



# **BUSINESS TRANSFORMATION: CURRENT PRACTICE AND FUTURE POTENTIAL**

**(Indo – Srilankan Perspective)**

**Bharathy Kennedy  
Nadarajah Rajeshwaran  
B. Vimala**

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By:

**Dr. Bharathy Kennedy**  
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## PREFACE

Business Transformation: Current Practice and Future Potential (Indo – Sri Lankan Perspective)

Inevitable part of life is change. In business transformation it impacts on the practices, its environment and improves from stagnation towards leading market position. Change signifies the willingness of the affected parties to embrace and function in a newly established order and their commitment to effect and implement the changes (Armstrong, 2004).

Business transformation involves changing the fundamentals in business organizations. Personnel, processes, and technology are incorporated into it. These transformations help the organizations to function more efficiently and effectively, and very often improving the status quo and inspiring the overall organization and business with innovative thinking.

This book explores Business Transformation and the current practices as well as future Potentials in the view of Indian and Sri Lankan perspective.

Chapter 01 focuses on Employee commitment on Employee Performance of Executive Level Employees of Public Limited Companies. This chapter explores employee commitment is having a reasonably high impact on employee performance. And affective commitment is more influenced by employees' performance. This chapter specifically forwards findings as normative and continuance commitment are less likely to influence employees' performance because employees do not commit to the organization for the friendship, expenses spending by organizations for training or other related factors.

Chapter 02 provides an interesting comprehensive review on Burnout and Emotional Exhaustion. This chapter illustrates perspective of conservation of resource theory as well as Emotional Exhaustion and gender differences.

Chapter 03 examines the effect of Dynamic Capabilities of SMEs and Organizational Inertia. This chapter originally focuses on the relationship between the Dynamic Capabilities and Organizational Performance, Organizational Inertia and Organizational Performance and Dynamic Capabilities and Organizational Inertia and provides the finding as the dynamic capabilities can be increased by improving organizational learning.

Chapter 04 points out the Intention to adopt Mobile Commerce with the literature support. Author revealed 41 Research papers identified from Wiley Online Library and Taylor and Francis Online. This chapter critically reviewed the factors affecting the intention to adopt mobile commerce.

Chapter 05 explores Emotional Engagement, Team orientation, and Commitment and its definition. Further, this chapter describes whether these three concepts differ in gender differences.

Chapter 06 focuses the Recent Economic Expansion and Poverty Reduction considering Sri Lankan perspective. This article discovers regional inequality in poverty reduction the regions that were part of the theatre of war, as well as other regions where poverty has persisted over decades reported higher poverty prevalence compared to other part of the country. Furthermore, it illustrates particular policy relevance in the formulation of policies targeted at achieving the sustainable development agenda, especially the goal of leaving no one behind.

Chapter 07 investigates the Impact of Entrepreneurial Characteristics on Firm Performance considering the Small-Scale Food and Beverage Manufacturers. Three explanatory variables have been studied as internal locus of control, need for achievement and need for cognition to study the Entrepreneur's Characteristics. The survey result revealed that all the explanatory variables positively influenced the entrepreneurial firm performance.

Chapter 08 studies Women Welfare issues at Workplace in Private Sector Bank Employees. This study focuses on the Banking sector in Cuddalore District, India. Women Welfare issues were discussed and managerial implications also were discussed in this chapter.

Chapter 09 educates Employee Motivational Factors among Private Sector Banks. This chapter also focuses with the Indian perspectives and explains the underpinnings of the managerial decision making in Private Sector Banks.

Chapter 10 illustrates Relationships between organizational commitment and Demographic variables. This study concentrates with the Private Sector Bank Employees. Demographic variables were discussed comparing the organizational commitment and the finding were forwarded.

Chapter 11 describes Awareness and Availability of Organic Fruits and Vegetables. This overview illustrates the importance of the organic food consumption and the

knowledge of the availability of the organic fruits and vegetables in the market place. During the Covid 19 pandemic situation every human concentrated with the organic consumption and the importance of organic products specially food items. This paper concentrates with the awareness and availability of the organic consumptions.

Chapter 12 discusses Work-Life Balance. This chapter focuses specially the Women Employees. This Literature Reviews forwards the practical issues related to the women employees in the working sector.

Policy makers, academicians, human resource managers, CEOs of the companies, entrepreneurs, researchers, professionals would be the target audiences of this edited book.

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## **References**

Armstrong, M (2004). Managing Organizational Change in Nigeria Manufacturing Enterprises: Lessons from the Unilever Nigeria Plc. AC Associated Content. Retrieved from <http://www.medwelljournals.com/fulltext/?doi=ibm.2009.15.21>

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**THE IMPACT OF EMPLOYEE COMMITMENT ON EMPLOYEE PERFORMANCE  
OF EXECUTIVE LEVEL OF EMPLOYEES (EVIDENCE FROM A SRI LANKAN  
PUBLIC LIMITED COMPANY)**

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**ABSTRACT**

*The researcher carried out this research to measure the impact of employee commitment on executive employees' performance in a public limited company. Her theoretical concept of employee commitment and execution was illustrated. The relationship between employee commitment and performance and the impact of employee commitment on performance has been discussed. The researchers have selected 100 executive-level employees as respondents of this study. Data is mainly collected through a structured questionnaire. Data collected were fit with the model created. And reliability of the model was tested using a reliability test (Cronbach's Alpha) for the study. The relationship between employee commitment and performance was identified. Correlation and regression analysis is used for data analysis. Collected data are presented by using tables. This research shows that Employee commitment has a reasonably high impact on employee performance ( $R^2=61\%$ ), and affective commitment is the only variable that shows a statistically significant relationship with employee performance. Based on the findings, valuable suggestions were provided to the management of organizations to create a high level of commitment in their organization to achieve sustainable competitive advantage through human resource.*

*Keywords: Affective commitment, Continuance commitment, Normative commitment, Work confidence*

**INTRODUCTION**

Current international human resource management research focuses on how organizations can improve employees' commitment (Malhotra et al., 2007). The study of commitment and employees job performance is significant to the top-level management of the organization. While a highly committed person will probably see himself or herself as a faithful member of the firm, overlook minor sources of dissatisfaction, and see himself or herself remaining a member of the organization, a less committed person is more likely to see himself or herself as an outsider (Reichheld, 1993). Effective performance of employees is an excellent source of organizational success. On the other hand, human resource is the main asset of organization. Any organization employees play a significant role in organization. Therefore, an organization interested in identifying variables that influenced job performance. Today, every organization's work environment or success depends on the efficient use of human resources based on behavioural science for sure. Dealing with this challenge reveals the needs for more comprehensive recognition of concepts and structures related to human resources and their specific tools (Hersey and Blanchard, 1998). Employee commitment is a distinct concept related to an employee's desire to remain with an organization out of a sense of loyalty, emotional attachment and financial need (Meyer, Allen et al., 1993). According to Hunjra (2010), Commitment employees who are highly motivated to contribute their time and energy to the pursuit of organizational goals are increasingly acknowledged to be the primary asset available

to an organization.

Nowadays, many researchers identify that employee commitment becomes one of the world's significant concepts as well as many industries recognize employee commitment to improving employee's performance. A committed employee stays with the organization under any favourable or unfavourable circumstances affecting the organization (Meyer and Allen, 1997). Because of the high competition, every organization faces new challenges regarding competitive organizational performance and creating a committed workforce (Addae HM, Wang, 2006). Looking at the organizational working environment in the 21st century together with its challenges, it is clear that not all employees are equally committed to their work and; therefore, managers need to be aware of the individual and situational factors that build employee commitment for optimal organizational performance (Hosseini et al., 2012). This is one of the major problems that an organization will face today. In the banking sector, it is very important for organizations to stay focused on employee performance. Management fails to understand why some employees are not committed to the organization even though they have proactively implemented fair compensation policies and human resource (HR) practices to motivate and retain them. It can be costly if employees are not committed to their jobs and lack the motivation to exercise their full potentials.

For this reason, management should take action to increase the commitment of employees in an organization. Many factors affect performance, but employee commitment plays a vital role in the performance of employees. Successful organizations depend on the high performance of their employees to meet their objectives. To achieve their strategic aims and keep their competitive advantage, their employees must perform at high levels (Dessler 2011). Moreover, Organizations need to understand that employees have their requirements and personal wishes that need to be considered. This can determine if the employee feels positive or negative about the organization and needs to be treated individually. (Schermerhorn, 2010).

The selected public limited is registered under the Companies Act No.07 of 2007 and the Finance Companies Act No.78 of 1988. The Company is also have registered under the Finance Leasing Act No. 56 of 2000. Because the ethical aspects belong to the researchers, the company profile details or the respondents' profiles are not disclosed in this publication. So, this point onwards company name has mentioned as "ABC PLC". ABC PLC managers have a big challenge to determine from the city how they will attain optimum commitment from their employees, which would be important in optimizing the organization's performance. Managers have tried to achieve commitment from their employees by using successful methods in other places in the world and have failed, the reason being that the researchers successfully method so their staff. Therefore, this study aims because the research was a commitment towards employee performance of ABC PLC.

## **LITERATURE REVIEW**

The term “commitment” can be described as social actors' willingness to give their energy and loyalty to a social system or an affective attachment to an organization apart from the purely instrumental worth of the relationship (Buchanan, 1974). According to Porter, Strees, and Mowday, (1974), commitment has been defined as having a strong belief in an organization's values and goals. A person desires to maintain a part of the organization and is willing to expend considerable effort for the organization. Units. According to Zheng, (2010), employee commitment is employees' attitude to organization. Akintayo (2010) has noted employee commitment as the degree to which the employee feels devoted to their organization. Ongori (2007) has mentioned employee commitment as an effective response to the whole organization and the degree of attachment or loyalty employees feel towards the organization. According to

Jaw & Liu (2004), employee commitment is the relationship employees have with their organizations. Based on some studies, organizational commitment can be defined as an attitude in the form of an attachment that exists between the individual and the organization, and is reflected in the relative strength of an employee's psychological identification and involvement with the organization (e.g., Mowday et al., 1979). Porter et al. (1974) argued that employee commitment emerges before any other attitudes to a job.

Meyer and Allen's (1991) have noted a three-component commitment model; prior research indicated three "mindsets" and suggested three types of commitment: affective commitment, continuous & Continuance commitment.

Affective commitment is described as the desire to be emotionally involved in a particular organization. Affective commitment involves employees' long-term feelings towards their jobs. Employees with a strong affective commitment continue with their organization because they want to do so (Meyer and Allen, 1991). Effective communication is an essential component in achieving organizational commitment (Zangaro, 2001). This means both employee and organization should understand and value each other goals and needs. He also added that an employee's commitment to an organization would increase the likelihood of retention, consistent attendance and increase productivity.

Moreover, Moss and Ritossa (2007) have mentioned that transformation leaders raise their subordinates' emotions instead of depending on rational process to motivate them. Furthermore, some scholars suggest that affective communication involved and individual's emotional attachment formed due to the employee's identification with the organization's goals and the employee's willingness to assist in attaining these goals (Qureshi et al., 2011). According to Moss and Ritossa (2007), transformation leaders raise their subordinates' emotions instead of depending on the rational process to motivate them. Macey and Schneider (2008) have proved that leaders will positively affect their subsidiaries by creating a sense of attachment to the job, being fair, and recognizing good performance.

Normative commitment in management has been described as the obligation to remain in a particular organization (Bryant et al., 2007; Meyer and Allen, 1991). Employees who are having this type of commitment are wished to remain with their organization because they feel that they should do so for moral reasons, not because they want to (Meyer and Allen, 1991). In the case of some employees intentionally leave their organizations to make them suffer. In contrast, some employees do not accept going to their organizations if they need them. Meyer et al. (1989) have concluded that in most cases, committed employees wish to remain with the organization and strive towards the organization's mission, goals and objectives. Dunham et al. (1994) see that employees are less likely to leave an organization if their values indicate that they are inappropriate.

The third one is the continuance commitment. Meyer and Allen (1991) described continuance commitment as perceived costs associated with leaving the organization. When employees bear the higher cost of leaving organization, they are more committed to their organizations not because they want to, but because they have to. And, they may believe that the threat of losing attractive benefits is one of the perceived costs of leaving an organization. Employees who have a remarkable position in their organization do not want to fail due to the highly paid they get; thus, they do not leave their organizations easily due to the higher amount of benefit they lose in quitting their job.

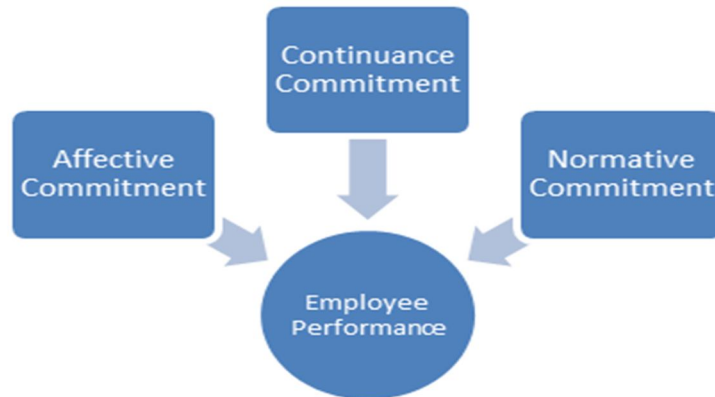
Furthermore, employees who have few opportunities for alternative employment that offer better packages certainly, remain with their current organization because they have to stay.

However, continuance commitment can be increased when organization has a clear root for a promotion (Shouksmith, 1994), a good reward system, an obvious plan for career development (Akhtar and Tan, 1994). Accordingly, Meyer and Allen (1997) suggest that one can better understand an employee's relationship with an organization when all three forms of commitment are considered together.

More researchers have tested the connection between commitment and performance for a long time. Huge attention has been put on the relation between job commitment and task performance. It is obviously known that there is a strong relationship between performance and employee commitment. Highly committed employees will try to give their full effort in their work than committed employees. Research has found that highly engaged employees may perform better than less committed ones (Mowday, porter and Dubin, 1974). According to Dansereay, F. Jr, (1975), Better employee performance was correlated with more role clarity, higher satisfaction and stronger commitment. Habib (2010) has searched the interdependency of job satisfaction and job performance, effect of employee commitment and attitude towards work on performance and has concluded that employees having greater employee commitment perform well and employees having a good attitude towards work are highly satisfied as compared to employees who are less inclined towards their work. Chen et al. (2006) studied the relationship between organizational commitment and job performance found that there was a positive relationship between organizational commitment and job performance. Their study suggested that companies needed to strengthen their employees' commitment towards the organization to enhance organizational performance. Early research seemed to support a positive relationship between organizational commitment and desirable outcomes such as low turnover, limited low absenteeism, and enhanced job performance; subsequent analysis has been less convincing. In general, however, most researchers would agree that the organizational commitment attitude as defined here is a somewhat better predictor than job satisfaction of outcome variable such as turnover, it not performance. After reviewing the relevant literature, Locke and Latham conclude that the stranger causal relationship goes from satisfaction to commitment.

## **METHODOLOGY**

In this research, researchers intend to carry out a study related to a finance company. This is a leading finance company in Sri Lanka. There are around 200 employees. There are 110 executive-level employees & researchers have selected 100 of them by using a random sampling method for this study. Based on the discussed literature, researchers have identified commitment as the main independent variable for this study and three proxies: affective commitment, continuous duty, & Normative commitment to measure the main independent variable. And researchers have identified employee performance as the dependent variable and employees' work confidence as the proxy for measuring the dependent variable. According to that, researchers have developed the following conceptual framework (figure 01).



**Figure 1** Conceptual Framework (Developed by the researchers)

Researchers have followed up the study of Meyer and Allen's (1991) and developed a structured questionnaire to collect data for measuring these relationships. Through that questionnaire, researchers have collected data from 100 executive-level employees. Researchers have used person correlation analysis & multiple regression model testing to analyze the collected data. The researcher tested the regression model to measure the impact of employee commitment on employee job performance.

$$EP = \beta_0 + \beta_{AC} + \beta_{CC} + \beta_{NC} + \varepsilon$$

Where,

EP = Employee performance

O = Other variables

AC = Affective commitment

CC = Continuance commitment

NC = Normative commitment

$\varepsilon$  = Errors

**Data Analysis**

To assess the reliability of the questionnaire, Cronbach's Alpha test was used. The results of the reliability analysis of all constructs are higher than 0.7. (Generally accepted level). Cronbach alpha is a measure for the internal consistencies of the items that together cover the specific factor. The result of the reliability test has been presented below. So, researchers have statistically proved the internal consistency of the used questionnaire.

**Table 1 Results of Reliability test**

Variable name	Number of items	Cronbach's Alpha value
Affective commitment	15	0.725
Normative commitment	6	0.742
Continuance commitment	5	0.718
Employee performance	13	0.807

Researchers have been performed correlation analysis to identify the relationships among the variables of this study. Below table 01 shows the correlation matrix.

**Table 2 Correlation Matrix**

		<b>Affective Commitment</b>	<b>Normative Commitment</b>	<b>Continuance Commitment</b>	<b>Employee performanc e</b>
<b>Affective Commitment</b>	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	100			
<b>Normative Commitment</b>	Pearson Correlation	.313**	1		
	Sig. (2-tailed)	.002			
	N	100	100		
<b>Continuance Commitment</b>	Pearson Correlation	.275**	.496**	1	
	Sig. (2-tailed)	.006	.000		
	N	100	100	100	
<b>Employee performance</b>	Pearson Correlation	<b>.258**</b>	<b>.192</b>	<b>.037</b>	1
	Sig. (2-tailed)	<b>.010</b>	<b>.056</b>	<b>.717</b>	
	N	<b>100</b>	<b>100</b>	<b>100</b>	100
** . Correlation is significant at the 0.01 level (2-tailed).					

According to the above table 02, there is a significant weak positive relationship between affective commitment and employee performance at 0.01 level (confidence level 95%), and normative commitment & continues commitments are not shown any significant relationship with employee performance.

Further, the output of the regression analysis is showing the adjusted R<sup>2</sup> value as 0.61 (see below table 03). That means the independent variables of this study is defining 61% of the dependent variable. That means there is a reasonably high impact from these independent variables towards the dependent variable.

**Table 3 Model Testing Summary**

<b>Model</b>	<b>Predict ors</b>	<b>R</b>	<b>R square</b>	<b>Adjusted R square</b>	<b>Estimated error</b>
01	AC, NC, CC	.300 <sup>a</sup>	.90	.61	.25532
<b>a Dependent variable – Employee performance</b>					

According to Table 4(ANOVA results), the significance values are 0.000 in this model, respectively. It is less than 0.05; thus, this model is statistically significant in predicting how employee commitments are affected by employee performance.

**Table 4 ANOVA results**

<b>Model</b>		<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1	Regression	.838	8	.105	9.719	.000 <sup>b</sup>
	Residual	2.447	227	.011		
	Total	3.286	235			

## CONCLUSION

According to these analyses, Employee commitment is having a reasonably high impact on employee performance and affective commitment is more influenced by employees' performance. Meyer & Allen (1997) also concluded the importance of affective commitment by



explaining that employees with strong affective commitment would be motivated to higher performance levels and make more meaningful contributions than employees who expressed continuance or normative commitment. In this research, normative and continuance commitment are less likely to influence employees' performance because employees do not commit to the organization for the friendship, expenses spending by organizations for training or other related factors.

Finally, in this study researcher just consider a financial sector company only. Further research can be conducted for other organizations to determine the impact of commitment on performance for particular kinds of organizations. And this top-level management of this organization can use these findings for their future decision-making process.

## REFERENCES

- **Addae HM, Wang X.** Stress at work: Linear and curvilinear effects of psychological-, job-, and organization-related factors: An exploratory study of Trinidad and Tobago. *International Journal of Stress Management*. 2006;13(4): 476–493.
- **Allen, N. and Meyer, J. (1990)**, “The measurement and antecedents of affective, normative and continuance commitment to the organization”, *Journal of Occupational Psychology*, Vol. 63, 1-18.
- **Akhtar, S., Tan, D. (1994)**, Reassessing and reconceptualizing organisational commitment's multidimensional nature. *Psychological Reports*, 75(3), 1379.
- **Akintayo D.I. (2010)**. Work-Family Role Conflict and Organizational Commitment Among Industrial Workers in Nigeria. *Journal of Psychology and Counselling*, 2(1),.1-8
- **Bryant, S.E., Moshavi, D., Nguyen, T.V. (2007)**, A field study on organizational commitment, professional commitment and peer mentoring. *ACM SIGMIS Database*, 38(2), 61-74
- **Buchanan, B. (1974)**, “Building organizational commitment: the socialization of managers in work organizations”, *Administrative Science Quarterly*, Vol. 19, 533-46.
- **Chen J, Silverthorne C, Hung J.** Organization communication, job stress, organizational commitment, and job performance of accounting professionals in Taiwan and America, *Leadership & Organization Development Journal*. 2006; 27(4):242-249.
- **Dansereay, F. Jr.** (Organizational behaviour and Human performance, 13, pp. 46 – 78, 1975
- **Dessler G.** Human Resource management (12th ed.). Prentice-Hall, USA; 2011.
- **Dunham, R.B., Grube, J.A., Castaneda, M.B. (1994)**, Organizational commitment: The utility of an integrative definition. *Journal of Applied Psychology*, 79(3), 370.
- **Habib A., Khursheed A. and Idrees A.S. (2010)**. Relationship Between Job Satisfaction, Job Performance Attitude Towards Work and Organizational Commitment. *European Journal of Social Sciences*. 18(2), Pp.257-267
- **Hersey, P. and Blanchard, K.H., 1998.** Management of organizational behavior: Utilizing human resources, prentice hall Inc. Englewood cliffs, New Jersey

- **Hossein, k., Mohammad, h. H., Bitu, A., Fariba, A., & Hosseinali, S. (2012).** Factors Affecting the Organizational Commitment of Employees and Customer Satisfaction. *Journal of Basic and Applied Scientific Research*.
- **Hunjra A.I, Ali M.A, Chani M.I, Khan H. and Rehman K. (2010).** Employee Voice and Intent to Leave: An Empirical Evidence of Pakistani Banking Sector. *African Journal of Business Management*. 4(14), 3056-3061.
- **Malhotra, N., Budhwar, P., and Prowse, P. (2007),** 'Linking Rewards to Commitment: An Empirical Investigation of Four UK Call Centres,' *International Journal of Human Resource Management*, 18, 12, 2095–2128
- **Meyer, J.P., Paunonen, S.V., Gellatly, I.R., Goffin, R.D., Jackson, D.N. (1989),** Organizational commitment and job performance: It's the nature of the commitment that counts. *Journal of Applied Psychology*, 74(1), 152-156.
- **Jaw, S.A., & Liu, W. (2004).** Promoting organizational learning and self-renewal in Taiwanese companies: the role of HRM. *Human Resource Management*, 42 (3), 223-241.
- **Macey, W.H., Schneider, B. (2008),** The meaning of employee engagement. *Industrial and Organizational Psychology*, 1(1), 3-30.
- **Meyer, J.P., Bobocel, D.R., & Allen N.J. (1991).** Development of organizational commitment during the first year of employment: A longitudinal study of pre and post entry influence. *Journal of applied psychology*, 74, 152-156
- **Moss, S.A., Ritossa, D.A. (2007),** The impact of goal orientation on the association between leadership style and follower performance, creativity and work attitudes. *Leadership*, 3(4), 433-456.
- **Mowday RT, Steers RM, Porter LW.** The measurement of organizational commitment. *J Vocat Behav* 1979; 4:224 – 47.
- **Mowday, R. T., Porter, L. W. & Dubin, R.,** Unit Performance, Situational Factor and Employee Attitudes in Spatially Separated Work Units, *Organizational Behavior and Human Performance* (1974), pp. 231-248.
- **Ongori H. (2007).** A Review of the Literature on Employee Turnover. *African Journal of Business Management*. PP. 49-54.
- **Porter, L.W., Steers, R.M., Mowday, R.T., & Boulin, P.V. (1974).** Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603-609.
- **Qureshi, J.A., Hayat, K., Ali, M., Sarwat, N. (2011),** impact of job satisfaction and organizational commitment on employee performance, evidence from Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 3(4), 642-657.
- **Reichheld, F.F. (1993).** Loyalty-based management. *Harvard Business Review*, 71(2), 64–73
- **Schermerhorn JR.** *Introduction to Management*, 10th ed., New Jersey: John Wiley & Sons, Inc.; 2010
- **Shouksmith, G. (1994),** Variables related to organizational commitment in health professionals. *Psychological Reports*, 74(3), 707-711.

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- **Zangaro, G.A. (2001)**, Organizational commitment: A concept analysis. *Nursing Forum*, 36(2), 14-21.
- **Zheng W., Sharan K. and Wei J. (2010)**. New Development of Organizational Commitment: A Critical Review (1960-2009). *African Journal of Business Management*. 4(1), Pp. 12-20.

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*BUSINESS TRANSFORMATION: CURRENT PRACTICE AND FUTURE POTENTIAL (Indo – Sri Lankan Perspective)*

## **BURNOUT AND EMOTIONAL EXHAUSTION: A COMPREHENSIVE LITERATURE REVIEW**

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**“Emotional tiredness is just so hard to handle that a physical sleep cannot take away. Raising your heart is the only way to get through this tiredness” (Kamal Chandra Lenka)**

### **ABSTRACT**

*As a result of cumulative tension from employee’s personal life or work life, or a combination of both, emotional exhaustion is a condition of feeling mentally worn-out and exhausted. By experiencing the burnout, the employees are getting emotionally exhausted in their life. Emotionally drained people feel that they are stuck or trapped with the situation that make them drained. Lack of energy, inadequate sleep, and diminished morale will make emotional exhausted and difficult to overcome. This persistent, stressed-out condition will cause lasting harm to their health over time. Anyone experiencing long-term stress can become emotionally exhausted and overwhelmed. This paper reviewed nearly 30 research papers and gave a clear picture regarding the emotional exhaustion in order to make the human beings away from physical and mental impacts. With a better understanding of the relationship between emotional exhaustion and perceived organizational support and their possible antecedents, firms may be able to: reduce emotional exhaustion; increase perceived organizational support; ultimately increase employee job satisfaction as well as organizational commitment; and reduce employee turnover intentions.*

*Keywords: Burnout, Emotional Exhaustion, Emotional Labour*

### **BURNOUT**

Burnout creates an increasing problem for modern organizations since it has an antithetical influence on organizations, as well as employee health and well-being (Cropanzano et al., 2003). When employees are burned out, they may be unhappiness and less identified with their organization, and thus have the intention to leave the organization in order to escape the unpleasant working conditions.

A majority of previous studies (Cropanzano et al., 2003; Maslach et al., 2001) argued that burnout is anpredecessor of a variety of consequences, such as job satisfaction, organizational commitment, turnover intention and productivity. On the other hand, some studies (e.g. Avanzi et al., 2015; Das et al., 2008; Wegge et al., 2006) asserted that burnout is a result of organizational identification, which has a close relationship with organizational commitment (Ashforth and Mael, 1989). Not surprisingly, research finds that burnout influences a number of organizational outcomes such as employee withdrawal behaviors (e.g. absenteeism, turnover, and turnover intentions; Cordes and Dougherty, 1993; Huang et al., 2003; Maslach et al., 2001), productivity, effectiveness, performance, satisfaction, and commitment (Lee and Ashforth, 1996; Maslach, 1982; Maslach et al., 2001). Due to the negative impact of burnout on a number

of important outcomes, studying this specific strain is beneficial for organizations and employees alike, as both benefit when burnout is minimized.

Burnout, an indicator of psychological well-being, disturbs employees' daily moods. Moreover, burnout eventually can lead to psychological (e.g., depression), physiological (e.g., cardiovascular disease, headaches, hypertension), and behavioral (e.g. withdrawal) forms of strain (de Jonge and Kompier, 1997; Jex, 2002; Leiter and Maslach, 2001).

In Maslach's (1982) model, burnout consists of emotional exhaustion, cynicism and reduced efficacy. Emotional exhaustion refers to chronic feelings of physical and emotional depletion. Cynicism or depersonalisation refers to interpersonal callousness and detachment. Finally, reduced efficacy or achievement refers to negative self-assessment or feelings of incompetence (Croppanzano et al., 2003; Maslach et al., 2001).

## **EMOTIONS**

Emotions are outlined as multi-component phenomena that involve harmonized psychological processes including affective, cognitive, motivational, peripheral physiological and expressive components (Pekrun, 2006). To illustrate for the emotion of anxiety, anxious people demonstrate uneasy and tense feelings (affective component), apprehension (cognitive component), avoidance motivation (motivational component), increased physiological activation (peripheral physiological component) and anxious facial expression (expressive component) (Pekrun, 2006).

Emotion has been defined as a "sudden trouble, transient agitation caused by an acute experience of fear, surprise, joy, etc." (Larousse Dictionary, 1990), or a "mental feeling or affection (e.g. pain, desire, hope, etc.) as distinct from cognitions or volitions" (Oxford English Dictionary, 1987). The Dictionary of Cognitive Psychology (Oatley 1994) does not formally define emotion, but an operative definition emerges from its five pages dedicated to emotion: emotion is a mental state. This is not trivial, since emotion was considered to be merely a somatic response (Cannon 1927). Whether the James-Lange or the Cannon concept of emotion is preferred, a common factor emerges from this various sources: emotion is a mental state, even when somatic signals participate in this mental experience.

Feelings and emotions can occur on a variety of levels, including intrapersonal and interpersonal states and processes. Emotional perceptions are often inextricably linked to perceptual, symbolizing, and action-oriented processes. They are diverse 'structures' and processes of human day-to-day life, being more than stored information, biochemical-neuronal pathways, or affective behavioural reactions. Emotions, as active ways of organizing experience, not only interact with, but also perpetually constitute their 'objects,' though in different ways with different people, and sometimes in ambiguous ways.

Emotions have become increasingly important in the business world, especially in the service sector, in recent years. Employees in service organizations are supposed to "serve with a smile" and to express positive emotions during service experiences, while managing or suppressing negative emotions. Regulation and expression of organizationally desired emotions in service interactions are found to have significant implications for organizations. Emphasizing the significance of positive emotional display in service meetings, Hennig-Thurau, Groth, Paul, and Gremler (2006) propose that a friendly service staff and a "smile service" should become an unquestionable mantra for the success of service firms these days.

During service interactions, most service companies have explicit or implied emotional display guidelines that specify which emotions workers should publicly convey and which they should

suppress – a practice known as emotional labor (Hochschild, 1983). The regulation and expression of organizationally desired emotions in order to meet the emotional display requirements of organizations has been described as emotional labor (Ashforth & Humphrey, 1993; Grandey, 2000; Hochschild, 1983).

### **EMOTIONAL LABOUR**

Emotional labor defined as the rule of both feelings and expressions to support the display rules promoted by an organization and its goals (Zhan et al., 2016; Grandey, 2000). Alicia Grandey (2000) defined emotional labour as “the process of regulating both feelings and expressions for the organizational goals” (p. 97). Emotional labor is a concept that has received a lot of attention lately because it helps academics and practitioners to better understand how service companies can better manage their employees' positive displays of emotions for their clients (Hennig-Thurau et al., 2006). The construction of emotional labor was initially proposed by Arlie Russel Hochschild (1983) in a study on the emotional behavior of service workers, in particular airline stewardesses. Hochschild (1983) defined emotional labor as “the management of the feeling of creating a publicly observable facial and bodily display” (p. 7).

On the basis of the findings of her study, Hochschild (1983) argued that work involving emotional work has three main characteristics: (1) that it requires employees to interact face-to-face or voice-to-voice with other people, such as clients, customers and guests; (2) that the worker produces an emotional state in another person; and (3) that the employee's emotional expressions are shaped by, organizational display rules and requirements” (p.147).

Hochschild's (1983) conceptualization of emotional labor is considered to be based on Goffman's (1959) dramaturgical perspective on customer interactions. The dramaturgical perspective conceptualized the customer as the audience, the employee as the actor, and the work as the stage setting (Goffman, 1959; Grove & Fisk, 1989). Several other conceptualizations of emotional work have been proposed by various scholars, but the basic theme emerging from all conceptualizations is that in emotional work, employees regulate and express emotions in response to organizational rules or norms. Emotional labor, according to Morris and Feldman (1996), “effort, planning, and control needed to express organizationally desired emotions during interpersonal transactions” (p. 987).

