive to the selection of the length of lag.

The Toda-Yamamoto Causality Approach: To investigate the causality between industrial growth and technological innovation in India, this study also employed the Toda-Yamamoto (TY) causality approach. This approach is a modified version of the ordinary Granger causality. The reasons for employing TY in this paper are as follows:

1. The TY approach is applicable for any arbitrary levels of integration for the variables. Furthermore, the TY minimize the risks associated with the possibility of wrongly identifying the order of integration of variables. See Dembure and Ziramba(2013)
2. In case of ordinary Granger Causality, the standard VAR is estimated with the variables at their first difference, on the other hand, the TY approach is suitable for the VAR whereby the variables can be estimated at their levels and therefore researcher does not need to transform the standard VAR model.

The TY causality approach involves three stages as follows:

Determining the maximum order of integration:

The first step involves the testing of the time series using unit root tests to determine the maximum order of integration (d_{\max}) of the variables in the system.

Determining the optimal lag length (k): The optimal lag length can be obtained from estimating VAR with variables at the level. The k can be determined using different lag length criterion such as the Akaike's Information Criterion (AIC), Schwarz Information Criterion (SC), Hannan Quinn (HQ) Information Criterion etc.

Testing for Causality: This is done by using the Modified Wald (MWALD) procedure to test for the VAR (p) where $p = (k+d_{\max})$. The modified Wald Test (MWald) follows a Chi-square (χ^2) distribution asymptotically and the degrees of freedom is equal to the number of time lags ($k+d_{\max}$). The rejection of the null hypothesis entails the rejection of Granger causality.

Toda-Yamamoto causality test involving two variables, technological innovation and industrial growth is written as:

$$Y_t = \alpha_0 + \beta_{1i} \sum_{i=1}^k Y_{t-i} + \beta_{2j} \sum_{j=k+1}^{d(\max)} Y_{t-j} + \gamma_{1i} \sum_{i=1}^k X_{t-i} + \gamma_{2j} \sum_{j=k+1}^{d(\max)} X_{t-j} + e_{1t} \quad (9)$$

$$X_t = \alpha_1 + \lambda_{1it-i} + \lambda_{2jt-j} + \ddot{a}_{1it-i} + \ddot{a}_{2jt-j} + e_{2t} \quad (10)$$

Where the error terms e_{1t} and e_{2t} are assumed to be white noise with zero mean, constant variance and no autocorrelation. The series X_t Granger causes Y_t if the \ddot{a}_{1i} are jointly significant, while Y_t Granger causes X_t if the \ddot{a}_{2i} are jointly significant, if both the \ddot{a}_{1i} and the \ddot{a}_{2i} are jointly significant, there is evidence for bi-directional causality between X_t and Y_t .

Result Analysis and Discussion

The study started analysis with simple statistical tools as descriptive statistics and correlation presented in the below Table 1:

Table 1. Descriptive Statistics and Correlation of Variable

Variables	IVA	TI
Mean	221000	13477.29
Median	140000	4826.000
Std. Dev.	189000	15057.75
Jarque-Bera (Probability)	3.374285 (0.185048)	6.696049 (0.035154)
IVA	1	
TI	0.967744 (0.0000)	1

Note: IVA: Industrial Value-Added; TI: Technological Innovation

Table 1 above illustrates the mean, median and standard deviation of the series. The Jarque-Bera test is a test of normality wherein the null hypothesis indicates the error term to be normally distributed. Based on the p-value, the test shows that the residual of the variable industrial value added is normally distributed but it is not normal in case of technological innovation. We know that this is not a problem for our analysis since the multivariate framework does not require the normality assumption. The correlation matrix indicates a

strong and significant positive relationship between technological innovation and industrial value added.

Unit Root Testing: A test of stationarity (or non-stationarity) that has become widely popular over the past several years is the unit root test. In literature, there are numerous unit root tests available like ADF, PP, KPSS, Ng-Perron and also other special unit root tests as Zivot-Andrews unit root test. According to the discussion in the methodology section, Table 2 reports the unit root

tests results for the series in their level and difference forms considering ADF and PP tests. The test options

considered (a) Intercept and (b) Intercept and Trend.

Table 2: Unit Root without Structural Break

Variable	ADF (Level)		ADF (First Difference)		PP (Level)		PP (First Difference)	
	Intercept	Intercept & Trend	Intercept	Intercept & Trend	Intercept	Intercept & Trend	Intercept	Intercept & Trend
Log(IVA)	2.6084 (1.0000)	-1.7055 (0.7335)	-4.9851*** (0.0002)	-5.7898*** (0.0001)	3.2758 (1.0000)	-1.6492 (0.7580)	-5.0214*** (0.0001)	-5.8070*** (0.0001)
Log(TI)	0.6855 (0.9906)	-2.2398 (0.4575)	-5.5724*** (0.0000)	-5.9852*** (0.0000)	0.6855 (0.9906)	-2.2625 (0.4454)	-5.5773*** (0.0000)	-5.9286*** (0.0001)

Note: *, ** and *** indicate statistical significant at the 10%, 5% and 1% level respectively.

Table 2 describes the findings of ADF and PP test. The ADF test uses the existence of a unit root as the null hypothesis. To doublecheck, the robustness of results, Phillips and Perron test of stationarity have also been applied. The findings of both ADF and PP test indicates that both the variables are non-stationary at level but becomes stationary at first difference and are significant at all the levels of significance. Thus, implying that both the variables are integrated to the same order i.e. I (1).

It has been witnessed that macroeconomic variables like industrial growth, GDP etc mostly in the developing country like India faces structural

changes. Also, as Perron (1989) argues that in the presence of a structural break, the standard ADF tests are biased towards the non-rejection of the null hypothesis. The idea is to confirm that the unit root observed for a particular series is not due to structural breaks. This procedure gives an added advantage of identifying when the structural break occurred and if this break is associated with a particular government policy, economic crises, war or other factors. Taking these insights, we checked structural breakpoints using (Bai and Perron, 2003) multiple breakpoint tests and again conducting structural break unit root tests. The results are shown in below table 3:

Table 3. Bai-perron Multiple Breakpoints date

Log (IVA)		Log (TI)	
No of Breaks	Break Dates	No of Breaks	Break Dates
4	1995, 2006, 1983, 1976	3	1995, 2003, 2010

The calculated F-statistic of break tests is significant at 5% level as provided by Bai-Perron (Econometric Journal, 2003) critical values.

The results of the table indicate that there are 4 and 3 structural breaks of the variables industrial growth and technological innovation in the years 1995, 2006,

1983, 1976 and 1995, 2003, 2010 respectively. After identifying the structural breaks in the given series, we conducted the structural break unit root tests. Table 4 reports the results of unit root with a structural break in levels and first differences.

Table 4: Unit Root with Structural Break

Variable	SC (Level)		SC (First Difference)		AC (Level)		AC (First Difference)	
	Intercept	Intercept & Trend	Intercept	Intercept & Trend	Intercept	Intercept & Trend	Intercept	Intercept & Trend
Log (IVA)	0.3164 (0.99)	-3.4017 (0.7483)	-5.6279*** (0.01)	-6.0321*** (0.01)	0.3164 (0.99)	-3.8916 (0.4411)	-5.6279*** (0.01)	-5.9404*** (0.01)
Log (TI)	-3.2805 (0.5155)	-4.8858** (0.0464)	-8.0451*** (0.01)	-8.0294*** (0.01)	-3.2805 (0.5155)	-4.8858** (0.0464)	-8.0451*** (0.01)	-8.0294*** (0.01)

Note: *, ** and *** indicate statistical significant at the 10%, 5% and 1% level respectively.

SC: Schwarz criterion; AC: Akaike criterion

The unit root test results represented in the above table show that the series have different orders of integration [both I(0) and I(1)].

Test for Cointegration: The Engle-Granger Test

Considering the unit roots test without a structural break, we infer that both the series are non-stationary at level but becomes stationary at first difference,

that is, both are integrated to the same order I (1). Also, there are only two-time series. Both these conditions fulfil the criteria to apply the Engle and Granger's Approach. In this method, we first estimated the equation and checked if the residuals obtained are free from unit roots. The result obtained is illustrated in the below Table 5:

Table 5: The Engle-Granger Test for Cointegration

Null Hypothesis: U has a unit root			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-2.81196	0.0641
Test critical values:	1% level		-3.57445	
	5% level		-2.92378	
	10% level		-2.59993	
*MacKinnon (1996) one-sided p-values.				

Note: Engle-Granger critical value at a 10% level of significance is 3.04

With regard to the interpretation of the above table, we used the Enger-Granger critical values at 10% level of significance. It is apparent from the results that the test statistics is less than the critical value, thereby accepting the null hypothesis of residual having a unit root. The results, therefore, implies that the series are not cointegrated and thus do not converge to a long-run equilibrium. Next, we apply the VAR Granger Causality test to check the direction of the relationship between the variables.

Considering the results of unit root with a structural break, we found out that the series was, in fact, a mixture of I (0) and I (1). Since none of the series was insignificant at I (2) we could not apply ARDL Bound Testing as this could have to lead us to spurious results. Hence, the Toda-Yamamoto Model for causality was considered since this methodology could be applied to series with different orders of integration [say I(0) and I(1)].

Diagnostic Test of the Model

Here, the classical VAR model was preferred to check the Granger causality relationship. Before employing

the VAR model, appropriate lag length was chosen using different information criterion. The results of which are shown in Table 6 below:

Table 6: VAR Lag Order Selection Criterion

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-58.5468	NA	0.057291	2.816132	2.898048	2.846340
1	112.7755	318.7392*	2.39e-05*	-4.966301*	-4.720552*	-4.875677*
2	115.3199	4.497092	2.56e-05	-4.8986	-4.48902	-4.74756
3	118.7108	5.677801	2.65e-05	-4.87027	-4.29686	-4.65881
4	120.9892	3.603038	2.89e-05	-4.7902	-4.05295	-4.51832
5	125.6085	6.875294	2.83e-05	-4.819	-3.91792	-4.48671
6	126.0596	0.629420	3.39e-05	-4.65394	-3.58902	-4.26123

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

The difference information criterion is used to select the appropriate lag length of the model such as AIC, SC, HQ etc. By looking at Table 6, lag 1 is coming out to be most appropriate as confirmed by all the

information criterion. In order to check the stability and fitness of our model, the issues of autocorrelation, constant variance and normal distribution were checked for the optimal lag.

VAR Residual Serial Correlation LM Test and Heteroskedasticity Tests

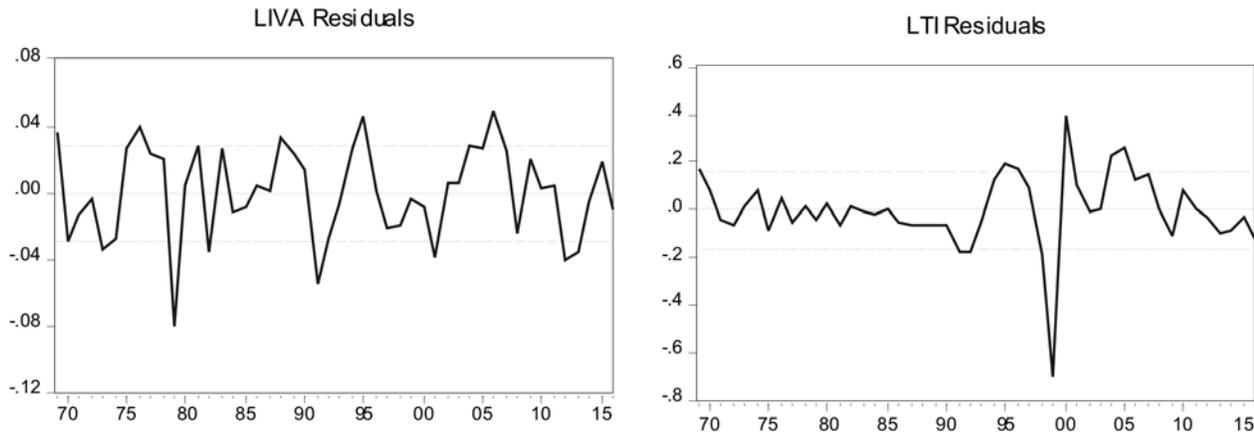
Table 7: Diagnostic Test		
Test	Value of test statistic	Probability
Serial Correlation Test (LM-Stat)	4.713393	0.3180
Heteroskedasticity Test (Chi-sq)	13.82243	0.3122

The results of the above Table 7 reports that the probability of the test statistic is greater than 5% level of significance, thereby accepting the null hypothesis of no serial correlation and no heteroskedasticity. In this situation, we can conclude that this model is of a good fit.