Employees commonly use two approaches to control their emotions, according to researchers: surface acting and deep acting. Both of these emotional labor techniques have different effects on different organizational outcomes, according to existing studies. Researchers argue that employees commonly use two emotional work strategies to meet the emotional exposure requirements of jobs or organizations: surface acting and deep acting (Hochschild, 1983; Kruml & Geddes, 2000; Zapf, 2002). Deep acting is found to enhance customer satisfaction and loyalty, while the use of surface acting has been shown to have a negative impact on customer satisfaction and loyalty (Groth et al., 2009; Hennig-Thurau et al., 2006).

Surface and depth of action have been shown to have different effects on employee well-being and well-being, as well as on organizational outcomes. Surface acting has been shown to have a negative impact on the well-being of employees in studies (Grandey, 2003; Johnson & Spector, 2007). Surface acting involves simulating emotions that are not actually felt by carefully presenting verbal and non-verbal cues, such as facial expression, gestures, and voice tone (Ashforth & Humphrey, 1993). Hennig-Thurau and colleagues (2006) propose that in surface acting, an employee should only try to change his or her outward behavior in order to show the emotions he or she needs. Thus, “surface acting is the act of displaying emotions that are not

actually felt and could involve both suppressing felt emotions and faking unfeeling emotions" (Hennig-Thurau et al., 2006, p. 59).

On the other hand, no consistent results have been observed for the effect of profound action on the well-being of employees. Some studies have shown that deep acting improves employee well-being (e.g., Johnson & Spector, 2007), while others have found that deep acting has a detrimental effect on employee well-being. (Johnson & Spector, 2007). (Brotheridge & Lee, 2003; Judge, Woolf, & Hurst, 2009). Deep acting, on the other hand, involves experiencing or feeling the emotions that one wants to show (Ashforth & Humphrey, 1993). In deep acting, employees express the required (or expected) emotions by trying to create those emotions within themselves (Hennig-Thurau et al., 2006). Judge et al. (2009) argue that deep-rooted action consists of attempts on the part of the employee to actually feel emotions in order to bring consistency between organizationally required display and employee behavior and internal experience. Research indicates that the emotions expressed by employees while engaged in deep acting are more genuine than the emotions expressed during surface acting, which occurs when employees only change their outward emotional display without genuinely altering how they actually feel (Grandey, 2003; Groth et al., 2009).

Initially, Hochschild (1983) suggested that both types of emotional work strategies (i.e. surface and deep acting) should be detrimental to employee health and well-being. Subsequent empirical research shows, however, that these two emotional work strategies have different effects on the well-being of employees. In particular, surface action has consistently been found to have deleterious effects on the well-being of employees (Grandey, 2003; Johnson & Spector, 2007; Judge et al., 2009), whereas no consistent results have been observed in the event of a profound effect on the well-being of employees.

### **EXHAUSTION**

Many researchers focus on exhaustion is one of the key dimensions of the burnout process (Burke et al., 1996; Cropanzano et al., 2003; Lee and Ashforth, 1996; Melamed et al., 2006). Burnout refers to "psychological syndrome in response to chronic interpersonal stressors at work" (Maslach, 1982, p. 15) and the dimensions of burnout are: overwhelming exhaustion, feelings of cynicism and detachment from work, and a sense of inefficiency and lack of achievement. The exhaustion component includes feeling tired or low energy levels. Two types of exhaustion were most frequently examined in burnout literature, emotional exhaustion. (Lee and Ashforth, 1996; Maslach, 1982), and more recently, work exhaustion (Moore, 2000a; Schaufeli and Bakker, 2004).

Emotional exhaustion involves "feelings of being emotionally over-extended and energy-depleted" (Innstand et al., 2002, p. 273) and is primarily due to extensive work-related interpersonal contact. Work exhaustion has been developed to allow a wider application to include lower interpersonal contact jobs (Moore, 2000a, b; Schaufeli and Bakker, 2004). Moore (2000a, p. 336) defined exhaustion of work as: "the depletion of emotional and mental energy needed to meet job demands".

### **EMOTIONAL EXHAUSTION**

Emotional exhaustion refers to emotions that are overstretched and exhausted by one's work, and manifests both physical fatigue and a feeling of psychological and emotional exhaustion (Wright & Cropanzano, 1998). In addition, emotional exhaustion is a state of energy exhaustion caused by excessive emotional demands on people interacting with customers or clients (Saxton, Phillips, & Blakeney, 1991). As employees are emotionally exhausted, they may feel that a psychological contract with the organization has been violated (Zhao et al., 2007).

Because of this perception, employees are less willing to identify with and willing to leave their organization.

Maslach (1982) argues that frequent face-to-face interactions between the employee and the customer, which are intense, emotionally charged and of longer duration, can lead to emotional exhaustion among employees. Further, extending this point of view, Vey (2005) proposes that front-line staff are required to control their emotions in a way that goes well beyond conventional norms of business behavior and that, as a result of the continuous control of their emotions, such employees become emotionally exhausted. Grandey (2000) argues that "when a situation induces repeated emotional reactions, that the employee must regulate, the employee may experience emotional exhaustion, or energy depletion and fatigue" (p. 104).

Emotional exhaustion is defined as the feeling that one's work is emotionally strained and exhausted (Wright and Cropanzano, 1998). It is the result of personal characteristics, the interpersonal environment, the work itself and the context of the organization (Gaines and Jermier, 1983). It has adverse effects on the quality of working life and job satisfaction (Zopiatis and Constanti, 2012).

Emotional exhaustion is a chronic state of physical and emotional depletion that results from excessive job demands and continuous problems (Shirom, 1989; Zohar, 1997). Emotional exhaustion is a major issue in social studies, as it has implications for personal well-being as well as for the organizational outcome. (Cherniss, 1993; Cordes and Dougherty, 1993; Kahill, 1988; Maslach, 1982). From the employee's perspective, emotional exhaustion has caused some physical problems, such as colds, gastrointestinal problems, headaches, and sleep disturbances (Belcastro, 1982; Belcastro & Hays, 1984). From an organizational point of view, emotional exhaustion has to do with a number of organizational outcomes, such as attitudinal and behavioral intentions. (Jackson, Schwab, & Schuler, 1986), work attitudes (Leiter & Maslach, 1988; Wolpin, Burke, & Greenglass, 1991), counterproductive work behavior (Jones, 1981; Quattrochi-Turbin, Jones, & Breedlove, 1983), and job performance (Wright & Bonett, 1997). Managing emotional exhaustion effectively seems to be in everyone's interest.

As employees are emotionally exhausted, they may feel that a psychological contract with the organization has been violated (Zhao et al., 2007). Because of this perception, employees are less willing to identify with and willing to leave their organization. If employees are exhausted in the workplace, they often have excessive emotional and physical demands (Houkes et al., 2008; Jackson et al., 1986; Maslach et al., 2001). They are likely to see that their organization has not provided satisfactory working conditions and that it has breached a psychological contract (Zhao et al., 2007). Since psychological contract infringement diminishes the sense of belonging of employees, they are less likely to identify with the organization (Epitropaki, 2013). Thus, emotional exhaustion at work may undermine organizational identification through perception of psychological contract breach.

From the perspective of conservation of resource theory (Hobfoll, 1989), emotional exhaustion is associated with the depletion of personal resources (Lapointe et al., 2011). Employees are emotionally exhausted when emotional energies are drained due to physical and psychological demands (Hakanen et al., 2008; Jackson et al., 1986; Maslach et al., 2001).

Emotional exhaustion is the main significant part of burnout (Rohland et al., 2004). Exhaustion is the primary stress factor of burnout, which shows a feeling of energy loss and a feeling of being completely shattered from emotional and physical potential (Nagar and Akcay, 2012). Emotional exhaustion is characterized by a feeling of emotional lessening, extreme



tiredness, lack of energy, and a feeling that emotional possessions are shattered to meet ongoing demands (Cordes and Dougherty, 1993).

Due to the negative impact of the EE on organizationally-valued outcomes and the importance of long-term health of employees (Halbesleben and Buckley, 2004; Lee and Ashforth, 1996; Maslach et al., 2001; Maslach, 1982). In a world of increasing global competition, there are ample tangible and intangible costs associated with occupational stress and emotional exhaustion/burnout.

In a multi-level, experience-sampling study, Judge and colleagues (2009) observed a significant positive relationship between surface acting and emotional exhaustion, while deep acting showed a low negative correlation with emotional exhaustion. Judge et al. (2009) state that the degree to which individuals engage in surface action is associated with an increased level of emotional exhaustion. In another study, Morris and Feldman (1997) found a positive association between emotional dissonance, difference between felt and expressed emotion, and emotional exhaustion. They contend that the more an individual has to express organizationally-sanctioned emotions and the longer the duration of those interactions, the more exhausted that individual would be, especially when the emotions required to be expressed are inconsistent with emotions actually felt.

In her study, Grandey (2003) observed that surface and deep acting were positively correlated with emotional exhaustion. However, surface acting was found to have a higher correlation than deep acting with emotional exhaustion. Grandey (2003) proposes two reasons to explain why acting on one's job can cause emotional exhaustion. First, she argues that employees experience tension as a result of emotional dissonance, which is caused by a discrepancy between felt and expressed emotions.

Second, the draining of resources takes place when employees put a lot of effort into acting. In addition, Grandey (2003) argues that while acting on the surface, an individual experiences emotional dissonance, which further leads to an increased level of emotional exhaustion.

Several other researchers also investigated the association between surface action and emotional exhaustion, and found a positive correlation between the two variables (Seery & Corrigan, 2009; Totterdell & Holman, 2003). On the other hand, the results were not as consistent in the case of the relationship between deep acting and emotional exhaustion. For example, in their research, Brotheridge and Lee (2003) found both surface and deep acting positively correlated with emotional exhaustion.

### **EMOTIONAL EXHAUSTION AND GENDER DIFFERENCES**

Previous research suggests that there is a reason to expect gender differences in the EE employee. First, research suggests that women experience more strain than men (i.e. higher anxiety, work-related stress, and work burden; Arnten et al., 2008; Doyle and Hind, 1998). Furthermore, negative (and positive) emotions are experienced more intensely among women than men (Grossman and Wood, 1993). In addition, women tend to suppress negative emotions and simulate positive emotions (Simpson and Stroh, 2004). Failure to effectively release negative emotions may also result in more strain on women than on men. Because EE is conceptualized as a form of strain (i.e. a negative reaction to stressors at work), these findings suggest that women may feel more EA than men. Although these studies suggest that women may experience more strain than men, other findings on the relationship between sex and strain have been incorrect.

For example, other studies have found that this may be limited to the short term and that men may experience more strain than women over time (Verbrugge, 1985). Sex investigation – The EE relationship has also proved to be inconsistent (Bakker et al., 2002; Bekker et al., 2005; Schaufeli and Enzmann, 1998; Van Horn et al., 1997a, b). Previous findings generally show a male-female difference (Rupert and Morgan, 2005), but the relationship between sex and EA varies depending on the study (Greenglass et al., 1998). Some studies show higher levels of EE for women (Bakker et al., 2002; Rupert and Morgan, 2005; Schaufeli and Enzmann, 1998; Van Horn et al., 1997a, b), while others report higher scores for men (Bekker et al., 2005; Van Horn et al., 1997a, b). These contradictory findings suggest the possible existence of an external factor affecting the sex-EE relationship and underline the need for further investigation of possible moderators and mediators of this relationship. As a result, to shed light on these mixed findings, we explore work-family conflict as a mediator and over-employment as a sex moderator – EE relationship.

## REFERENCES

- **Ashforth, B. E., & Mael, F. (1989).** Social identity theory and the organization. *Academy of management review*, 14(1), 20-39.
- **Avanzi, L., Schuh, S. C., Fraccaroli, F., & van Dick, R. (2015).** Why does organizational identification relate to reduced employee burnout? The mediating influence of social support and collective efficacy. *Work & Stress*, 29(1), 1-10.
- **Babakus, E., Yavas, U., & Ashill, N. J. (2009).** The role of customer orientation as a moderator of the job demand–burnout–performance relationship: A surface-level trait perspective. *Journal of Retailing*, 85(4), 480-492.
- **Blau, G., Bentley, M. A., & Eggerichs-Purcell, J. (2012).** Testing the impact of emotional labor on work exhaustion for three distinct emergency medical service (EMS) samples. *Career Development International*. 17(7), 626-645.
- **Burke, R. J., Greenglass, E. R., & Schwarzer, R. (1996).** Predicting teacher burnout over time: Effects of work stress, social support, and self-doubts on burnout and its consequences. *Anxiety, stress, and coping*, 9(3), 261-275.
- **Cordes, C. L., & Dougherty, T. W. (1993).** A review and an integration of research on job burnout. *Academy of management review*, 18(4), 621-656.
- **Cropanzano, R., Rupp, D. E., & Byrne, Z. S. (2003).** The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors. *Journal of Applied psychology*, 88(1), 160.
- **Das, D., Dharwadkar, R., & Brandes, P. (2008).** The importance of being Indian': Identity centrality and work outcomes in an off-shored call center in India. *Human Relations*, 61(11), 1499-1530.
- **De Jonge, J., & Kompier, M. A. (1997).** A critical examination of the demand-control-support model from a work psychological perspective. *International journal of stress management*, 4(4), 235-258.
- **Epitropaki, O. (2013).** A multi-level investigation of psychological contract breach and organizational identification through the lens of perceived organizational membership: Testing a moderated–mediated model. *Journal of Organizational Behavior*, 34(1), 65-86.
- **Eysenck, M. W., Ellis, A. W., Hunt, E. B., & Johnson-Laird, P. N. E. (1994).** *The Blackwell dictionary of cognitive psychology*. Basil Blackwell. 129-134.

- **Fishbein, M., Triandis, H. C., Kanfer, F. H., Becker, M., Middlestadt, S. E., Eichler, A., ... & Singer, J. E. (2001).** Factors influencing behavior and behavior change, Handbook of health psychology. Mahwah, NY: Erlbaum, 3-17.
- **Hakanen, J. J., Schaufeli, W. B., & Ahola, K. (2008).** The Job Demands-Resources model: A three-year cross-lagged study of burnout, depression, commitment, and work engagement. *Work & Stress*, 22(3), 224-241.
- **Hennig-Thurau, T., Groth, M., Paul, M., & Gremler, D. D. (2006).** Are all smiles created equal? How emotional contagion and emotional labor affect service relationships. *Journal of Marketing*, 70(3), 58-73.
- **Hobfoll, S. E. (1989).** Conservation of resources: a new attempt at conceptualizing stress. *American psychologist*, 44(3), 513-524.
- **Houkes, I., Winants, Y. H., & Twellaar, M. (2008).** Specific determinants of burnout among male and female general practitioners: A cross-lagged panel analysis. *Journal of Occupational and organizational Psychology*, 81(2), 249-276.
- **Huang, I. C., Chuang, C. H. J., & Lin, H. C. (2003).** The role of burnout in the relationship between perceptions off organizational politics and turnover intentions. *Public Personnel Management*, 32(4), 519-531.
- **Innstrand, S. T., Espnes, G. A., & Mykletun, R. (2002).** Burnout among people working with intellectually disabled persons: a theory update and an example. *Scandinavian Journal of Caring Sciences*, 16(3), 272-279.
- **Jackson, S. E., Schwab, R. L., & Schuler, R. S. (1986).** Toward an understanding of the burnout phenomenon. *Journal of applied psychology*, 71(4), 630-640.
- **Jex, S. M., & Britt, T. W. (2014).** *Organizational psychology: A scientist-practitioner approach*. John Wiley & Sons.
- **Kupers, W., & Weibler, J. R. (2008).** Emotions in organisation: an integral perspective. *International Journal of Work Organisation and Emotion*, 2(3), 256-287.
- **Lapointe, É., Vandenberghe, C., & Panaccio, A. (2011).** Organizational commitment, organization-based self-esteem, emotional exhaustion and turnover: A conservation of resources perspective. *Human Relations*, 64(12), 1609-1631.
- **Lee, M., & Jang, K. S. (2019).** Nurses' emotions, emotion regulation and emotional exhaustion. *International Journal of Organizational Analysis*. 27(5), 1409-1421.
- **Lee, R. T., & Ashforth, B. E. (1996).** A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of applied Psychology*, 81(2), 123-133.
- **Lee, R. T., & Ashforth, B. E. (1996).** A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of applied Psychology*, 81(2), 123.
- **Maslach, C. (1982).** Burnout: the cost of caring Prentice-Hall. Nueva York.
- **Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001).** Job burnout. *Annual review of psychology*, 52(1), 397-422.
- **Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001).** Job burnout. *Annual review of psychology*, 52(1), 397-422.

- **Melamed, S., Shirom, A., Toker, S., Berliner, S., & Shapira, I. (2006).** Burnout and risk of cardiovascular disease: evidence, possible causal paths, and promising research directions. *Psychological bulletin*, 132(3), 327-353.
- **Moore, J. E. (2000).** One road to turnover: An examination of work exhaustion in technology professionals. *MIS quarterly*, 141-168.
- **Moore, J. E. (2000).** Why is this happening? A causal attribution approach to work exhaustion consequences. *Academy of Management Review*, 25(2), 335-349.
- **Nagar, A., & Akcay, S. (2012).** Horizon-absorbed energy flux in circularized, nonspinning black-hole binaries, and its effective-one-body representation. *Physical Review D*, 85(4), 044025.
- **Park, R. (2019).** Responses to emotional exhaustion: do worker cooperatives matter?. *Personnel Review*. 48(2), 438-453.
- **Pekrun, R. (2006).** The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational psychology review*, 18(4), 315-341.
- **Rathi, N. (2013).** Please Smile While You Serve: Do Employees Pay a Hidden Cost for “Serving with a Smile?”. *NMIMS Management Reviews*, 23, 33-44.
- **Rohland, B. M., Kruse, G. R., & Rohrer, J. E. (2004).** Validation of a single-item measure of burnout against the Maslach Burnout Inventory among physicians. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 20(2), 75-79.
- **Rubino, C., Volpone, S. D., & Avery, D. R. (2013).** Burnout on Mars and Venus: exploring gender differences in emotional exhaustion. *Gender in Management: An International Journal*. 28(2), 74-93.
- **Schaufeli, W. B., & Bakker, A. B. (2004).** Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 293-315.
- **Seery, B. L., & Corrigan, E. A. (2009).** Emotional labor: Links to work attitudes and emotional exhaustion. *Journal of Managerial Psychology*.
- **Wegge, J., Van Dick, R., Fisher, G. K., Wecking, C., & Moltzen, K. (2006).** Work motivation, organisational identification, and well-being in call centre work. *Work & Stress*, 20(1), 60-83.
- **Wright, T. A., & Cropanzano, R. (1998).** Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of applied psychology*, 83(3), 486-493.
- **Wright, T. A., & Cropanzano, R. (1998).** Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of applied psychology*, 83(3), 486-493.
- **Zhao, H. A. O., Wayne, S. J., Glibkowski, B. C., & Bravo, J. (2007).** The impact of psychological contract breach on work-related outcomes: a meta-analysis. *Personnel psychology*, 60(3), 647-680.
- **Zhao, H. A. O., Wayne, S. J., Glibkowski, B. C., & Bravo, J. (2007).** The impact of psychological contract breach on work-related outcomes: a meta-analysis. *Personnel psychology*, 60(3), 647-680.

**THE EFFECT OF DYNAMIC CAPABILITIES ON SMALL AND MEDIUM ENTERPRISES PERFORMANCE: THE MODERATING ROLE OF ORGANIZATIONAL INERTIA**

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**ABSTRACT**

*In Sri Lanka, the studies related to dynamic capabilities, organizational Inertia, and organizational performance are scarce. There is a need to fill this empirical gap by investigating the effect of dynamic capabilities of small and medium enterprises (SMEs) on organizational performance and the interaction between dynamic capabilities and organizational Inertia in a volatile environment. Therefore, this study was undertaken to examine the relationship among these three variables and assess organizational Inertia's moderating role in the relationship between dynamic capabilities and organizational performance. The findings indicated that the variables have significant relationships among them. This study's results revealed that Organizational Inertia negatively moderates the relationship between dynamic capabilities and Organizational performance of SMEs in Mannar North Divisional Secretariat in Batticaloa District.*

*By addressing the findings of this study, SME owners could reduce the Inertia in their business. The relationship between dynamic capabilities and performance can be induced, leading the firms to achieve competitive advantages.*

*Keywords: Small and Medium Enterprises, Dynamic Capabilities, Organizational Performance, Organizational Inertia.*

**1. INTRODUCTION**

In today's markets, marketers face so many environmental turbulences that arise from technological advances, changes in consumer demand, and new regulations (Helfat & Winter, 2011). These developments can impact organizational performance and cause a decline in the firms' competitive advantages or even become redundant. According to Zott (2003), some firms can deal better with environmental turbulence than others. It is of interest to identify the factors that cause performance differentials when responding to environmental turbulence. In general, performance differentials have either been attributed to the industry or the organization itself (Schmalensee, 1985). Dynamic capabilities are expected to be valuable for organizations when dealing with environmental turbulence (Teece, Pisano & Shuen, 1997). Researches have shown that dynamic capabilities have both direct and indirect effects on organizational performance: directly via dynamic capability costs and indirectly via the organizational resource base (Wilden, Gudergan, Nielsen & Lings, 2013). The productive process is indirectly affected by dynamic capabilities by integrating, reconfiguring, gaining, and releasing resources to respond to environmental turbulence or create internal and external change (Eisenhardt & Martin, 2000).

Dynamic capabilities make organizations capable of innovativeness by planning out suitable measures and finding out their impacts on accomplishing organizational goals (Teece, Peteraf & Leih 2016). Studies have reflected that innovativeness can change small and medium

enterprises' strategies in their invention, development, introduction, and commercialization of innovative products. The main challenge for many organizations is the dynamic environmental context in which the organization exists. Therefore, organizational dynamism and uncertainty remain the primary concern for organizational theorists over the past three decades (Gerloff, Muir & Bodensteiner 1991). Demand for dynamic capabilities depends on the organizational Inertia (Schreyögg & Eberl, 2007). Traditionally, Inertia is defined as the inability to enact change in the face of significant external change. Therefore, organizations have limited options to stay with Inertia before deciding on the environmental changes (Miller & Friesen, 1980). So, to break the grip of Inertia, continuous changes are essential.

The previous research revealed that long-term performance could be significantly improved due to constant change, even in settings that begin as inert organizations (Hakonsson, Klaas & Carroll, 2009). Nowadays, in the global competitive market, organizations are faced with a dilemma: on the one hand, there is pressure to develop reliable patterns of selecting and linking resources to attain superior performance and competitive advantage, and on the other hand, this very endeavor risks – at least in volatile markets – restricting the organization to these capabilities (Schreyögg & Eberl, 2007). This study mainly concentrates on the relationship between dynamic capabilities and organizational performance, for which organizational Inertia will be the major constraint to organizational performance.

### ***1.1 Research Gap***

SMEs play an important role in each country; SMEs face various challenges due to the rapidly changing business environment (Khalique, Isa, Shaari & Abdul, 2011). Still, only a few studies have addressed the issues and challenges faced by such SMEs in Sri Lanka. Many researchers have identified that the dynamic capabilities approach is critical to answering how organizations can avoid being locked in such challenges and core rigidities in a fast-changing environment (Saeedi, 2014). Teece et al., (1997) have noticed that the ability to achieve new forms of competitive advantage as dynamic capability and this has brought intensive debates in strategic management research agendas and further characterized dynamic capabilities as unique and distinctive processes source of sustainable competitive advantage. Many scholars have identified that there is a positive relationship between dynamic capabilities and organizational performance (Nyachanchu, Chepkwony & Bonuke, 2017).

Although some may expect, on average, companies with more dynamic capabilities to represent those companies with higher performance, there is no guarantee that companies recognize the potential of dynamic capabilities and achieve the expected results. These agree with Lampel, Shamsie and Shapira (2009), who found support for the claim that developing more dynamic capabilities does not necessarily increase performance; instead, it is the context in which such capabilities are used that leads to better or worse outcomes.

Besides, Barreto (2010) concluded that research in this field should focus on the internal and external factors that may enable or inhibit firms from realizing the potential represented by their dynamic capabilities. Some scholars have found that organizational Inertia functions as a factor that inhibits organizational performance (Aryasa, 2017). But still there is a dearth of researches to identify the impact of organizational Inertia on the interaction between the dynamic capabilities and organizational performance (Nedzinskas, Pundzienė, Buožiūtė, & Pilkienė, 2013).

Therefore, the current study mainly focuses on bridging the empirical gap and tries to determine whether dynamic capabilities impact the organizational performance of Small and Medium

Enterprises moderated by organizational Inertia in Manmunai North Divisional Secretariat Batticaloa District.

### **1.2 Research Objectives**

- To assess the relationships among the dynamic capabilities, organizational Inertia, and organizational performance in Small and Medium Enterprises in Manmunai North Divisional Secretariat in Batticaloa District
- To examine the moderating role of organizational Inertia in the relationship between the dynamic capabilities and organizational performance of the Small and Medium Enterprises in Manmunai North Divisional Secretariat in Batticaloa District.

### **1.3 Significance of the Study**

This study argues that dynamic capabilities are an emerging paradigm and still require deep and broad research and grown on a strong belief that possession of any organizational resources or capabilities per se doesn't ensure successful performance. From this research, the SMEs will be able to identify the dynamic capabilities in their firms. Through that, they will get a chance to improve the existing capabilities and identify the lacking part that needs to be considered for future development and growth.

Also, the firms will be able to make the decisions regarding their investments on the dynamic capabilities wisely, leading the firms to achieve competitive advantage and success over their competitors. This study will also help the firms to acquire enough knowledge on how the organizational Inertia that prevails in their firms would impact their overall performance and also will able to identify the importance of organizational Inertia and will try to keep them on correct percentage within the firms and this prevents the firms from locking into the Inertia which will be the restrictions on the growth of the company.

## **2. LITERATURE REVIEW**

### **2.1 The relationship between Dynamic Capabilities and Organizational Performance**

There is an accord concerning the dynamic capabilities and their relationship with organizational performance. An increasing number of researches affirm that the connection between dynamic abilities and organizational performance is indirect. Dynamic capabilities empower an organization to achieve a competitive advantage by creating, arranging, and assuring tangible and intangible resources that bolster predominant organizational performance (Tece, 2007). All parties involved must be in collaborative relationships to reap the benefits of inter-organizational innovation and organizational performance. Collaboration and dynamic capabilities between partners enable superior innovation performance and a tremendous competitive advantage for any business (Cheng, Chen & Huang, 2014).

The explorative study by Zott (2003) analyzes how dynamic skills are related to various factors of organizational performance and suggests three performance-related attributes of dynamic capabilities-timing, costs, and learning. The study shows that the point when an organization changes or resource positions are reoriented is significant. The difference in organizational performance also depends on the costs associated with providing resources through imitation and experimentation. The ability to learn the speed of how to change is related to superior performance.

The study by Pavlou and El Sawy (2011) reveals congruent facts, and other scholars stated that developing dynamic capabilities that are positively related to operational skills and independent in terms of organizational performance. Pavlou and El Sawy (2011) measured the performance

of new products in terms of product effectiveness (product quality and innovation) and process efficiency (time-to-market at low cost).

Drnevich and Kriauciunas (2010) have examined positive and negative contributions from dynamic capabilities for relative organizational performance. The impact of dynamic capabilities was measured at two levels - process and organization level. The process indicators included productivity, business process performance, product quality, and quality services affected by IT and the associated organizational changes. The indicator at the organizational level was defined as profitability compared to the industry average. The analysis supports the suggestion that heterogeneity of dynamic skills makes a positive contribution to relative organization performance. It has been demonstrated that the heterogeneity of dynamic capabilities has a positive effect on the organization's performance at the process level but not at the organizational level. These results showed that the dynamic capabilities were influenced by organizing products, customers, and processes to deliver a positive contribution at the process level and negatively impact the organization's profitability.

Zott (2003) and Drnevich and Kriauciunas (2011) support the prevailing dynamic capability perspective that dynamic capabilities are the levers for gaining competitive advantage and achieving superior organizational performance. Dynamic capabilities must be managed and deployed consciously to lead to excellent organizational performance. Researches by Proeller, Kroll, Krause and Vogel (2014) have shown that strong dynamic skills have a mediating effect on organizational performance and Strategic management has a positive impact on organizational performance if the organization has previously developed dynamic skills.

It is also essential to consider that part of the dynamic capabilities construct - the significance of every constituent pointer of dynamic capabilities (sensing, seizing, and reconfiguring) might differ over time. The relationship of these indicators to organizational performance may also be different. Harris, Fletcher and Mahnke (2012) found that the sensing and seizing skills were most influential during market entry, commercialization, and the growth phase of the new venture and in the process of internationalization. However, the dynamic capability component indicators, although interdependent and non-discrete, may overlap and be combined in various stages of organizational development to improve organization performance. The use of dynamic capabilities to leverage their potential should be understood as a series of actions at different levels of governance.

The study of Nedzinskas (2013) highlights the positive relationship between dynamic capabilities and organizational performance. Since the dynamic capabilities concept has been evolving as a significant sustainable competitive advantage generator, this study argues that dynamic capabilities have either a direct or indirect positive relationship to organizational performance. Besides, Nyachanchu's (2017) work proves that the three dimensions of dynamic capabilities, such as sensing, seizing, and reconfiguring, positively correlate with organizational performance. Scholars such as Banerjee (2018) and Gudergan, Nielsen and Lings (2013) have also found that dynamic capabilities positively impact its performance. Considering the causal relationship between dynamic skills and organizational performance, the following hypotheses are formulated:

***H<sub>1</sub>: Dynamic Capabilities have a significant and positive relationship with Organizational Performance***

## ***2.2 The Relationship between Organizational Inertia and Organizational Performance***

Does organizational Inertia help to improve organizational performance or inhibit the performance? seems to be the most critical question in the field of strategic management and



practice (George, 2005). Existing literature usually uses the resource-based view and the organizational inertia perspective to investigate the Inertia- performance context. The resource-based theory suggests that the organization's Inertia can be leveraged to support innovation, promote strategic behavior, and improve organizational performance (Cheng & Kesner, 1997). Some empirical researches have also supported this idea (Singh, 1986). Ma and Karri (2009), in their study about the behavior of banking organizations during the recession, suggest a threshold of the performance below which organizational Inertia prevents a change in the organization because of heavy resources and pessimistic managerial perception. These empirical findings show that the performance effects on Inertia are non-monotonic and curvilinear. Also, the relationship between these two variables is still needed to be researched more. There are many combinations of researches that say the relationship can be either positive or negative. The resource-based view will argue that the slack/ inertia will positively enhance innovation and performance (Cheng & Kesner, 1997). On the other hand, the inertia perspective contends that the slack will lead to inertia and reduce performance (Barton, 1992). Therefore, the empirical analysis highlights significant findings that the organization's dynamics and the external environment determine the result of the organization's inertia (whether it creates or destroys survival) (Nedzinskas et al., 2013). Greve (2011) suggests that the small business reduces the risk when its performance decreases, ensuring that the firm generates rigidities that lead to Inertia. Mishina, Pollock and Porac (2004) and Tan & Peng (2003) also suggest that Inertia is a factor that reduces the desirable performance of the organization, which supports the findings of Nedzinskas et al., (2013). Therefore, considering these empirical evidence regarding the causal relationship between organizational performance and organizational performance, the following hypotheses are formulated:

***H<sub>2</sub>: Organizational Inertia has a significant and negative relationship with Organizational Performance***

### ***2.3 The Relationship between Dynamic Capabilities and Organizational Inertia***

Core capabilities can become core rigidities as the environment changes (Leonard-Barton, 1992). Miller (1992) warns of the tiny line between passionate commitment to superior performance and the extremes that lead to failure and suggests some methods to avoid the capability trap. Teece et al., (1997) identify three categories - positions, processes, and path dependencies - that determine organization-specific competencies and dynamic capabilities. An organization that identifies each of these organizational inertia indicators and understands their relationship can assess how they can choose from different assumptions about external environment changes. As indicated by Teece (2007), successful organizations, over time, will develop hierarchies and rules and procedures that will inevitably restrict specific interactions and behaviors. It remains unclear how dynamic capabilities such as sensing, seizing, and reconfiguring can interact (simultaneously or sequentially) with relatively static elements as positions, processes, and path dependencies.

An analysis of RBV and the dynamic skills approach demonstrates that success and excellence do not rely on its resources or the dynamic capabilities it employs. Penrose (1959) has stated that only the services and not the resources themselves are the inputs to the production process. Prahalad and Hamel (1990), Barney (1991) and Teece (2007) have highlighted the importance of internal organizational action processes and internal interactions for a sustainable competitive advantage. Along with other scholars, Barreto (2010) calls for special attention to internal and external factors that are inhibitory or reinforcing organization potential enabled by its dynamic capabilities. From the above literature, organizational Inertia is one factor that inhibits dynamic capabilities potential for organization performance. Newey and Zahra (2009) have shown how

companies can handle the core rigidities under endogenous shock by utilizing dynamic capabilities. The dialogue between dynamics and operation Skills (mutual interaction) is perceived as a critical activity that changes the organization's shape and processing of experiences and path-dependent trajectories that limit endogenous entrepreneurship. In general, common sense and empirical evidence speak for experience leads to organizational and its' management inertia, and consequently, the Inertia of the organization delays the organizational change (Hlavacek & Thompson, 1973; Miller & Chen, 1994; Christensen & Bower, 1996; Greve, 1996; Teece et al., 1997). Dynamic capabilities are identified as a condition for organizational adjustment and an instrument for overcoming organizational Inertia. We agree with Eisenhardt and Martin's (2000) conclusion that dynamic capabilities are required, but not the only instrument to improve existing resource reconfigurations. Proeller et al., (2011) suggest dynamic skills as a moderator between strategic practices and organizational performance.

The case study by Tripsas and Gavetti (2000) shows that despite the dynamic capabilities that enabled the company to develop high-tech digital imaging products, the business could not adapt to radical environmental changes; this is mainly attributed to the inertia effects of path dependency associated with learning processes. This empirical finding suggests how crucial for organizations facing a radical, discontinuous change is the ability to distinguish between the development of new technological and dynamic capabilities and organizational Inertia. It also bolsters the significance of dynamic capabilities to clarify the Inertia of the business.

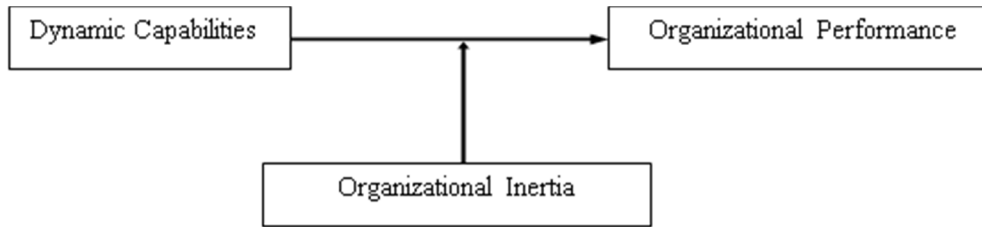
Certain research supports the argument that success is not in dynamic abilities but in their application and use (Eisenhardt & Martin, 2000; Zott, 2003; Wang & Ahmed, 2007). The strategic imperative is the organization's ability to leverage (to use or overcome) the organization's Inertia at all stages of the evolutionary process - to capture, seize and reconfigure. According to Nedzinskas et al., (2013), organizational Inertia has a negative impact on any dynamic capability indicator; limited sensing causes a little response of the sensing results in a proportionately narrow response to the seizing and a comparatively lower response rate of the reconfiguration. He also believes that the interaction is not sequential and has simultaneous character. In addition, it suggests that the use of dynamic capabilities and each indicator's ability to withstand the organization's inertial pressure is a factor of the organization's competitive heterogeneity. The researcher believes that dynamic capabilities are an appropriate management tool to break this closed ability and rigidity loop.

Empirical findings support the view that organizational Inertia is one factor that inhibits dynamic capabilities and organizational performance (Daniel et al., 2004; Barreto 2010). There is an empirical gap in which only a few researchers investigate that organizational Inertia is one factor that inhibits the positive impact of dynamic capabilities on organizational performance. Besides, much work to be done regarding the interaction between dynamic capabilities and organizational Inertia in the SME sector in particular as well. Therefore, the following relationship between organizational Inertia with dynamic capabilities is proposed:

*H<sub>3</sub>: Organizational Inertia has a negatively moderating effect on the relationship between Dynamic Capabilities and Organizational Performance.*

### **3. CONCEPTUALIZATION**

A conceptual framework represents the researcher's synthesis of the literature on how to explain a phenomenon. The conceptual framework is the researcher's understanding of how the study's particular variables connect (Regoniel, 2015). This conceptual framework is used to indicate the relationship between the variables, which are involved in the study.



**Figure: 3.1 Conceptual Framework**

Source: Nedzinskas, Pundzienė, Buožiūtė & Pilkienė, 2013).

### 3.1 Definition of Variables

This section consists of the definitions of the following variables as Dynamic Capabilities, Organizational Performance and Organizational Inertia.

#### 3.1.1 Dynamic Capabilities

Dynamic Capabilities are defined as managerial processes and systems through which the decision-makers of an organization (or part of it) purposefully integrate, build, and reconfigure internal and external capabilities to seek strategic flexibility in changing environments (Cinici, Dagnino, Giudici & Reinmeller, 2011). Dynamic capabilities are presently considered a business asset of the highest order. Dynamic capabilities are complex, higher-order organizational processes that provide adequate conditions for modifying and renewing the firm's stock of business assets (Vivas López, 2005).

#### 3.1.2 Organizational Performance

Organizational performance includes multiple activities that help the organization's goals and monitor the progress towards the target. The organization's firms' performance can be attributed to the firms' resources and capabilities (Barney, 1991).

#### 3.1.3 Organizational Inertia

Inertia is defined as the relatively slow rate of organizational change in response to environmental change (van der Steen, 2009). Organizational Inertia may also imply the reluctance to change the occupants' stories and language; as a narrative approach, organizational change results in a conversational shift (Näslund & Perner 2012). Teece et al., (1997) distinguish three classifications – positions, process, and path dependencies, as deciding factors of an organization's particular skills and dynamic capabilities. An organization that can recognize every one of these organizational inertia pointers and comprehends their relationship can assess the opportunities it can browse under various presumptions about changing environments.

## 4. RESEARCH METHODOLOGY

This research included a quantitative study. The quantitative research aims to identify the relationship between dynamic capabilities, organizational Inertia, and organizational performance. The quantitative part of this research focuses on using formalized questions in surveys. The quantitative methods focus on the objective measurement and the statistical, mathematical, or numerical analysis of the data collected through structured questionnaires.

### 4.1 Sample and Data Collection

The target respondents of the study are SMEs selected from Manmunai North Divisional Secretariat in Batticaloa District. As a sample for the quantitative study, 160 SMEs are chosen based on the convenience sampling method.

#### 4.2 Data Analysis

The primary data were collected through a closed structure questionnaire. For the purpose of the quantitative analysis, self-fulfillment questionnaires with 31 questions were handed out to 160 SME owners at the Manmunai North Divisional secretariat in the Batticaloa district. Here, the questionnaires' collected data were analyzed and evaluated by using the Statistical Package for Social Science (SPSS 22.0 version).

### 5. RESULTS AND FINDINGS

From the respondents' demographic profile, the highest number of SMEs were aged between 1 to 5 years, forming 59% of the respondents. This meant that most of the SMEs were relatively young. It was also observed that 95.6% of the SMEs employed only 1-5 employees in their firms.

#### 5.1 Reliability Test

A reliability test was carried out to ensure the study achieved an accurate representation of the total population under study (Joppe, 2000; Golafshani, 2003). The Table shows Cronbach's alpha reliability coefficients for the variables. The Cronbach alpha coefficients were: - Sensing capabilities (0.743), Seizing capabilities (0.8), and Reconfiguration capabilities (0.755). The Cronbach's alpha coefficient for organizational performance (dependent) variable was 0.681. The Cronbach's alpha coefficient for organizational Inertia (moderating) variable was 0.858. Therefore, apart from Organizational Performance, the other variables had coefficients about or above 0.700. This was in harmony with Henson (2001) and Hair, Black, Babin, Anderson, and Tatham (2006). The organizational performance variable's coefficient was also above the recommended 0.60 cutoffs (Sekaran, 2003; Hair et al., 2006; Garson, 2012).

**Table 1:** Cronbach's Alpha Reliability Test

Construct	Dimension	Count of Measures	Cronbach's alpha Coeff.
<b>Organizational Performance</b>	Organizational Performance	7	0.681
<b>Dynamic Capabilities</b>	Sensing Capabilities	8	0.743
	Seizing Capabilities	9	0.8
	Reconfiguration Capabilities	2	0.755
<b>Organizational Inertia</b>	Organizational Inertia	7	0.858

(Source: Study data).

#### 5.2 Correlation Analysis

##### 5.2.1 Correlation between Dynamic Capabilities and Organizational Performance

A correlation test of variables revealed that there was a positive correlation between organizational performance and the three dimensions of dynamic capabilities - sensing capabilities (0.644,  $P < 0.01$ ), seizing capabilities (0.738,  $P < 0.01$ ), and reconfiguration capabilities (0.413,  $P < 0.01$ ). Overall, the Dynamic Capabilities have a Strong and Significant Positive relationship with Organizational Performance.

**Table 2: Correlations of Variables**

Variable		Organizational Performance
Sensing	Person Correlation	0.644**
	Sig. (2- tailed)	0.000
Seizing	Person Correlation	0.738**
	Sig. (2- tailed)	0.000
Reconfiguring	Person Correlation	0.492**
	Sig. (2- tailed)	0.000
Dynamic Capabilities	Person Correlation	0.681**
	Sig. (2- tailed)	0.000

Pearson Correlation (2-tailed). Significance \*P<0.05; \*\*P<0.01.

(Source: Study data).

This study results coincide with the studies done by Wilden, Gudergan, Nielsen and Lings (2013), who identify that dynamic capabilities positively influence firm performance and also improve inter-firm performance. In addition to this, the work of Nyachanchu (2017) also proves that the three dimensions of dynamic capabilities such as sensing, seizing, and reconfiguring has a positive relationship with the firm performance with the correlation coefficients of sensing capabilities 0.394\*\*, seizing capabilities 0.360\*\* and reconfiguration capabilities 0.413\*\*. Banerjee (2018) has mentioned that the dynamic capabilities are essential to businesses to meet the challenging external environment businesses create for themselves, which is a basis for organizational performance and substantially relates to it. But still, some researchers found that the relationship between the dynamic capabilities and organizational performance is indirect, and further researchers are needed in this field (Protogerou, Caloghirou & Lioukas 2011).

### 5.2.2 Correlation between Dynamic Capabilities and Organizational Inertia

A correlation test of variables revealed that there was a negative correlation between organizational performance and the three dimensions of dynamic capabilities - sensing capabilities (-0.697, P<0.01), seizing capabilities (-0.829, P<0.01), and reconfiguration capabilities (-0.768, P<0.01). Overall, the Dynamic Capabilities have a Strong and Significant Negative relationship with Organizational Inertia.

**Table 2: Correlations of Variables**

Variable		Organizational Inertia
Sensing	Person Correlation	-0.697**
	Sig. (2- tailed)	0.000
Seizing	Person Correlation	- 0.829**
	Sig. (2- tailed)	0.000
Reconfiguring	Person Correlation	-0.593**
	Sig. (2- tailed)	0.000
Dynamic Capabilities	Person Correlation	-0.768**
	Sig. (2- tailed)	0.000

Pearson Correlation (2-tailed). Significance \*P<0.05; \*\*P<0.01.

(Source: Study data).

In his studies, Barreto (2010) revealed that the dynamic capabilities will be inhibited by the organizational Inertia that prevails in the business. In addition, Tripsas and Gavetti (2000) also argue that inertia in a company would make it difficult to gain the benefits of capabilities. And the major pioneer work concerning this relationship was done by Teece et al., (1994), which shows that failures to adapt to radical technological discontinuities often stem from organizational routines' relative rigidity. All these findings support the results of the current study.

### 5.2.3 Correlation between Organizational Inertia and Organizational Performance

Organizational Inertia has a Strong and Significant Negative relationship with Organizational Performance.

Table 3: Correlations of Variables

Variable		Organizational Performance
Organizational Inertia	Person Correlation	-0.865**
	Sig. (2- tailed)	0.000

Pearson Correlation (2-tailed). Significance \*P<0.05; \*\*P<0.01.

(Source: Study data).

The resource-based view suggests that the result is positive and the Inertia complements organizational performance (Cyert & March 1963). In contradiction, Greve (2011) indicates that the small business reduces the risk-taking as their performance decreases and ensures the firm will create rigidities that will lead to Inertia. Therefore, in an organization where the performance is low, then the Inertia will be high. This study coincides with the results of the current study.

### 5.3 Moderated Regression Analysis

The Coefficient of correlation was 0.8888, indicating a strong positive relationship among dynamic capabilities, organizational Inertia, the interaction of dynamic capabilities, and organizational Inertia with organizational performance. The R square explains that 78.9% variation in organizational performance is defined by dynamic capabilities, organizational Inertia, and interaction of dynamic capabilities and organizational Inertia at the 0.05 significance level. The p-value of the interaction term was less than 0.05, and this indicates that Organizational inertia moderates the relationship between dynamic capabilities and organizational performance in a significant manner and further the coefficient value of interaction was -0.2619, and this shows that organizational Inertia negatively moderates the relationship between dynamic capabilities and organizational performance. The zero value does not lie between the range of upper confidence level and lower confidence level, which proves that the model is significant, according to the study of Nedzinskas et al. (2013), which explains the similar findings that organizational inertia negatively moderates on the relationship between dynamic capabilities and organizational performance.

Table 4: Regression results on Firm Performance

	Coefficients	Std. Error	t	Sig. Val	LLCI	ULCI
<b>Constant</b>	-0.1810	0.0495	-3.6591	0.0003	-.2786	-.0833
<b>Z Mean DC</b>	0.3447	0.0792	4.3499	0.0000	.1882	.5013
<b>Z Mean OI</b>	-0.7219	0.0567	-12.7347	0.0000	-.8338	-.6099

<b>Int_1</b>	-0.2619	0.0481	-5.4485	0.0000	-.3569	-.1670
<b>R</b>	0.8884					
<b>R<sup>2</sup></b>	0.7893					
<b>MSE</b>	0.2148					

(Source: Study data).

Notes: Significance \*P<0.05, \*\*P<0.01, \*\*\*P<0.001. Dependent Variable: Organizational Performance. DC: Dynamic Capabilities, OI: Organizational Inertia.

## 6. CONCLUSION

Overall, the study reveals that a positive relationship exists between dynamic capabilities and organizational performance. The moderating effect of organizational Inertia negatively hinders this relationship and causes negative impacts to businesses, and imposes barriers in achieving their competitive advantages.

### 6.1 Recommendations of the study

From the above research results, it can be found that SMEs. However, they possess a high level of dynamic capabilities that can induce organizational performance, but inertia can inhibit this relationship, and core capabilities can turn into core rigidities. So, this study's recommendations state that the organization's dynamic capabilities have to be induced.

The dynamic capabilities can be increased by improving organizational learning. Organizational learning can increase intangible resources like human capital and structural capital, improve dynamic capabilities, and enhance performance. The businesses can also attempt to build on and expand the dynamic capability of learning by experimenting with incremental steps based on strong, trusting relationships. Businesses can also be supportive of creating a secure environment and encouraging all individuals within the organization to take personal initiative in continually developing new and innovative ways to deliver services.

Organizational leaders have to develop strategies built on existing trust levels within the organization and then work to increase those levels over time. SME owners should look for people who believe that change is essential and trusted each other enough to try new ideas.

In addition to this, the study recommends some ways through which organizational Inertia can be reduced. Some awareness and training programs for SME owners need to be undertaken to motivate them to improve their risk-taking abilities. On the organizational side, the transitional leadership style to be introduced into the firms so that the employees will be inspired and encouraged to adapt to changes. Also, systematic problem solving can induce the firms to make more informed decisions and prevents them from failings (Godkin & Allcorn, 2008). The concern has to move onto the customers stating that their knowledge base and technological knowledge and attitude to accept change should be developed. These methods to overcome Inertia have also been supported by Godkin and Allcorn (2008) in their research.

### 6.2 Limitations and directions for future studies

However, this study's findings will not represent whole SMEs' views in Batticaloa District; therefore, it may not be appropriate to generalize the results. This study surveyed only 160 respondents from SMEs in Manmunai North Divisional Secretariat in Batticaloa District. Selected sample respondents have been relatively small. If any study consists of more than this sample size, the findings would be further confirmed.

The researcher would like to provide some suggestions for other researchers interested in researching these related fields. Thus, the other researchers can fill up the gaps in the future. It

would also help test the impact of dynamic capabilities on the Inertia of the organization through longitudinal studies to understand how the correlation between dynamic capabilities and the Inertia of the organization evolves and differs over time. The longitudinal dynamic capabilities survey would allow us to understand which part of the dynamic capabilities indicator and why it is more or less critical for a sustainable organization's performance at various organizational development or maturity stages.

The existing empirical researchers based on the resource-based view and organizational inertia perspective found conflicting results regarding Inertia and performance. Though our current study supports the organizational inertia perspective, there is still future research in this field.

## REFERENCES

- **Aryasa, K. B., Wahyuni, S., Sudhartio, L., & Wyanto, S. H. (2017).** The Impact of Absorptive Capacity, Organizational Inertia on Alliance Ambidexterity and Innovation for Sustained Performance. *Academy of Strategic Management Journal*, 16(3), 1-19.
- **Banerjee, C. S., Farooq, A., & Upadhyaya, S.** The Relationship between Dynamic Capabilities, Competitive Advantage & Organizational Performance. *International Journal of Interdisciplinary Research and Innovations*, 6(3), 603-610.
- **Barreto, I. (2010).** Dynamic capabilities: A review of past research and an agenda for the future. *Journal of Management*, 36(1), 256-280.
- **Cheng, J. H., Chen, M. C., & Huang, C. M. (2014).** Assessing inter-organizational innovation performance through relational governance and dynamic capabilities in supply chains. *Supply Chain Management: An International Journal*, 19(2), 173-186.
- **Cheng, J. L., & Kesner, I. F. (1997).** Organizational slack and response to environmental shifts: The impact of resource allocation patterns. *Journal of Management*, 23(1), 1- 18.
- **Christensen, C. M., & Bower, J. L. (1996).** Customer power, strategic investment, and the failure of leading firms. *Strategic Management Journal*, 17(3), 197-218.
- **Cinici, M. C., Dagnino, G. B., Giudici, A., & Reinmeller, P. (2011, August).** Dynamic capabilities at a bifurcation point: forging a definition for fostering meaningful conversation. In *Academy of Management, Annual Meeting, Manuscript*.
- **Cyert, R. M., & March, J. G. (1963).** A behavioral theory of the firm. *Englewood Cliffs, NJ*, 2(4), 169-187.
- **Drnevich, P. L., & Kriauciunas, A. P. (2011).** Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance. *Strategic Management Journal*, 32(3), 254-279.
- **Eisenhardt, K. M., & Martin, J. A. (2000).** Dynamic capabilities: what are they?. *Strategic Management Journal*, 21(10-11), 1105-1121.
- **George, G. (2005).** Slack resources and the performance of privately held firms. *Academy of management Journal*, 48(4), 661-676.
- **Gerloff, E. A., Muir, N. K., & Bodensteiner, W. D. (1991).** Three components of perceived environmental uncertainty: An exploratory analysis of the effects of aggregation. *Journal of Management*, 17(4), 749-768.



- **Godkin, L., & Allcorn, S. (2008).** Overcoming organizational Inertia: A tripartite model for achieving strategic organizational change. *The Journal of Applied Business and Economics*, 8(1), 82 - 94.
- **Greve, H. R. (1996).** Patterns of competition: The diffusion of a market position in radio broadcasting. *Administrative Science Quarterly*, 41, 29-60.
- **Greve, H. R. (2011).** Positional rigidity: Low performance and resource acquisition in large and small firms. *Strategic Management Journal*, 32(1), 103-114.
- **Hair, J.F, Jr., Sarstedt, M., Hopkins, L., & G. Kuppelwieser, V. (2014).** Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106-121.
- **Håkansson, D. D., Klaas, P., & Carroll, T. N. (2009, August).** organizational adaptation, continuous change, and the positive role of Inertia. *Academy of Management Journal*, 2009(1), 1-6.
- **Harris, S., Fletcher, M., & Mahnke, V. (2012).** Dynamic Capabilities for Internationalization: From Market Entry to Sustainable Internationalization. In *The 38th EIBA Annual Conference 2012. Brighton, 2012.* Brighton: European International Business Academy.
- **Helfat, C. E., & Winter, S. G. (2011).** Untangling dynamic and operational capabilities: Strategy for the (N) ever-changing world. *Strategic Management Journal*, 32(11), 1243-1250.
- **Hlavacek, J. D., & Thompson, V. A. (1973).** Bureaucracy and new product innovation. *Academy of Management Journal*, 16(3), 361-372.
- **Khalique, M., Isa, A. H. B. M., Shaari, N., & Abdul, J. (2011).** Challenges for Pakistani SMEs in a knowledge-based economy. *Indus Journal of Management & Social Sciences*, 5(2), 74-80.
- **Lampel, J., Shamsie, J., & Shapira, Z. (2009).** Experiencing the improbable: Rare events and organizational learning. *Organization Science*, 20(5), 835-845.
- **Leonard-Barton, D. (1992).** Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal*, 13(1), 111-125.
- **Ma, H., & Karri, R. (2009).** Impact of firm performance on changes in strategic resource allocation decisions. *Journal of Business and Management*, 15(2), 171-185.
- **Miller, D., & Friesen, P. H. (1980).** Momentum and revolution in organizational adaptation. *Academy of Management Journal*, 23(4), 591-614.
- **Mishina, Y., Pollock, T. G., & Porac, J. F. (2004).** Are more resources always better for growth? Resource stickiness in market and product expansion. *Strategic Management Journal*, 25(12), 1179-1197.
- **Näslund, L., & Perner, F. (2012).** The appropriated language: Dominant stories as a source of organizational Inertia. *Human Relations*, 65(1), 89-110.
- **Nedzinskas, Š., Pundzienė, A., Buožiūtė-Rafanavičienė, S., & Pilkienė, M. (2013).** The impact of dynamic capabilities on SME performance in a volatile environment as moderated by organizational Inertia. *Baltic Journal of Management*, 8(4), 376-396.

- **Newey, L. R., & Zahra, S. A. (2009).** The evolving firm: how dynamic and operating capabilities interact to enable entrepreneurship—*British Journal of Management*, 20, 81-S100.
- **Nyachanchu, T. O., Chepkwony, J., & Bonuke, R. (2017).** Role of Dynamic Capabilities in the Performance of Manufacturing Firms in Nairobi County, Kenya.
- **Pavlou, P. A., & El Sawy, O. A. (2011).** Understanding the elusive black box of dynamic capabilities. *Decision Sciences*, 42(1), 239-273.
- **Prahalad, C. K., & Hamel, G. (1997).** The core competence of the corporation. In *Strategische Unternehmensplanung/Strategische Unternehmensführung*(pp. 969987). Physica, Heidelberg.
- **Proeller, I., Kroll, A., Krause, T., & Vogel, D. (2014).** 11 How Dynamic Capabilities Mediate the Link between Strategy and Performance. *Strategic Management in Public Organizations: European Practices and Perspectives*, 173.
- **Protogerou, A., Caloghirou, Y., & Lioukas, S. (2011).** Dynamic capabilities and their indirect impact on firm performance. *Industrial and Corporate Change*, 21(3), 615 647.
- **Regoniel, P. A. (2015).** Conceptual framework: a step-by-step guide on how to make one. *Simply Educate. Me.*
- **Saeedi, M. R. (2014).** *Fostering Dynamic Capabilities of SMEs* (Doctoral dissertation, Msc Thesis, Linkoping Unniversity. Available at: <http://www.divaportal.org/smash/get/diva2:707586/fulltext01.pdf>).
- **Schmalensee, R. (1985).** Econometric diagnosis of competitive localization. *International Journal of Industrial Organization*, 3(1), 57-70.
- **Schreyögg, G., & Kliesch-Eberl, M. (2007).** How dynamic can organizational capabilities be? Towards a dual-process model of capability dynamization. *Strategic Management Journal*, 28(9), 913-933.
- **Singh, J. V. (1986).** Performance, slack, and risk taking in organizational decision making. *Academy of Management Journal*, 29(3), 562-585.
- **Teece, D. J. (2007).** Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 13191350.
- **Teece, D. J., Pisano, G., & Shuen, A. (1997).** Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- **Teece, D., Peteraf, M., & Leih, S. (2016).** Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review*, 58(4), 13-35.
- **Tripsas, M., & Gavetti, G. (2000).** Capabilities, cognition, and Inertia: Evidence from digital imaging. *Strategic Management Journal*, 21(10-11), 1147-1161.
- **Van der Steen, M. (2009).** Inertia and management accounting change: The role of ambiguity and contradiction between formal rules and routines. *Accounting, Auditing & Accountability Journal*, 22(5), 736-761.

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***BUSINESS TRANSFORMATION: CURRENT PRACTICE AND FUTURE POTENTIAL (Indo – Sri Lankan Perspective)***

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- **Vivas López, S. (2005).** Competitive advantage and strategy formulation: The key role of dynamic capabilities. *Management decision*, 43(5), 661-669.
- **Wang, C. L., & Ahmed, P. K. (2007).** Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1), 31-51.
- **Wilden, R., Gudergan, S. P., Nielsen, B. B., & Lings, I. (2013).** Dynamic capabilities and performance: strategy, structure and environment. *Long Range Planning*, 46(1-2), 72- 96
- **Zott, C. (2003).** Dynamic capabilities and the emergence of interindustry differential firm performance: insights from a simulation study. *Strategic Management Journal*, 24(2), 97-125.

## INTENTION TO ADOPT MOBILE COMMERCE – A LITERATURE REVIEW

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### ABSTRACT

*The increased rate of internet penetration and introduction of low cost smartphones have revolutionized the way traditional e-commerce business operates. Consumer buying behaviour and their expectations have subsequently changed due to the improvements in mobile commerce. Even though this area of study is inevitable after Covid 19 pandemic, number of critical reviews is limited. Therefore, this research attempted to fulfill this gap and thus the aim of this paper is to write a comprehensive and brief literature review on factors affecting mobile commerce. 41 Research papers were identified from Wiley Online Library and Taylor and Francis Online and reviewed. The critical review mainly focused on the factors affecting the intention to adopt mobile commerce. The current paper is timely and advantageous because it offers a holistic picture of mobile commerce research and provides literature driven evidence about a range of relevant mobile commerce adoption-intention dimensions. Recommendations for future research are provided. I conclude the paper by discussing implications for academics and practitioners.*

*Keywords: Mobile commerce, Consumer buying behaviour, Smartphones*

### INTRODUCTION

M-commerce has created a massive growth in the global business by paving paths for many business entrepreneurs to start and run their own businesses (Wijesooriya and Sritharan, 2018). Researchers have already begun to analyse the new windows crafted by m-commerce technology to sellers, customers and especially marketers (Laudon and Laudon, 2016). Many types of m-commerce services, such as, m-tickets, m-travelling, purchasing food, mobile shopping, mobile health, mobile agriculture, mobile advertising, mobile education, mobile wallet, purchasing movies, songs or games, mobile banking and mobile brokerage services are offered by the companies at present (Rizky et al., 2017).

Mobile phone has provided a huge potential for m-commerce in the global market place because of its key characteristics of being versatile, ubiquitous, personalized and convenient (Rahman and Sloan, 2017). According to Rahman (2013), mobile commerce has transformed many traditional transactions into mobile transactions at global level. It has been estimated by International Telecommunication Union that the total mobile subscribers around the world will be 9 billion in 2025 (Zhou, 2011). This shows that the global market for m-commerce businesses will keep growing and be enormous with the increased modes of mobile devices such as smartphones, pocket computers, book tablets, and personal digital assistants. As the benefits of m-commerce are well understood in developed countries, many companies in developed countries have adopted and made m-commerce an integral part of their company's strategies (Ghazali et al., 2018).

M-commerce is perceived as a significant component in the current era because of changing consumer needs. Consumers want to accomplish the same transactions they performed using e-commerce, in more efficient way to maintain and improve their life styles. To achieve this objective, they need a faster, smaller, more reliable and better technology (Ghassan et al., 2013). As a result, m-commerce is perceived as the next era of e-commerce as it fulfills customers'

desires in a convenient way using wireless technology which means that all the functions of traditional e-commerce are provided via a smartphone or any hand-held devices (Feras et al., 2013).

M-commerce provides enormous financial benefits to businesses and it helps to achieve and/or maintain the competitive advantage for which many businesses adopt it (Choi, 2018). Some examples are location independence, time independence, and achievement and sustaining competitive advantage (Ghazali et al., 2018). Further, the development of an m-commerce infrastructure is not costly compared to e-commerce (Laudon and Laudon, 2016). Similarly, m-commerce gives many benefits to consumers. It should be noted that the accessibility and increased ubiquity to customers of m-commerce are a main advantage over e-commerce (Choi, 2018; Sun and Chi, 2018).

There are many empirical models scattered around in literature to investigate the factors related to consumer intention to adopt m-commerce. The purpose of this critical literature review is to synthesize the important models and factors that can be adopted by potential empirical researchers to investigate the m-commerce and related areas in more detail.

### **PERCEIVED USEFULNESS**

Perceived usefulness is one of the most widely studied variables in technology adoption. Perceived usefulness is defined as the extent to which individuals believe that using new technology will enhance their task performance. The usefulness construct has been used extensively in ISs and technology research, and has strong empirical support as an important predictor of technology adoption (Mathieson, 1991). Other studies providing evidence of the significant effect of perceived usefulness on intention include those of Davis et al. (1989) and Venkatesh and Morris (2000). The ultimate reason for people to utilize m-commerce is that they find it useful for their tasks, transactions or everyday lives. An individual evaluates the consequences of their behavior in terms of perceived usefulness and bases their choice of behavior on the desirability of the perceived usefulness.

### **PERCEIVED EASE OF USE**

As another important determinant of adoption identified in TAM, perceived ease of use refers to “the degree to which a person believes that using a particular system would be free of effort” (Davis, 1989, p. 320). It reflects the level of effort involved with learning and using a technology. Unlike usefulness, the literature contains inconsistent findings on the impact of ease of use on attitude, depending on products or context (Kulviwat et al., 2007; Nysveen, Pedersen, & Thorbjørnsen, 2005). Rather, ease of use affects perceived usefulness, but is not significantly related to attitudes toward adoption (Kulviwat et al., 2007; Nysveen, Pedersen, & Thorbjørnsen, 2005; Wu & Wang, 2005). In value-based adoption, however, ease of use appears to have a direct effect on the perceived value of the technology, which in turn encourages actual use. Moreover, cognitive effort in intention to use has been negatively associated with the perceived value of mobile channel use (Kleijnen, Ruyter, & Wetzels, 2007). In particular, the perception of ease of use is an important antecedent to perceived value for new adoption (Venkatesh, Ramesh, & Massey, 2003). Since mobile shopping is a fairly new technology, ease of use might contribute to the increased perceived value of its use.

### **POSITIVE AND NEGATIVE EMOTIONS**

One’s emotions can exert influence as evidenced in Kulviwat et al.’s (2007) consumer acceptance model. They studied three types of emotions—pleasure, arousal, and dominance. First, pleasure has a strong “fun” component, and such entertainment potential of using consumer technology is expected to have a strong influence on the adoption decision (Childers,

Carr, Peck, & Carson, 2001). Research has shown that pleasure feelings positively affect attitudes toward Internet shopping (Lee, Suh, & Whang, 2003) and attitudes toward the use of handheld Internet devices (Bruner, & Kumar, 2005). Second, dominance or being in control may be strongly associated with negative feelings such as anxiety or stress. (Zhang and Mao, 2019).

### **SUBJECTIVE NORM**

Subjective norms are used to study the relevance of social context in influencing behavioral intention. Specifically, it characterizes the extent to which individuals believe that people who are important to them think they should perform the behavior in question (Fishbein&Ajzen, 1975). Indeed, with limited or no experience with mobile payments, consumers are expected to be more likely to look for social norms to guide their behavior. Subjective norms have been shown to create social pressure that influences consumers' use of new electronic payment services (Arvidsson, 2014). Previous literature (AbuShanab, Pearson, & Setterstrom, 2010; Martins, Oliveira, & Popovič, 2014) discussed in detail the use of Internet banking and substantial role of SI or their similar factors in increasing the customers intentions. Many researchers showed a positive relationship between Social influence and intentions to use m-banking (Aboelmegeed&Gebba, 2013; Hsu, Wang, & Lin, 2011; Luarn& Lin, 2005; Riquelme& Rios, 2010; Teo, Tan, Cheah, Ooi, & Yew, 2012).

### **NETWORK EXTERNALITIES**

Network externalities describe how an individual's use of a particular product or service changes according to the perceived number of other users of that product or service (Economides, 1996; Katz & Shapiro, 1985). People are more likely to adopt a particular technology when they perceive that many others also use it, and especially, when more people in their social groups or networks, such as peers, use it (Kraut et al., 1998). The market of mobile payments needs at least two parties: consumers and enterprises of trade and services. Consumers are more likely to adopt mobile payment services if a critical mass of retailers is accepting such services (Trachuk& Linder, 2017). The increase in the availability of the services is expected to create social pressure and influence subjective norms.