Normality Test of Residuals

In order to check the normality condition of the residuals, graphs of residuals of the series were obtained as shown in the below Graph 1:

Graph 1: VAR Residuals



By looking at the graphs above, one can say that the residuals of LIVA (log of industrial value added) and LTI (log of technological innovation) are showing normal behaviour apart from a few spikes. We see while plotting the graph of technological innovation a major plummet in the year 1999-2000. The reason behind this is that during the year 1999-2000, industrial growth was low, agricultural productivity

was low and even export growth was low. All these lead to a decline in technological innovation as well.

Stability Test of the VAR Model

For a VAR Model, the stability condition requires that the roots of the characteristic polynomial should be less than one. The results are shown below in Table 8:

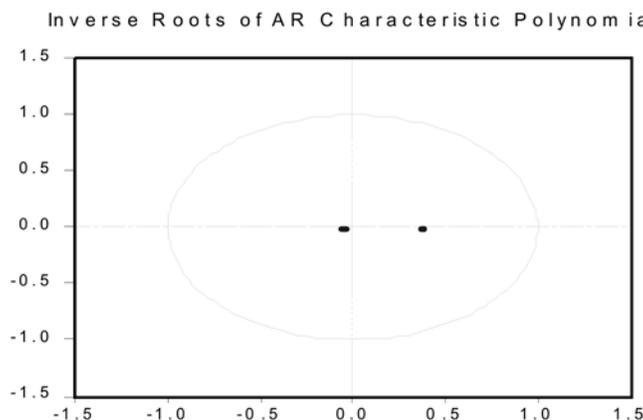
Table 8: Roots of the Characteristic Polynomial

Root	Modulus
0.374879	0.374879
-0.054041	0.054041

The table above reports the modulus of both the roots is less than 1. Also, since no root lies outside the unit circle as shown in below Graph 2, a conclusion can

be made that the VAR Model satisfies the stability condition.

Graph 2: Inverse Roots of AR Characteristic Polynomial



Given that our model passes all the diagnostic tests, we conclude that our model is a good fit and can be used for further analysis.

Causality Tests

Granger Causality Test: Based on study findings, wherein the unit root test without structural break

estimated series to be I(1), the Granger Causality test to the bivariate VAR has been examined and results are reported in the below Table 9. If the series is I(1) but not cointegrated, causality test may give misleading results unless the data are transformed to induce stationarity (Sekantsi & Thamae, 2016).

Table 9: Granger's Causality Tests

Null hypothesis	Chi-Sq (χ^2)	Dof ^a	p - value ^b
Non causality LIVA => LTI	6.315990	1	0.0120
Non causality LTI => LIVA	0.425654	1	0.5141

Note: ^a Degrees of freedom; ^b Acceptance Probability

As per the table, the LR ratio statistic for the test of non-causality from technological innovation to industrial growth which is asymptotically distributed as a chi-square variate with one degree of freedom is clearly not statistically significant. While testing the non causality from industrial growth to technological innovation, the observed LR statistic (follows a chi-square distribution with 1 d.o.f) 6.315990 is found to be statistically significant. This indicates the existence of short-run causality running from industrial growth to technological innovation with the absence of any feedback effect.

Toda-Yamamoto Causality Test: Based study findings, wherein the unit root test with structural break estimated series to be a mix of I(0) and I(1), the Toda-Yamamoto Granger Causality approach is

utilized to determine the direction of causality between industrial growth and technological innovation since this approach is valid regardless of whether a series is I(0), I(1) or I(2), non-cointegrated or cointegrated of any arbitrary order Wolde-Rufael(2005). The results of unit root with a structural break in Table 4 indicated that the maximum order of integration is 1. After determining the maximum order of integration, the next step is to determine the optimal lag length as explained in the methodology section. The optimal lag length as shown by different information criterion in Table 6 above came out to be 1. Finally, the results of Granger Causality based on the Toda-Yamamoto estimated by the MWALD test with a lag length of 2, that is, $(k + d_{\max})$ equal to 2, are reported in below Table 10:

Table 10: Toda-Yamamoto Causality (modified WALD) Test Results

Null hypothesis	Lag (k)	Lag (k+d _{max})	Chi-Sq	p -value	Direction of Causality
LTI does not Granger Cause LIVA	1	1+1	1.002468	0.6058	LTI # LIVA
LIVA does not Granger Cause LTI	1	1+1	15.13060	0.0005	LIVA '! LTI

Note: LTI is the log of Technological Innovation; LIVA is the log of Industrial Growth

: $(k+d_{\max})$ denotes VAR order

: '!' denotes one-way causality

: # denotes no causality

: Eviews 9.0 was used for all computations

The Toda-Yamamoto Granger Causality also indicates that we can reject the null hypothesis of no causality from LIVA to LTI and conclude that there

is a one-way causality running from industrial growth to technological innovation without any feedback effect.

Conclusion and Policy Implication

A strong industrial sector coupled with growth-oriented industries, conducive tax policies encouraging business and investment growth, promoting inclusive employment intensive industry and building resilient infrastructure are crucial factors for the overall economic growth and development. In order to push industrial productivity and growth, it is necessary to enhance the competitiveness of industry by reducing the cost of infrastructure such as power, strengthening ease of doing business environment, easing regulatory/compliance burden, reducing the cost of capital, improving labour productivity, skill development, among others in the coming times.

Technological innovation is regarded as a major force driving the economic growth and development of a country. In order to maintain a competitive edge in today's world, technological change is imperative and requires constant monitoring to keep up with the pace of a fast-moving economy. Indian industry has been progressing towards adopting new and advanced technologies. However, the faster mechanism should be adopted as inefficient technologies led to low productivity and higher costs adding to the disadvantage of Indian products in international markets. Advances in technology result in the emergence of new activities and bring changes to the existing system. One of the significant developments these days is of the industry 4.0, which is expected to impact all the industries. However, appropriate use of new technologies needs to be adopted to ensure greater productivity and competitiveness.

The study investigated the causal relationships among the technological innovation and industrial growth for India over the period of 1968-2016 by applying the standard Granger-causality test and the Toda-Yamamoto approach of causality. The Engle-Granger's cointegration method results indicated the absence of a long-run relationship between innovation and industrial growth. Granger causality test reveals the unidirectional short-run causality running from industrial growth to technological innovation. The finding of the Granger causality tests supports the results obtained in the Toda-Yamamoto approach in our study. The findings obtained from this empirical analysis have an imperative policy implication for a developing country like India as well as other developing countries.

The empirical findings of this paper challenge the generally accepted notion that it is the technological innovation (patents count) which triggers the industrial growth of any country. The reason being that patents play an important role in providing incentives to the industry in order to create new technology, commercialize their inventions and thereby increasing investments leading to industrial growth. Also, as the number of patents granted increases, it leads to greater FDI inflows and trade (Mukherjee & Chawla (2018)). But in the case of India, we see the absence of this causality. The several reasons for technological innovation not resulting in industrial growth could be (i) less investment in Research and Development fund: Idea generated is not converted into an application that will lead to more growth (ii) lack of persistence of idea: Generally innovation takes some time to show the result. There is a gestation period of every idea and perfect innovation out of several ideas needs continuous persistence. It is seen in general that Indian Industries lacks this persistence (iii) Lack of Vision: Most industries are looking for that kind of innovation that will give them profit immediately. But they have myopic vision. They are not thinking about long-term profitability which hinders long-term sustainable growth.

The finding of this paper instead suggests a reverse causality running from industrial growth to technological innovation in India **supporting the "demand-led" or "market-pull" approach to innovation** rather than the "technology-push" approach to innovation. There are two rival views in the literature regarding the source of technological innovation: (a). The first and older view is associated with the **Schumpeterian idea** (Schumpeter, 1975) that it is the progress in basic sciences or the supply of technology which determines the rate and direction of innovation. There is thus a transmission of knowledge from basic sciences to applied research that results in the design, development, and commercialization of new products (Nemet (2009)). Hence, in the "technology-push" approach to innovation, the causality runs from R&D intensity/Patents to technological change. (b). The second view is the "market/demand-pull" approach to innovation influenced by the study of **Schmookler (1966)**. This view says that it is the demand or needs of the customers that drive the emergence of new products. This approach suggests that both inventive activity

and innovation are pro-cyclical. Hence, with a rise in industrial growth, the demand in market increases which further triggers the demand for innovative products with low cost of production implying the causality running from industrial growth to technological innovation. Therefore, **the findings of our study support the “demand-led” or “market-pull” approach to innovation.**

In conclusion, there is a need to boost manufacturing and startups, strengthen startups, investments and availability of capital for industrial growth plus to bring effective financial reforms for the speedy growth of industry and the overall economy. Also, there is a need to bring incentivize and boost indigenous manufacturing with the availability of low costs of operation which would further promote production and employment generation and boost industrial growth in the near future. One of the major factor required to become globally competitive is through major investment in technological upgradation and research and development. Research and Development and innovation should be promoted across the board helping Indian businesses/firms increase their R&D spends and startup ecosystem need to be encouraged and facilitated in the longer run for budding entrepreneurs. There is an urgent need to strengthen the linkage between academia, research institutions and industry, in order to fulfil the industry demands for producing innovative outputs. The thriving innovation ecosystem that provides appropriate support at the right stage of innovation, strengthen and diversifying information technology industry focusing on commercialisation of innovation – incubation and acceleration, among others should be focused in the coming times. From the policy point of view, since it is expensive for a developing country like India to import new technology, the need of the hour is to have an updated and improved integrated innovative-industrial policy which would help to reduce the production cost thereby increasing the Industrial growth of a country.

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Endnotes

1. Refer (OECD and Eurostat, 2005)
2. A Report by (India Brand Equity Foundation)
3. See (Dutz et al., 2007)

Globalisation with Responsibility: Impact of Globalisation on Human Rights

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Abstract

Protection of basic human rights is one of the most pressing and elusive goals of any nation. The developmental initiatives of a nation, therefore aims at the ultimate welfare of its citizens. The socio-economic consequences of globalisation are mostly anti-poor and anti-marginalised in nature in India. It is therefore important to strengthen the human face of globalisation. The positive impact of globalisation on the growth and development of economy is remarkable, however, on the other side, it lacks normative principles of justice and humanity. Social and human rights responsibilities and values have rather neglected or sometimes been discarded and side-lined while economy aims for profit maximization. Globalisation, fuelled by profit-making deeds and serving business ends spills over a remarkable aura that has shaped the global trend to an unparalleled level. Economic dimensions of globalisation have acquired a status higher than human values or even above fundamental human rights, which are going to be seriously affected by current global trends. The claims of anticipated growth which was always been propagated by its proponents, like the alleviation of poverty or increase in prosperity, has not happened for the majority of world's population. Compromising human freedom and dignity to the considerations of business is too high price to be paid in the 21st century. It is in this context that the question of how to manage globalisation effectively and more people friendly acquires significance.