### **SOCIAL IMAGE**

Social image reflects the degree to which the use of an innovation is perceived to improve one's image or status in society (Moore & Benbasat, 1991; Rogers, 2003). Rogers (2003) initially viewed image as one of the aspects in relative advantage. However, it has been suggested (Tornatzky and Klein, 1982) and evidenced in the studies (Hernandez & Mazzon, 2007) that social images play a vital role separated from relative advantage in the adoption of new technologies (e.g., Internet banking). We believe that perceptions, such as using mobile payments enhance one's trendiness image or social approval within their social groups, will also affect one's intention to adopt the payment through social influences (Zhang and Mao, 2019).

### **PERSONAL INNOVATIVENESS**

General innovation diffusion research has long recognized that highly innovative individuals are active information seekers about new ideas. They are able to cope with high levels of uncertainty and develop more positive intentions toward acceptance (Rogers, 1995). Drawing upon Rogers' theory of the diffusion of innovations, Agarwal and Prasad (1998) argued that individuals develop beliefs about new technologies by synthesizing information from a variety of media. Individuals with higher personal innovativeness are expected to develop more positive beliefs about the target technology after the same exposure to different types of media. Agarwal and Karahanna (2000) developed a multidimensional construct labeled "cognitive absorption" and suggested this construct was an antecedent of the two commonly recognized behavioral

beliefs about technology use: perceived usefulness and perceived ease of use. In addition, they addressed that the individual traits of playfulness and personal innovativeness are important determinants of cognitive absorption. Lewis, Agarwal, and Sambamurthy (2003) found that personal innovativeness in technology significantly affected perceived usefulness and perceived ease of use. Lu et al. (2003) proposed that personal innovativeness in technology, along with a number of other factors, all determine user-perceived short-term as well as long-term usefulness and ease of use, which, in turn, influence user intention and attitude to adopt wireless internet services via mobile technology. Since individuals with higher personal innovativeness in terms of technology tend to be more risk-taking, it is also reasonable to expect them to develop more positive intentions toward the use of wireless internet services via mobile technology.

### **SYSTEM QUALITY**

Chuan-Chuan Lin and Lu (2000) proposed that in an IS context, system quality is especially important, because individuals become reluctant to use the system when they experience frequent delays in response, lack of access, frequent disconnection and poor security. According to DeLone and McLean (1992), information quality and system quality are found to be important constructs that bring about the success of an IS.

### **CONTENT QUALITY**

The concept of content quality is similar to that of information quality, and is used in the studies of DeLone and McLean (1992) and Chuan-Chuan Lin and Lu (2000) because information is often regarded as content in the context of the internet. With regard to this study, it is hypothesized that content quality has a positive influence on perceived playfulness, since better content can make individuals feel m-commerce is more enjoyable and fun. According to Ho Cheong and Park (2005), the quality of the content and the extent to which that content meets the needs and expectations of mobile commerce users could affect their perception of its usefulness.

### **SERVICE QUALITY**

Service quality is defined as the degree to which m-commerce through the network and service provider can give customers prompt, promised and professional service. Cho (2008) proposed that the service factor was a predictor of perceived ease of use in the Korean context.

### **PERCEIVED PLAYFULNESS**

Moreover, individuals who experience immediate pleasure or joy from using a technology and perceive any activity involving the technology to be personally enjoyable in its own right, aside from the instrumental value of the technology, are more likely to adopt the technology and use it more extensively than others (Davis, 1986). Previous studies insisted that perceived playfulness plays a significant role in developing the intention to use (Agarwal & Karahanna, 2000; Moon & Kim, 2001; Teo et al., 1999).

### **PERCEIVED COST**

In the development of behavioral intention, customers compare the benefit from the service with the cost of using the service. If the cost exceeds the benefit, they do not subscribe to the service. Wei et al. stated that cost is one factor that can slow the development of m-commerce. It should also be noted that users of mobile phones include younger students, such as university and high school students. Furthermore, the key question here is whether the users view that m-commerce is worth its value – therefore the price of 4G services may affect their mobile commerce usage.

### **INSTANT CONNECTIVITY**

M-commerce has been distinguished from the Internet in terms of delivering value by offering more convenience and access at any time and any place (Clarke, 2001). Such ubiquity allows

people to download and use real-time information wherever they are. For consumers, the unique characteristics of the mobile Internet, such as localization and instant connectivity, have been identified as antecedents of perceived value or attitude toward using the technology (Lee & Park, 2006). With respect to time cost, instant connectivity is again an important extrinsic benefit that creates a perceived value of mobile service for consumers. It is also a convenience cost in the mobile Internet environment. For instance, as a nonmonetary benefit, Kim, Chan, and Gupta (2007) note that technicality (e.g., short time, instant connectivity, reliability, ease of use, ease of acquisition) is positively related to perceived value, and has a greater impact on it than usefulness and enjoyment benefits. Furthermore, speed and time efficiency are often posited as the main benefits consumers can achieve through the use of technology in a retail setting (Clarke, 2001; Kleijnen, Ruyter, & Wetzels, 2007; Lee & Park, 2006).

### **PERCEIVED ENJOYMENT**

Enjoyment has proven to be an important antecedent for use of technology such as the Internet (Hoffman, Novak, & Duhachek, 2003; Sánchez-Franco & Roldán, 2005) and the mobile Internet (Davis, Bagozzi, & Warshaw, 1992; Lee et al., 2002; Nysveen, Pedersen, & Thorbjørnsen, 2005). Representing an affective and intrinsic benefit (Kim, Chan, & Gupta, 2007), perceived enjoyment is defined as the extent to which the activity of using the technology is seen as enjoyable (Nysveen, Pedersen, & Thorbjørnsen, 2005). According to Kulviwat et al. (2007), the consumer acceptance of technology (CAT) model, which includes PDA (the pleasure, arousal, and dominance paradigm of affect), is a more powerful predictor of consumer intention toward adopting technology than TAM. This supports Kim et al.'s (2007) study, suggesting that intrinsic benefit (e.g., enjoyment) increased perceived value, which in turn encouraged adoption intentions. For consumers, affective benefits to meet their emotional or intrinsic needs of product or service are critical to value creation in mobile commerce (Kim, Chan, & Gupta, 2007; Kulviwat et al., 2007; Park & Yang, 2006; Yang & Jolly, 2006). Emotional value was the most important predictor of behavioural intention to purchase products or service in the retail setting (Sweeney & Soutar, 2001).

### **CONCLUSION AND RECOMMENDATIONS**

The review conducted in this study systematically investigated the role of several factors affecting the intention to adopt mobile commerce. The literature review indicated that mobile commerce has become more popular among consumers due to the low cost of finding businesses and easy-to-operate infrastructure. The consumer buying model has changed to some extent due to the mobile commerce developments. Especially, in the post Covid 19 era, consumers are more willing to purchase essential and materialistic goods via mobile commerce as it enables contactless purchase and delivery. This study identified some important factors on which mobile commerce vendors need to pay more attention. However, the limitation of this study was that no review was conducted on the methodologies used to conduct such mobile commerce researches and the relationships between the factors identified in this research. Therefore, future researchers should expand their literature reviews by including relational and methodological reviews in their papers which would provide a holistic picture of mobile commerce-related literature development.

### **REFERENCES**

- **AbuShanab, E., Pearson, J. M., and Setterstrom, A. J. (2010).** “Internet banking and customers' acceptance in Jordan: The unified model's perspective”. *Communications of the Association for Information Systems*, Vol. 26(1), pp. 23.



- **Agarwal, R., and Prasad, J. (1998).**“A conceptual and operational definition of personal innovativeness in the domain of information technology”.*Information Systems Research*, Vol. 9, pp. 204–215.
- **Arvidsson, N. (2014).** Consumer attitudes on mobile payment services-Results from a proof of concept test. *The International Journal of Bank Marketing*, 32(2), 150–170.
- **Bruner, G. C., II, and Kumar, A. (2005).**“Applying T.A.M. to consumer usage of handheld Internet devices”.*Journal of Business Research*, Vol. 58(5), pp. 553–558.
- **Childers, T. L., Carr, C. L., Peck, J., and Carson, S. (2001).** “Hedonic and utilitarian motivations for online retail shopping behavior”. *Journal of Retailing*, Vol. 77(4), pp. 511–536.
- **Cho, Y. C. (2008).** “Assessing user attitudes toward mobile commerce in the U.S. Vs. Korea: Implications For M-Commerce CRM”, *Journal of Business & Economics Research*, Vol. 6, pp. 91–102.
- **Choi, S. (2018).** “What promotes smartphone-based mobile commerce? Mobile-specific and self-service characteristics”, *Internet Research*, Vol. 28(1), pp. 105-122. <https://doi.org/10.1108/IntR-10-2016-0287>
- **Chuan-Chuan Lin, J., and Lu, H. (2000).**“Towards an understanding of the behavioural intention to use a web site”, *International Journal of Information Management*, Vol. 20, pp. 197–208.
- **Clarke, I. (2001).** “Emerging value propositions for m-commerce”.*Journal of Business Strategies*, vol. 18, pp. 133–148.
- **Constantiou, I. D., Damsgaard, J., &Knutsen, L. (2006).**Exploring perceptions and use of mobile services: user differences in an advancing market.*International Journal of Mobile Communications*,4(3), 231–247.
- **Davis, 1986.** “A Technology Acceptance Model for Empirically Testing New End-User Information Systems:Theory and Results, (Doctoral Dissertation)”, *Sloan School of Management, Massachusetts Institute of Technology, USA*.
- **Davis, F. D., Bagozzi, R. P., &Warshaw, P. R. (1989).** User acceptance of computer technology: A comparison of two theoretical models.*Management Science*, 35(8), 982–1003.
- **Davis, F. D., Bagozzi, R., and Warshaw, P.R. (1992).**“Extrinsic and intrinsic motivation to use computers in the workplace”.*Journal of Applied Social Psychology*, Vol. 22, pp. 11–32.
- **DeLone, W. H. and McLean, E. R. (1992).**“Information systems success: The quest for the dependent variable”, *Information Systems Research*, Vol. 3, pp.60–95.
- **Economides, N. (1996).** “The economics of networks”.*International Journal of Industrial Organization*, Vol. 14(6), pp. 673–699.
- **Feras, F.A.M., Eman, F.A.M., &Nassar, M.O. (2013).**“Exploring technological factors affecting the adoption of m-commerce in Jordan”, *Australian Journal of Basic and Applied Sciences*, Vol. 7(6), pp. 395-400.

- **Fishbein, M., & Ajzen, I. (1975).** *Belief, attitude, intention and behavior*. Boston, MA: Addison Wesley.
- **Ghassan, A., Mahmuddin, M., & Ramayah, T. (2013).** “Adoption factors of m-commerce in Jordan: From personal and societal norms perspectives”, *International Journal of Computer Theory and Engineering*, Vol. 5(1).
- **Ghazali, E.M., Mutum, D.S., Chong, J.H., & Nguyen, B. (2018).** “Do consumers want mobile commerce? A closer look at M-shopping and technology adoption in Malaysia”, *Asia Pacific Journal of Marketing and Logistics*. <https://doi.org/10.1108/APJML-05-2017-0093>.
- **Hernandez, J. M. C., and Mazzon, J. A. (2007).** “Adoption of internet banking: Proposition and implementation of an integrated methodology approach”. *The International Journal of Bank Marketing*, Vol. 25(2), pp. 72–88.
- **Ho Cheong, J., and Park, M. (2005).** “Mobile internet acceptance in Korea”, *Internet Research*, Vol. 15, pp. 125–140.
- **Hoffman, D. L., Novak, T. P., and Duhachek, A. (2003).** “The influence of goal-directed and experiential activities on online flow experiences”. *Journal of Consumer Psychology*, Vol. 13, pp. 3–16.
- **Katz, M. L., and Shapiro, C. (1985).** “Network externalities, competition, and compatibility”. *The American Economic Review*, Vol. 75(3), pp. 424–440.
- **Kim, H., Chan, H., and Gupta, S. (2007).** “Value-based adoption of mobile internet: An empirical investigation”. *Decision Support Systems*, Vol. 43, pp. 111–126.
- **Kleijnen, M., Ruyter, K., and Wetzels, M. (2007).** “An assessment of value creation in mobile service delivery and the moderating role of time consciousness”. *Journal of Retailing*, Vol. 83, pp. 33–46.
- **Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukophadhyay, T., and Scherlis, W. (1998).** “Internet paradox: A social technology that reduces social involvement and psychological well-being?”. *American Psychologist*, Vol. 53(9), pp. 1017–1031.
- **Kulviwat, S., Bruner, G. C., II, Kumar, A., Nasco, S. A., and Clark, T. (2007).** “Toward a unified theory of consumer acceptance of technology”. *Psychology & Marketing*, Vol. 24, pp. 1059–1084.
- **Lapierre, J., & Denier, A. (2005).** ICT adoption and moderating effects of institutional factors on salesperson’s communication effectiveness: A contingency study in high-tech industries. *Technovation*, 25(8), 909–927.
- **Laudon, K.C., & Laudon, J.P. (2016).** *Management information systems: Managing the digital firm* (18<sup>th</sup> ed.). Boston: Pearson Education.
- **Laukkanen, T., & Kiviniemi, V. (2010).** The role of information in mobile banking resistance. *International Journal of Bank Marketing*, 28(5), 372–388.
- **Lee, J. H., Sin, J. K., Kim, M. H., and Kong, H. K. (2002).** “A study on Web shopping attitude and purchasing intention of Internet self-efficacy: Focus on intrinsic and extrinsic motivation”. *Journal of the Academy of Korean Marketing Science*, Vol. 10, pp. 1–26.

- **Lee, M. B., Suh, K. S., and Whang, J. (2003).**“The impact of situation awareness information on consumer attitudes in the Internet shopping mall”.*Electronic Commerce Research and Applications*, Vol. 2(3), pp. 254–265.
- **Lee, S., and Park, S. (2006).**“Improving accessibility and security for mobile phone shopping”.*Journal of Computer Information Systems*, Vol. 46, pp. 124–133.
- **Lewis, W., Agarwal, R., and Sambamurthy, V. (2003).**“Sources of influence on beliefs about information technology use: An empirical study of knowledge workers”, *MIS Quarterly*, Vol. 27, pp. 657–678.
- **Lu, J., Yu, C.-S., Liu, C., and Yao, J. E. (2003).**“Technology acceptance model for wireless Internet. *Internet Research: Electronic Networking Applications and Policy*”, Vol. 13, pp. 206–222.
- **Martins, C., Oliveira, T., and Popovič, A. (2014).**“Understanding the Internet banking adoption: A unified theory of acceptance and use of technology and perceived risk application”.*International Journal of Information Management*, Vol. 34(1), pp. 1–13.
- **Mathieson, K. (1991).** “Predicting user intentions: Comparing the technology acceptance model with the theory of planned behavior”, *Information Systems Research*, Vol. 2, pp. 173–191.
- **Mathieson, K. (1991).** Predicting user intentions: Comparing the technology acceptance model with the theory of planned behaviour.*Information System Research*, 84(1), 123–136.
- **Moon, J. W. & Kim, Y. G. (2001).** “Extending the TAM for a World-Wide-Web context”, *Information and Management*, Vol. 38, pp. 217–230.
- **Moore, G. C., and Benbasat, I. (1991).**“Development of an instrument to measure the perceptions of adopting an information technology”.*Information Systems Research*, Vol. 2(3), pp. 192–222.
- **Nysveen, H., Pedersen, P., and Thorbjørnsen, H. (2005).** “Explaining intention to use mobile chat services: Moderating effects of gender”. *Journal of Consumer Marketing*, Vol. 22, pp. 247–256.
- **Parida, V., Mostaghel, R., & Oghazi, P. (2016).**Factors for elderly use of social media for health-related activities.*Psychology & Marketing*,33(12), 1134–1141.
- **Park, J., and Yang, S. (2006).** “The moderating role of consumer trust and experiences: Value driven usage of mobile technology”. *International Journal of Mobile Marketing*, Vol. 1, pp.24–32.
- **Rahman, M.M. (2013).** “Barriers to m-commerce adoption in developing countries – A qualitative study among the stakeholders of Bangladesh”, *The International Technology Management Review*, Vol. 3(2), pp. 80-91.
- **Rahman, M.M., & Sloan, T. (2017).**“User adoption of mobile commerce in Bangladesh: Integrating perceived risk, perceived cost and personal awareness with TAM”, *The International Technology Management Review*, Vol. 6(3), pp.103-124.
- **Riquelme, H. E., and Rios, R. E. (2010).**“The moderating effect of gender in the adoption of mobile banking”.*International Journal of Bank Marketing*, Vol. 28(5), pp. 328–341.

- **Rizky, S., Putu, W.H., & Fatimah, A. (2017).** “Factors that Affecting Behavioral Intention in Online Transportation Service: Case study of GO-JEK”, *Procedia Computer Science*, Vol. 124, pp. 504–512.
- **Rogers, E. M. (1995).** *Diffusion of Innovations*, In elements of Diffusion, New York: Free Press.
- **Rogers, E. M. (2003).** “Diffusion of Innovations (5th Ed.)”.*New York: The Free Press.*
- **Sánchez-Franco, M., and Roldán, J. L. (2005).**“Web acceptance and usage model: A comparison between goal-directed and experiential Web users”.*Internet Research*, Vol. 15, pp. 21–48.
- **Sun, J., & Chi, T. (2018).** “Key factors influencing the adoption of apparel mobile commerce: an empirical study of Chinese consumers”, *The Journal of The Textile Institute*, Vol. 109(6), pp. 785–797. <https://doi.org/10.1080/00405000.2017.1371828>.
- **Sweeny, J. C., and Soutar, G. N. (2001).** “Consumers perceived value: The development of a multiple item scale”. *Journal of Retailing*, Vol.77, pp.203–220.
- **Teo, A. C., Tan, G. W. H., Cheah, C. M., Ooi, K. B., and Yew, K. T. (2012).** “Can the demographic and subjective norms influence the adoption of mobile banking?”.*International Journal of Mobile Communications*, Vol.10(6), pp. 578–597.
- **Teo, T. S., Lim, V. K., and Lai, R. Y. (1999).** “Intrinsic and extrinsic motivation in internet usage”, *Omega: The International Journal of Management Science*, Vol. 27, pp. 25–37.
- **Tornatzky, L. G., and Klein, K.J. (1982).** “Innovation characteristics and innovation adoption-implementation: a meta-analysis of findings”. *IEEE Transactions on Engineering Management*, Vol. 29(1), pp. 28–45.
- **Trachuk, A., and Linder, N. (2017).** “The adoption of mobile payment services by consumers: An empirical analysis results”. *Business and Economic Horizons*, Vol. 13(3), pp. 383–408.
- **Venkatesh, V. and Morris, M. G. (2000).** “Why don’t men ever stop to ask for directions ?Gender, social influence, and their role in technology and usage behavior”, *MIS Quarterly*, Vol. 24, pp. 115–139.
- **Venkatesh, V., Ramesh, V., and Massey, A. P. (2003).**“Understanding usability in mobile commerce”.*Communications of the ACM*, Vol. 46, pp. 53–56.
- **Wijesooriya, W. M. I. P., & Sritharan, S. (2018).** “Exploring the determinants of users’ satisfaction in mobile commerce”, *Mentor, The Journal of Business Studies*, Vol. 02(1), pp. 01-13.
- **Wu, J.-H., and Wang, S.-C. (2005).** “What drives mobile commerce? An empirical evaluation of the revised technology acceptance model”. *Information & Management*, Vol. 42, pp. 719–729.
- **Yang, K., and Jolly, L. D. (2006).** “Value-added mobile data services: The antecedent effects of consumer value on using mobile data services”. *International Journal of Mobile Marketing*, Vol.1, pp.11–17.

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---

- **Zhang, J., & Mao, E. (2019).** Cash, credit, or phone? An empirical study on the adoption of mobile payments in the United States. *Psychol Mark*, 1, pp. 1-12.
- **Zhou, T. (2011).** “Examining the critical success factors of mobile website adoption”, *Online Information Review*, Vol. 35(4), pp. 636-652.

**THE STUDY ON EMOTIONAL ENGAGEMENT, TEAM ORIENTATION, AND COMMITMENT AMONG MACHINE OPERATORS OF APPAREL INDUSTRY IN KANDY DISTRICT**

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**ABSTRACT**

*Huge competition can be found in the Apparel industries of Sri Lanka to retain employees and for that employee Emotional Engagement, Team Orientation, and Commitment should be high in the organization. Therefore, considering this study attempts to find out the level of Emotional Engagement, Team Orientation, and Commitment among machine operators of the Apparel industry in the Kandy district. Primary data were collected through structured questionnaires and issued to 200 machine operators who are working in the apparel industry in the Kandy district. Data analysis is based on univariate analysis techniques. The analysis found that there is a high level of Emotional Engagement, and moderated level of Team Orientation and Commitment among machine operators in the Kandy district. The findings of this study are useful to further development and implications of Emotional Engagement, Team Orientation, and Commitment among machine operators of the apparel industry in the Kandy district.*

*Keywords: Emotional Engagement, Team Orientation, Affective Commitment, Continuation Commitment, Normative Commitment.*

**1. INTRODUCTION**

**1.1 Background of the Study**

The apparel or clothing industry is one of the biggest industries in Sri Lanka, and one which plays a prominent role in boosting the country's economy. The Apparel industry of Sri Lanka employs about 15% of the country's workforce, accounting for about half of the country's total exports, and Sri Lanka is among the countries with the highest clothing production in the world relative to its population. The apparel industry has played an important role in the economy as the largest source of foreign income for the past three decades. In Sri Lanka, the apparel industry has become one of the largest contributors to the country's export revenues (Bech & Garratt, 2017). Managers have to face various challenges to retain existing talent in the organizations. These challenges were arisen due to various reasons such as highly competitive market conditions, more opportunities for employment within the labor market, the rapid advancement of the technologies, and changes in the socio-economic environment (Pandita & Ray, 2018).

Human Resource is valuable and most significant in an organization because it plays a major role in the organization. And also, Human resources often account for a large part of an organization's cost structure. Therefore, the organization should provide considerable attention regarding personnel in the organization. An organization's success is constrained by the employees and retaining the esteemed workforce (Ali, 2013).

When considering the apparel industry Machine operators possess a higher proportion and retaining them with organizations and monitoring them towards the organizational goals is now becoming a rising challenge for the top managers. Some Empirical studies point to the fact that the relationship between the employer and the employee has an impact on the employees' behavior which can affect the economic performance of the company (Catteeuw, Flynn, & Vonderhorst, 2007).

This study focuses on important Human resource aspects such as Emotional Engagement, Team Orientation, and Commitment of machine operators in the apparel industry. According to Robbins (1996), improving the performance of the individuals and organizations is among the main goals of every active and alive organization, hence studying the factors that have an impact on the performance of the organizations is the main source in directing the employees toward achieving this goal.

Emotional Engagement is defined as the extent to which one is emotionally connected with the work and organizational culture. Engaged employees are more likely to be enthusiastic and invest energy into their jobs which leads to higher levels of performance. To improve employee engagement, management needs to consider focus areas along these three dimensions which influence the overall satisfaction of an employee (Thavakumar & Evangeline, 2015).

Team Orientation refers to an individual's propensity for functioning as part of a team and the degree to which individuals prefer to work in group settings for task accomplishment (Driskell & Salas, 1992). Team Orientation can be defined as the extent to which the machine operators of the apparel industry have directed and committed towards team works. On the other hand, it is about the state of being orientated or directed towards team works in achieving organizational goals and objectives.

Organizational Commitment is one of these determining factors affecting the employees' sense of participation in the organization's activities and performance (Chelladurai, 2009). Organizational commitment is the individual's psychological attachment to the organization (Panaccio & Vandenberghe, 2009).

Today, the apparel industry is more dynamic and competitive due to the persistent and rapidly changing environment and dramatic innovation in information technology. The apparel industry is focused on innovation, growth, value creation, profit, more market share, and sustainability in the market. Everything depends on effective and productive employees because productive employees are more profitable employees (Rahman, Rehman, Imran & Aslam, 2017). Therefore, the apparel industry by examining the various factors that would impact the performance and productivity of employees will help them in achieving their goals and competitive advantage and also will help to solve many problems which hinder their growth.

## **1.2 Research Problem**

The Sri Lankan Apparel industry is of considerable importance for the manufacturing sector in terms of production and employment (Master Plan Study/ Apparel Industry, UNIDO, 2000). One of the most important factors that have contributed to the rapid development of the apparel industry in Sri Lanka has been a highly skilled and educated workforce (Sri Lanka Garment, 2002). In a labor-intensive industry like the apparel industry, human resource development is a prerequisite for the development of the industry (Sri Lanka Garments, 2001). Emotional engagement, team orientation, and commitment play an important role among the critical success factors for the competitiveness of the clothing industry. Since these aspects, directly and indirectly, influence the performance of the industry.

Employee Emotional Engagement is an essential issue for both researchers and practitioners (Seligman, 2011). Work engagement is related to several positive organizational outcomes, including higher customer loyalty, higher productivity, and profitability, as well as lower rates of staff turnover (May, Gilson, & Harter, 2004). Robertson and Cooper, (2011) have pointed out that Employee Engagement is important not only because of its effects on organizational outcomes but also because it has a positive impact on the psychological well-being of employees (Rothmann&Rothmann, 2010). According to the Gallup Report (2019), it was projected that almost 35% of employees are highly involved in, enthusiastic about, and committed to their work and workplace whereas the remaining portion of employees seems to be disengaged and this brings negative performance to the organization.

According to Robbins (1996), improving the performance of the individuals and organizations is among the main goals of every active and alive organization, hence studying the factors that influence the performance of the organizations is the main source in directing the employees toward achieving this goal. Organizational Commitment is one of these determining factors affecting the employees' sense of participation in the organization's activities and performance (Chelladurai, 2009). Also, many researchers have found that Team orientation also plays a prominent role in improving the positive outcomes of the organizations (Rahman et al, 2017).

From a dynamic perspective, organizations are giving due importance to engage employees at the workplace to reap the required level of performance. Despite the acknowledged interest in work engagement, very little empirical shreds of evidence are available in the extant literature to measure the team orientation aspect in the apparel industry. Besides, most existing researches on Emotional Engagement investigate the consumer perspective and this study fills this gap by focusing on employee Emotional Engagement.

Considering these aspects, the top management of garments needs to measure the level of Emotional Engagement, Team Orientation, and Commitment among their employees to achieve their set targets and it would help the organizations to get committed and productive employees and solve different types of problems in their organizational settings.

### **1.3 Research Objectives**

1. To identify the level of Emotional Engagement among machine operators of the Apparel industry in the Kandy District.
2. To identify the level of Team Orientation among machine operators of the Apparel industry in the Kandy District.
3. To identify the level of Commitment among machine operators of the Apparel Industry in the Kandy District.
4. To identify whether the Emotional Engagement, Team Orientation, and Commitment differ with demographic factors of machine operators of the apparel industry in the Kandy district.

### **1.5 Significance of the Study**

In today's competitive business world, it is considered to be an important task to manage employees to be emotionally engaged, team-oriented, and committed towards the organizational goals. By this study, the top management/decision-makers of the garments would identify the level of emotional engagement, team orientation, and commitment among the machine operators and this would provide them some insights to make decisions regarding policy changes, the introduction of programs and strategies to improve those aspects, etc.



## **2. LITERATURE REVIEW**

### **2.1 The concept of Emotional Engagement**

Panksepp (2000) describes emotion as a central organizing system responsible for the coordination of behavioral, physiological, affective, and cognitive responses to major adaptive problems. At present, emotions are playing a critical role in predicting human behavior. Employees who are emotionally engaged in their work to their organizations give companies crucial competitive advantages-including higher productivity and lower employee turnover. Engagement can affect employees' attitudes, absence, and turnover levels, and various studies have demonstrated links with productivity, increasingly pointing to a high correlation with the individual, group, and organizational performance, a success measured through the quality of customer experience and customer loyalty (Helmsley Fraser, 2008). Emotionally Engaged individuals invest themselves fully in their work, with increased self-efficacy and a positive impact upon health and wellbeing, which in turn evokes increased employee support for the organization.

Nokia Siemens Network describes being engaged as 'an emotional Attachment to the organization, pride and a willingness to be an advocate of the Organization, a rational understanding of the organization's strategic goals, values, and how employees fit and motivation and willingness to invest discretionary effort to go above and beyond(Doz&Kosonen, 2008).

Emotional Engagement is defined as Employees feeling safe and secure enough to be their best selves at work, to bring their 'whole' selves to work, and to feel respected and valued for who they are being' in their job role and responsibilities. It is also about feeling connected to something bigger by way of feeling part of something that matters and at the same time feeling that individual contribution matters, that individuals can and do make a difference to the bigger picture. Employees feel both emotionally engaged with each other as well as with the work (Cleland, Freemantle, Ghio, &Fruhwald, 2008).

### **2.2 The concept of Team Orientation**

According to Shaw (1981), a team is a group of people who work together. A team is a group of people with a high degree of independence geared toward the achievement of a goal or the completion of a task (Parker &Pankowski, 1990). A team is a minimum of two people working together towards shared goals. It may involve similar people working in parallel, where the team benefits are mostly about minimizing costs by sharing information and resources (Clegg, 2000). Kleiman, (1997) identified teamwork" as one of the sixteen HRM practices that enhance the competitive advantage of a firm.

Team Orientation has been found to improve individual effort and performance within a team (Mohammed & Angell, 2004). Team Orientation refers to an individual's propensity for functioning as part of a team and the degree to which individuals prefer to work in group settings for task accomplishment (Driskell & Salas, 1992). Team Orientation is generally viewed as stable enough to affect how individuals respond to a particular situation but can be changed over time through experience (Eby& Dobbins, 1997). Team Orientation is defined as the degree to which the organizational members stress collaboration and cooperation in performing business activities and in making business decisions (Tomas, Hult, & Nichols, 1999). Team Orientation is a general disposition inclining some individuals toward working in groups or teams (Raser&O'shea, 2004). Team Orientation means the state of being directed as a team (Arulrajah&Opatha, 2012).

### **2.3 The concept of Organizational Commitment**

Organizational Commitment is the psychological attachment, sense of belongingness, and motivation to contribute to organizational development. According to Meyer and Allen (1991), Commitment is a psychological state that characterizes the employees' relationship with the organization and has implications for the decision to continue membership in the organization.

Organizational Commitment is a measure of the willingness of employees to remain with the firm in the future. It often reflects the employees' belief in the mission and goals of the firm (Newstrom & Davis, 1986). Organizational Commitment is often defined as a linkage, bond, or attachment of an individual to an organization (Klein, Molloy, & Brinsfield, 2012). Organizational Commitment refers to the extent to which employees of an organization see themselves as belonging to the organization and feel attached to it (Meyer, Kam, Goldenberg, & Bremner, 2013). Organizational

Commitment is an employee's desire to belong to an organization and an employee's willingness to make an extra effort for the benefit of the organization (Sani, 2013). Organizational Commitment is the preparation of the employee to work hard on behalf of the organization, accepting ideas, goals, standards, ethics, and values. It is a mental and emotional dependence where the employee is identified and enjoys belonging to the organization (Salazar-Fierro & Bayardo, 2015).

#### **2.3.1 Affective commitment**

Affective commitment is the strength of an employee's emotional attachment to, identification with, and the degree of his/her involvement in the organization (Abdullah, Omar & Rashid, 2013). It is characterized by a strong belief in and acceptance of the goals and values of the organization, a willingness to put in extra effort on its behalf, and a desire to remain a member of the organization (Falkenberg & Schyns, 2007).

#### **2.3.2 Continuance commitment**

When employees enter into the organization, they are bound to maintain a link with the organization or committed to remaining with the organization because lack of alternative opportunities or awareness of the costs associated with leaving the organization. The cost associated with leaving includes attractive benefits, the threat of wasting the time, effort spends acquiring, disrupt the personal relationship. This was more appropriately defined by Meyer, Allen & Gellatly (1990).

#### **2.3.3 Normative commitment**

Normative commitment develops based on earlier experiences influenced by, for example, family-based experiences (parents that stress work loyalty) or cultural experiences (sanctions against "job-hopping") (Allen & Meyer, 1990). Normative commitment can increase through beliefs that the employees have that employers provide more than they can give.