This paper mainly focuses on discussing the linkages between globalization and human rights, exploring the impact of globalisation on human rights and will conclude with a range of propositions, which could possibly be the best measures to deal with globalisation's negative impacts, which would not impede globalisation but would make its players more accountable and socially responsible.

Keywords : Globalisation, Human Rights, Developing Economies, Welfare, Global Village, Profit Maximization, TNCs

Introduction

Globalization, a source of great dynamism, is a major development process that creates greater economic, political, social, and cultural interactions across the globe. It is conceived as turning the whole world into one global village in which all people and institutions are increasingly interconnected and all the fences or barriers are removed. It further portrays our daily life as living in a world where interactions across borders appear significantly greater and faster than in the past, and which can be attributed to certain advancements in technological, social, and economic

organization of humanity. The trend, at present, is a shift from a world economy based on national market economies to a borderless global market economy increasingly governed by one set of rules.

Globalization including its various dimensions – from political to economic, social, cultural, and technological – is defined in varied ways. *Giddens* states globalization as something where 'local happenings are shaped by events occurring many miles away'. *Dunning* explains globalization as 'connectivity of individuals and institutions across the globe'.

The protection of basic human rights is the major goal of any nation. All the developmental initiatives adopted by the nation are ultimately for the welfare of its citizens. Human Rights, defined in a basic manner means the inalienable rights that every individual holds irrespective of his individuality or any national boundaries but it does have a wider meaning involving dignity and provision of proper means to livelihood. Owing to Globalization, there has been tremendous loss of livelihood among the weaker sections engendering the breach of the fundamental right to livelihood and work provision. Globalisation, which propagates a paramount revolution in the development of a nation, seems to be a bane in many ways than a boon.

The 1990 UN Global Consultation on the Right to Development as a Human Right, stated that the right to development is an inalienable human right with the human being as the central subject to the right and that all the aspects of the right to development set forth in the Declaration of the Right to Development are indivisible and interdependent, and these include civil, political, economic, social, and cultural rights. It was further maintained that the right to development is the right of individuals, groups and peoples to participate in, contribute to, and enjoy continuous economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized. A development strategy that disregards or interferes with human rights is the very negation of development. Globalization increases the disparity between nations and reduces national governments' ability to protect their citizen. Important decisions concerning the development of the global company are made in international forums where the most powerful countries make decisions that are good for themselves but not necessarily in the public interest.

The role of TNCs in this globalized world has become too important to be ignored. TNCs are the economic entities or cluster of economic entities that do not confine their activities to one single state, but have multiple layers or ownership and control and simultaneously operate in several jurisdictions. The claims of anticipated growth and advantages of any nation and its people, which was always been propagated by its proponents, like the alleviation of poverty or increase in prosperity, simply has not happened for the majority of world's population.

Thus what actually happens is that, while profit maximization has become the core business of the TNCs, human rights are no longer significant.

Economic issues have, in effect dominated the social, cultural and political ramifications of globalisation. Therefore, it is worth to note that economic globalisation and the emergence of TNCs tend to have significant impacts on human rights. People are also well aware of its business-driven character, which has much impact upon their lives, especially the downtrodden sections of any society. In India, the socio-economic consequences of globalisation are anti-poor and anti-marginalised and hence it is an urgent need to strengthen the human face of globalisation.

Objectives

The major objectives of the paper are:

1. To identify the linkage between globalization and human rights
2. To understand the extent of violation of human rights due to globalization
3. To suggest some remedial measures for the protection of human rights in a globalised world

Methodology

The study is mainly descriptive in nature. It is based on secondary data which is collected from different sources available, including various books, journals, articles, publications, thesis works, government sites, etc.

Consequences of Globalization–Positives & Negatives

In the debate on the possible consequences of globalization, there are both positive as well as negative opinions. On considering a cost-benefit analysis, non-economists generally tend to oppose globalization as they expect the costs associated with globalization to exceed its benefits, particularly in developing countries. On the contrary, supported by a number of empirical studies, most economists strongly believe the net effect of globalization is positive. It is true that globalisation produces winners and losers between and within states. Looking closely at the impacts of globalization on

developing countries, one would observe both sides of the coin, in that it has both positive and negative impacts.

Positive Impacts:

Globalisation is a reality and an unavoidable factor in the present day world system. Like any new initiatives or development policies, it has also its good and bad sides. Even though this new system has affected many in numerous ways, its incredible positive impacts to the nation as well as its people cannot be ignored. Some of the positive impacts due to globalisation are discussed below:

- Globalization is considered as a positive development as it will give rise to new industries and more job opportunities in developing countries.
- Globalization facilitates advanced industrialization in developing countries, and has thus reduced global income inequality
- Globalisation facilitates more access to capital flows, technology, human capital, cheaper imports and larger export markets
- Economic globalization, in terms of trade liberalization, was found to be effective in increasing productivity and institution-building in societies, which leads to faster economic growth
- Globalization also boosts the competition between countries all over the world as well as within any particular country.
- Globalization paves the way for forming closer bonds with the rest of the world and facilitates wider worldly exposure. It creates greater opportunities for firms in less industrialized countries to tap into more and larger markets around the world
- There is sufficient access to foreign funding from industrialized nations to developing countries to reduce poverty, which is one of the main goals of globalization. And the spending of these funds on improving the education, health, social, and transport infrastructure of the developing nations also aids in improving the standard of living of the people.

- Through globalization, the whole world is opened and the developing countries now have access to new markets, especially through the inflow of foreign direct investment to developing countries.
- Globalization helps in bringing different governments together so that they can work together towards achieving common goals; which is a great way of spreading global awareness regarding common concerns and issues.

Negative Impacts:

The debate on the pros and cons of globalisation is long lasting and remains unresolved. This is mainly due to the fact that both positive as well as negative impacts of it are true or a reality which has to be accepted to a certain extent. In spite of all the positive impacts already discussed, there are many negatives due to globalisation, some of which are discussed below:

- The present picture is that globalisation is not truly global in its policies, as a large part of the world population remain excluded from the so-called benefits of globalisation, thus, polarising the world between impoverishment and prosperity.
- There always remains a fear that increased globalization may lead to loss of control over economic and political decisions, particularly in many developing countries and may also threaten their traditions, language, and culture.
- One of the most common and very serious drawbacks of globalization is that it is widening the gap between the rich and poor. The present situation is that the rich people are becoming richer and poor are becoming poorer. This is a very pathetic situation, especially observed in developing nations.
- Outsourcing is a major impact of globalisation. As a result of it, globalization may deprive an entire country of its jobs and resources. This is because globalization takes jobs away from one country and provides it to another country;

hence leaving lots of people without the opportunities that they deserve.

- Although people belonging to different cultures and countries get a chance to interact with each other, there is always a risk of some loss in tradition, values and cultural boundaries.
- Many times the competition is observed to be unhealthy. It seems to be between two incomparable powers, like between some poor retail sectors and the gigantic multinational companies.

Thus, it is very important and high time to strike the balance between the positives and negatives of globalization so that balance can be restored in nature and its living species, making life more smoother and better here.

Globalisation and Human Rights : Exploring Linkages

Globalisation and human rights are inter-linked in many aspects and are unavoidable from the point of view of the development of any nation. Global development is sometimes viewed as being responsible for disenfranchisement, exploitation, and other forms of human rights abuses. Globalization is often considered as a curse as well as a blessing to human rights. On the one hand, economic integration in trade and investment generates incentives for governments to abuse poor and disenfranchised people, so that repression, exploitation and human rights abuses arise. On the other hand, improvements in human rights are sometimes attributed to the spread of liberal ideas, which is one of the key dimensions of globalization.

With respect to human rights, proponents of globalisation make two important, interrelated claims: (i) the first is that globalisation will, through the spread of "free market" capitalism, generate economic growth, which in turn will lead to the eventual elimination of poverty throughout the world and; (ii) that this reduction in poverty will, ultimately, lead to the development of civil society constituencies who will, in time, advance claims for democracy and human rights. In this way, globalisation is presented as being a positive agent for the promotion of human rights and the general improvement of human well-being on a global scale.

These two propositions, taken together, constitute the "promise of globalisation".

Globalisation, defined in terms of free flows of goods, services, capital and financial resources across borders, is the single most important factor responsible for spreading the open societies across the world. This globalisation, with its multifaceted nature has made multifarious impact on human life. Human Rights, which are universal, inalienable and indivisible in nature, are obviously affected by this transition. Human rights have been very intrinsically related with the globalization policies in the world and have had immense ripple effects.

The mode of development in globalisation is inherently favourable to certain classes and nations, which shows clear discrimination in many aspects. It is quite true that mere creation of wealth does not ensure right to development for every human being. Democracy is considered as the best model of ensuring rights, to individuals as well as groups, facing many dilemmas due to this process of globalisation. But it seems that globalised model of development is weakening democratic movements and ability of democratic societies to protect human rights. The pity picture reveals that while a significant number of people live in conditions of extreme poverty and deprivation, another major part of the world population live in considerable affluence. Those underprivileged sections never feel the heat of globalization at all. They continue to remain poor & poorest as they were.

Human rights and the global economy might initially appear to be a quite odd combine, intended to oppose and diverge, with one concerned with human wellbeing, the other with economic wellbeing. But, if properly and efficiently administered and implemented, it can be viewed that the two intersects in terms of their goals, their operations and their institutions. Globalization as a concept is neither pro human rights nor anti human rights, but the fact is that it could offer opportunities for promotion of human rights as well as abridgement of human rights. It is the responsibility of the concerned authorities to decide whether globalization should be a boon for human rights or bane and take necessary steps or actions to make it as a system with responsibility and a fortunate development initiative for the society and the nation as a whole.

Impact of Globalisation on Human Rights

Globalisation has a fundamental impact on human life and their rights, and the debate of its good and bad remains unresolved. The positive impact of globalisation on the growth and development of the economy is remarkable, but the pity picture on the other side of the coin is one which is devoid of any normative principle of justice and humanity. Although most literature agrees that globalization is a current reality, the human consequences of globalization remain controversial. In aiming for the profit maximization, social and human rights responsibilities and values have sometimes been discarded and sidelined. It is a pity that human rights are likely to be influenced by any important change in social activity, such as economic globalisation. Globalisation fuelled by profit-making deeds and serving business ends, spills over a remarkable aura that has shaped the global trend to an unparalleled level. But it is as if economic dimensions of globalisation have acquired a status higher than human values or even above fundamental human rights, which are going to be seriously affected by current global trends.

Though the arrival of MNCs as a result of globalisation benefits the consumers and has some positive impacts on human rights, its involvement in human rights violation and also generating environmental and other such social hazards are well recognized. These corporations make enormous wealth, but they also create risks both to humans and to the whole ecosystem. The "international bill of human rights" holds states accountable for realization of human rights. But the situation in the contemporary era is that, it is the private global players that are frequently the most egregious violators of rights, and as far as their accountability is concerned they are accountable to none. Investment contributes to development, but the question is, for whose development and at what cost. It is the responsibility of the state to examine these questions in any developmental activities or initiatives. But it seems to be doubtful that states are able to exercise a reasonable amount of control over these critical aspects of development. The truth is that, most developing countries have simply not experienced the claimed benefits or any real benefit from the onset of globalisation. Its real fruits are being enjoyed only by the fewer powerful sections of the society.

Impacts of globalisation on human rights are multifaceted. It affects the human lives from different angles. Some of the major threats of globalisation on human rights are:

- a. It leads to widening the gap between the rich and the poor, making rich richer and the poor much poorer. The weakness of international rules, bad policies and weak governance in developing countries, and corporate practices which prioritise short-term profit over long-term human development undermines the capacity of poor countries and poor people to benefit from many globalisation policies and activities. In many times, economic liberalisation has been accompanied by greater inequality and people are left trapped in utter poverty.
- b. Many of the internationally proclaimed human rights underlined by the Universal Declaration of Human Rights (UDHR) have been violated due to globalisation and the emergence of TNCs. In their excessive thirst for profit-making, they completely neglect the value of human lives. The rights most likely to be violated by the TNCs include non-discrimination, women rights, life, liberty and physical integrity of the person, civic freedoms, employees rights, child labour, slavery, forced and bonded labour, right to food, health, education and housing and lastly, the environmental rights. All these are ignored with the advent of globalisation.
- c. The emphasis on competitiveness and economic development due to globalisation has had negative effects on such vulnerable groups like migrant workers, indigenous people, women, etc. as such, globalization has been cited as a major factor in violations of the right to life, the right to protection of health, the right to safe and healthy working conditions and freedom of association in many countries.
- d. Direct investments are more often found as an obstacle. Private companies often have the upper hand when it comes to foreign direct investment, and most

investments are only made if they are “investor friendly.” In practice, what happens is that the employee rights or protection from forced displacement fall by the wayside. For example, thousands of families are forcibly resettled by mining companies, especially by those that work in mountaintop removal. Often this is done without adequate compensation. This is a clear violation of human rights. Local or regional governments and monitoring bodies are often tainted by corruption and do not pursue reports of abuse.

- e. Another major impact is that these MNCs had greatly influenced the government policies and deteriorated the powers of the government, especially in developing economies. Multi-national organizations, through the rapidly created “global environment” have utilized their resources and influencing capacities to weaken the power of local governments and have had much threatening effect through large-scale displacement of masses, job cuts and poverty.
- f. Globalization has also resulted in informalization of labour. Only 8% of the labour force in India is in the formal economy while 90% work in the informal economy with no legal protection or security and are subject to different kinds of ruthless exploitation.
- g. Also, it can be noted that the gap between international laws and practice is getting wider. This points to the fact that those laws which are made for the protection of human rights are only in paper and not in actual practice.
- h. The authors of Global Issues states that globalization has a negative influence on humanity as it seems to be resulted in the violation of the fundamental right to work. In 1995, the ILO announced that one third of the world’s willing to work population was either unemployed or underemployed.
- i. Many companies, including TNCs got rid of their unionized labour force and moved

their operations to low wage and depressed areas to avail themselves of the large supply of unorganized and unprotected, mainly female labour. Mathews George Chunakara describes the state of workers in developing countries after globalization as a race to the bottom, and the bottom means slave like conditions.

It is a fact that globalisation is an unavoidable and a necessary advancement in the present world scenario and also human rights play important roles to ensure the survival of TNCs and their business ends. The only question to ask therefore is how to manage globalisation effectively and more people friendly. This will make us to think about the solutions and measures to solve negative human rights impacts posed by economic globalisation.

Suggestions for Globalisation with Responsibility

In a resolution on the question of the impact of globalization and its effect on human rights, the United Nations General Assembly recognizes that: ‘while globalization offers great opportunities, the fact that its benefits are very unevenly shared and its costs unevenly distributed represents an aspect of the process that affects the full enjoyment of all human rights, in particular in developing countries’. The United Nations General Assembly emphasizes that: ‘While globalization, by its impact on, inter alia, the role of the state, may affect human rights, the promotion and protection of all human rights is first and foremost the responsibility of the state’.

Members of the world Trade Organization when negotiating and implementing international rules on trade liberalization should bear in mind their concurrent obligations to promote and protect human rights, mindful of the commitment made in the Vienna Declaration 1993 that human rights are the first responsibility of governments. While the WTO agreements provide a legal framework for the economic aspects of the liberalization of trade, the norms and standards of human rights balance this by offering a legal framework for trade liberalization’s social and ethical dimensions. The human rights violations resulting from globalization are failures of governance. Human rights law is capable of monitoring and regulating foreign

investment. Respect for human rights requires governments to protect, promote and fulfill obligations.

It is to be kept in mind that managing globalisation is about identifying, establishing and adopting policies and initiatives to minimize the negative effects of globalisation whilst at the same time harnessing its positive effects. The truth is that globalisation is indeed an inevitable and present reality and hence the needed necessity is of developing effective strategies for addressing its consequences.

- In this regard, it has to be considered that states and the international community have a duty to respect, protect and guarantee human rights. That means they have to keep an eye out for situations in which private companies or other actors stand in violation of these rights. They also have a duty to guarantee particularly disadvantaged groups, their human rights, using whatever resources necessary.
- The TNCs will have to ensure that they are “socially responsible entities” within the society in which they operate. They should be made aware that human rights is the fundamental aspect in any nation and all the development policies adopted are ultimately for the welfare of the nation and its people.
- There are greater role for human rights activists in this regard. Human rights activists, politicians and academics all over the world are now calling for private actors to respect and protect human rights in their fields of responsibility.
- Another possible measure is by imposing legally binding rules on the TNCs by which human rights are never violated. Every state has a duty to control the operations of the TNCs operating within their jurisdictions and ensure that human rights are well protected, since state has the responsibility to protect human rights in all its aspects.
- Also, globalisation process, mainly through TNCs should be given proper guidance to

instil human rights principle within their working environment so that the human rights will never face any threat. It is therefore important to restate that the most crucial issues with regard to managing globalization from the perspectives of developing economies are the evasion of marginalization and the eradication of poverty.

- The widening gap between the laws and practice must be seriously addressed and removed. Those laws which were made for the protection of human rights in the globalised world should be properly implemented and any flaws on the same should be addressed with utmost care.
- Media plays a major role these days, in drawing attention towards those parts of the world where human rights are violated for the benefit of the rich and powerful. The reach and influence of media and the increased media coverage helps in bringing timely measures and thus will definitely leads to improvement in human rights.

It becomes relevant that the nation must have the obligation to ‘*respect, protect and fulfill*’ the basic human rights on the socio-economic matters while assessing the impact of globalisation. The global economy and human rights are two most prominent features as far as any economy is concerned. But as each keep on to strive for attention, the best bet for victory lies in ensuring the success of each other. Thus, managing globalisation means adopting policies and initiatives to minimize the negative effects of globalisation whilst at the same time harnessing its positive effects.

Conclusion

In the era of globalization, the struggle for human rights has become more complex and challenging. Realizing human rights, especially economic and social rights are becoming increasingly difficult. Globalization could, in fact, help in the realization of human rights. However, what is needed is that the process of globalization needs to be harnessed to suit the interests of human rights. The primary onus, in this case is on the architects and actors of globalization who present globalization

as a panacea for anything and everything. Thus the need of the hour is nothing but to take up the best measures that would deal with the negative impacts of globalisation, without impeding it, but would make its players more accountable and socially responsible. Without addressing the issues of common man, there is no meaning to development and democracy in India. Thus, what is required or more important is maintaining balance between globalisation and protection of human rights. The real challenges that we face is to understand better the emerging socio-economic forces and forms of globalization, to shape them to serve our needs and to respond effectively to their deleterious consequences.

Business needs human rights and human rights needs business. The rationale behind this is that business cannot prosper in an environment where fundamental human rights are not respected. Hence, any issue affecting human rights should not be seen as insignificant by business and corporations, as acquiescence to human rights principles will reflect their reputations and thereby existence in an economy. Thus, the TNCs should take each and every step with extreme care and prudence. In fact, only after the least advantaged can taste the promised benefits, could one legitimately claim that globalization has a human face or that it is an "indisputably" good thing, not just for the selected few but for everyone. An ethic of responsibility, thus, shifts the focus towards challenging the unfair initiatives as part of globalisation that abuse the universal human rights regime to perpetuate poverty and injustice worldwide and offers practicable remedies or solutions to the problems at hand. Accordingly, globalisation with responsibility is the most appropriate way out.

Human rights are what make us human. They are the principles by which we create the sacred home for human dignity. The achievement of human rights and social justice is of superior value than the protection of free markets and profit making. With this principle in mind, we can help ensure that globalisation will advance human rights with responsibility. The notion that should guide all of us in this process is that human dignity and freedom are beyond profit. These are the only values that make our life being worth of survival.

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Factors Influencing Job Seeker's Intention to use E-recruitment: L Evidence from a State University in Sri Lanka

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Abstract

With the advent of Internet Technology, the way of executing Human Resource Management function has been dramatically changed over the past. Shifting from traditional way of (labour intensive) delivering human resource management function towards more efficient, cost effective means (technology intensive) has now become the key consideration of the human resource management literature. Many firms now use electronic recruitment (e-recruitment) rather than conventional method of employee recruitment. Moreover, potential job candidates are more interested in searching and applying for job openings through internet. For the purpose of generating appropriate applicant pool, firms tend to develop attractive, content rich, easy to use and user-friendly recruitment through their own website or via job portals. However, the effect of the e-recruitment on candidates' intention to apply for the job is under studied in the Sri Lankan context. Thus, the objective of this paper is to explore the impact of e-recruitment on candidates' intention to apply for the job openings. Since undergraduates are intensively used internet to search for job openings, 60 undergraduates those who study in final year are surveyed through self-administered questionnaire. Simple regression reveals that ease of use and perceived usefulness significantly influences on job seekers' intention to use e-recruitment. And also perceived trust has no impact on job seekers' intention to use e-recruitment. The findings of the study would be important to the firms to effectively carry out e-recruitment to optimize the appropriate pool of applicants and to design an attractive job portal.

Keywords: E-recruitment, Job Seekers, Labour Intensive, Technology Intensive

Introduction

Recruitment of employees is at the core of the Human Resource Management (HRM) process and it plays a very important role in an organizational scenario. In the human resource management field, recruitment is the process of finding and acquiring the most suitable candidates for the vacancies of the organization at the right time and in a cost-effective way. In order to achieve the recruitment goals, recruitment programs should arrange so that the qualified candidates attract to the job openings. The traditional recruitment methods should be replaced with most technologically advanced recruitment methods to achieve recruitment goals. To survive in this competitive market, companies should have to

adopt to the internet technology, especially in finding the suitable candidates to fill crucial positions in a company. According to Busser and Davis (2001) as cited in Troshani, Jerram and Gerrard (2010), changing traditional recruitment methods into online recruitment methods now became the latest trend in the recruitment process. The presence of electronic human resource management (e- HR) has increased since the mid-1990 (Boudauouk & Ruel, 2005). Hadlogten (2009) as cited in Alsultanny and Alotaibi (2015), the first introduction of the internet as a recruitment tool was in the mid-1990s.

In recent years, e-recruitment is becoming the most effective and efficient way of hiring potential

employees. According to Ensher, Nielson, and Grant-Vallone (2002) as cited in Galhena and Liyanage (2014), transformation of conventional ways of (labor intensive) executing HRM function towards more efficient, cost-effective (technology intensive) ways has become the key consideration of HRM.