### **3. METHODOLOGY**

This research included a quantitative study. The quantitative study aims to identify the level of Emotional Engagement, Team Orientation, and Commitment among machine operators of the Apparel industry and to explore whether Emotional Engagement, Team Orientation, and Commitment differ with demographic factors of machine operators of the apparel industry. The quantitative part of this research focuses on the use of formalized questions in surveys, the quantitative methods focus on the objective measurement and the statistical, mathematical, or numerical analysis of the data collected through structured questionnaires.

### 3.1 Sample and Data Collection

#### 3.1.1 Study Population

Among the Apparel Organizations in Kandy District, the researcher selected 4 organizations to conduct the study as Island clothing Kandy, SIS Garment Factory, Emjay Penguin Factory, and Nobles manufacturing covering all Kandy District.

#### 3.1.2 Sample of the Study

The sampling method involves taking a representative selection of the population and using the data collected as research information. A sample is a "subgroup of a population" (Frey & Dueck, 2007). The researcher has selected 200 employees from the below-selected Apparel organizations in the Kandy district area. In this study, one organization is considered as one stratum and used the stratified random sampling method. Table 1 shows the distribution of the total sample size for each stratum.

**Table 5: Distribution of total sample size**

Name of the Apparel Organization	No. of Employees	Sample Size	Percentage of sample
Island Clothing Kandy	115	46	23%
SIS Garment Factory	125	50	25%
Emjay Penguin Factory	150	60	30%
Nobles Manufacturing	110	22%	44 22%
<b>Total</b>	<b>500</b>	<b>200</b>	<b>100%</b>

(Source: Survey Data)

### 3.2 DATA ANALYSIS

The primary data were collected through a closed structure questionnaire. For the quantitative analysis, self-fulfillment questionnaires with 35 questions were handed out to 200 machine operators from the selected Apparel organizations in the Kandy district area. Here the collected data from the questionnaires were analyzed and evaluated by using the Statistical Package for Social Science (SPSS 22.0 version).

#### 3.2.1 Univariate Analysis

Univariate analysis is the analysis of a single variable for purposes of description (Babbie, 2012). It looks at the range of values, as well as the central tendency of the values including mean and standard deviation. This study has used univariate analysis to achieve the first and second objectives of the study.

#### 3.2.2 Independent Sample T-Test and Analysis of Variance (ANOVA Test)

The Independent Samples T-test compares the means of two independent groups to determine whether there is statistical evidence that the associated population means are significantly different. If the "P-value" of the independent sample T-test was less than 0.05, the hypothesis was accepted (Emiroglu, Akova, & Tanr verdi, 2015). In this study, Independent Sample T-Test has been used to achieve the fourth objective of the study.

ANOVA was founded by Ronald Fisher in the year 1918. The name Analysis Of Variance was derived based on the approach in which the method uses the variance to determine the means whether they are different or equal. Analysis of variance procedures are powerful parametric methods for testing the significance of differences between samples means where more than two conditions are used, or even when several independent variables are involved (Emiroglu, Akova, & Tanr verdi, 2015). In this study, ANOVA Test has been used to achieve the fourth objective of the study

#### 4. RESULTS AND FINDINGS

The primary data are collected through questionnaires from selected Apparel organization from 200 respondents in Kandy District. The 200 questionnaires are issued to collect the data from Machine operators of selected apparel organizations in the Kandy District for the analysis and the collected data is going to be presented by using the frequency distribution.

##### 4.1 Reliability Test

A reliability test was carried out to ensure the study achieved an accurate representation of the total population under study. The Table shows Cronbach's alpha reliability coefficients for the variables. The Cronbach alpha coefficients were: - Emotional Engagement (.898), Team Orientation (.910) and Commitment (.790). Therefore, all the variables had coefficients above 0.700. This was in harmony with Henson (2001) and Hair, Black, Babin, Anderson, and Tatham (2006).

**Table 6: Cronbach's Alpha Reliability Test**

Construct	Count of Measures	Cronbach's alpha Coeff.
Emotional Engagement	7	.898
Team Orientation	6	.910
Organizational Commitment	17	.790
Affective Commitment	6	.874
Continuation Commitment	6	.780
Normative Commitment	5	.724

(Source: Survey Data)

Table 3 gives a clear picture of the level of Emotional Engagement in survey organizations. Most of the respondents indicate that Emotional Engagement to be at a moderate level. Out of 200 respondents, 66% of them indicate that the level of Emotional Engagement of machine operators is moderate in the Apparel industry in Kandy District.

**Table 7: Level of Emotional Engagement**

Level of Emotional Engagement	Frequency	Percentage (%)
Low	6	3.0
Moderate	132	66.0
High	62	31.0
Mean of Emotional Engagement: 2.81		
SD of Emotional Engagement: 0.659		

(Source: Survey Data)

Emotional Engagement is defined as employees' emotional attachment with their work, to bring their 'whole' selves to work, and to feel respected and valued for who they are being' in their job role and responsibilities. Deep connection, emotionally attached, Strong sense of belonging, Perception of company's problem, Value alignment, Level of personal meaning, and Importance of the job plays an important role and those can measure the level of Emotional Engagement.

In the selected organization Machine operator's Level of personal meaning ( $\bar{x}=3.83$ ) and Importance of the job ( $\bar{x}=3.80$ ) is high in level compared to the other indicators. Because Employees may feel that organization has a great personal meaning regarding their contribution to the organization and the degree, they feel to which their job is important to the organization.

Emotional Engagement is defined as Employees feeling safe and secure enough to be their best selves at work, to bring their 'whole' selves to work, and to feel respected and valued for who they are being' in their job role and responsibilities. It is also about feeling connected to something bigger by way of feeling part of something that matters and at the same time feeling that individual contribution matters, that individuals can and do make a difference to the bigger picture. Employees feel both emotionally engaged with each other as well as with the work (Cleland et al., 2008).

Out of 200 respondents, 66% of them indicate that the level of Emotional Engagement of machine operators is at a moderate level in the Apparel industry in Kandy District.

We could say that machine operators who are emotionally engaged in their work to their Apparel organizations in the Kandy district give companies crucial competitive advantages—including higher productivity and lower employee turnover. Emotionally Engaged machine operators invest themselves fully in their work, with increased self-efficiency and a positive impact upon health and well-being, which in turn evokes increased employee support for the organization.

Table 4 gives a clear picture of the level of Team Orientation in survey organizations. Most of the respondents indicate that Team Orientation to be high level. Out of 200 respondents, 63.5% of them indicate that the level of Emotional Engagement of machine operators is high in the Apparel industry in Kandy District.

**Table 8: Level of Team Orientation**

Level of	Frequency	Percentage (%)
Low	25	12.5
Moderate	48	24.0
High	127	63.5
Mean of Emotional Engagement: 3.615		
SD of Emotional Engagement: 0.704		

(Source: Survey Data)

Team Orientation is defined as the degree to which the members in a team have cooperation, the expectation of achieving common goals. The drivers of Team Orientation like Perception in helping others, Level of interest in colleagues, Level of others working towards the organizational goals, Level of team cooperation, Level of help to improve team performance, and Level of finding ways to work smarter play an important role in Team Orientation.

In selected organizations machine operator's level of finding ways to work smarter ( $\bar{x}=3.83$ ) and the Level of others working towards the organizational goals ( $\bar{x}=3.71$ ) have been high compared to other indicators. Because they feel that their cooperation with each other towards the organizational goals and perception on improving their work is high in level among machine operators of Apparel organizations. Team Orientation refers to an individual's propensity for functioning as part of a team and the degree to which individuals prefer to work in group settings for task accomplishment (Driskell & Salas, 1992).

63.5% of the machine operators indicate that the machine operator's Team Orientation is high in level. So, we can state machine operators of apparel organizations in the Kandy district are encouraged to be with the particular organization, perform their tasks with their cooperation with their fulfillment of Team Orientation.

The Level of Commitment is identified under 3 dimensions as Affective Commitment, Continuation Commitment, and Normative Commitment.

Table 5 below gives a clear picture of the level of Affective Commitment in survey organizations. Most of the respondents indicate that Affective Commitment to be at a moderate level. Out of 200 respondents, 65% of them indicate that the level of Affective Commitment of Machine operators is at a moderate level in the Apparel industry in Kandy District.

**Table 9: Level of Affective Commitment**

Level of Affective Commitment	Frequency	Percentage (%)
Low	11	5.5
Moderate	130	65.0
High	59	29.5
Mean of Affective Commitment: 3.125 SD of Emotional Engagement: 0.60		

(Source: Survey Data)

Table 6 gives a clear picture of the level of Continuation Commitment in survey organizations. Most of the respondents indicate that Continuation Commitment to be a Moderate level. Out of 200 respondents, 53.5% of them indicate that the level of Continuation Commitment of Machine operators is moderate in the Apparel industry in Kandy District.

**Table 10: Level of Continuation Commitment**

Level of Continuation Commitment	Frequency	Percentage (%)
Low	14	7.0
Moderate	107	53.5
High	79	39.5
Mean of Continuation Commitment: 3.464 SD of Emotional Engagement: 0.55		

(Source: Survey Data)

Table 7 gives a clear picture of the level of Normative Commitment in survey organizations. Most of the respondents indicate that Normative Commitment to be at a moderate level. Out of 200 respondents, 70.5% of them indicate that the level of Normative Commitment of Machine operators is at a moderate level in the Apparel industry in Kandy District.

**Table 11: Level of Normative Commitment**

Level of Normative Commitment	Frequency	Percentage (%)
Low	7	3.5
Moderate	141	70.5
High	52	26.0
Mean of Normative Commitment: 2.958 SD of Emotional Engagement: 0.549		

(Source: Survey Data)

Table 8 gives a clear picture of the level of Commitment in survey organizations. Most of the respondents indicate that Commitment to be at a moderate level. Out of 200 respondents, 67.5% of them indicate that the level of Commitment of machine operators is at a moderate level in the Apparel industry in Kandy District.

**Table 12: Level of Commitment**

Level of Commitment	Frequency	Percentage (%)
Low	---	---
Moderate	135	67.5
High	65	32.5

(Source: Survey Data)

The Commitment consists of 3 dimensions as Affective Commitment, Continuation Commitment, and Normative Commitment. The mean, standard deviation, individual score of the indicators for the dimension are shown in the table below. The average value of the commitment (mean value 3.025) indicates that there is a Moderate level of Commitment of Machine operators in the selected Apparel organizations in the Kandy District.

**Table 13: Level of Commitment**

Level of Continuation Commitment	Mean	SD
Affective Commitment	3.125	.604
Continuation Commitment	3.464	.551
Normative Commitment	2.958	.549
Commitment	3.182	.370

(Source: Survey Data)

There may some reasons be influencing the Commitment of machine operators in selected organizations to be at a moderate level. Lack of emotional attachment of the machine operators, Lack of family support for the employees, social and family responsibility, and pressures are some of the reasons to have a high level of Commitment of machine operators towards the organization.

**Table 14: Anova Test for the Educational level**

	F	Sig.
Emotional Engagement	0.183	0.908
Commitment	0.330	0.804
Commitment	1.375	0.252

(Source: Survey Data)

All the P values are greater than 0.05 for Emotional Engagement, Team Orientation, and Commitment across the educational level of machine operators of the apparel industry in the Kandy district. It can be concluded that there is no evidence to reject the null hypothesis for Emotional Engagement, Team Orientation, and Commitment. Then it can be concluded that there is no enough evidence to state that there is a difference in Emotional Engagement, Team Orientation, and Commitment across the educational level of machine operators.

**Table 15: Anova Test for the Age Group**

	F	Sig.
Emotional Engagement	1.752	.140
Commitment	1.654	.162
Commitment	2.138	.078

(Source: Survey Data)

All the P values are greater than 0.05 for Emotional Engagement, Team Orientation, and Commitment across the Age group of machine operators of the apparel industry in the Kandy district. It can be concluded that there is no evidence to reject the null hypothesis for Emotional Engagement, Team Orientation, and Commitment. Then it can be concluded that there is not enough evidence to state that there is a difference in Emotional Engagement, Team Orientation, and Commitment across the Age group of machine operators.

**Table 16: Independent Sample T-Test for the Gender**

		F	Sig.	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference
Emotional Engagement	Equal variances assumed	.25	.61	-.884	198	.378	-.126	.14357
	Equal variances not assumed			-.982	31.87	.334	-.126	.12924
Team Orientation	Equal variances assumed	.073	.787	-.697	198	.486	-.107	.153
	Equal variances not assumed			-.720	30.22	.477	-.107	.148
Commitment	Equal variances assumed	.032	.858	-1.56	198	.120	-.125	.080
	Equal variances not assumed			-1.59	30.05	.121	-.125	.078

(Source: Survey Data)

To identify whether the level of Emotional Engagement, Team Orientation, and Commitment vary with the Gender of the machine operator's independent sample t-test is used.

All the P values are greater than 0.05 for Emotional Engagement, Team Orientation, and Commitment across the Gender of machine operators of the apparel industry in the Kandy district. It can be concluded that there is no evidence to reject the null hypothesis for Emotional Engagement, Team Orientation, and Commitment. Then it can be concluded that there is not enough evidence to state that there is a difference in Emotional Engagement, Team Orientation, and Commitment across the Age group of machine operators.



**Table 17: Independent Sample T-Test for the Working Experience**

		Sum of Squares	df	Mean Square	F	Sig.
<b>Emotional Engagement</b>	Between Groups	.554	3	.185	.421	.738
	Within Groups	85.976	196	.439		
	Total	86.530	199			
<b>Team Orientation</b>	Between Groups	.577	3	.192	.384	.765
	Within Groups	98.111	196	.501		
	Total	98.688	199			
<b>Commitment</b>	Between Groups	.787	3	.262	1.940	.124
	Within Groups	26.505	196	.135		
	Total	27.292	199			

All the P values are greater than 0.05 for Emotional Engagement, Team Orientation, and Commitment across the experience of machine operators of the apparel industry in the Kandy district. It can be concluded that there is no evidence to reject the null hypothesis for Emotional Engagement, Team Orientation, and Commitment. Then it can be concluded that there is not enough evidence to state that there is a difference in Emotional Engagement, Team Orientation, and Commitment across the experience of machine operators.

## 5. DISCUSSION AND CONCLUSION

### 5.1 Recommendations

The study found that there is a high level of Team Orientation and a moderate level of Emotional Engagement and Commitment among machine operators of the apparel industry in the Kandy district. In this situation, the Apparel organizations should consider to remain the present levels of Emotional Engagement and to increase the levels of Team Orientation and Commitment of machine operators, and find ways to improve those levels.

Emotional Engagement, Team Orientation, and Commitment of machine operators are key determinant factors to an apparel organization for the managers and for the supervisors to consider.

Employees who are emotionally engaged in their work to their organizations give companies crucial competitive advantages—including higher productivity and lower employee turnover, high-quality products, investing their full effort in the strategies and goals of the organization.

So, the top-level employer should consider the drivers of Emotional Engagement and invest in them like effective orientation programs, well payments, and incentives for their performance, health care, high-quality relationship with supervisors and coworkers.

And managers who are responsible for managing teams and facilitating employee learning and development in business organizations. As teamwork orientation plays an important role in fostering learning, managers should take measures to foster a high level of teamwork orientation within employees. It is important to help employees develop Team Orientation because individuals who develop such attitudes appear to overcome issues of diversity and effectively contribute to the group processes irrespective of congruity in values with other members. Individuals who develop a tendency to work in a team environment will benefit from the diversity within the team members and will utilize different perspectives and learn from one another. Thus, a mix of different backgrounds in assembling teams will be beneficial for personal learning and development if members are high on teamwork orientation.

The commitment of employees is important in the competitive growing industry. The investment like the individual considers valuable such as pension plans, organization benefits, status, etc., which makes them stay with their current employers.

Employees with a high level of organizational Commitment provide a secure and stable workforce and thus providing a competitive advantage to the organization.

## **5.2 Direction for Future Research**

The present study only focused on the level of Emotional Engagement, Team Orientation, and Commitment among machine operators in the Kandy district. If someone seeks to identify the drivers of those variables it would be beneficial to identify the determinants for the implications on machine operators. This study used the data in a limited area of Kandy and it didn't cover the wide area. If this study used a wide area in the future it would be useful. The third direction is that this study only followed quantitative research but in the future, if anyone can apply the mixed method the analysis and the conclusion derived from that would be interesting. In the future, if the scope will be expanding beyond the research area it will be effective and useful. If any research in the future considering not only the level of Emotional Engagement, Team Orientation, and Commitment but also the impact of those variables on various organizational outcomes would provide more conclusions on those variables.

## **REFERENCES**

- **Abdullah, I., Omar, R., & Rashid, Y. (2013).** Effect of personality on organizational commitment and employees' performance: Empirical evidence from banking sector of Pakistan. *Middle-East Journal of Scientific Research*, 18(6), 759-766.
- **Ali, A. (2013).** Significance of human resource management in organizations: linking global practices with a local perspective. *Researchers World Journal of Arts, Science & Commerce*, 4(1), 78-87.
- **Allen, N. J., & Meyer, J. P. (1990).** The measurement and antecedents of affective, continuance, and normative commitment to the organization. *Journal of occupational psychology*, 63(1), 1-18.
- **Arulrajah, A. A., & Opatha, H. H. D. N. P. (2012).** An Exploratory Study on entry-level HRM job opportunities and their requirements in Sri Lanka. *Sri Lankan Journal of Human Resource Management*, 3(1), 58-77.
- **Attridge, M. (2009).** Measuring and managing employee work engagement: A review of the research and business literature. *Journal of Workplace Behavioral Health*, 24(4), 383-398.
- **Babbie, E. (2012).** *Social research counts*. Nelson Education.
- **Bang, H., & Chelladurai, P. (2009).** Development and validation of the volunteer motivations scale for international sporting events (VMS-ISE). *International Journal of Sport Management and Marketing*, 6(4), 332-350.
- **Bech, M. L., & Garratt, R. (2017).** Central bank cryptocurrencies. *BIS Quarterly Review September*.
- **Catteeuw, F., Flynn, E., & Vonderhorst, J. (2007).** Employee engagement: Boosting productivity in turbulent times. *Organization development journal*, 25(2).

- **Chughtai, A. A., & Zafar, S. (2006).** Antecedents and consequences of organizational commitment among Pakistani university teachers. *Applied HRM research*, 11(1), 39.
- **Clegg, C. W. (2000).** Sociotechnical principles for system design. *Applied ergonomics*, 31(5), 463-477.
- **Cleland, A., Mitchinson, W., & Townend, A. (2008).** Engagement, assertiveness and business performance—A new perspective. *Ixia Consultancy Ltd.*
- **Cleland, J., Freemantle, N., Ghio, S., Fruhwald, F., Shankar, A., Marijanowski, M., ... & Tavazzi, L. (2008).** Predicting the long-term effects of cardiac resynchronization therapy on mortality from baseline variables and the early response: a report from the CARE-HF (Cardiac Resynchronization in Heart Failure) trial. *Journal of the American College of Cardiology*, 52(6), 438-445.
- **Dias, R., Robbins, T. W., & Roberts, A. C. (1996).** Dissociation in prefrontal cortex of affective and attentional shifts. *Nature*, 380(6569), 69-72.
- **Dixit, V., & Bhati, M. (2012).** A study about employee commitment and its impact on sustained productivity in Indian auto-component industry. *European journal of business and social sciences*, 1(6), 34-51.
- **Doz, Y., & Kosonen, M. (2008).** The dynamics of strategic agility: Nokia's rollercoaster experience. *California Management Review*, 50(3), 95-118.
- **Driskell, J. E., & Salas, E. (1992).** Collective behavior and team performance. *Human factors*, 34(3), 277-288.
- **Eby, L. T., & Dobbins, G. H. (1997).** Collectivistic orientation in teams: an individual and group-level analysis. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 18(3), 275-295.
- **Eduardo, S. (2005).** Is there a "big five" in teamwork?. *Small Group Research*, 36(5), 555-599.
- **Ellenbecker, C. H., & Cushman, M. (2012).** Home healthcare nurse retention and patient outcome model: discussion and model development. *Journal of Advanced Nursing*, 68(8), 1881-1893.
- **Emiroğlu, B. D., Akova, O., & Tanrıverdi, H. (2015).** The relationship between turnover intention and demographic factors in hotel businesses: A study at five star hotels in Istanbul. *Procedia-Social and Behavioral Sciences*, 207, 385-397.
- **Falkenburg, K., & Schyns, B. (2007).** Work satisfaction, organizational commitment and withdrawal behaviours. *Management Research News*.
- **Fransen, J., Kirschner, P. A., & Erkens, G. (2011).** Mediating team effectiveness in the context of collaborative learning: The importance of team and task awareness. *Computers in human behavior*, 27(3), 1103-1113.
- **Frey, B. J., & Dueck, D. (2007).** Clustering by passing messages between data points. *science*, 315(5814), 972-976.
- **Hult, G. T. M., & Nichols, E. L. (1999).** A study of team orientation in global purchasing. *Journal of Business & Industrial Marketing*, 14(3), 194-212.

- **Kanning, U. P., & Hill, A. (2013).** Validation of the Organizational Commitment Questionnaire (OCQ) in six languages. *Journal of business and media psychology*, 4(2), 11-20.
- **Kleiman, L. S. (1997).** Human Resource Management: Competitive Advantage West. *Pubhshing Company*.
- **Klein, H. J., Molloy, J. C., & Brinsfield, C. T. (2012).** Reconceptualizing workplace commitment to redress a stretched construct: Revisiting assumptions and removing confounds. *Academy of management review*, 37(1), 130-151.
- **Konovsky, M. A., & Cropanzano, R. (1991).** Perceived fairness of employee drug testing as a predictor of employee attitudes and job performance. *Journal of applied psychology*, 76(5), 698.
- **Master Plan Study for Industrial and Investment Promotion in the Democratic Socialist Republic of Sri Lanka (Phase II) (2000)**, Appendix–11, UNIDO, Ministry of Industrial Development, Sri Lanka.
- **May, D. R., Gilson, R. L., & Harter, L. M. (2004).** The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work. *Journal of occupational and organizational psychology*, 77(1), 11-37.
- **Meyer, J. P., Allen, N. J., & Gellatly, I. R. (1990).** Affective and continuance commitment to the organization: Evaluation of measures and analysis of concurrent and time-lagged relations. *Journal of applied psychology*, 75(6), 710.
- **Meyer, J. P., Kam, C., Goldenberg, I., & Bremner, N. L. (2013).** Organizational commitment in the military: Application of a profile approach. *Military Psychology*, 25(4), 381-401.
- **Mohammed, S., & Angell, L. C. (2004).** Surface-and deep-level diversity in workgroups: Examining the moderating effects of team orientation and team process on relationship conflict. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(8), 1015-1039.
- **Mohseni, S. M., Sani, S. R., Persson, J., Nguyen, T. A., Chung, S., Pogoryelov, Y., ... & Bonetti, S. (2013).** Spin torque-generated magnetic droplet solitons. *Science*, 339(6125), 1295-1298.
- **Muthuveloo, R., & Rose, R. C. (2005).** Typology of organizational commitment. *American Journal of Applied Science*, 2(6), 1078-1081.
- **Newstrom, J. W., & Davis, K. (1986).** Human behavior at work. *New York, NY*.
- **Ogba, I. (2006).** Organisational measurement: exploring and developing effective employee commitment measurement. *Performance measurement and management: public and private. Centre for business performance, Bedfordshire* 8, 25-29.
- **Okpara, J. O. (2004).** The impact of salary differential on managerial job satisfaction: A study of the gender gap and its implications for management education and practice in a developing economy. *The Journal of Business in Developing Nations*, 8(8), 65-92.

- **Panaccio, A., & Vandenberghe, C. (2009).** Perceived organizational support, organizational commitment and psychological well-being: A longitudinal study. *Journal of Vocational Behavior*, 75(2), 224-236.
- **Pandita, D., & Ray, S. (2018).** Talent management and employee engagement—a meta-analysis of their impact on talent retention. *Industrial and Commercial Training*.
- **Panksepp, J. (2000).** The riddle of laughter: Neural and psychoevolutionary underpinnings of joy. *Current Directions in Psychological Science*, 9(6), 183-186.
- **Parker, W. and Pankowski, M. (1990),** A Handbook for Team-Based Organizations, Teams in Government, *New York: Lucie Press*.
- **Rahman, U. U., Rehman, C. A., Imran, M. K., & Aslam, U. (2017).** Does team orientation matter? Linking work engagement and relational psychological contract with performance. *Journal of Management Development*.
- **Raser, J. M., & O'Shea, E. K. (2004).** Control of stochasticity in eukaryotic gene expression. *science*, 304(5678), 1811-1814.
- **Roberts, B. K. (2008).** *Landscapes, Documents and Maps: villages in northern England and beyond, AD 900-1250.* Oxbow Books.
- **Robertson, I., & Cooper, C. (2011).** *Well-being: Productivity and happiness at work.* Palgrave Macmillan.
- **Rothmann, S., & Rothmann, J. S. (2010).** Factors associated with employee engagement in South Africa. *SA Journal of Industrial Psychology*, 36, 531-543.
- **Salazar-Fierro, P., & Bayardo, J. M. (2015).** Influence of relational psychological contract and affective commitment in the intentions of employee to share tacit knowledge. *Open Journal of Business and Management*, 3(03), 300.
- **Seligman, M. E. (2009).** What You Can Change... and What You Can't\*: The Complete Guide to Successful Self-Improvement. Vintage.
- **Sri Lanka Garments, (2001).**
- **Sri Lanka Garments, (2002).**
- **Steers, R. M., Mowday, R., & Porter, L. (1982).** Employee-organization linkages: The psychology of commitment, absenteeism, and turnover. *New York: Academic*.
- **Swales, S. (2002).** Organizational commitment: a critique of the construct and measures. *International journal of management reviews*, 4(2), 155-178.
- **Thavakumar, D., & Evangeline, S. J.** A Survey of Factors Influencing Employee Engagement: A Case of Insurance Companies in Batticaloa District.
- **Watson, W. E., Johnson, L., & Merritt, D. (1998).** Team orientation, self-orientation, and diversity in task groups: Their connection to team performance over time. *Group & organization management*, 23(2), 161-188.

**RECENT ECONOMIC EXPANSION AND POVERTY REDUCTION IN SRI LANKA**

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**ABSTRACT**

*The focus of this paper is to understand the Sri Lanka's economic expansion and poverty reduction in recent past. Given that Sri Lanka emerged from a decades old violent conflict only ten years ago, poverty has been declined remarkably in Sri Lanka along with an economic expansion in the recent past. However, Sri Lanka experiencing regional inequality in poverty reduction, the regions that were part of the theatre of war, as well as other regions where poverty has persisted over decades reported higher poverty prevalence compared to other part of the country. This issue is of particular policy relevance because while Sri Lanka's economic expansion after the war reduced consumption poverty significantly in all regions, some regions did better than others. Therefore, a better understanding of the experience of the poorest regions will be useful for the formulation of policies targeted at achieving the sustainable development agenda, especially the goal of leaving no one behind.*

*Keywords: poverty reduction, economic expansion, regional inequality*

**1. INTRODUCTION**

Sri Lanka has achieved remarkable success in reducing poverty over the last two decades. Despite a civil war which lasted three decades, and which came to an end only in 2009, consumption poverty halved in the post-conflict period from 8.9 per cent in 2009/10 to 4.1 per cent in 2016. This chapter contextualizes background information on Sri Lanka's experience with economic growth and other structural changes after the end of the civil war. Developing an understanding of Sri Lanka's recent economic experience in the period post-conflict is particularly necessary since the country experienced economic expansion and poverty reduction for much of the post-war period. Section 2 describes the economic expansion and the structural changes that took place after the war's end. Section 3 looks at the country's experience with poverty reduction and income inequality. The chapter also looks at the regional experience with growth, poverty reduction and inequality in section 4. Finally summarizes the main points raised in this chapter.

**2. ECONOMIC GROWTH AND STRUCTURAL CHANGES IN OUTPUT AND EMPLOYMENT**

Economic liberalization in 1977 increased the rate of Sri Lanka's economic expansion reflecting more closely the country's economic potential. Moreover, growth was maintained at a relatively reasonable rate despite the debilitating civil war which began in earnest in 1983 and only ended in 2009 (Glewwe, 1988; Athukorala and Jayasuriya, 2013). More recently, between 2006 and 2018, the annual growth rate averaged 5.6 per cent, which can be characterized into three distinct phases. First, the economy grew at 6.0 per cent during the intensified period of civil war from 2006-2009. The second phase commenced after the war ended in 2009 when very high levels of expenditure on reconstruction in the conflict-affected area helped create a post-war boom. Expenditure on infrastructure rose to an unprecedented level of 9.1 per cent in 2012. Buoyed by continued fiscal expansion, growth averaged 8.5 per cent from 2009-2012. The third phase encompassed the period following the post-war boom between 2013 and 2018 when average growth declined to a more realistic 4 per cent per annum. Since 2015, GDP growth has been on a downward trend (Figure 1). Adverse weather conditions and slowdowns in the

construction and transportation sectors weakened economic growth in the last two years. By the time the Covid-19 pandemic struck in March 2020, excessive government debt (85 per cent of GDP in 2020) had begun to constrain further expansion while fiscal consolidation to address debt was aggravating the situation. The Covid-19 pandemic which struck in March 2020 is likely to herald a period of deep recession with serious implications for the country’s ability to eliminate poverty in the near future.

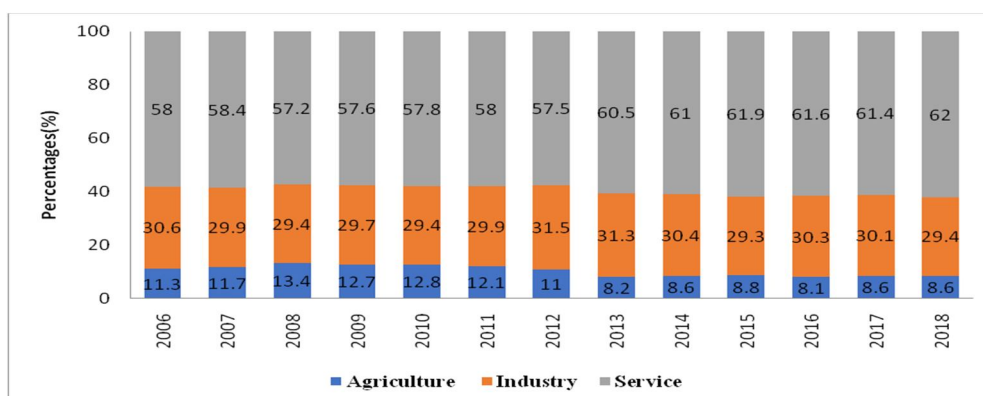
**Figure 1 GDP growth rate: 2006-2018**



Source: Central Bank of Sri Lanka (2018), Annual Report.

Sri Lanka’s economic expansion was not accompanied by any marked change in the structure of output (Figure 2). Economic growth continued to be supported by service sector expansion whose contribution to real GDP increased from 58 per cent in 2006 to 62 per cent in 2018. The growth in services-related activities were mainly driven by the expansion of financial services, wholesale and retail trade activities, and transportation. The contribution of the industrial sector to GDP slid down from 31 per cent to 29 per cent over the same period. The industrial sector continues to be dominated by construction and mining and quarrying activities, rather than by manufacturing. Agriculture’s share of GDP declined from 11 per cent to 9 per cent between 2006 and 2018 largely due to adverse weather conditions especially in rubber, paddy, other cereals crops and vegetables production.

**Figure 2 Share of major economic sectors in Sri Lanka’s GDP/ Gross value added: 2006-2018**



Source: Central Bank of Sri Lanka (various years), Annual Reports.

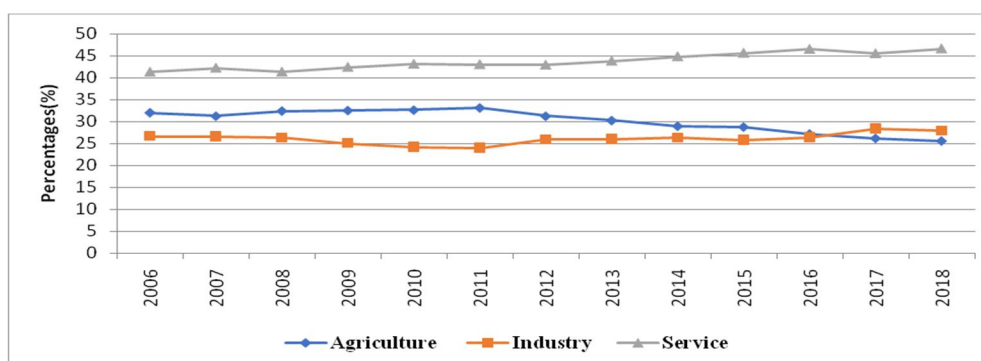
Note 1: According to the International Standard Industrial Classification (ISIC) the agriculture sector comprises activities in agriculture, livestock, forestry, and fishing. The industry sector

comprises mining and quarrying, manufacturing, construction, and public utilities. The services sector consists of wholesale and retail trade, restaurants and hotels, transport, storage and communications, finance, insurance, real estate and business services, and community, social and personal services.