Online recruitment (OR) also called as e- recruiting, cyber recruiting or internet recruiting, which is a formal way of sourcing job information online (Galanaki, 2002). E-recruitment is a novel concept to some extent. When the extensive increase of the use of internet at universities and IT companies, the systematic reference to the e-recruitment in the HR journals begins in the mid-1990s (Monavarin, Kashi, & Ramin-mehr, 2003). Since the newness of the e-recruitment concept, the consists of e-recruitment differ according to the different authors; for example e-recruitment can be defined as online advertising of companies' job vacancies (Galanaki, 2002), as a way of identifying and attracting potential candidates by using the internet (Parry & Wilson, 2009), or as a recruitment tool through the internet (Reddy, Mamatha, & Balaram, 2018) However, those definitions narrowly explain the expanded use of the internet as a source of recruitment. Holm (2010) comprehensively defines e-recruitment as "organization of the recruitment process and activities, which, by means of technology and human agents, facilitate time- and space-independent collaboration and interaction in order to identify, attract, and influence competent candidates".

Since globalization is spreading all over the world Sri Lanka is being also affected by it and the challenges faced by organizations under the recruitment remain same as the global context, the use of efficient systems like e-recruitment is also an emerging need in Sri Lanka (Vivek, 2018). Furthermore, Vivek (2018) stated that Sri Lanka still has not a considerable movement towards online recruitment, even in the present situation, there are few large companies including multinational companies practicing posting job openings on corporate websites and the less number of sophisticated job board like Topjobs existing.

Changing the individual's mindset and behavior towards new initiatives is usually not an easy task, because of the novelty of e-recruitment concept in the HRM field, job seekers still rely on traditional recruitment methods (Galhena & Liyanage, 2014).

The aim of this study is to examine the factors affecting to adaptation of the e-recruitment which could be useful for organizations and recruitment firms. Many empirical studies on online recruitment adaptation have tested the Technology Acceptance Model (TAM) developed by Devis (1989) and proved that this model is appropriate to study behavioral intention on e-recruitment of job seekers. TAM is the most used model in IT literature (Monavarin, Kashi, Ramir-mehr, 2010).

Alsultanny and Alotaibi (2015) stated that, in order to search a job via the internet, around 4 million people open their web browser every day. Many researchers recently highlighted that the importance of online recruitment to reduce time and cost while it supports to acquire a large pool of potential candidates as a recruitment method. However, Vivek (2018) stated that until recent years, it was hard to see any significant movement towards internet-based recruitment and selection system (e-recruitment method) being widely used in Sri Lanka. Furthermore, the effect of the e-recruitment on candidate's intention to apply for the job is understudied in the Sri Lankan Context (Galhena & Liyanage, 2014). Therefore the purpose of this study is to explore the factors affecting job seekers' intention to use e-recruitment.

Research Context

As Peter (2001) cited in Tong (2009), stated that generally, there are two categories of jobseekers: active and passive. Passive job seekers are those employed jobseekers that already have a good position but will apply if they see another job of interest, whereas active candidates may include the dissatisfied, less employable job seekers and passive candidates are of higher quality than active candidates. Furthermore, Tape (2011) as cited in Alsultanny and Alotaibi (2015) especially, job searching through the internet is a totally common phenomenon among the students.

Sarks and Ashforth in 1999 as cited in Liyanage and Galhena (2014) stated that active job searching behavior can be identified among the fresh graduates. Accordingly, this study was conduct based on the undergraduate of University of Kelaniya. Today, the University of Kelaniya is one of the major national universities in Sri Lanka which has a proud history of more than 125 years with a

vision of to become a centre of excellence in creation and dissemination of knowledge for sustainable development. And mission of the university is to nurture intellectual citizens through creativity and innovation, who contribute to the national development.

Majority of final and third-year students of University of Kelaniya are engaging with internship programs due to it is mandatory for them to participate for it. Even though their mandatory

training period over, some students continue their training program for the purpose of gaining work experience. And also some university students engage in permanent jobs while they fulfill their academic requirements. Hence university students often use various recruitment methods for finding a job. Therefore it is important to examine the job searching behavior in university students.

According to the UGC annual report - 2016, total graduate output was 33,072 in 2015. Bellow table shows the graduate output for 2011 to 2015.

Table 1 Graduate Output by Faculty / Academic Stream 2011-2015

Academic Stream	2011	2012	2013	2014	2015
Arts	10691	4623	9192	14651	16387
Management & Commerce	4550	1422	4186	5982	5152
Law	348	445	454	496	337
Medicine	1061	1031	547 (1)	1209	1145
Dental Science	65	20	73	68	79
Veterinary Science	58	54	59	57	69
Agriculture	616	724	828	867	710 ⁽²⁾
Engineering	1346	758	1507	1438	1344
Architectute & Quantity Surveying	211	228	201	214	77 ⁽³⁾
Computer Science	581	587	682	917	1043
Paramedical Studies	302	60	361	399	264
Science	2621	1646	2736	2740	2711
Indigenous Medicine	192	113	168	175	227
Total	22642	11711	20994	29243	29545

Notes:

- (1) Only repeat exams, no main exams in this year.
- (2) No output from Eastern & Uva Wellassa Universityes.
- (3) No output from Bachelor of Architecture, Quantity Surveying & Facilities Mangement programmes.
- (4) Number gradvated has been decreased in 2012 as final exams have not been held in several faculties due to Academic and Non-Academic strikes in 2012

Source: UGC Annual Report-2016

Above table (Table 1) shows that majority of graduates represent the faculty of art and faculty of management-commerce. As well as most of the

unemployed graduates belong to this facultie's' degree holders. Therefore, their job searching intention is high.

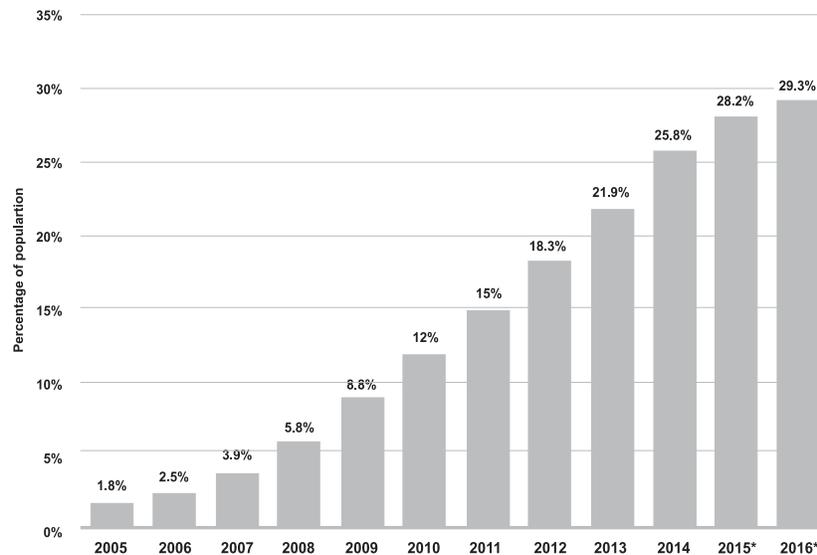
Problem Statement

Many researchers recently highlighted that the importance of online recruitment to reduce time and cost for both job seekers and companies which use e-recruitment as recruitment method. However, Vivek (2018) stated that until recent years, it was hard to see any significant movement towards internet-

based recruitment and selection system (e-recruitment method) being widely used in Sri Lanka. Furthermore, the effect of the e-recruitment on candidate's intention to apply for the job is understudied in the Sri Lankan Context.

As below figure shows the internet penetration rate in Sri Lanka from 2005 to 2016 has rapidly increased.

Figure 1 Internet penetration rate in Sri Lanka From 2005 to 2016



Source: (Internet Live Stats: www.InternetLiveStat.com)

According to the above figure, approximately 29.3% Sri Lankan population had access to the internet in 2016. Even though, it is difficult to find statistics results regarding increase of e-recruitment usage in the Sri Lankan context, it can be seen that the job seekers tend to use e-recruitment as a job searching tool. E-recruitment websites designers and organizations should have sound understanding about the factors drives job seekers intention to use e-recruitment. Therefore, this study focus on finding out *What factors affecting to job seekers intention to use e-recruitment in Sri Lankan context.*

Objectives of the Study

General Objective

The purpose of this study is to examine the factors affect to job seekers' intention to use e-recruitment.

Specific Objectives

1. To identify the impact of Perceived Usefulness (PU) on job seekers' intention to use e-recruitment.

2. To identify the impact of Perceived Ease of Use (PEOU) on job seekers' intention to use e-recruitment.
3. To identify the impact of Perceived Trust (PT) on job seekers' intention to use e-recruitment.

Research Questions

1. Does the Perceived Usefulness (PU) positively impact on job seeker's intention to use e-recruitment?
2. Does the Perceived Ease of Use (PEOU) positively impact on job seeker's intention to use e-recruitment?
3. Does the Perceived Trust (PT) significantly impact on job seeker's intention to use e-recruitment?

Literature Review

Literature on e-recruitment

Recruitment plays a key role to achieve strategic goals and develop human capital within the organization (Cober, Brown, Blumental, Doverspike, & Levy, 2000). Recruitment can be defined as "practices and activities carried on by the organization with the primary purpose of identifying and attracting potential employees" (Baber, 1998, p. 5). E-recruitment is most open area to the internet technology in the field of HRM (Kashi & Zheng, 2013). It can be seen drastic increases in e-recruitment over the past decades. According to Galanaki (2002) as cited in Monavarian et al., (2010), stated that the term e-recruitment denote the formal way of obtaining job information online. E-recruitment is fairly a novel concept. Therefore, different authors have defined it as different ways. According to Borstorff, Marker and Bennett (2006) as cited in Monavarian et al.,(2010), "Online recruiting is the process of recruiting through company websites or commercial job sites that promotes employment opportunities and retrieves potential employee information".

Barber (2006), from Institute for Employment Studies (UK) as cited in Kumar and Priyanka (2014), studied the benefits and challenges of Internet recruiting. The article concludes that access to a wider pool of applicants and promotion of a company's reputation and brand are frequently mentioned by HR specialists who analyze the strengths of the e-recruiting.

Pin, Laorden and Saenz-Diez (2001) as cited in Kumar and Priyanka (2014), recorded that 167 firms in Europe in which 83% were showing higher performance and were using online HR practices. In those firms 44% were those who used e-recruitment to attract candidates for vacant positions.

Galanaki (2002) had conducted a descriptive study on the decision to recruit online, involving 99 UK IT companies whose shares were traded in London stock exchange. A survey was carried out, in the form of a postal questionnaire, followed by an interview in which 34 companies replied. The author found that internet agencies provide the company with fewer but substantially better applicants than traditional recruitment agencies.

According to the finding of previous researches it is shown that in a global context using e-recruitment as a recruitment tool has consistently increased. As well as most job seekers adopted to the e-recruitment methods rather relying on traditional recruitment methods.

When it comes to Sri Lankan context, several companies have been established e-recruitment especially for publishing companies' job openings. Job seekers are keen to such websites since it provides collection of job openings (Liyanage & Galhena, 2014)

However, Weerakoon & Gamage (2012), stated that e-recruitment is understudied in Sri Lanka context. And also the effect of the e-recruitment on candidates' intention to apply for the job is understudied in the Sri Lankan context (Liyanage & Galhena, 2014).

This paper develops a research model based on the technology acceptance model (TAM) to study the factors affecting to job seeker's intention to use e-recruitment.

Technology Acceptance Model

The technology acceptance model (TAM) is widely applied in studies of Internet-related behavior (Cho, Lee, & Liu, 2011) and it is one of the most influential approaches to explain and predict user acceptance of information systems (Davis, 1989). TAM has become one of the most widely used and empirically validated models within information systems research (King & He, 2006).

According to Davis (1989), the goal of TAM is to provide an explanation of the determinants of computer acceptance that is generally capable of explaining user behaviour across a broad range of end-user computing technologies and user populations.