Note 2: Sri Lanka's GDP data not included share of tax and subsidies on product adjustment which has been reported separately since 2010. Hence, the share of agriculture, industry and services are not equal to 100%. To reach a figure of 100%, the shares are calculated based on gross value added at basic prices between 2010 and 2018.

There have been some structural changes in the composition of exports - changes which are cause for concern given agriculture's large share in total exports which increased from 19 per cent in 2006 to 22 per cent in 2018 (Central Bank of Sri Lanka, various years). The share of industrial exports remained static at 78 per cent between 2006 and 2018. This highlights a disturbing feature of Sri Lanka's growth experience, which is a reversal of the much-needed movement away from low value-added activities in agriculture to high value-added production activities in industry. Another worrisome feature of Sri Lanka's growth experience is that the country's export base remains concentrated on a narrow range of products, which has changed little since economic liberalization (Abeyasinghe and Munas, 2017). Indeed, the weak growth of exports, particularly from new sectors, remains a critical constraint to Sri Lanka achieving its economic growth potential. Also, of concern is the decline in exports and growth in imports which has widened the trade deficit by 11.8 per cent between 2018 and 2019 (Central Bank of Sri Lanka, 2020).

**Figure 3 The distribution of employed population by major industrial sectors: 2006-2018**



Source: Department of Census and Statistics (various years), Sri Lanka Labour Force Survey- Annual Reports.

While there has been little development in the structure of Sri Lanka's productive sectors in terms of contribution to GDP, the structure of employment has also shown little positive change (Figure 3). Of eight million Sri Lankans employed in 2018, 46.6 per cent were in service sector jobs, an increase of 13 per cent since 2006. Although the share of agriculture in total employment declined by 20 per cent, the industrial sector's share increased by only 4.5 per cent. The pattern of employment in major industrial sectors is thus reflected in the contribution to economic activities of those sectors in terms of the share of total output.

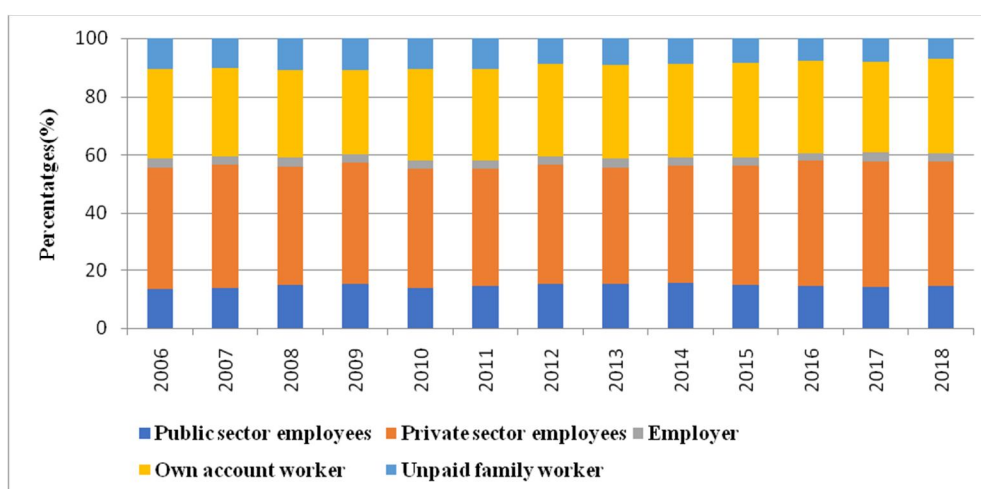
Notwithstanding positive sectoral changes in employment structure from low value-added agriculture to higher value-added services, the lack of appreciable change in the structure of employment by job status reveals continued deficits in decent work. In 2006 when data on informal employment first became available through the Labour Force Survey, the informal



sector defined by the Department of Census and Statistics was based on three criteria such as registration of the organization, account keeping practices and total number of regular employees in the organization. For instance, if the organization is not registered with the Employment Provident Fund or the Department of Inland Revenue, or the institution does not keep formal accounts, or the total number of regular employees of the organization is less than 10, it is considered as being part of the informal sector. Defined in this way, the informal sector accounted for 62 per cent of the employed workforce in 2006 but this declined marginally to 58.7 per cent by 2018. The agriculture sector comprises the bulk of informal employment, accounting for 84 per cent in 2006, increasing to 88 per cent in 2018. Several features of Sri Lanka's informal labour market are pertinent to the issue of poverty. The proportion of informal jobs among men is higher than among women with a rate of 61.5 per cent for employed men and 51.3 per cent for employed women in 2018 – a similar pattern to that observed in 2006. There is a strong inverse association between informality and the education level. Informality declines as education increases: from 81.5 per cent for those with an education level of grade 5 and below, to 21.7 per cent for those with an education level of A/L and above.

The structure of employment in terms of job status has not changed greatly in recent times. Private sector jobs accounted for 42.1 per cent of total employment in 2006. This figure increased by 2.8 per cent in 2018. The contribution of the public sector to total employment has also increased by around 2.6 per cent during the period under review (Figure 4). The increase in public sector employment can be partly explained by Graduate Placement Programs of successive governments (ADB, 2017). There has been a slight increase in the share of self-employed (including both own-account workers and employers), which accounting for 35.1 per cent in 2018 compared to 33.9 per cent in 2006 (Central Bank of Sri Lanka, 2018). Vulnerable employment - the sum of all own-account workers and unpaid family workers - accounted for 39.5 per cent of total employment in 2018 and 41.3 per cent in 2006. There has been a slight reduction in the share of family workers from 10.5 per cent to 7.2 per cent between 2006 and 2018 and such workers are mainly women (78.9 per cent).

**Figure 4 Employed persons by status 2006-2018**



Source: Department of Census and Statistics (Various years) Sri Lanka Labour Force Survey-Annual Reports.

Note: Data for 2006 to 2010 excludes Northern and Eastern provinces of Sri Lanka.

The unemployment rate has gradually declined in recent years falling to 4.4 per cent in 2018 from 6.5 per cent in 2006. Despite the low overall unemployment rate, unemployment remains high among the young, the educationally qualified and women. High youth (age 15-24) unemployment remains a policy concern given Sri Lanka's history of youth insurrections. In 2018, 21.4 per cent of youth were unemployed compared to 23.1 per cent in 2006. Even this slight decline in youth unemployment may only be a result of more young people continuing in education to increase their prospects of getting better jobs later. Older people are less likely to be unemployed. For instance, unemployment was only 0.7 per cent among those aged over 40 in 2018. In terms of educational qualifications, an unemployment rate of 9.1 per cent was reported for the GCE A/L and above category in 2018, a slight decline compared to the rate of 11.1 per cent recorded in 2006. In contrast, the unemployment rate among persons who did not have more than 5 years of schooling was much lower and further declined from 1.4 in 2006 to 0.7 per cent. Women are more likely to be unemployed than men: 7.1 per cent of women are unemployed compared with only 3 per cent of males in 2018.

### **3. POVERTY AND INEQUALITY**

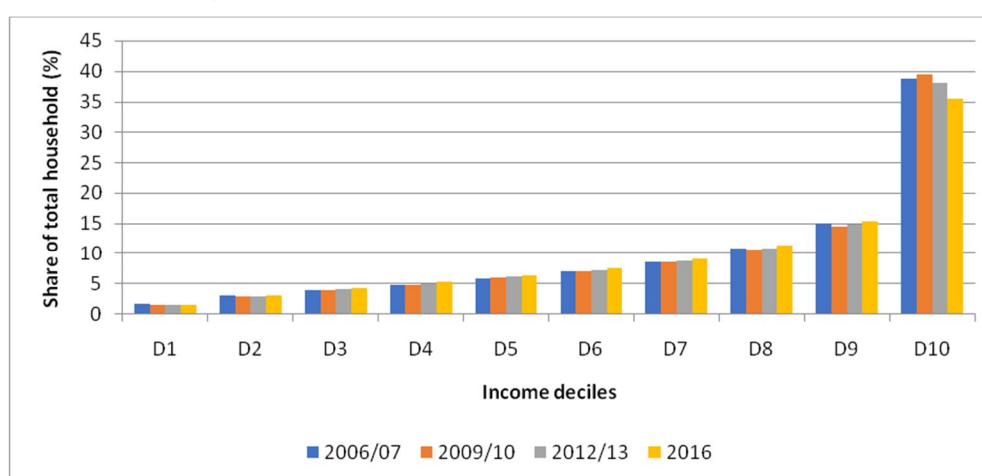
Economic expansion in post-conflict Sri Lanka has been accompanied by a significant reduction in poverty between 2006 and 2016. The national poverty headcount ratio declined from 15.2 per cent in 2006/07 to 4.1 per cent in 2016, with the number of poor people declining rapidly from around 2.8 million to 0.8 million in 2016 (Table 1). However, these poverty figures were estimated based on a consumption bundle that prevailed in 2002 which is generally accepted as being out of date. The average shortfall between an individual's level of consumption and the poverty line, measured by the poverty gap index has been also declined from 3.1 per cent to 0.6 per cent from 2006/07 to 2016. Severity of poverty which gives a greater weight to the poorest individuals and is calculated by squaring the poverty gap index has declined by around 90 per cent between the review periods. Internationally comparable poverty measures also reflect these trends by recording a low global poverty incidence in Sri Lanka based on the notion of poverty as living on no more than US \$ 1.90 a day. For instance, 0.83 per cent of population in Sri Lanka was below the US\$ 1.90 a day in 2016 compared to 3.75 per cent in 2006/07. However, money-metric measures of poverty present only a partial picture of the complex phenomenon of poverty and countries now produce multidimensional measures of poverty as well. Sri Lanka first calculated multidimensional poverty based on the global measure in 2018, using data collected through the Demography and Health Survey (DHS) conducted by the Department of Census and Statistics in 2016. The Multidimensional Poverty Index (MPI) uses 10 indicators to measure poverty in three dimensions: education, health and living standards, which reflect the type of deprivations people face at household level. In Sri Lanka 2.4 percent of the population, amounting to about half a million people, were found to be multidimensional poor in 2016 (Department of Census and Statistics, 2019).

Although Sri Lanka has managed to reduce consumption poverty, inequality in consumption remains static with a Gini coefficient of 0.41 in 2006/07 as well as in 2016. While the Gini Coefficient was lowest (0.30) in the estate sector, it was highest in the urban sector at 0.42 and was 0.40 in the rural sector in 2016. There has emerged a significant gap in the share of total household income between the poorest and the most affluent decile. As shown in Figure 5, the poorest 10 per cent share less than 2 per cent of total household incomes while the richest 10 per cent share more than 35 per cent. This pattern has not changed over the decade under consideration. The income share of the wealthiest decile is more than double that of those households in the 9<sup>th</sup> decile. Moreover, the average per capita income per month of the upper decile of Rs. 162,460 is around sixteen times higher than the lowest decile of Rs. 10,419 in 2016.

**Table 1 Sri Lanka's poverty indicators 2006/07-2016**

Year	Poverty line (Rs/ month)	No. poor (Thousands)	Headcount (%)	Poverty gap (%)	Severity of poverty (%)	Extreme poverty based US\$ 1.90 (2011 PPP)
2006/07	2233	2805	15.2	3.1	0.9	3.75
2009/10	3028	1806	8.9	1.7	0.5	2.41
2012/13	3624	1339	6.7	1.2	0.3	1.92
2016	4166	843	4.1	0.6	0.1	0.83

Source: All indicators other than those in the last column are from the DCS (various years). Statistics on extreme poverty based on US \$ 1.90 in the last column are from World Bank's PovcalNet, accessed 10.04.2020.

**Figure 5 Share of total household income by deciles**

Source: Department of Census and Statistics (various years) HIES- Final Reports.

Disproportionate distribution of economic opportunities in all regions and especially in rural areas, is a major obstacle for people seeking to move out of poverty. For instance, average monthly per capita household income in the Western province was Rs. 21,665 in 2016 compared to the incomes in the Northern and Eastern, Uva and Sabaragamuwa provinces of Rs. 11,384, Rs. 11,259, Rs.13,867 and Rs.13,157 respectively (Department of Census and Statistics, 2018). Inadequacy of opportunities in rural areas, economic neglect of the agricultural sector and low female labour force participation are important factors which are associated with the significant income gap among regions in Sri Lanka.

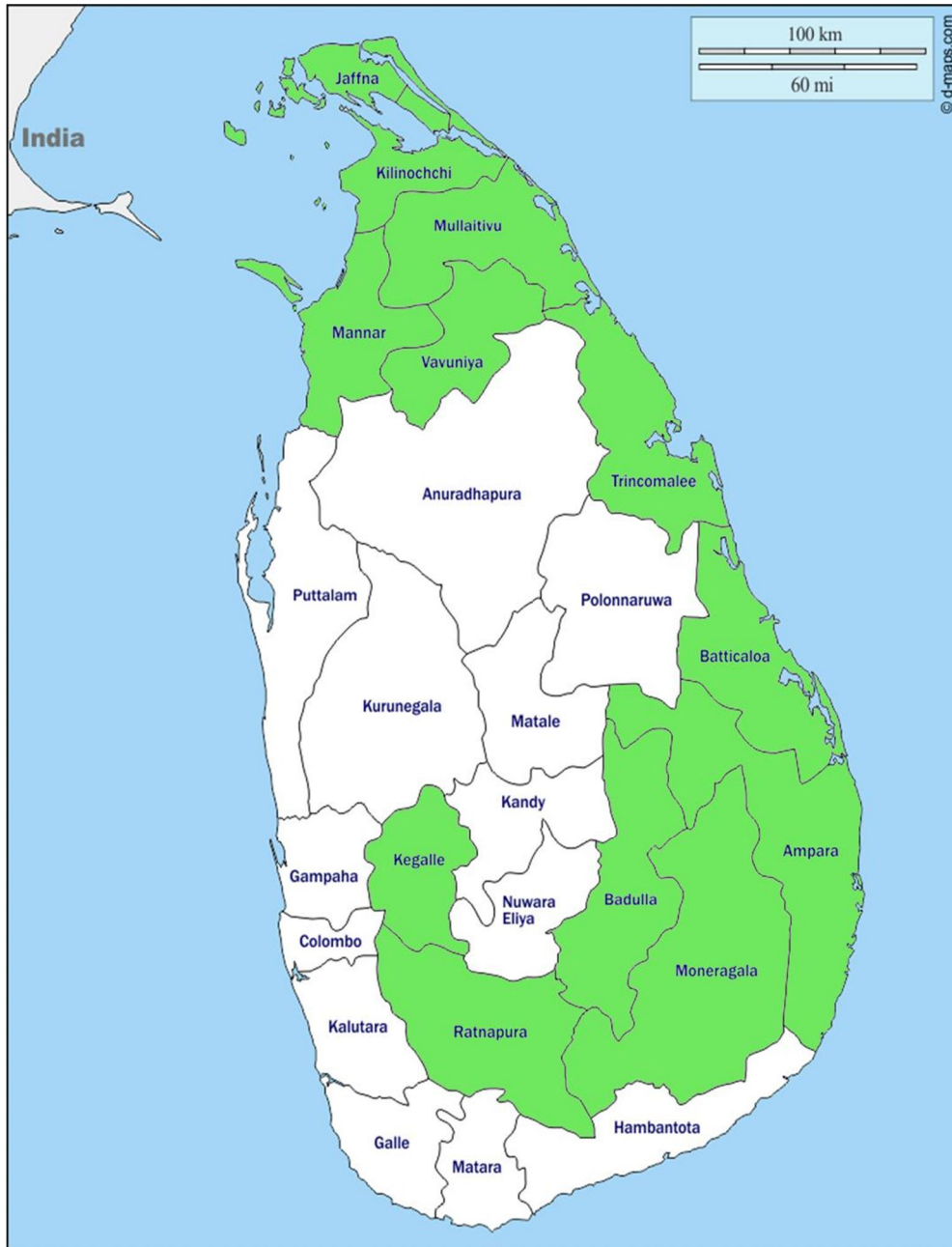
#### **4. REGIONAL EXPERIENCES WITH GROWTH, POVERTY, AND INEQUALITY**

Sri Lanka is made up of nine administrative provinces: Western, Central, Southern, Northern, Eastern, North Western, North Central, Uva and Sabaragamuwa and 25 administrative districts. Our research interest is Northern, Eastern, Uva and Sabaragamuwa provinces, which have coastal connectivity and colored by green (Figure 6).

The capital of the county is located in the Western province and is the country's principal economic hub, and Western Province accounts for nearly two fifths of the country's output. The Northern province, which underwent prolonged conflict, is the lowest contributor. The Central and North Western provinces were the second and third largest contributors to the national GDP in 2018 while the Southern province was the second largest contributor in 2006. However, the

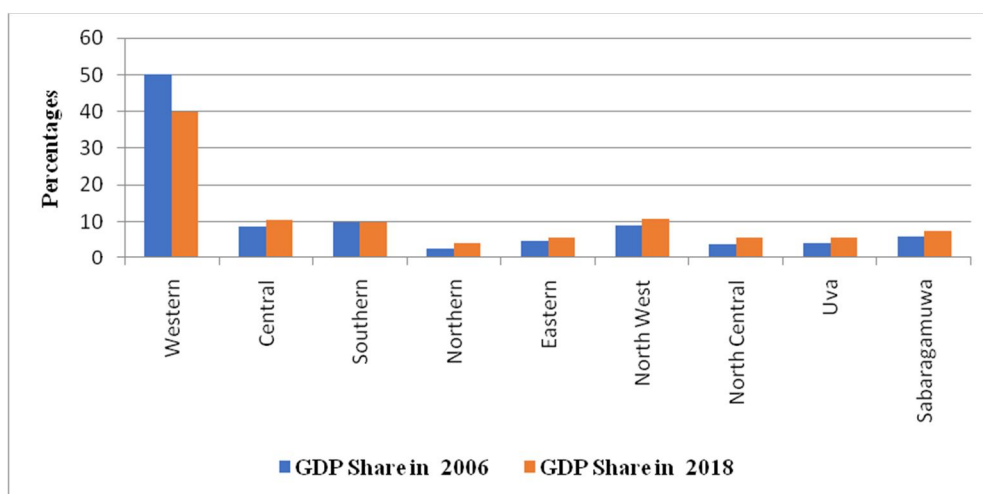
shares of the various provinces' economic contribution have changed over the past decade. The reduction in the dominance of the Western Province's contribution to GDP suggests a reduction in regional disparity. Western province's share of GDP has declined by 20 per cent between 2006 and 2018. Southern province's share remained static at 10 per cent over the review period, while the share of other provinces marginally increased other than that of Northern province which increased its contribution by 50 per cent from 2006 to 2016 (Figure 7).

**Figure 6 Provinces and Districts of Sri Lanka**



Source: [https://d-maps.com/carte.php?num\\_car=26910&lang=en](https://d-maps.com/carte.php?num_car=26910&lang=en), accessed on 20.04.2020

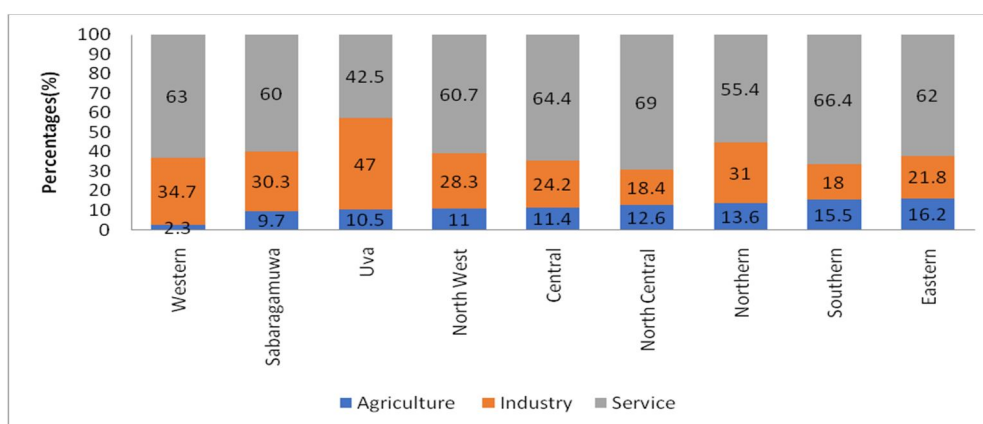
**Figure 7 Shares of provincial GDP contributions**



Source: Central Bank of Sri Lanka (various years), Annual Reports.

Recent provincial economic expansion has occurred through service sector expansion which dominates almost all regions, contributing more than 50 percent to total provincial gross value added (PGVA). The exception is that of Uva province, where services accounted for 42.5 per cent (Figure 8). The growth in the services sector has been largely driven by the expansion in wholesale and retail businesses along with expansion of transportation activities. The Uva province's PGVA was largely driven by industry activities (47 per cent), of which mining, and quarrying made major contributions. In other regions, industry's contributions to PGVA ranged from 18 per cent to 47 per cent. Agriculture contributed least to PGVA in all provinces. In 2017, the Eastern province recorded the highest share of PGVA from agriculture (16.2 per cent), due to the production of rice and marine fishing activities while the sector contributed least to relatively urbanized Western province.

**Figure 8 Major economic sectors' share of gross value added by province: 2018**

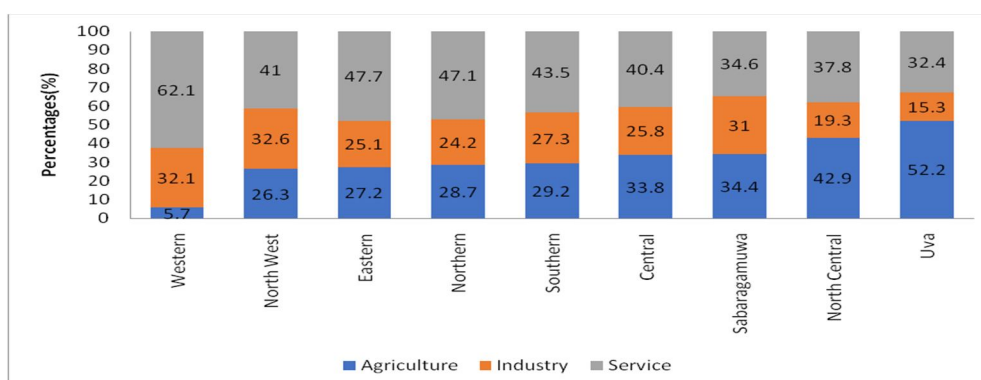


Source: Central Bank (2019), Socio Economic Statistics of Sri Lanka.

The distribution of the employed population among major economic sectors also varies significantly between Sri Lanka's provinces. A larger proportion of the employed population is occupied in the service sector in all provinces except Uva. Figure 9 shows some significant variations in the share of agriculture employment among provinces, from a low of 5.7 percent in

Western province to a maximum of 52.2 percent in Uva. Central, Sabaragamuwa and North Central provinces also have high concentrations of agricultural employment. Western province has the highest employment share from the services sector, followed by the Eastern and Northern provinces. The North-Western province recorded the highest proportion of employment in the industrial sector. The unemployment rate is a key indicator of a province's economic health, and it varies between 3.1 per cent in Western Province and 6 per cent in Eastern province. All provinces report youth unemployment rates of above 45 per cent.

**Figure 9 Provincial employed populations by major industrial sectors: 2018**



Source: Department of Census and Statistics (2018), Sri Lanka Labour Force Survey-Annual Report.

In addition to the provincial disparity in output and employment, provincial disparity in poverty incidence is a key indicator of uneven regional development. As outlined in the UN's first SDG, while addressing regional disparities and income inequality, Sri Lanka also needs to eradicate poverty in all its forms in all regions. Regardless of the decline in poverty at the national level in the past decades discussed in the previous section, wide disparities in poverty prevalence across regions remain a challenge for policy makers looking to meet first SDG. Table 2 sets out the provincial poverty HCIs for the last three survey years and the difference in poverty between the Western province and rest of the regions. While the provincial disparity in poverty rates during the period from 2009/10 to 2016 has declined, it remains considerable in some provinces. For example, in 2009/10, the poverty HCI ranged from 14.8 per cent in Eastern province (worst) to 4.2 per cent in Western province (best) while according to the latest statistics, Western is still ahead with 1.7 per cent of HCI while Northern province brings up with 7.7 per cent.

**Table 2 Differences in poverty headcount ratio between Western and other provinces in Sri Lanka: 2009/10, 2012/13, and 2016**

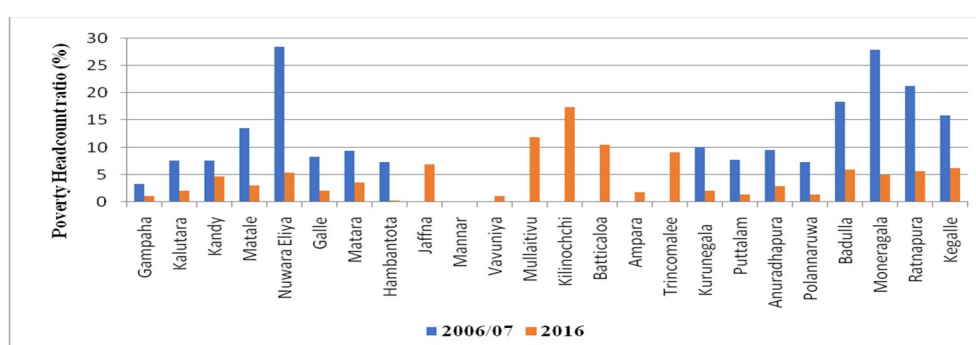
Province	Poverty HCI (%)			Differences in HCI(%) between Western province and rest of the provinces		
	2009/10	2012/13	2016	2009/10	2012/13	2016
Western	4.2	2	1.7			
Central	9.7	6.6	5.4	5.5	4.6	3.7
Southern	9.8	7.7	3	5.6	5.7	1.3
Northern	12.8	10.9	7.7	8.6	8.9	6
Eastern	14.8	11	7.3	10.6	9	5.6

North West	11.3	6	2.7	7.1	4	1
North Central	5.7	7.3	3.3	1.5	5.3	1.6
Uva	13.7	15.4	6.5	9.5	13.4	4.8
Sabaragamuwa	10.6	8.8	6.7	6.4	6.8	5

Source: Department of Census and Statistics (various years), HIES Final Reports, Colombo.

A marked gap in poverty prevalence is also observed between districts. Figure 10 sets out the difference in poverty between the economically advanced district of Colombo and other lagging districts in 2006/07 and 2016. Since the HIES 2006/07 was not carried out in the Northern province and did not cover all the household in Eastern provinces, a comparison between the districts with these provinces in 2006/07 is not possible. Otherwise, the difference in poverty levels was highest between Colombo district and Nuwara Eliya district, and least between Colombo and neighbouring Gampaha district in 2006/07. For instance, the poverty headcount index was 33.8 per cent in the Nuwara Eliya and 8.7 in the Gampaha in 2006/07 but only 5.4 per cent in Colombo. As indicated in Figure 10, it is apparent that the differences in poverty between Colombo and the rest of the districts reduced during the decade 2006/7 to 2016. However, the difference in poverty is highest between Colombo and several war-affected districts - evidenced by the poverty headcount index of 1.1 per cent in the Colombo region and 18.2 per cent, 12.7 per cent and 11.3 per cent, in Killinochchi, Mullaitivu and Batticaloa. Jaffna and Mannar relatively better at 7.7 per cent and 1 per cent respectively in 2016. The drastic reduction in poverty in Mannar district, especially during the period under review, is particularly surprising and merits further investigation.

**Figure 10 Differences in the poverty headcount ratio between Colombo and other districts in Sri Lanka between 2006/07 and 2016**



Source: Department of Census and Statistics (various years), HIES Final Reports, Colombo.

Sri Lanka's Department of Census and Statistics and the World Bank developed a poverty map at the level of the smallest administrative unit, the Divisional Secretariat's (DS) division, using the HIES data for 2012/13 and data from the Census of Population and Housing (CPH) of 2012/13 (Department of Census and Statistics, 2015). The map reveals considerable spatial heterogeneity in poverty at the DS level. For instance, the poverty head count ratio varied widely, from 45.1 percent in Manmunai West (Batticaloa district) to 0.6 percent in Dehiwela (Colombo district). Out of the 10 poorest DS divisions, five DS divisions were in the Mullaitivu district, four in Batticaloa district and one in the Moneragala district. The poorest DS divisions have been either affected by the war, are rural, or are disconnected from productive

earnings opportunities. In contrast, the 10 least poor DS divisions are mostly in Colombo and Gampaha districts, which are the most economically advanced with high concentrations of manufacturing and commercial establishments. The concentration of poverty in pockets in outlying regions that are far from the economically advanced parts of the country, makes poverty reduction a challenge for the Sri Lankan government.

## 5. SUMMARY

This paper concentrated on describing Sri Lanka's economic expansion and the structural change in output as well as employment which took place during the period from 2006-2018. Changes in poverty incidence and inequality in the distribution of consumption were also described. While poverty declined during the last decade, some regions were more successful than others at reducing poverty. It was also made clear that despite many efforts by successive governments in Sri Lanka, there remain pockets of poverty especially in outlying war-affected and other regions which have been difficult to eradicate. Weaknesses in the government's main programme for poverty alleviation which provides consumption support have continued despite some efforts at reform.

## REFERENCES

- **Abeyasinghe, S., & Munas, H. (2017).** Sri Lanka's Export Problem: Not Concentration, But Composition. Retrieved from: <http://www.veriteresearch.org/research-spreport-archives>.
- **ADB, (2017).** Sri Lanka: fostering workforce skills through education: employment diagnostic study. Regional office for Labour and the Pacific. Retrieved from: <http://dx.doi.org/10.22617/CS179120-2>
- **Athukorala, P. C., & Jayasuriya, S. (2013).** Economic policy shifts in Sri Lanka: the post-conflict.
- **Central Bank of Sri Lanka (various years).** *Annual Report*. Colombo: Central Bank of Sri Lanka.
- (2012). Economic and social statistics of Sri Lanka 2012, Colombo.
- (2018). Economic and social statistics of Sri Lanka 2018, Colombo. 189
- -(2020). Retrieved from [https://www.cbsl.gov.lk/sites/default/files/cbslweb\\_documents/press/pr/press20200217\\_external\\_sector\\_performance\\_december\\_2019.pdf](https://www.cbsl.gov.lk/sites/default/files/cbslweb_documents/press/pr/press20200217_external_sector_performance_december_2019.pdf).
- -(2019). Economic and social statistics of Sri Lanka 2019, Colombo.
- **Department of Census and Statistics. (2019).** Global Multidimensional Poverty for Sri Lanka Retrieved from: <http://www.statistics.gov.lk/Poverty/StaticalInformation/GlobalMultidimensionalPovertyforSriLanka>.
- **Department of Census and Statistics (Various years).** Annual Report of the Labour Force Survey. Colombo: Department of Census and Statistics, Sri Lanka.
- **Department of Census and Statistics (Various years).** Household Income and Expenditure Survey, Final Report. Colombo: Department of Census and Statistics.
- **Glewwe, P. (1988).** Economic liberalization and income inequality: Further evidence on the Sri Lankan experience. *Journal of Development Economics*, 28(2), 233-246.



**THE IMPACT OF ENTREPRENEURIAL CHARACTERISTICS ON FIRM PERFORMANCE OF SMALL-SCALE FOOD AND BEVERAGE MANUFACTURERS IN BATTICALOA DISTRICT**

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**ABSTRACT**

*This research investigates the impact of entrepreneurs' characteristics on firm performance among small scale food and beverage manufacturers in Batticaloa district. The study has utilized primary data and 200 small scale entrepreneurs were selected from food and beverage manufacturing industry in Batticaloa district, using a structured questionnaire. This paper discusses different types of entrepreneurs' characteristics with specific analysis on the impact of entrepreneurial characteristics on firm's performance. With the intention of determining the nature and impact of the factors of entrepreneurial characteristics on firm performance, three explanatory variables have been studied as internal locus of control, need for achievement and need for cognition. Descriptive statistics analysis and regression analysis were utilized as the main analyzing techniques. The survey result revealed that all the explanatory variables positively influenced the entrepreneurial firm performance. Implications of the findings and recommendations are offered.*

*Keywords: Entrepreneurial Characteristics, Small Scale Entrepreneurship, Food and Beverage Manufacturers, Firm Performance.*

**1. BACKGROUND OF THE STUDY**

Entrepreneurship is a widely renowned concept in developing countries. It is viewed as one of the major contributors towards the economic growth of a nation. Small scale enterprises became more visible where large companies started to retrench their workers but the small companies were able to maintain their levels of employment and production. Small scale enterprises were not influenced by the economic crisis. This indicates that Small scale entrepreneurs are those who largely contribute toward increasing diversity, creating innovation and employment opportunity, sustaining competitiveness, and generating novel ideas in corporate setting for both developed and developing nations.