TAM has been extensively tested and validated by previous studies. Therefore, it is commonly accepted for the study of Internet-related behavior (Cho, Lee, & Liu, 2011).

Job seeker's Behavioral Intention

According to TAM, behavioural intention defines the actual use of a given IS system and therefore determines technology acceptance (Davis, 1989). In

the e-recruitment context, this study hypothesize that job seeker intention is determined by how users come to accept and use a technology in the perspective of behavior.

Usually, it is hard to adjust the individuals' attitudes and behaviors to familiarize into new initiatives. As e-recruitment is fairly new phenomenon in the HRM field some of job seekers are still highly relying on traditional recruitment methods. Hence, from the company standpoint, it is important to adjust the attitudes and behaviors of the potential job seekers and encourage them to use more on e-recruitment method (Liyana & Galhena, 2014).

Ng and Burke (2006) in their study on the next generation at work explored the views, career expectations, and job search behaviors among a sample of business students. The authors conducted a field survey involving 20,771 students across Canada to understand the views of university students on jobs, organizations, careers and perception of their organizations. The study using multiple regression analysis found that cooperative students appear to have more realistic expectation, have better insights into their own abilities and desires, and report higher self-confidence. It also reported that the respondents had low expectations that their campus career offices would get them a job, and expected to use the internet more frequently in their job searches. This suggested a shift away from traditional recruitment mediums to more contemporary approaches such as internet.

Perceived Usefulness (PU)

The first construct is perceived usefulness. Usefulness is considered to be the most important determinant of attitude towards usage of new technology and was defined by Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance". In a job-seeking circumstance, perceived usefulness of a Web site is the extent to which a job seeker believes that using the Web site will enhance his or her ability to acquire job information (Cho, Lee, & Liu, 2011).

Perceived Ease of Use (PEOU)

The second construct is perceived ease of use. Davis defined this as "the degree to which a person believes

that using a particular system would be free from effort" (Davis, 1989). Perceived ease of use is the degree to which a Web site is perceived by a job seeker to be easy to use in finding job information and thereby submitting his or her job application through the Web site.

Perceived Trust (PT)

Other than the perceived usefulness and perceived ease of use, the current study examines the influence of perceived trust on behavioral intention to use e-recruitment. Mayer et al. (1995) defined trust as behavioral, based on one person's beliefs about the characteristics of another person. Since, in a virtual environment, the degree of uncertainty of a transaction is higher than in a traditional setting, trust becomes an important factor. Therefore, Roca, Garcia, and Vega (2008) stated that the user's feelings of trust toward an e-service are an important determinant in considering his/her intentions to use, and usage behaviors related to any e-service. Furthermore, due to the increasing importance of data privacy and online security risk measures, it is deemed necessary to include the trust as a factor influencing job-seekers' intention to use online recruitment websites.

Literature on TAM Model

Cheng, Cheung and Change (2002) conducted a research to examine how customers perceive and adopt internet banking (IB) in Hong Kong. They developed a theoretical model based on the Technology Acceptance Model (TAM) with an added construct Perceived Web Security, and empirically tested its ability in predicting customers' behavioral intention of adopting IB. The results provide support of the extended TAM model and confirm its suitability in forecasting customers' intention of adoption of IB.

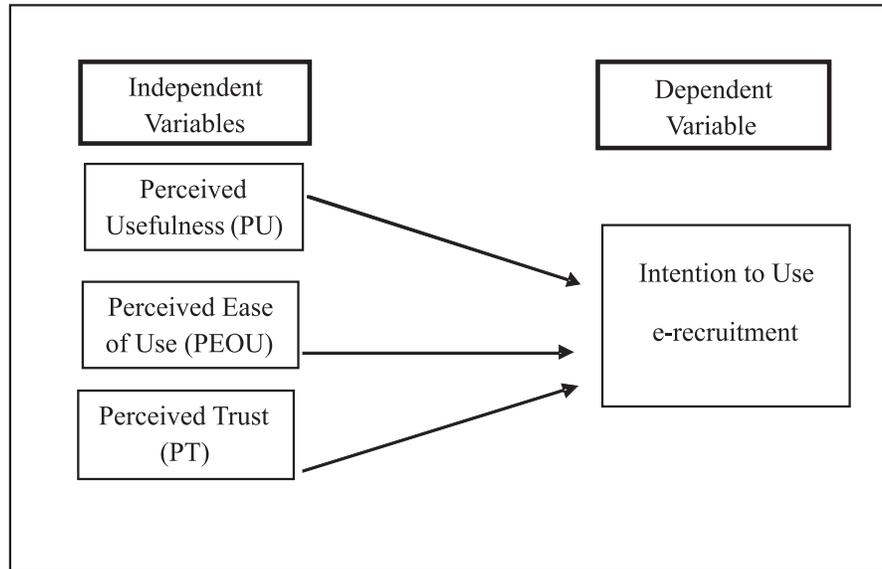
Gefen, Karahanna and Straub (2003) developed a model to understand online shopping acceptance among shoppers. According to the findings the consumer's intention to buy online depends on trust and the two beliefs identified by TAM which are perceived usefulness and perceived ease of use.

The study conducted in Malaysia by Tong in 2009, and modified Technology Acceptance Model (TAM) excluding the attitude construct as the core research

framework while identifying Perceived Privacy Risk (PPR), Performance Expectancy (PE), Application-Specific Self-Efficacy (ASSE), and Perceived Stress (PS) as key external variables that form the research model for the study of e-recruitment technology adoption. The results identified few key determinants to this technology adoption some of which include PS, PPR and PE.

Kashi and Zheng. (2013) used to extend TAM model to understand E-Recruitment acceptance in Iran. It was found that perceived usefulness played a more vital in determining the user behavioral intentions. It was also found that impression of the organizational website appeared to create interests in organization as a potential employer; hence, prompt applicants to apply for jobs.

Figure 2 Conceptual Framework



(Source: Developed by researcher based on TAM model of Davis, 1989)

Advancing of Hypotheses

Having considered to the evidences in literature recorded in this research, Perceived Usefulness, Perceived Ease of Use and Perceived Trust are recognized as the independent variables and the Job Seeker's Intention towards using e-recruitment is identified as the dependent variable.

To find out whether the relationships theorized in the conceptual research framework hold true, following hypotheses are drawn:

Let; H_A : Alternate Hypothesis

H_0 : Null Hypothesis

Hypothesis 1

$H1_A$: There is a positive relationship between Perceived Usefulness and Job seeker's intention to use e-recruitment.

$H1_0$: There is a negative relationship between perceived usefulness and Job seeker's intention to use e-recruitment.

Hypothesis 2

$H2_A$: There is a positive relationship between perceived ease of use and job seeker's intention to use to e-recruitment.

$H2_0$: There is a negative relationship between perceived ease of use and job seeker's intention to use e-recruitment.

Hypothesis 3

$H3_A$. There is a significant relationship between perceived trust and job seekers' intention to use e-recruitment.

$H3_0$ There is no significant relationship between perceived trust and job seekers' intention to use e-recruitment.

Overall Research Design

This study is named as "A study on factors affecting to job seeker's intention to use e-recruitment with special reference to final year undergraduates of University of Kelaniya in Sri Lanka". This is a quantitative type study which tries to find out the solution for the research problem of "What factors affecting to job seekers intention to use e-recruitment in Sri Lankan context ?" As the current study tries to test the formulated hypothesis and established relationships in the model, this work would be considered as an explanatory research. Further, this is a cross sectional examination as information will be gathered just in a specific purpose of time and it won't repeat. Additionally, researcher's obstruction will be least in the present investigation and in the meantime this will be a field think about. Unit of examination will be at the individual level; final year undergraduate of university of Kelaniya.

The study will be conducted among 60 final year undergraduates at university of Kelaniya in Sri Lanka and the sample will be drawn through simple random sampling. Data will be collected pre- tested, standard questionnaire which has met the accepted standards of validity and reliability. Collected data will be analyzed Satirical Package for Social Science 23.0 (SPSS). Further, frequency analysis, correlation test and regression analysis will be used to analyze data in order to test the advanced hypotheses.

Population

The population concerned for the study includes all the final year undergraduates at university of Kelaniya in Sri Lanka, out of which a representative sample will be taken.

Sample and the Sampling Techniques

Simple Random sampling would be used to select a representative sample. A total of 60 final year undergraduates from university of Kelaniya have been selected.

Testing of Hypotheses

Sample composition

The questionnaire was distributed among 60 final year undergraduate of University of Kelaniya. Fifty Seven (57) out of the sixty has responded to the questionnaire and all the responses were eligible for

the purpose of analysis though SPSS, it resulted a 95% response rate out of the total sample.

Gender is the main distinguish between male and female. The survey responses have been divided between two genders as males and females. According to the data collected, majority of respondents are females (57.9%) while 42.1% males.

According to the Faculty of Studying Composition of the Sample majority of the respondents belongs to the Commerce & Management Faculty. It is 47.4% and nearly a half of the entire respondents. The 23.8% respondents belongs to the Science Faculty and it is similar to the Faculty of Social Science representation. In addition to that, Faculty of Humanities represent 7%.

And also (32%) respondents of the study sample were employed undergraduates and 39 (68%) of the study sample were unemployed undergraduates.

When consider about the Internet Experience Composition of the Sample, 5 (8.8%) respondents of the study sample have less than 2 years of internet experience; 7 (12.3%) respondents have a 2-3 years of internet experience; 18 (31.6%) respondents have a 4-5 internet experience; 15 (26.3%) respondents of the study sample have a 5-6 years of internet experience and 12 (21.1%) respondents of the sample have more than 7 years internet experience. Therefore, it indicated that most of the job seekers have experience in using Internet, which makes it easier for them use e-recruitment.

According to the Average time of searching jobs through E-recruitment composition of the sample, majority of the respondents are spending average time of searching jobs though E- recruitment for less than 30 minutes per day. It is 59.6% and more than half of the entire respondents. The second major category of average time of searching jobs though E-recruitment is, 30 minutes up to 1 hour. It is 26.3% of the entire sample. 3 (5.3%) of the respondents of the study sample almost none spending average time of searching jobs though E-recruitment. Other respondents are spending average time of searching jobs through E- recruitment for 1-2 hours and more than two hours which represent a proportion of 5.3% and 3.5% respectively.

H1_A: There is a positive relationship between Perceived Usefulness and Job seeker's intention to use e-recruitment.

Table 2 Correlation Statistics of Perceived Usefulness

		Intention to Use	Perceived Usefulness
Intention to Use	Pearson Correlation	1	.566**
	Sig. (1-tailed)		.000
	N	57	57
Perceived Usefulness	Pearson Correlation	.566**	1
	Sig. (1-tailed)	.000	
	N	57	57

** . Correlation is significant at the 0.01 level (1-tailed).

As shown in the table 2 Pearson Correlation coefficient between Perceived Usefulness and Intention to Use is .566. It suggests that there is a significant moderate positive relationship exists between Perceived Usefulness and Intention to Use.

As the above table shows, the significant value (.000) is smaller than the desired level of significance. 0.01) at 99% confidence level, the resulted correlation coefficients, .566 is statistically significant. Therefore, alternative hypothesis (H_{1A}) is accepted and rejecting the null hypothesis.

Table 3 Regression Model Summary-Perceived Usefulness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.566 ^a	.320	.308	.60834	2.237

According to table 3 R Square stands for 0.320 which state that there is 32% of positive impact of perceived

usefulness on job seekers' intention to use e-recruitment.

Table 4 Perceived Usefulness - ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	9.591	1	9.591	25.918	.000 ^b
Residual	20.354	55	.370		
Total	29.945	56			

H_{2A} : There is a positive relationship between perceived ease of use and job seeker's intention to use to e-recruitment.

Table 5 Correlations Statistics of Perceived Ease of Use

		Intention to Use	Perceived Ease of Use
Intention to Use	Pearson Correlation	1	.707**
	Sig. (1-tailed)		.000
	N	57	57
Perceived Ease of Use	Pearson Correlation	.707**	1
	Sig. (1-tailed)	.000	
	N	57	57

** . Correlation is significant at the 0.01 level (1-tailed).

Table 5 indicates that the correlation coefficient between perceived ease of use and intention to use is .707. It suggests that there is a significant strong positive relationship exists between perceived ease of use and intention to use. As the table 4 shows, the

significant value (.000) is lower than the desired level of significance. 0.01) at 99% confidence level, the resulted correlation coefficients, .707 is statistically significant. Therefore, alternative hypothesis (H_{2A}) is accepted and rejecting the null hypothesis.

Table 6 Regression Model Summary Perceived Ease of Use

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.707 ^a	.500	.490	.52199

According to table 6 R Square stands for 0.500 which state that there is 50% of positive impact of perceived

ease of use on job seekers' intention to use e-recruitment.

Table 7 Perceived Ease of Use - ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14.959	1	14.959	54.900	.000 ^b
Residual	14.986	55	.272		
Total	29.945	56			

H_{3A} . There is a significant relationship between perceived trust and job seekers' intention to use e-recruitment.

Table 8 Correlations Statistics of Perceived Trust

		Intention to Use	Perceived Trust
Intention to Use	Pearson Correlation	1	.185
	Sig. (2-tailed)		.168
	N	57	57
Perceived Trust	Pearson Correlation	.185	1
	Sig. (2-tailed)	.168	
	N	57	57

Table 8 indicates that the correlation coefficient between Perceived Trust and Intention to Use is .185. The significant value (.168) is greater than the desired level of significance 0.05 at 95% confidence level, the resulted correlation coefficients, .185 is statistically insignificant.

Accordingly, there is no statistically significant relationship between perceived trust and intention to use e-recruitment. Therefore, null hypothesis (H_{3_0}) is accepted and rejecting the alternative hypothesis.

Findings

Similar to previous studies (Alsultanny & Alotaibi, 2015), this study confirmed that the Technology Acceptance Model (TAM) is a useful theoretical

model for understanding and explaining users' behavioral intention to accepting new technologies (Weerasinghe, 2016).

This study aims to assess factors that affect to the job seekers' intention to use e-recruitment. Based on the TAM model and existing literature, the conceptual framework was developed with the independent variables of perceived usefulness, perceived ease of use, perceived trust. The results were intended to be used to acquire a better understanding of what factors affecting to job seeker's intention to use e-recruitment.

According to the study conducted by Galhena and Liyanage (2014), it was revealed that the Perceived ease of use and perceived usefulness significantly

influences on candidates' behavioural intention to use e-recruitment in the Sri Lankan context. Alsultanny and Alotaibi (2015) revealed that, usefulness and ease of use significantly correlate with the attitude towards using e-recruitment while attitude strongly correlate with their intention to use e-recruitment. Having considered that, it seems that the results of the current study agree with the results of previous studies, as the current study results that, positive relationships between perceived usefulness and intention to use e-recruitment and positive relationship between perceived ease of use and intention to use e-recruitment. The simple regression analysis proves that the perceived usefulness and perceived ease of use have positive relationships with intention to use e-recruitment, which have been established with the strength of beta values of 0.566 and 0.707 respectively.

Trust has been recognized as a critical factor in the online environment (Gefen, Karahanna, & Straub, 2003). However, Pavon and Brown (2010) found that trust has no significant influence on usage intention by job-seekers in South Africa, as trust is normally more associated with financial transactions rather than job-seeking. Accordingly, the result of this study also agree with the previous research findings, because the findings of the current study also indicate that the trust has no significance influence on job seekers' intention to use e-recruitment.

Implications of the Study

Because of recruitment is a key for organizations to maintain competitiveness and high productivity, it is important to use cost effective and efficient recruitment methods like e-recruitment. Furthermore, having sound understanding about job seekers' perception and the factors drive their intention to use online recruitment, leads to obtain more benefits for organizations.

As well as the number of internet users are increasing day by day. People can gain numerous benefits by using internet such as reduce time, effortlessness, reduce cost, access to the wide range of information. Since the use of internet has become more impacted things in human activities, the use of internet as a job searching tool has also increased.

Accordingly, it is important to understand the factors drives job seekers intention to use e-recruitment. Several previous studies revealed some important

factors which should be considered when carrying out online recruitment.

According to the findings of current study, perceived usefulness and perceived ease of use influence to the job seekers' intention to use e-recruitment. Therefore, the career section of organizations' website and job portals should be designed so that it is easy to use for jobseekers and it is useful to job seekers.

Moreover, online job providers need to provide useful, easy web-based recruitment to job seekers and through the use of it, can encourage job seekers to apply for jobs via e-recruitment services.

Furthermore, this study provide insight for e-recruitment service providers to rethink about their current practices and revise their practices so that it will be more productive.

And also this provides variety of information related to this context for who are interested. Furthermore, this study provides theoretical and practical knowledge with the research guide for the university students and other persons who are interested to learn.

Recommendations

According to the findings of this study, it was revealed that there is a moderate positive significant relationship between perceived usefulness and job seekers intention to use e-recruitment. As such, it is recommended the e-recruitment service providers to consider this factor when they designing e-recruitment web sites. In order to increase usefulness they can include information regarding salary, benefits, and rewards and other organizational policies and practices so that the job seekers' can make the decision on their future employer. Through the useful e-recruitment sites job seekers can gather information like effective resume writing, interviewing information, continuous education through the e-recruitment. These information leads to increase job seekers' intention to use e-recruitment. It indicate that, job seekers prefer to adopt the e-recruitment, if it is easy for them to use comparing other recruitment methods (Tong, 2008).

Furthermore, this study revealed that perceived ease of use and job seekers' intention to use e-recruitment

has strong positive relationship. Therefore it is recommend to design easy e-recruitment systems so that job seekers can easily adopt and can be use with less effort.

Limitations of the Study

The study involves only final year undergraduate of university of Kealaniya, and the sample was limited to 60 participants. If the scope the review spread to the other universities with more sample size, the result of the current study can be differ.

Current research was limited to three factors which affect to intention to use e-recruitment. There are some other factors such as perceived enjoyment, perceived stress etc. Therefore, the research can be further developed by adding new variables.

And also the results of the study may not be accurate as the entire study depends on the personal views of respondents through the questionnaire.

Conclusion

Having considered all the factors enumerated in this study, it can be concluded that there is a significant positive moderate relationship between perceived usefulness and job seekers' intention to use e-recruitment. And further, it was found that strong positive relationship between perceived ease of use and job seeker's intention to use e-recruitment. In addition to that it was found that, there is no significant relationship between perceived trust and job seekers' intention to use e-recruitment.

The main objective of this study was to examine the factors affect to job seekers' intention to use e-recruitment. The result found that there are two factors namely job seeker's perceived usefulness and perceived ease of use impacted to job seekers' intention to use e-recruitment.

In addition to that, the study endeavored to check the impact of perceived usefulness on job seekers' intention towards using e-recruitment. The result revealed that there is a moderate positive impact of perceived usefulness on job seeker's intention to use e-recruitment.

Further, the second specific objective, which was to check the impact of perceived ease of use on job seekers' intention to use e-recruitment. It also

revealed that there is a strong positive impact of perceived ease of use and job seekers' intention to use e-recruitment.

And the third specific objective was to identify the impact of perceived trust on job seekers' intention to use e-recruitment. The result of this study revealed that there is no significant impact of perceived trust on job seekers' intention to use e-recruitment in Sri Lankan context. As such, all the objectives (i.e. the main objective and the three specific objectives) are achieved. Furthermore, it is suggested to future researchers to increase the sample size and to add more factors relating to e-recruitment intention in order to obtain a clear and most accurate results.

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A Study on Importance of ICT in Women Empowerment

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Abstract

The development of the nation depends upon the development of the human resources and the ICT playing very crucial role for the development of human resource. Human resources mean not only man but women also. As we know that India is still man dominated country and woman have less resource as compare to man but ICT destroying the all the gaps and providing the great opportunity for the development of women. Empowering women through ICT means to provide economic power to reduce poverty, to develop new opportunity of distance learning and education, bring improvement in health of women, and finally to increase literacy rate among women. The study presented the how information, communication and technology (ICT) accelerated women empowerment and basic objectives behind to doing this study are; to study need of the ICT for empowerment of women, to analysis the role of ICT in woman empowerment, to study the impact of different age groups and education on the need of ICT for women empowerment. The study is empirical in nature and based on the primary as well as secondary data. The primary data collected by means of structured questionnaire and targeted to the 100 woman from Delhi on the basis of judgmental sampling and collected the responses from 90 women. The secondary data collected through the various sources like government and non-government website, journal, books etc. The data analysis based on the descriptive statistics as well as inferential statistics. The various tools of descriptive statistics used to analysis the data and for in inferential statistics chi-square test for independence used. The study pre-assumed that the education, skill development and training, decisions making and employment etc. are the main pillar for the development of women. The study concluded that the DAG's (different age groups) do not impact on the need of ICT for women empowerment and education also has not impacted the need of the ICT for women empowerment. Although in some areas women have no access of internet, mobile and any tools of ICT. So unavailability of infra and resources are making the ICT baseless for the women empowerment. The government of India should make the eco-system with collaboration of private sector to provide the entire necessary source and infra to create the enthusiasm among women to adopt the ICT.

Keywords : ICT (Information Communication and Technology), Women Empowerment, Empowerment through ICT, DAG's (Different Age Groups) and Education.

Introduction

Women empowerment means build the strength of women, strength include social, economic, political and legal strength of the women, to provide the equal opportunity and rights, and enhance the self confidence that make them self-dependence to claim their right such as: Freely live their life with sense of

self-worth, respect and dignity, Have complete control of their life, both within and outside of their home and workplace, To make their own choices and decisions, Have equal rights to participate in social, religious and public activities, Have equal social status in the society, Determine financial and economic choices, Get equal opportunity for

education and Get safe and comfortable working environment.

Economies can become stronger only if it can efficiently utilize all the resource available in economy, so for the efficient use of women resources it is necessary to empower women to participate fully in all sectors of economy. That will help the economy to achieve the integrated goal for the development and sustainability. Women empowerments enhance the standard of the life of women, men, families and communities.

Important of Women Empowerment

Underemployed and Unemployed:The world population have around 50% women share. Very few in number of women around the world are employed. So unequal opportunity for women at workplace negatively impacted on the world economy

Equally competent and intelligent:Women are equal to man in every aspect. Although women can performed extraordinary compare to men in many socio-economic activities.

Talented : women and men are equally talented, in past arena women were not allowed for higher education like men and their talents were wasted. But in present scenario they are also allowed to go for higher studies and it encourages women to show their talents which will not only benefit her individually but to the whole world at large. Today, many women are occupying the top position of multinational companies.

Overall development of society:the overall development of the society depends upon the development and empowerment of women. The earning of women does not benefits to them or their family but it also beneficial for the society as whole.

Economic Benefits: Women Empowerment also leads to more economic benefits not to the individuals but to the society as well. Unlike earlier days when they stayed at home only and do only kitchen stuffs, Nowadays, they roam outside and also earn money like the male members of the society. Women empowerment helps women to stand on their own legs, become independent and also to earn for their family which grows country's economy.