Many decades ago, Sri Lankan exports focused solely on agricultural products in primary form. Subsequently, with global trends moving towards health-conscious consumers, exports currently include processed food and other value-added products including organic, environmentally friendly, sugar free and low salted products. Operating in a sustainable manner for millennia, food industry plays a vital role in Sri Lanka's economic development and in supporting and development of biodiversity and the natural landscape.

Sri Lankan Food Manufacturers & Suppliers offer processed fruits, vegetables and juices, confectionery and bakery products, processed food, rice and cereals, animal feed, and residues of the milling industry while Sri Lankan Beverage Manufacturers & Suppliers (besides tea) export mineral water, bottled drinking water and alcoholic beverages.

Recently the average of economic growth in Sri Lanka was approximately 6% to 7% per year. However, despite the significant contributions made by the small-scale food and beverage entrepreneurs, the Sri Lankan small scale enterprises have been facing a number of unfavourable issues, such as low level of innovation and technology, low development capability, low research and development, and lack of working capital during the early phase of new business operation. This situation does not help to boost the firms' level of performance. Lack of consistency in successful entrepreneurial factors is also detrimental for firms to sustain superior performance. Further, this may affect policy formulation and implementation in the small-scale enterprises operations planning. This research attempts to investigate the contribution of entrepreneurial characteristics of small-scale food and beverage manufacturers by conducting survey in 200 small scale food and beverage manufacturers in Batticaloa district.

## **2. PROBLEM STATEMENT**

According to entrepreneurial theories, an entrepreneur would have specific set of characteristics, for example, risk taking, innovation, etc. However, in reality these precise characteristics would not be always inbuilt in small scale entrepreneurs. An empirical study carried out by (Hung, 2011) state that the key success factors of a business is influenced by the dominant traits of the entrepreneurs. Entrepreneurial characteristics are very important to every enterprise. In Sri Lankan context, food and beverage sector is mostly contributed to the country's economic development. Food and beverage products are giving majority income to its manufacturers or owners in Batticaloa district. At present, the field of food marketing perform in a very competitive in food and beverage manufacturing businesses, which is like a battle field fighting with each other to attract customers in the forms of new company or due to a lapse of customers.

In response to this, the study is conducted to understand more insights of entrepreneurial characteristics of food and beverage manufacturers in Batticaloa district in current situation. The result of the study will be helpful for identifying entrepreneurial characteristics and how to relate with their firm performance in Batticaloa district and the manufacturers themselves will be able to develop their entrepreneurial characteristics to increase their firm performance. In this context the problem of the study is identify as "what is the impact of entrepreneurial characteristics on firm performance of small-scale food and beverage manufacturers in Batticaloa district?"

## **3. RESEARCH QUESTIONS**

The research study explores the entrepreneurial characteristic of small-scale food and beverage manufacturers. It has three important questions to investigate the entrepreneurial characteristics of food and beverage manufacturers in Batticaloa district.

1. What is the impact of internal locus of control on firm performance of small-scale food and beverage manufacturers in Batticaloa district?"
2. What is the impact of need for achievement on firm performance of small-scale food and beverage manufacturers in Batticaloa district?"
3. What is the impact of need for cognition on firm performance of small-scale food and beverage manufacturers in Batticaloa district?"

## **4. LITERATURE REVIEW**

### **4.1 Characteristics of Entrepreneurs**

This study investigates the impact of entrepreneurial characteristics on firm performance. Three entrepreneurial characteristics were included to predict respondents' entrepreneurial firm

performance. They are internal locus of control, need for achievement and need for cognition. A literature review was conducted on these three factors and the findings are listed in below-mentioned sub sections.

#### ***4.1.1 Internal Locus of Control***

(Rotter, 1966) defines Locus of control as an individual's perception about the underlying main causes of events in his/her life. Or, more simply: Individual believes that his/her behaviour is guided by his/her personal decisions and efforts (internal); or as unrelated to his/her actions and is guided by fate, luck, or other external circumstances (external). Perceived internal locus of control is defined as the personal belief that one has influence over outcomes through ability, effort, or skills; whereas external locus of control is the belief that external forces control outcomes. Some of that research has linked a belief in the internal control over the events in one's life to an individual's propensity to engage in entrepreneurial activity.

People with internal locus of control believe that they can control what happens in their lives. On the other hand, people with external locus of control tend to believe that most of the events in their lives result from luck, being at the right place at the right time, and the behaviour of powerful people. Research indicates that individuals with internal locus of control often have a more expressed need for achievement. In an empirical study conducted by Khan and Manopichetwattana (1989), they addressed the proposition whether the characteristics of innovative and non-innovative small firms have significant differences. They found positive relationship between internal locus of control and innovation. Boone, Debrabander and Witteloostujin (1996) found that internal locus of control to be associated with company performance. Their findings corroborated prior study findings of that internal locus of control is an important entrepreneurial psychological trait.

#### ***4.1.2 Need for Achievement***

The need for achievement is defined as a tendency to choose and persist at activities that hold a moderate chance of success or a maximum opportunity of personal achievement satisfaction without the undue risk of failure. In a longitudinal analysis of the need for achievement scores of college freshmen, McClelland (1965) concluded that a high need for achievement is a predictor of entrepreneurship and is based on influences of childhood and adult training and experience. McClelland's work was initially influenced by Murray's (1938) studies in the development of his need for achievement theory.

There are four strong needs for achievement identified by McClelland, such as a preference for moderate task difficulty, personal responsibility for performance, the need for feedback and innovativeness. Research into this concept has shown that n-Ach differentiate themselves by their desire to do things better. Individuals can be categorized as either high or low in need for achievement. High n-Ach seeks situations in which they can attain personal responsibility for finding solutions to problems. They go for challenge and take risks with 50-50 chance of success.

#### ***4.1.3 Need for Cognition***

Need for cognition refers to a need to structure pertinent situations in meaningful, integrated ways, and to improve the decision-making process (Cacciopo & Petty, 1982). Individuals with this attribute are more willing to solve a complex problem they search for complete and precise information via perfect cognitive effort. Previous studies showed that people with high demand for cognition have better skills of logical reasoning and performance; they are also more effective in the tasks of information processing to solve problems (Cacciopo et al., 1996).

Individuals' need for cognition means the propensity to get involved and enjoy the thoughts (Cacioppo et al., 1996). People with this type generally have a more positive attitude in complex and uncertain situations that requires too much thinking (Cacioppo et al., 1996). Murali, Laroche and Pons (2005) also stated that people with the largest proportion of the need for cognition are those who prefer looking for more information, rather than the others who prefer perceptions and inferences.

Di Zhang and Bruning (2011) have stated that one cannot observe extensively need for cognition in the areas of entrepreneurship and strategic management, but having this, entrepreneurs and managers can make their business decision strategically (Levin, Pieraccini, & Eckert, 2000). We therefore see entrepreneurial research with a cognitive foundation to be on the rise today, not because of some prior breakthroughs, but because there remains a huge void waiting to be filled that an extension of the multidisciplinary tradition in entrepreneurship research utilizing the relevant tools from cognition-related disciplines (MacMillan & Katz, 1992) can address.

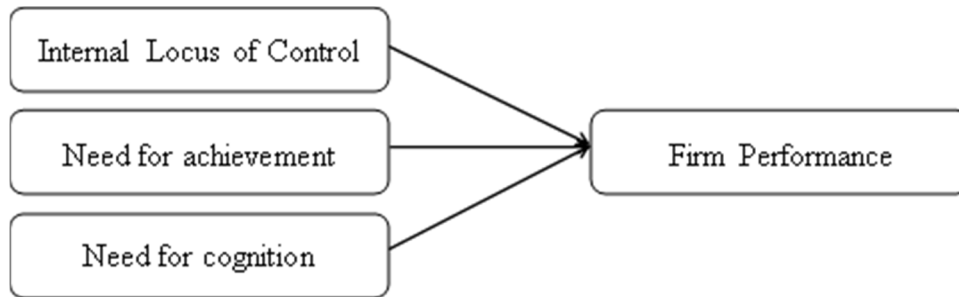
#### **4.2 Entrepreneurial Characteristics and Firm Performance**

In many studies the words "firm performance" and "firm success" have used interchangeably. According to Alchian and Demsetz (1972), performance means the comparison of the value created by a firm with the value expected by the starter. March and Sutton (1997) stated that the on-hand literatures on firm performance have been extended into two main streams. The first line of research concentrates on the study of ways to improve the company's performance and the second deals with the study of different influencing factors on the performance of the company.

In organizational studies this construct has been used as a dependent variable (March & Sutton, 1997). Numerous studies have shown variations in performance when they used it as a dependent variable in the context of SMEs. The Majority of the studies used profitability as a key dimension of firm performance in the context of entrepreneurship (Begley & Boyd, 1987). To measure firm performance, mostly profitability and growth rate were used. According to Begley and Boyd (1987), the firm should not combine both measures to create a single measure for firm performance. It also makes sense to use this measure separately, such as normally entrepreneurs engaged in small and medium-sized companies, which are privately owned and therefore they are not obligated to display the information about the performance of the company. For example, Chinese entrepreneurs in abroad uphold profile of their business and don't unveil information regarding their financial statements. In addition, March and Sutton (1997) showed that the self-reported data provided by entrepreneurs concerning the growth of their business is more valid and reliable.

### **5. CONCEPTUAL FRAMEWORK**

The conceptual framework is the overall structural diagram. That describes the variables and their relationship to be analyzed through the research. It is important to form a frame work, when undertaking any analysis. Theoretical framework suggests that independent variables are internal locus of control, need for achievement and need for cognition while the dependent variable is firm performance. The relations of these variables are supported on the basis of review of literature.



Source: Developed for study purpose

## 6. RESEARCH METHODOLOGY

This study design used a quantitative research approach and survey research design by examining the impact of independent variable on dependent variables. In this study, the cross-sectional study was used as method of survey. The population of the study was small scale food and beverage manufacturers in Batticaloa district. 200 small scale food and beverage manufacturers were taken as the sample. The sample was selected as a proportion to the total amount by using simple random sampling method. A structured questionnaire was used to collect the primary data from entrepreneurs by using Likert scale as strongly agree, agree, neutral, disagree and strongly disagree. Secondary data were collected from articles, books, journals and research papers through the internet.

## 7. RESULTS AND DISCUSSION

Reliability test was conducted to ensure the internal consistency of the variables and the Cronbach Alpha values were 0.760, 0.781 and 0.786 for internal locus of control, need for achievement and need for cognition, respectively. As a result, internal consistency was ensuring in the research instrument. The analysis of the demographic variables is given in Table 1 below.

**Table 1: Demographic Analysis**

Demographic Variable	Attributes	Percentage of Sample
Gender	Male	63.5
	Female	36.5
Age	18-25	20.0
	26-45	46.0
	46-55	20.0
	Above 55	14.0
Work experience	Less than 1 year	16.5
	1-3 years	22.0
	4-5 years	22.0
	6-10 years	22.5
	Above 10 years	17.0
Educational qualification	Ordinary level	58.0
	Advanced level	37.5
	Degree holders	04.5
Business type	Sole proprietorship	87.0
	Partnership	13.0
Business Life Cycle	Start-up stage	16.5
	Growth stage	40.5

	Maturity stage	23.5
	Declining stage	19.5
Monthly income	Less than Rs. 5,000	05.5
	Rs. 5,000 – 15,000	08.5
	Rs. 15,001 – 30,000	19.0
	Rs. 30,001 – 50,000	29.5
	Above Rs. 50,000	37.5

Source: Survey Data

### 7.1 Levels of Entrepreneurial Characteristics

Table 2 shows that all the three entrepreneurial characteristics and the level of firm performance were at high level among the small-scale food and beverage manufacturers in Batticaloa district. Low values of standard deviation shows that the variation in the responses of the entrepreneurs was very low.

**Table 2: Level of Entrepreneurial Characteristics**

Entrepreneurial Characteristics	N	Mean	Standard Deviation
Internal Locus of Control	200	4.2450	0.36916
Need for Achievement	200	4.2306	0.38930
Need for Cognition	200	4.2256	0.38598
Firm Performance	200	4.2371	0.39415

Source: Survey Data

### 7.2 Correlation Analysis

According to the results of Pearson's Correlation Analysis, there was significant strong positive relationship between all the three independent variables (Internal Locus of Control, Need for Achievement, and Need for Cognition) and the firm performance. All the relationships were at 1% significance level.

**Table 3: Correlation Analysis**

Variables		Internal locus of control	Need for achievement	Need for cognition
Firm Performance	Pearson Correlation	0.870	0.907	0.916
	Sig.(2-tailed)	0.000	0.000	0.000
	N	200	200	200

Source: Survey Data

### 7.3 Multiple Regression Analysis

**Table 4: Multiple Regression Analysis**

Variables	Beta value	Significant Value
(Constant)	1.426	0.000
Internal Locus of Control	0.929	0.000
Need for Achievement	0.918	0.000
Need for Cognition	0.936	0.000
a. Dependent variable: Firm Performance		

Source: Survey Data

Multiple regression analysis was carried out to find out the impact of internal locus of control, need for achievement and need for cognition on the firm performance. The results of the analysis are shown in Table 4.

According to the analysis, 76% of the variation in firm performance is caused by regression model. ANOVA has exhibited a F value of 25.933 with an associated significant value of 0.000. As this significant value is less than 0.05, there is sufficient evidence to say that this regression model is valid. All the three variables included in the model had significant values which are less than 0.05 and therefore, it can be interpreted that these three variables have significant impact on firm performance. Among them, need for cognition has higher impact on firm performance.

## **8. CONCLUSIONS AND RECOMMENDATIONS**

Generally, an entrepreneur plays a substantial role in determining the firm's behavior and performance. This study offers empirical support in studying the relationship between entrepreneurs' characteristics (inclusive of ILOC, the NFA, and the NFC) and the firm's performance. This is found to be consistent with previous research and theory. The main objective of this study was to examine whether there is impact of entrepreneurial characteristics on firm performance. With the intention of determining the impact of the factors of entrepreneurial characteristics on firm performance, three explanatory variables were studied. Internal locus of control, need for achievement and need for cognition had shown positive impact on the entrepreneurial firm performance.

The conclusions of this study offer a number of significant contributions and implications that are beneficial for both academicians and practitioners. Though the study donates to the body of knowledge by providing statistical evidences in regard to series of dependent impact related to three different variables encompassing entrepreneurs' characteristics and firm performance, the ability to simultaneously examine these impacts is valuable for better understanding of the phenomena. Consequently, the measurement model which was developed in this present study is also useful for other researchers. This measurement model can be extended to other contexts of research such as development of other areas of entrepreneurship or being applied in different countries and industries.

Special training programs and workshops should be implemented in Batticaloa district to encourage the entrepreneurs from rural areas where in successful entrepreneurs identified by these should give a talk on the importance of establishing new businesses and general entrepreneurship education and also share their entrepreneurial experience as these might motivate many young people to believe in themselves to start business also. Moreover, Entrepreneurs to develop their characteristics, they must engage in reading books in a variety of fields; joining professional groups; attending professional meetings and seminars and devote time to pursue natural curiosities. This is because successful creation is generally led by information gathering. Owners must have a proper and clear Vision/Mission to achieve goal in an effective way and owners have to develop demographic leadership style for the survival.

## **REFERENCES**

- **Alchian, A. A., & Demsetz, H. (1972).** Production, information costs, and economic organization. *The American economic review*, 62(5), 777-795.
- **Begley, T. M., & Boyd, D. P. (1987).** Psychological characteristics associated with performance in entrepreneurial firms and smaller businesses. *Journal of business venturing*, 2(1), 79-93.

- Boone, C., De Brabander, B., & Van Witteloostuijn, A. (1996). CEO locus of control and small firm performance: An integrative framework and empirical test. *Journal of Management Studies*, 33(5), 667-700.
- **Cacioppo, J. T., & Petty, R. E. (1982).** The need for cognition. *Journal of personality and social psychology*, 42(1), 116.
- **Cacioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996).** Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological bulletin*, 119(2), 197.
- **Di Zhang, D., & Bruning, E. (2011).** Personal characteristics and strategic orientation: entrepreneurs in Canadian manufacturing companies. *International Journal of Entrepreneurial Behavior & Research*, 17(1), 82-103.
- **Hung, D. K. M., Effendi, A. A., Talib, L. S. A., & Rani, N. A. B. A. (2011).** A preliminary study of top SMEs in Malaysia: Key success factor vs government support program. *Journal of Global Business and Economics*, 2(1), 48-58.
- **Khan, A. M., & Manopichetwattana, V. (1989).** Innovative and noninnovative small firms: Types and characteristics. *Management Science*, 35(5), 597-606.
- **Levin, E., Pieraccini, R., & Eckert, W. (2000).** A stochastic model of human-machine interaction for learning dialog strategies. *IEEE Transactions on speech and audio processing*, 8(1), 11-23.
- **MacMillan, I.C. & Katz, J.A. (1992).** Idiosyncratic milieus of entrepreneurial research: The need for comprehensive theories. *Journal of Business Venturing*, 7, 1-8.
- **March, J. G., & Sutton, R. I. (1997).** Crossroads—organizational performance as a dependent variable. *Organization science*, 8(6), 698-706.
- **Mourali, M., Laroche, M., & Pons, F. (2005).** Antecedents of consumer relative preference for interpersonal information sources in pre-purchase search. *Journal of Consumer Behaviour: An International Research Review*, 4(5), 307-318.
- **Murray, H.A. (1938).** Exploration in personality.
- **Rotter, J. B. (1966).** Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and applied*, 80(1), 1.



**WOMEN WELFARE ISSUES AT WORKPLACE IN PRIVATE SECTOR BANK  
EMPLOYEES IN CUDDALORE DISTRICT**

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**ABSTRACT**

*Women's empowerment is the process in which women elaborate and recreate what it is that they can be, do, and accomplish in a circumstance that they previously were denied. Empowerment can be defined in many ways, however, when talking about women's empowerment, empowerment means accepting and allowing people (women) who are on the outside of the decision-making process into it. "This puts a strong emphasis on participation in political structures and formal decision-making and, in the economic sphere, on the ability to obtain an income that enables participation in economic decision-making." Empowerment is the process that creates power in individuals over their own lives, society, and in their communities. People are empowered when they are able to access the opportunities available to them without limitations and restrictions such as in education, profession and lifestyle. Feeling entitled to make your own decisions creates a sense of empowerment. Empowerment includes the action of raising the status of women through education, raising awareness, literacy, and training. Women's empowerment is all about equipping and allowing women to make life-determining decisions through the different problems in society.*

*Keywords: welfare issues, women employees, banking sector*

**INTRODUCTION:**

The crux of the problem of employee welfare, whether under legislative compulsion or otherwise, is to determine their respective roles to be played by the State, the employers, trade unions and voluntary agencies. Apart from social responsibility, the State as an employer has the basic social responsibility of acting as a model employer and to provide all

types of welfare amenities to its workers. The state might also directly sponsor welfare programmes in the areas where workers live. Some of the measures like general education up to certain stage and public health are more appropriate for the State action. It was only after independence that the problem of employee welfare was given due attention when the socialistic pattern of society was adopted for achieving various socio-economic goals of the country. The Government of India in view of enhancing welfare and wellbeing of employees has laid down provisions for employee welfare under different labour laws.

One of the important laws in this regard, is the Factories Act, 1948 which elaborates various provisions in relation to health, safety, and welfare of employees, provisions regarding working hours including weekly hours, daily hours, weekly holidays, regarding employment of young persons, canteen facilities, first aid, shelters, rest rooms and lunchrooms annual leaves with wages and provision regarding employment of women and young persons in every organization. Finally the Act makes provision for the employment of Welfare Officer in manufacturing organizations and service sector also. Thus, it is clear that the Act makes very elaborate and unambiguous provisions regarding the minimum welfare standards to be followed by the management. But laying down the standards alone is not enough. It must also be ensured that these provisions are implemented successfully. The non-implementation leads to dissatisfaction of the employees working in the organizations. In India, employees in different organizations get the benefit of various welfare facilities. The purpose is to provide them better

quality of work life and to keep them happy as it influences the employee performance and organizational effectiveness.

### **REVIEW OF LITERATURE**

The literature related to the provision of welfare schemes that influence the employee's satisfaction and efficiency are discussed in the present paper. A study by Kumar and Yadav (2002) titled satisfaction level from employee welfare schemes in sugar factories in Gorakhpur division, revealed the overall satisfaction level of workers from welfare schemes was low in both the private and State sugar factories. Further, the workers in both sectors ranked the four employee welfare schemes according to their importance, which fell in the following order housing scheme, medical scheme, followed by education and recreation schemes. Robinson, Sparrow, Clegg, & Birdi (2006) in a study identified the key behaviors, which were found to be associated with employee engagement. The behaviors included belief in the organization, desire to work to make things better, understanding of the business context and the 'bigger picture', being respectful of and helpful to colleagues, willingness to 'go the extra mile' and keeping up to date with developments in the field. Joseph et.al. (2009) studied in the article points out that the structure of a welfare state rests on its social security fabric. Government, employers and trade unions have done a lot to promote the betterment of worker's conditions.

Manzini and Gwandure (2011) studied that the concept of employee welfare has been used by many organizations as a strategy of improving productivity of employees; especially in the mobile industry since work related problems can lead to poor quality of life for employees and a decline in performance. It is argued that, welfare services can be used to secure the labour force by providing proper human conditions of work and living through minimizing the hazardous effect on the life of the workers and their family members. Brikend (2011) in a study observed that job satisfaction is under the influence of a series of factors such as: The nature of work, Salary, Advancement opportunities, Management, Work groups and Work conditions. It is one of the major challenges for today's organization. Job satisfaction represents a combination of positive or negative feelings that workers have towards their work. Meanwhile, when a worker employed in a business organization, brings with it the needs, desires and experiences which determinates expectations that he has dismissed. Job satisfaction represents the extent to which expectations are and match the real awards.

A research in different organizations by Patro (2012) identified that the employees are assets of any organization. The needs of the employee must be satisfied in order to meet the goals of the organization. Any organization would be effective only when there is high degree of co-operation between the employees and their management. Meena & Dangayach (2012) analyzed the employee satisfaction of Private Sector Banks and Public Sector Banks, Five banks were considered in which, three were public sector banks (State Bank of India, Bank of Baroda, and Punjab National Bank) and remaining two were private sector banks (ICICI Bank and HDFC Bank). It was found that satisfied employees made positive contributions to the organizational effectiveness and performance. Parul and Ashok (2013) concluded in terms of proving that different welfare provisions provided to the employees working in an organization under Factories Act, 1948 are having positive relation with the employee satisfaction, after analyzing the correlation between these two factors. The reason behind this result is that these are the factors that lead to satisfaction and if these facilities are not present, it sometimes leads to dissatisfaction. Ekta (2013) studied that staff well-being and their level of satisfaction and engagement has been found to directly impact on organizational performance and ultimately organizational success. It is an obvious statement but high employee satisfaction levels can reduce employee turnover.

**OBJECTIVES OF THE STUDY**

1. To find out the awareness of labour welfare among women employees on the following aspects such as intra and extra mural welfare scheme provided by selected private banks

**RESEARCH METHODOLOGY**

The present research is an inquiry into the various employee welfare measures provided and a comparison is drawn on the employee's perception, working in different public and private sector organizations of Visakhapatnam district, India. For the purpose of the study, required statistics was collected from both primary and secondary sources. The primary data was

collected through survey method using questionnaire method from the employees who are working in different banking sector. And these secondary data was collected from books, journals, magazines, monographs, thesis, government reports, organization websites, and other searching websites.

**DATA ANALYSIS AND RESULTS**

The employees of various private service sector organizations are contacted for their opinion regarding the perception on the welfare measures practiced in their organization. Consists of different options related to the question, along with comments and suggestions. The opinion collected from the employees are based on the questionnaire is used for comparative analysis and test the hypothesis using SPSS software. The results and findings regarding the significance of each welfare measure on the employee's efficiency are discussed below:

**1. Awareness of the welfare measures**

Opinion of the respondents	No. Of respondents	Percentage
Yes	70	70
No	30	30
Total	100	100

The opinion of the respondents about the subsidized awarding in the banks were asked, a majority of the respondents expressed their full aware and welcomed the prescribed welfare act. It is the duty of the management to educate the new act to the unknown workers.

**Employee's Responses towards Welfare Measure**

Factors	N	Agree %	Neutral %	Disagree %	Total %
Medical facilities	100	67	15	18	100
Education	100	78	20	02	100
Working environment	100	89	---	11	100
Drinking and sanitary facility	100	90	02	08	100
Other amenities	100	79	19	02	100

The educational benefits provided for the employees and as well as their children in private organizations have held its head high. The respondents who agreed with positive impact in private organization constituted to 78% satisfied about education facilities and 20% of the respondents are neutral and few number of respondents of disagree about the educational facilities in private bank employees. Private organizations. Employees who disagreed with proper educational benefits accumulated to 10% in public organization and 20% in private organizations.

Health has always been a matter of concern with employees in their workplace irrespective of their work and when it comes to medical facilities, private organization has been on top of their

game and employees who agree with good medical facilities in private sector comes to 67%, 15% of them are neutral and 18% of them are disagree about medical facilities in private sector banks. Which should be improved upon to enhance employee performance.

The working environment should be clean and hygiene enough for employees to seek a sense of satisfaction in one way and when surveyed there was a turnaround in the favor of private organizations a statistics convey 89% of employees agree with the fact that private organization provide better working conditions. Employees having neutral opinion constitute nil and very few of them are no agree regarding working conditions.

It is fact that are of the basic physiological needs of human being is drinking water and sanitary facilities and when employees 90% of them asked to different women are very satisfied about it. 2% of them are neutral and 8% of the women employees are not satisfied about it.

Finally it consider other amenities like canteen, ventilation, maternity ie. Majority of the women employees are satisfied 79%

The welfare measures such as medical facilities, education, working conditions, drinking water and sanitary and other amenities have shown significant impact on the employee's performance, whereas work environment, canteen facilities, transport facilities, drinking and sanitary facilities have shown association with the employees based on the percentage analysis in private sector organizations. Therefore, welfare measures are considered as critical indicators that influences the performance of the employee'. The employee's working in private sector organizations are highly satisfied with the welfare measures provided to them.. Proper implementation of welfare measures increases the employees' performance and therefore helpful in overall development of an organization.

## CONCLUSION

Women welfare work aims at providing such services facilities and amenities which enable the workers employed in private sector banks to perform their work in healthy, congenial surrounding. Conducive to good health and high moral. The concept of employee welfare have reached many milestones in improving the efficiency of employees since work related problems compliment poor quality of life for employees and a decline in performance. The Welfare measures are prerequisite for every employee, without welfare measure employee is isolated in the organization. The objectives of the study have been achieved after conducting relevant statistical test and results obtained. The organizations are encouraged to be a driving force regarding these welfare facilities in motivating the employees and increase their work efficacies. The very logic behind providing welfare schemes is to create efficient, healthy, loyal and satisfied labor force for the organization. The purpose of providing such facilities is to make their work life better and also to raise their standard of living.

## REFERENCES

- **Dr. Anitha R.**, "A study on job satisfaction of paper mill employees with special reference to udumalpet and palanitaluk", *Journal of management & science*", ISSN: 2249 – 1260, September 2011; 1(1): 37-47. [3] Arun B. Meharajan, Sabarirajan A., "A study on the various welfare measures and their impact on QWL provided by the textile mills with reference to salem district, tamilnadu, India", *Asian Journal of Management Research* ISSN: 2229-3795, " June 2010; 1 (1): 15-24. [4] Balaji C., "Employee Welfare and Rewards.
- **EMPLOYEE WELFARE IS THE KEY: AN INSIGHT Dr. P.Venkata Rao\*** Chandra Sekhar Patro\*\* K.Madhu Kishore Raghunath\*\*\* \*Professor and Dean, Department of

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- **G. DevikaGohil**, “Study on staff development and employee welfarepractices and their effect on productivity in five college libraries in charusat university Gujarat”, “Research expo international multidisciplinary research journal”, ISSN : 2250 – 1630, June 2012; 2(2):193-195.
- **Kothari, C.R. (2009)**. Quantitative Techniques. New Delhi, India: Vikas Publication House Pvt. Ltd.
- Lalitha, K., &Priyanka, T. (2014). A Study on Employee Welfare Measures with Reference to IT Industry.International Journal of Engineering Technology, Management and Applied Sciences, 2(7), 191-195. ISSN:2349-4476. <http://businesstoday.intoday.in/story/government-steps-on-labour-law-reforms/1/16189.html>

## **A STUDY ON EMPLOYEE MOTIVATIONAL FACTORS AMONG PRIVATE SECTOR BANKS**

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### **ABSTRACT**

*The study made an attempt to find out the employee motivation among private sector bank employees. The study tried to know whether there any influence of motivational factors on employees in the present investigation a sample of 100 employees were selected randomly from private sector banks in Chidambaram town. Primary data collected from the respondents using questionnaire developed by researcher. After collecting the data were analysis in statistical package for social science, chi- square test, were applied to test the hypotheses .result shows that there is a significant between the private sectors banks employees motivation.*

*Keywords: Employee motivation,, motivational factors., private sector bank*

### **INTRODUCTION**

Many firms proudly point to their productivity increases and claim that the increases are due to y employees working smarter, not harder. But in many other firms, managements fail to reward employees for working either harder or smart.

Many powerful tools lie within management's control, but the tools have to be applied consistently and within the framework of an overall strategy for performance improvement. Such a strategy must coordinate the various elements of human resource management into a unified programme whose focus is to enhance employees' motivation to work; too often, managers have sacrificed equitable treatment for equality of treatment. To see how such a strategy might be applied in practice, let's examine three popular categories of motivation theories.

The challenge facing a modern manager is how to motivate employees to display behaviour consistent with organisational goals or objectives such as reducing costs, increasing revenues and satisfying customers. Motivation arises from within employees, and motivational factors differ for each individual within an organisation.

The continual challenges faced by management is the motivation of employees. When managers analyze their work people, they always discover that some people invariably out-perform others of equal skill, efficiency and ability.

A close scrutiny often reveals that in some situations a person with outstanding talents is consistently out-performed by someone having lesser talent. The proximate cause seems to be that the latter employees voluntarily put more effort and try harder in order to accomplish their goals.

These hard workers are often described by their bosses as 'motivated workers'. To discover why workers behave in that way we have to look at the person and his needs

### **REVIEW OF LITERATURE**

Theories of Motivation It is adequately documented in the literature that several thinkers from Adam Smith to Abraham Maslow and others have studied human behaviour from different perspectives – economic, psychological, behavioural, etc., to understand what motivate people to do the things they do. In the process, they developed several theories of motivation. This section presents a brief review of some of the theories and empirical evidences on the

relationship between motivation and productivity. Broadly speaking the theories of motivation can be classified in to content theories and process theories.

The former deals with what motivates and are concerned with identifying people's needs and their relative strengths, and the goals they pursue in order to satisfy these needs. The main content theories include Maslow's hierarchy needs; Herzberg's two factor © Bawa Licensed under Creative Common Page 664 theory and McClelland's achievement motivation theory. Process theories on the other hand, place emphasis on the actual process of motivation.

These theories are concerned with the relationships among the dynamic variables which make up motivation and with how behaviour is initiated, directed and sustained. Examples are expectancy –based models, equity theory goal theory and attribution theory (Uzonna, 2013).

The most popular theory of motivation in the classical literature is perhaps that of a United States psychologist, Abraham Maslow's Hierarchy of Needs Theory. Maslow (1943) discussed five levels of employee needs: physiological, safety and security, social, esteem or ego and self-actualization. According to this theory, people have many needs which motivate them to work, that those needs are arranged in a hierarchical manner in such a way that lower level needs (physiological and safety) had to be satisfied before the next higher level social need would motivate employees to work hard and increase productivity. The second theory of motivation is the two factor theory or motivator and hygiene theory developed by Frederick Herzberg (Herzberg, 1966).