Reduction in domestic violence: Women Empowerment leads to decrease in domestic

violence. Uneducated women are at higher risk for domestic violence than an educated woman.

Reduction in corruption: Women Empowerment is also advantageous in case of corruption. Women empowerment helps women to get educated and know their rights and duties and hence can stop corruption.

Reduce Poverty: Women Empowerment also reduces poverty. Sometimes, the money earned by the male member of the family is not sufficient to meet the demands of the family. The added earnings of women help the family to come out of poverty trap.

National Development: Women are increasingly participating in the national development process. They are making the nation proud by their outstanding performances almost every sphere including medical science, social service, engineering, etc.

Availability of Quality workforce: Large organizations need a large pool of high quality workforce. Empowerment of women would help in increasing the total workforce of quality people.

Information and Communication Technology (Ict):

The world is in the midst of a knowledge revolution, complemented by opening up of entirely new vistas in communication technologies. Recent developments in the fields of information and communication technology are indeed revolutionary in nature. In fact, IT has become the chief determinant of the progress of nations, communities and individual.

A nation that wants to progress cannot afford to disregard capacity building and empowerment of women. Women's development is now associated with technology. Thus, technological intervention undertakes a greater and more vital role globally. It's potential to sweep across political, geographical, economic and social barricades are just the leverage that women need to build for themselves a new distinctiveness place in society.

Empowerment of women in the context of building up the abilities and skills of women to gain insight into the issues affecting them in society. In this

context ICTs are emerging as a powerful tool for gender empowerment in many developing countries. There has been a rapid growth in the ICT sector since the late 1980s and the use of ICT has dramatically expanded since the 1990s.

Women play a central role in family, community and social development, women in India and ICT are interrelated. However, women often remain invisible and unheard. Women more than men have to balance the complexities of surviving in extreme poverty, yet these women are excluded from discussion because they are often illiterate, they lack confidence and they lack mobility. ICT offer the opportunities for direct, interactive communication even by those who lack skills, who are illiterate, lack mobility and have little self-confidence. Here are some aspects of life which have a direct influence of ICT especially on women:

- Women's increased access to job market and improve entrepreneurship using ICT
- Increase of average household income in villages
- Women empowerment
- Shrinking Information Asymmetry through ICT
- Improved Governance
- Indigenous Knowledge
- Easy-Family communication
- Increase Social awareness

So, ICT providing the development to the pillars of women empowerment and it is also one of the main pillars of women empowerment. ICT technologically empowered women.

Literature Review

Literature review is the main foundation for any research or study, so many research papers covered for the foundation of this study and few of them presented as follows:

Agarwal, S. (2003) studied on the "Technology Model for Women's Empowerment: Reaching the Unreached"

This paper highlighted the importance of required technology to build women entrepreneurs by

improve desired capacity to provide quality of life. Further the study believes that adoption of the technology based on the certain understanding that will develop scientific temper among women. That will increase the production efficiency. So study presented the need of science and technology for the women, whether they are inside and outside the house. After that, study recognised the technology based traits of women for sustainable development.

Chowdhury, S. (2006), conducted the study on the "Empowering Rural Women through Science and Technology"

This study has targeted to develop technologies that should be women oriented for women empowerment and task should be recognised. The study presented the several principles for technology development for empowering women like (1) to reduce the drudgery in the life of women (2) to provide employment opportunities to women (3) to improve sanitation and environmental conditions; (4) to improve the health and nutritional status of women; and (5) to protect women from hazards. The study concluded that there is need to women should be maker and user of technology.

Beena, D. M. (2012). Presented in the study of "Role Of ICT Education For Women Empowerment"

This study presented the role and need of the ICT education for women empowerment, the nature of the study is empirical and data collected from the primary as well as secondary sources. The random sampling technique use with the sample size 200 by no. of trainees and 30 by no of instructors of different Governmental and Nongovernmental Organizations of Jaipur district. The description statistics tools use for the analysis and concluded that the information and communication technology empower a women in various areas like social, educational, personal, psychological, political, technological and economical

Arivanandan, M.(2013), studied "Socio-Economic Empowerment of Rural Women through ICTs"

This study has done the critical analysis on the socio-economic inclusion of rural women based on the 2 type of ICT like mobile and internet. The study is empirical and data collected from the 60 women, aged between 15 and 30 via using the self-structured questionnaire from Trichirappalli District of Tamil

Nadu. The study presented the decision making power and economic freedom to women enhanced by the availability of mobile phones. Further, most women now search for jobs by using cell phones and personal contacts. This ability to get jobs means that rural women are earning money, which can go towards the cost of their marriage and that of their siblings.

Arrawatia, A. &Meel, P.(2017) completed the study on "Information and Communication Technologies & Woman Empowerment in India"

This paper looks at the prospects formed by ICT enabled networking processes for women's empowerment. It discusses the main challenges and impediments faced by women, recommends strategies to address those challenges and ways to cultivate the conditions leading to women's empowerment. The research is based on the secondary data that has been collected from review of past research, journals, books, newspaper internet etc. This study result into ICT which helps the women to raise their business and concluded that ICT helps the women to bring their talent and develop the women empowerment in India as well as ICT helps the women to bring more positive ideas to start a new business.

Research Methodology

Research methodology is a scientific and systematic way to solve research problems. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them.

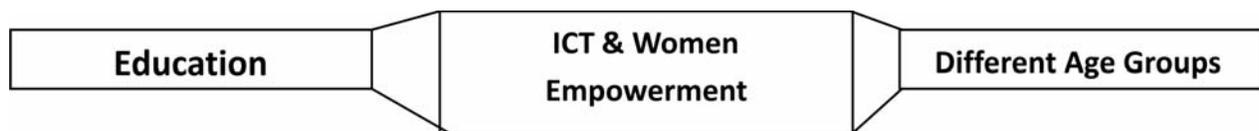


Figure: 1

Hypothesis

H_{01} : Education has no impact on the need of ICT for women empowerment

H_{02} : Different age groups have not impact on the need of ICT for women empowerment

Statement of Problems:

Technology is future of our country and future depends upon the development of human resources. The role of ICT on the women empowerment will decide the development of the women as human resources. The impact of ICT on the women empowerment depends upon the education that are essential for the increase the use of ICT for women empowerment, so educated people understand the need of the ICT for women empowerment or not that is critical problem. Moreover old age people give less weightage to the new technology, so next problem is different age groups decide the need of ICT for women empowerment or not.

Objectives of Study

This paper is an attempt to identify the role of ICT in women empowerment along with the secondary objectives as follows:

- (1) To study the impact of education on the need of ICT for women empowerment.
- (2) To evaluate the impact of different age group on the need of ICT for women empowerment.

Research Model

ICT & Women Empowerment

This research model based on the assumption that women empowerment based on the education, role in family decisions, social circle and the health services and security etc. so this study focus to show the impact of factors on the need of ICT for women empowerment.

Research Design

Nature of Study – The study is the empirical in nature and based on the descriptive cum exploratory research design. It studies the whole how ICT helping for the development of Women as human resource and ultimately women empowerment.

Data Collection – The study is based on the primary as well as secondary source of data. The major source of secondary data collection:

- o Websites
- o Articles
- o Various journals, data available on the internet, newspaper etc.

The **primary data** collected by means of **structured questionnaire** and collected from the Delhi Women from different age groups with considering the variable that need to obtain the goal of study.

Sampling Design-the sampling technique is **judgmental technique** and around **100 respondent** targets to get the responses, which include the **women form Delhi** from different age groups.

Data Analysis and Findings:

The findings of the study based on the both descriptive as well as inferential statistics analysis. In this section first descriptive analysis presented and after that inferential statistics use to test the null hypothesis.

(Table 1) Testing of H_{01} : Education has no impact on the need of ICT for women empowerment

Education * Need of ICT for women empowerment (Crosstabulation)								
			Need of ICT for women empowerment					
			strongly disagree	disagree	neutral	agree	strongly agree	Total
Education	Graduation	Count	3	1	10	13	3	30
		Expected Count	1.7	1.3	4.7	17.0	5.3	30.0
		Residual	1.3	-.3	5.3	-4.0	-2.3	
	under graduation	Count	0	0	1	6	3	10
		Expected Count	.6	.4	1.6	5.7	1.8	10.0
		Residual	-.6	-.4	-.6	.3	1.2	
	post-graduation	Count	2	2	2	22	5	33
		Expected Count	1.8	1.5	5.1	18.7	5.9	33.0
		Residual	.2	.5	-3.1	3.3	-.9	
	more than Post graduation	Count	0	1	1	10	5	17
		Expected Count	.9	.8	2.6	9.6	3.0	17.0
		Residual	-.9	.2	-1.6	.4	2.0	
Total		Count	5	4	14	51	16	90
		Expected Count	5.0	4.0	14.0	51.0	16.0	90.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.452 ^a	12	.133
Likelihood Ratio	18.477	12	.102
Linear-by-Linear Association	4.986	1	.026
N of Valid Cases	90		

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .44.

The null hypothesis is accepted because the significance level is 0.05 and the p value is greater than 0.05. That means the level of education does not impact on the need of the ICT for women

empowerment and education and the need of ICT for women empowerment are independent from each other. The demand of the ICT for the women empowerment not depends upon the education.

(Table 2) Testing of H02: Different age groups has no impact on the need of ICT for women empowerment

Age (Binned) * Need of ICT for women empowerment (Crosstabulation)								
			Need of ICT for women empowerment					Total
			strongly disagree	disagree	neutral	agree	strongly agree	
Age (Binned)	18 - 27	Count	3	4	11	33	12	63
		Expected Count	3.5	2.8	9.8	35.7	11.2	63.0
		Residual	-.5	1.2	1.2	-2.7	.8	
	28 - 37	Count	1	0	1	8	3	13
		Expected Count	.7	.6	2.0	7.4	2.3	13.0
		Residual	.3	-.6	-1.0	.6	.7	
	38 - 47	Count	0	0	2	8	0	10
		Expected Count	.6	.4	1.6	5.7	1.8	10.0
		Residual	-.6	-.4	.4	2.3	-1.8	
	48+	Count	1	0	0	2	1	4
		Expected Count	.2	.2	.6	2.3	.7	4.0
		Residual	.8	-.2	-.6	-.3	.3	
Total		Count	5	4	14	51	16	90
		Expected Count	5.0	4.0	14.0	51.0	16.0	90.0

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.992 ^a	12	.617
Likelihood Ratio	12.775	12	.386
Linear-by-Linear Association	.004	1	.950
N of Valid Cases	90		

a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .18.

The null hypothesis is accepted because the significance level is 0.05 and the p value is greater than 0.05. That means the different age groups does not impact on the need of the ICT for women empowerment and different age and the need of ICT

for women empowerment are independent from each other. We cannot say that old age people are not interested for the need of ICT for women empowerment

Discussion

Generally people assume that elderly people resist technological changes and do not give much importance to ICT (Information Communication and Technology) as means of women empowerment. This study aims to verify that age is not the factor when it comes to importance of ICT for the women empowerment. Similarly general perception of the people is educated people consider more important ICT for women empowerment than less educated. However, this study falsifies this common perception and rather shows that educational level and felt need of ICT for women empowerment are independent from each other.

Conclusion

This study concludes that ICT has significant role in women empowerment as it supports women empowerment by increased access to knowledge, education in remote corners, enhanced social circle (SHGs), improving the quality of health services etc. Also this study shows that education and the need of ICT for women empowerment are independent of each other. It means that level of education does not decide the need of ICT for women empowerment. Similarly age group does not impact the need of the ICT for women empowerment. Thus ICT empowers women technologically, or in other words ICT technically empowers women.

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