Motivators or intrinsic factors such as drive for achievement and advancement, being treated in a caring and considerate manner and receiving positive recognition are inherent in the job itself and which the individual enjoys as a result of successfully completing the task, produce job satisfaction and motivate employees to work harder. Hygiene or extrinsic factors, such as salary, benefits and job security are external to the task and often determined at the organizational level can lead to dissatisfaction and lack of motivation if not present in positive degrees.

Uzonna (2013) argues that one important element of Herzberg's theory is that knowing employee needs can help us motivate today's young, ambitious and knowledge and technology-based workers. Given the fact that these workers already command high paying jobs, we can infer that money or cash rewards alone does not provide enough of an incentive as a motivator for performance. This implies that to motivate workers, organizations need to look beyond monetary rewards. Victor Vroom developed the expectancy theory based on the belief that employee effort will lead to performance and performance will lead to rewards. Rewards may be either positive or negative.

The more positive the reward the more likely the employee will be highly motivated. Conversely, the more negative the reward the less likely the employee will be motivated to work harder (Vroom, 1964, as cited in Malik, et al, 2011: 39). This theory was further developed by Porter and Lawler (1968).

Another theory is the equity theory of motivation developed in the early 1960's by J. Stacey Adams, a psychologist. The theory proposes that a person's motivation is based on what he or she considers being fair when compared to others (Redmond &Housell, 2015).

It recognizes that motivation can be affected through an individual's perception of fair treatment in social exchanges. When compared to other people, individuals want to be compensated fairly for their contributions to the organization. A person's beliefs regarding what is fair and what is not can affect his motivation, attitudes and behaviours which will in turn affect subsequent performance. When applied to the workplace, equity theory focuses on an

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employee's workcompensation relationship or "exchange relationship" as well as that employee's attempt to minimize any sense of unfairness that might result. According to the theory, underpayment inequity induces anger and distress while overpayment induces guilt. (Redmond &Housell, 2015).

**OBJECTIVES:**

- To study on employee motivation among the private bank.
- To find out motivational factors among the private bank.

**RESEARCH METHODOLOGY:**

Research means acquiring the new knowledge from event s validity and reliability is a preconditions of validity .

**RESEARCH DESIGN:**

The formidable problems that follows the task of defining the research problem is the preparation of the design of the research project popularly known as the "Research Design."

**DESCRIPTIVE RESEARCH DESIGN:**

Descriptive Research Design, which are concerned with describing the characteristics of a particular individual or of a group. This design concerned with specific predictions , with narration of facts and preplanned design for analysis . It is structured or well thought out instruments for the collection of data.

In this study, descriptive design has been used to minimize bias and maximize reliability of the evidence collected.

**SAMPLING METHOD:**

Simple random sampling is the simplest form of random sampling .in this type each populations element has a known and an equal chance of selection .this is on objective approach where any bias is eliminated and thus giving a chance to each population elements of being selected. This random sampling is used to facilitate the selection process.

**SAMPLE SIZE:**

The sample size the number of respondents in the field. The sample size of the study is 100.

**Table: 1Chi-square test of respondents according to their opinion about the Financial Motivational Factors Provided by the organization**

**Medical Facilities**

H0 = Null Hypothesis

H1 = Alternative Hypothesis

Parameters	Observed frequency	Expected frequency	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
Excellent	48	25	23	529	21.16
Good	36	25	11	121	4.84
Better	46	25	21	441	17.64
Poor	0	25	-25	625	25
<b>Total</b>		<b>100</b>			<b>68.64</b>

**Expected**

Frequency =  $100/4 = 25$

Calculated value = 68.64



Degree of freedom = n-1

= 4-1

= 3

Level of significance = 0.05

Tabulated value = Tabulated value

Calculated value > Tabulated value

Null hypothesis rejected

As calculated value is greater than tabulated value, the null hypothesis is rejected and the alternative hypothesis is accepted. Thus we can conclude that employees are satisfied with the Motivational Factors provided.

**Table:2 Chi-square test of respondents according to their opinion about the Performance Appraisal**

**Medical Facilities**

H0 = Null Hypothesis

H1 = Alternative Hypothesis

Parameters	Observed frequency	Expected frequency	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
Excellent	14	25	11	121	4.84
Good	24	25	1	1	0.04
Better	50	25	25	625	25
Poor	12	25	13	169	6.76
<b>Total</b>		<b>100</b>			<b>36.64</b>

**Expected**

Frequency = 100/4 = 25

Calculated value = 36.64

Degree of freedom = n-1

= 4-1

= 3

Level of significance = 0.05

Tabulated value = 7.815

Calculated value > Tabulated value

Null hypothesis rejected

As calculated value is greater than tabulated value, the null hypothesis is rejected and the alternative hypothesis is accepted. Thus we can conclude that employees are satisfied with the Performance Appraisal.

**Table: Chi-square test of respondents according to their opinion about the Decision Making****Medical Facilities**

H0 = Null Hypothesis

H1 = Alternative Hypothesis

Parameters	Observed frequency	Expected frequency	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
Strongly agree	24	33.33	-11.33	128.37	3.85
Agree	54	33.33	20.67	427.25	12.82
Disagree	24	33.33	-9.33	18.66	0.559
<b>Total</b>	<b>100</b>				<b>17.23</b>

**Expected**Frequency =  $100/4 = 25$ 

Calculated value = 17.23

Degree of freedom = n-1

= 3-1

= 2

Level of significance = 0.05

Tabulated value = 5.99

Calculated value &gt; Tabulated value

Null hypothesis rejected

As calculated value is greater than tabulated value, the null hypothesis is rejected and the alternative hypothesis is accepted. Thus we can conclude that employees are satisfied with the Decision Making.

**Table 4 Chi-square test of respondents of the Good Equipment in working area can assure a higher degree of Motivation****Medical Facilities**

H0 = Null Hypothesis

H1 = Alternative Hypothesis

Parameters	Observed frequency	Expected frequency	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
Strongly agree	20	33.33	-13.33	177.69	5.33
Agree	58	33.33	24.67	208.60	18.26
Disagree	22	33.33	-11.33	128.37	3.85
<b>Total</b>	<b>100</b>				<b>27.44</b>

**Expected**Frequency =  $100/4 = 33.33$

Calculated value = 27.44

Degree of freedom = n-1

= 3-1

= 2

Level of significance = 0.05

Tabulated value = 5.99

Calculated value > Tabulated value

Null hypothesis rejected

As calculated value is greater than tabulated value, the null hypothesis is rejected and the alternative hypothesis is accepted. Thus we can conclude that employees are satisfied with the Equipment in working area.

**Table 5 Chi-square test of respondents according to their opinion about Medical Facilities**

H0 = Null Hypothesis

H1 = Alternative Hypothesis

Parameters	Observed frequency	Expected frequency	(O-E)	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
Excellent	32	25	7	49	1.96
Good	38	25	13	169	6.76
Better	30	25	5	25	1
Poor	0	25	-25	625	25
<b>Total</b>					<b>34.72</b>

**Expected**

Frequency = 100/4 = 25

Calculated value = 34.72

Degree of freedom = n-1

= 4-1

= 3

Level of significance = 0.05

Tabulated value = 7.815

Calculated value > Tabulated value

Null hypothesis rejected

As calculated value is greater than tabulated value, the null hypothesis is rejected and the alternative hypothesis is accepted. Thus we can conclude that employees are satisfied with the Medical Facilities.

### **SUGGESTIONS**

In this analysis the researcher found more favorable things towards the motivation level of employees in this organization there are some improvements to achieve an effective results in these areas in future, some are they are follows.

Working conditions can be made more conducive so that a proper ambience for working can be created.

The organization can implement the principles of job rotation with a view to eradicate monotony in jobs.

More monetary benefits can be provided to the employees who feel money to be a good motivator.

Frequency of providing recognition to the employees can be increase.

The communication system has to improve to achieve the organization goals effectively in future.

The company has take some steps to balance this rewards with the performance and make some changes in their pay scale.

As regards the health and safety facilities 38% of the respondents feel good.

As regards the recreational cultural programmes in the organization, 34% of the respondents feel better.

Majority 60% of the respondents agree that the flexitime can motivate them to work well.

Maximum 54% of the respondents feel that their relationship with their manager and Engineer good.

Maximum 70% of the respondents feel that necessity of counseling in case of any problem.

Maximum 58% of the respondents feel that the Employee Development programme is good.

### **CONCLUSION**

For any organization or industry, labour is the moving and the most tangible force. Hence keeping labor satisfied is of essential importance and also necessary. Motivated employees are the essence of any organizations especially in the current scenario of stiff competition. Motivation system has to be adjustable to the organization and environmental changes.

The employees does not feel that the company has ever forgotten the need for the proper motivational aspects, instead the employees only feels few modifications can be made for the betterment of the existing motivational aspects in the enterprise. However these improvisations are subject to certain internal as well as external constraints, but with united efforts of the members the motivational changes and effects can be successfully implemented and of course the company has already started striving towards this. This present scenario at Private Sector Banks to few motivational factors such as welfare activities, improving the working conditions, establishing better harmonious relationships amongst members etc.

### **REFERENCE**

- **Alschuler**, A. S. (1975, March). *Radical psychological education*. Keynote address at the Convention of the Virginia Personnel and Guidance Association, Williamsburg, VA. In Covington, 1998, p.149.

ISBN:978-81-952196-6-7

BUSINESS TRANSFORMATION: CURRENT PRACTICE AND FUTURE POTENTIAL (Indo – Sri Lankan Perspective)

- **Ames, C., & Archer, J.** (1987a, April) *Achievement goals in the classroom: Student learning strategies and motivation processes*. Paper presented at the annual meeting of the American Education Research Association, Washington, DC. In Covington, 1989, p. 144.
- **Biaggio, A. M. B.** (1978). Achievement motivation of Brazilian students. *International Journal of Intercultural Relations*, 2, 186-195.
- **Boggiano, A. K., Main, D. S. & Katz, P. A.** (1988). Children's preference for challenge: The role of perceived competence and control. *Journal of Personality and Social Psychology*, 54, 134-141. In Covington, 1998, p. 146.
- **Deci, E. L.,** (1975). *Intrinsic motivation*. New York: Plenum
- **Graham, S.** (1984a). Communicating sympathy and anger to black and white children: The cognitive (attributional) consequences of affective cues. *Journal of Personality and Social Psychology*, 47, 14-28.
- **Hayashi, T., Rim, Y, & Lynn, R.** (1970). A test of McClelland's theory of achievement motivation in Britain, Japan, Ireland, and Israel. *International Journal of Psychology*, 5, 275-277.
- **Ogbu, J. U.** (1978). *Minority Education and caste: The American system in cross-culture perspective*. New York: Academic Press.
- **Pintrich, P. R.** (1988). A process-oriented view of student motivation and cognition. In J. S. Stack & L. Mets (Eds.) *Improving Teaching and Learning through research: New directions for institutional research* (vol. 57, pp. 55-70). San Francisco: Jossey-Bass.

**RELATIONSHIPS BETWEEN ORGANISATIONAL COMMITMENT AND DEMOGRAPHIC VARIABLES AMONG PRIVATE SECTOR BANK EMPLOYEES**

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**ABSTRACT**

*Employees' organizational commitment is most critical aspects for the management to keep their employees satisfied and motivated for achieving better performance. This subject has therefore been studied time and again so as to draw attention to enhance organizational effectiveness. The objective of the current study is to find out the relationship between employees commitment and demographics variables, and levels of organizational commitment, in private sector bank employees in Cuddalore district.. The results showed that majority of the employees were moderately and highly committed in the organization. The study further indicated that, there is evidence of significant relationship between organizational commitment (summery variable) and demographic profile (group variable). In conclusion, some of the organizational policies should be reviewed by the management so as to enhance employees' commitment for achieving better organizational performance.*

*Keywords: Demographic Variables, Employees Commitment, private sector employees.*

**INTRODUCTION**

The concept organisational commitment has grown in popularity in the literature on industrial and organisational psychology (Cohen, 2003). Early studies on organisational commitment viewed the concept as a single dimension, based on an attitudinal perspective, embracing identification, involvement and loyalty (Porter, Steers, Mowday & Boulian, 1974). According to Porter et al (1974) an attitudinal perspective refers to the psychological attachment or affective commitment formed by an employee in relation to his identification and involvement with the respective organisation.

Porter et al (1974, p 604) further describes organisational commitment as “an attachment to the organisation, characterised by an intention to remain in it; an identification with the values and goals of the organisation; and a willingness to exert extra effort on its behalf”. Individuals consider the extent to which their own values and goals relate to that of the organisation as part of organisational commitment, therefore it is considered to be the linkage between the individual employee and the organisation.

Another perspective on organisational commitment is the “exchanged-based definition” or “side-bet” theory (Becker, 1960; Alluto, Hrebiniak & Alonso, 1973). This theory holds that individuals are committed to the organisation as far as they hold their positions, irrespective of the stressful conditions they experience. However, should they be given alternative benefits, they will be willing to leave the organisation.

Mowday, Porter and Steers (1982, p 26) support the “side-bet” theory by describing organisational commitment as a behaviour “relating to the process by which individuals become locked into a certain organisation and how they deal with this problem”. This behavioural aspect of organisational commitment is explained through calculative and normative commitments.

In organizational behavior and industrial and organizational psychology, organizational commitment is an individual's psychological attachment to the organization. The basis behind many of these studies was to find ways to improve how workers feel about their jobs so that

these workers would become more committed to their organizations. Organizational commitment predicts work variables such as turnover, organizational citizenship behavior, and job performance. Some of the factors such as role stress, empowerment, job insecurity and employability, and distribution of leadership have been shown to be connected to a worker's sense of organizational commitment.

Organizational scientists have also developed many nuanced definitions of organizational commitment, and numerous scales to measure them. Exemplary of this work is Meyer and Allen's model of commitment, which was developed to integrate numerous definitions of commitment that had been proliferated in the literature. Meyer and Allen's model has also been critiqued because the model is not consistent with empirical findings. It may also not be fully applicable in domains such as customer behavior. There has also been debate surrounding what Meyers and Allen's model was trying to achieve.

### **LITERATURE REVIEW**

Employees Commitment Organizational commitment defines that an individual has keen interest to act in a certain way toward achieving a given target (Oliver, N 1990). It is considered to be an obliging force of person in honoring the commitment even on the face of varying state of interest and whims (Brown, R.B (1996). As per Scholl, R.W. (1981) commitment is maintaining a behavioral direction in the event expectancy/equity conditions are not achieved and failing. It has also been described a psychological attachment of a person toward the organization. Commitment transpires a relative strength about an individual's identification and his involvement in the particular company or organization (Allen, N.J. and Meyer, J.P. (1996). Organizational commitment is also described being a psychological attachment between the employee and his or her organization which makes it less likely that employee will leave the organization voluntarily (Feldman, C.D. (1995). Authors such as (Becker, H.S. (1960) has argued that commitment is a common element having linked with various forms of commitment within multidimensional models. The key factors of all these definitions is that the organizational commitment is such a major variable which impacts over a number of organizational outcomes including organizational citizenship behavior, employee work efficiency, job satisfaction and individual turnover (Gelade, Dobson, and Gilbert (2006) emphasized that organizational commitment need to be the interest to organizations because a body of research links levels or organizational commitment to a number of outcomes of an organization. After various studies on commitment it has been believed commitment has a core essence that differentiates it from other constructs. Commitment in general can be referred and understood into 1. Stabilizing or obliging force, 2. Points directions to behavior to restricts, freedom and binds the person to a course of action (Meyer, J.P. and Herscovitch, L. (2001).

Employees Commitment and Demographic Characteristics Demographic characteristics are often used variables, relating with organizational commitment. Demographic factors such as age, gender, marital status, education and job tenure are included in many studies and it has got a significant role in determining organizational commitment. However in this study author have chosen four variables ie, Age, qualification, designation and experience for the purpose of this study.

Study shows a mixed result of prediction over the commitment factors, in some study it has found that education level and age were not significant while others found significant relationship between job tenure and organizational commitment in their cultural context. Pala and colleagues based on their study of health care workers in Turkey argued that years

in occupation, gender, level of education and title, and meaning of the position in the organization were closely related to organizational commitment.

**RESEARCH METHODOLOGY**

Research design. Descriptive research is employed with a view to describe the employee opinion, attitude, feelings towards organizational commitment. Area of study. The research was conducted at private sector bank employees in cuddalore, district. Which is a big organization to enable effective research to be done. Sample size. The study aims at getting information from 200 employees in all departments which is equivalent to 50% of the total population 1:2.

**OBJECTIVES OF THE STUDY**

1. To study the level of organizational commitment among private bank employees
2. To find out the relationship between organizational commitment and demographics variables

**LEVEL OF ORGANIZATIONAL EFFECTIVENESS IN PRIVATE SECTOR BANKS**

Variables	Low	Medium	High
Job satisfaction	45 10.8%	236 56.9%	134 32.3%
Organizational climate	186 44.8%	204 49.2%	25 6.0%
Job involvement	181 43.6%	143 34.5%	91 21.9%

**Computed Primary Data**

In the above table organizational commitment is perceived by the employee’s opinion. Among the respondents, 10.8% stated low, 56.9 % stated medium, and 32.3% stated high with regards to job satisfaction. With regard to organizational climate, 44.8% stated low, 49.2% stated medium and 6.0% stated high. The respondents opined regarding the job involvement that 43.6% low, 34.5% medium and 21.9% high .at the outset majority of respondents perceived that majority of the respondents achieved high and medium level with regard to job satisfaction and low level of organizational climate.

**2. RELATIONSHIPS BETWEEN ORGANISATIONAL COMMITMENT AND DEMOGRAPHIC VARIABLES**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.358 <sup>a</sup>	0.128	0.109	.64683

**ANOVA<sup>b</sup>**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	24.929	9	2.770	6.620	0.000 <sup>a</sup>
Residual	169.447	405	.418		
Total	194.376	414			

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		



(Constant)	3.214	.776		4.142	0.000
Gender	-.453	.065	-.329	-6.990	0.000
Age	.056	.038	.071	1.479	0.140
Educational qualification	-.089	.049	-.084	-1.808	0.071
Technical qualification	-.010	.050	-.009	-.200	0.842
Designation	-.049	.045	-.063	-1.073	0.284
Marital status	-.080	.235	-.051	-.340	0.734
Type of family	-.192	.241	-.119	-.796	0.426
Monthly income	-.037	.070	-.030	-.529	0.597
Experience in present branch	.057	.044	.062	1.308	0.192

Dependent Variable:organizational commitment      Significant at 1%      Computed PrimaryData

H0: demographic variables do not influence the organizational commitment of the private sector bank employees.

Table – 4.66 brings the effect of demographic variable on organizational commitment of the private sector bank employees.

In order to examine the stated hypotheses, regression is applied. here, the demographic variables namely gender, age, educational qualification, technical qualification, maritalstatus, type of family, monthly income and experience in the present branch are considered as independent variables and organizational commitment is treatedasdependentvariable.From the F-statistic value(6.620)andp-value(0.00), it is inferred that the independent variables significantly influence the private sector bank employees .Hence the hypothesis is rejected atone percent level.

The regression analysis indicates that among the independent variables, whicharethemostinfluencingvariables oncareerdevelopmentoftheprivatebank employees. Among the demographic variables gender is the factor highly influencing the career development. The calculated adjusted R-Square value indicates that these variables are influenced by 35.8 percent on organizational commitment of the private bankemployees.

Thestandardizedco-efficientbetavalueindicates therelativeimportanceof demographic variable to the predictor's level of organizational commitment of theprivate sector bank employees. Gender is the highly predicting variable of organizational commitment of the private bank employees. The corresponding p-value of these variables is significantat one percent. so, gendersignificantly influencedtheorganizational commitment of the private sector bankemployees.

Organizational commitment = 3.214 + 0.056 (age) + 0.057 (experience)

The equation explained that the age and experience have the positive impact on organizational commitment. To have one unit increase in organizational commitment, the capability of the age and experience has to be increased by 0.05 levels when other factors remain constant. Age and experience needed to have for one unit increase of organizational commitment.

## **FINDINGS**

The Regression analysis between career development and demographic variables reveals that gender and educational qualification are found to influence on the dimensions of organizational commitment .

Organizational commitment contributes a significant difference on job satisfaction, organizational climate and job involvement with respect to the type of loan borrowed by the respondents.

## **SUGGESTION**

To improve the organizational commitment employee's monthly income plays a vital role. For instance to undergone a specialized courses .The private banks should give training programs that is needed by the employees to develop their career.

Employees always want to spend some occasions with their family members. In most of the cases the employees could not do the same, Ergo the private bank officials must focus on the employees need which would develop themselves as well as the organization.

Employees feel that the experience and the organizational commitment dimensions such as organizational climate and satisfaction do not have significant variations. So the organizational climate must be focused by the bank officials, which would satisfy the private sector bank employees.

## **CONCLUSION**

It is concluded from the study that the banking industry comprises only a satisfactory level of organizational commitment and this can be measured by the following dimensions: job satisfaction, organizational climate and job involvement .the demographic variables of the employees such as age, educational qualification, monthly income, marital status, work experience, have significantly influenced the organizational commitment of the private sector bank employees.

## **REFERENCE**

- **Becker, H. S. (1960).** "Notes on the Concept of Commitment". *American Journal of Sociology*. 66 (1): 32–40. doi:10.1086/222820. JSTOR 2773219.
- **Dirani, K. M.; Kuchinke, K. P. (2011).** "Job satisfaction and organizational commitment: Validating the Arabic satisfaction and commitment questionnaire (ASCQ), testing the correlations, and investigating the effects of demographic variables in the Lebanese banking sector". *The International Journal of Human Resource Management*. 22 (5): 1180. doi:10.1080/09585192.2011.556801.
- **Duffy, R. D.; Bott, E. M.; Allan, B. A.; Torrey, C. L.; Dik, B. J. (2012).** "Perceiving a calling, living a calling, and job satisfaction: Testing a moderated, multiple mediator model". *Journal of Counseling Psychology*. 59 (1): 50–9. doi:10.1037/a0026129. PMID 22059426.
- **Kanter, R. M. (1968).** "Commitment and Social Organization: A Study of Commitment Mechanisms in Utopian Communities". *American Sociological Review*. 33 (4): 499–517. doi:10.2307/2092438. JSTOR 2092438.
- **Veličković, V. M.; Višnjić, A.; Jović, S. A.; Radulović, O.; Šargić, Č.; Mihajlović, J.; Mladenović, J. (2014).** "Organizational Commitment and Job Satisfaction Among Nurses in Serbia: A Factor Analysis". *Nursing Outlook*. 62 (6): 415–27. doi:10.1016/j.outlook.2014.05.003. PMID 25062809.

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- **Yousef, D.A. (2017)** Organizational Commitment, Job Satisfaction and Attitudes toward Organizational Change: A Study in the Local Government, *International Journal of Public Administration*, 40:1, 77-88, DOI: 10.1080/01900692.2015.1072217

## **AWARENESS AND AVAILABILITY OF ORGANIC FRUITS AND VEGETABLES AN OVERVIEW**

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### **ABSTRACT**

*The adoption of organic production and processing is highly determined by market demand. Therefore this is reflected in consumer's awareness and satisfaction towards organic fruits and vegetables. This research result indicated that the main reason for purchasing organic fruits and vegetables is an expectation of a healthier and environment friendly means of production. Organic buyer tend to be older and higher educated than who do not buy them. However, the main barrier to increase the market share of organic food product is consumer information.*

*Keywords: Organic, agriculture, food products, pricing, certification standards*

### **INTRODUCTION**

Awareness is the state of being conscious of something. More specifically, is the ability to directly know and perceive, to feel, or to be cognizant of events. Another definition describes it as a state wherein a subject is aware of some information when that information is directly available to bring to bear in the direction of a wide range of behavioral actions. The concept is often synonymous to consciousness and is also understood as being consciousness itself.

Awareness is a relative concept. It may be focused on an internal state, such as a visceral feeling, or on external events by way of sensory perception. It is analogous to sensing something, a process distinguished from observing and perceiving (which involves a basic process of acquainting with the items we perceive). Awareness or "to sense" can be described as something that occurs when the brain is activated in certain ways, such as when the color red is what is seen once the retina is stimulated by light waves. This conceptualization is posited amid the difficulty in developing an analytic definition of awareness or sensory awareness.

### **SELF AWARENESS**

Popular ideas about consciousness suggest the phenomenon describes a condition of being aware of oneself (self-awareness). Modern theory, which offers insights into how the world works through an understanding that all systems follow system rules, approach self-awareness within its understanding of how large complex living systems work.

**According to Gregory Bateson**, the mind is the dynamics of self-organization and that awareness is crucial in the existence of this process. Modern systems theory maintains that humans, as living systems, have not only awareness of their environment but also self-awareness particularly with their capability for logic and curiosity.

Efforts to describe consciousness in neurological terms have focused on describing networks in the brain that develop awareness of the qualia developed by other networks. As awareness provides the materials from which one develops subjective ideas about their experience, it is said that one is aware of one's own awareness state. This organization of awareness of one's own inner experience is given a central role in self-regulation .

### **BASIC AWARENESS**

Basic awareness of one's internal and external world depends on the brain stem. Bjorn Merker, an independent neuroscientist in Stockholm, Sweden, argues that the brain stem supports an elementary form of conscious thought in infants with hydranencephaly. "Higher" forms of awareness including self-awareness require cortical contributions, but "primary consciousness" or "basic awareness" as an ability to integrate sensations from the environment with one's immediate goals and feelings in order to guide behavior, springs from the brain stem which human beings share with most of the vertebrates. Psychologist Carroll Izard emphasizes that this form of primary consciousness consists of the capacity to generate emotions and awareness of one's surroundings, but not an ability to talk about what one has experienced. In the same way, people can become conscious of a feeling that they can't label or describe, a phenomenon that's especially common in pre-verbal infants.

Due to this discovery medical definitions of brain death as a lack of cortical activity face a serious challenge.

### **BASIC INTERESTS**

Throughout the brain stem, there are interconnected regions that regulate eye movement that are also involved in organizing information about what to do next, such as reaching for a piece of food or pursuing a potential mate.

### **CHANGES IN AWARENESS**

The ability to consciously detect an image when presented at near-threshold stimulus varies across presentations. One factor is "baseline shifts" due to top down attention that modulates ongoing brain activity in sensory cortex areas that affects the neural processing of subsequent perceptual judgments. Such top down biasing can occur through two distinct processes: an attention driven baseline shift in the alpha waves, and a decision bias reflected in gamma waves.

### **AVAILABILITY**

Availability of a system is typically calculated as a function of its reliability, maintainability and its redundancy. As reliability increases and as redundancy increases, so does availability. As maintenance downtime decreases availability increases.

Availability of a system may also be increased by the strategy of focusing on minimizing downtime by increasing testability, diagnostics and maintainability. Improving maintainability during the early design phase is generally easier than reliability. Maintainability estimates (item repair [by replacement] rates) are also generally more accurate. However, because the uncertainties in the reliability estimates are in most cases very large, it is likely to dominate the availability (and the prediction uncertainty) problem, even while maintainability levels are very high. Furthermore, when reliability is not under control, then many and different sorts of issues may arise, for example:

- Lack of trained and capable repair personnel
- The need for detailed diagnostic procedures and other technical information
- Spare part availability
- Dead on arrival issues
- Lack of repair facilities and tools

## 2.1 Definitions of Awareness and Availability

### Awareness

- Knowledge that something exists, or understanding of a situation or subject at the present time based on information or experience:
- Awareness is the state of knowing something, such as the *awareness* that the sun comes up every morning.
- Interest in and concern about a particular situation or area of interest

### AVAILABILITY

Availability, inherent ( $A_i$ ). The probability that an item will operate satisfactorily at a given point in time when used under stated conditions in an ideal support environment. It excludes logistics time, waiting or administrative downtime, and preventive maintenance downtime. It includes corrective maintenance downtime. Inherent availability is generally derived from analysis of an engineering design:

### REVIEW OF LITERATURE

**S Priya, M Parameswari (2016)** Consumer attitude towards organic food products. The awareness about organic food products is increasing among the people and their intention to buy organic food is shaped by various beliefs. Their actual buying behavior is direct result of strong intent and attitudinal values towards the benefits of the organic products. An attempt has been made in this study to evaluate what influences the consumers to purchase organic food products. These people generally seek information from newspaper, magazine and at point of purchase i.e. food vendor. In addition these groups of buyers are premium product consumers and prefer to shop from exclusive outlets and of course they love nature.

**S Amudha, Dr. M Kanagarathinam (2017)** A study on consumer awareness towards organic food products in Coimbatore city. Consumers must give equal importance as much as they consume fundamental food items like fruits, vegetables and cereals, and give importance to other items of organic food products. More amount of organic cultivation will lead to increase the consumption level of consumers. Most of the consumers do not aware of the availability of varieties of organic products in the market. Price is the factor that reduces the consumption of organic food. The awareness should be given to the ultimate consumers about that how the organic foods are healthy and how it safe for the future generation.

**K. Sundaresh & Dr. S. Babu (2017)** College Student's Awareness and Attitude towards Organic Food Products in Coimbatore City. The awareness about organic food products is increasing among the people and their intention to buy organic food is shaped by various beliefs. The college student's awareness and attitude towards preferring organic food products has been studied and their level of preference was measured based on their opinion which concludes that the consumers are highly preferring to use organic food products in Coimbatore city

**Dr.s.Balusamy,M.Aarthi (2017)** A Study on 'ORGO LIFE' Consumers Preference towards Organic Food Products in Pollachi. The organic food market is growing but it is still at a very nascent stage in India and is prominent in only the metro towns and some neighbouring areas that have a spill over effect. The educated population tries to buy organic food for its health reasons but a very vivid description is also highlighted when for lifestyle and status symbol organic products get consumed to portray the arrival in a specific economic stratum. Expansion of the organic food market over recent decades can largely be attributed to consumers. Choosing

it as an expression of their concern for their own health and a heightened awareness over the impact of the food system on the environment. Other factors such as increased consumer affluence, greater product diversity and availability have assisted consumers to make this choice. To accomplish the objective of the study, the researcher has to depend on both primary and secondary data. The demographic factors of the consumers are analysed considering the attitude which is an important measure that will help to understand the level of preference for the products is to be portrayed in the study.

**Abisha KA and Dr.P Kannan (2018)** “A study on consumers’ awareness towards organic food products with special reference to Tirupur district.” In today’s world organic food product was important for the people at large to steer a healthy life. Became a basic necessity in human life. During this paper, a shot has been created to search out the shopper’s awareness towards organic food. A sample of a hundred respondents” was purposively elect from Tirupur District. The chosen samples area unit analyzed exploitation easy share, chi-square test and multivariate analysis test. It’s found that 3variables particularly there exists any vital association between gender, age, qualification, monthly financial gain and client awareness towards organic food product of therespondent.“Consumer Attitude and Purchase intension towards Organic Food” the event of Organic food remains babe stage in India. it's necessary to understand regarding the patron perspective towards Organic food, supported shopper perspective model factors like shopper information, Environmental concern, personal norms, subjective norm and shopper purchase import square measure measured which permit America to seek out the patron perspective and get import on Organic food. customers disagree from one another; they have totally different concepts, taste, perception, likes and dislikes, perspective in easy term it's thought oriented, if shopper has positive thought on organic food it will produce the acquisitionimport.

#### **NABARD CONSULTANCY SERVICES (P) LTD. (NABCONS)**

Study on Market Availability for Organic Produce,Presently, data maintains regarding organic produces is in dismal condition in state as well as in country. Government should give more focus for collecting and maintaining basic data like area, production, yield, etc. This will assist in scientific planning for promotion of organic produces as well as in assessment of growth in the sector.

- Government needs to give focus to produce more of high value low volume crops. Presently state as well as country is mainly producing/ exporting low value high volume crops.
- APEDA may think of implementing Indian Trade Clarification based on Harmonized System of Coding (ITC-HS Codes) for organic products. The Harmonized Commodity Description and Coding System, also known as the Harmonized System of tariff nomenclature is an internationally standardized system of names and numbers to classify traded products. Indian Trade ITC-HS Codes is adopted in India for import-export operations.
- Government may enhance the incentives for export of organic products from India. Export incentives for organic products has to be more than the incentives provided to the export of non-organic agricultural products.

#### **CONCLUSION**

Majority consumers were awake to organic food, its edges and issues related to conventional food. However, this awareness was comparatively a lot of among educated respondents. But still

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majority purchase conventional food and not organic frequently as a result of some outstanding reasons like.

1. High value of products.
2. Lack of data connected from wherever to shop for.
3. Lack of straightforward likewise as regular accessibility
4. Risk of obtaining cheated.

Therefore provide facet factors are capable for lack of Demand for organic food. Effective selling structure and necessary support from the governmental agencies for Organic food is needed. It also can be done through NGOs and alternative Government agencies since it's safer and healthier food beside personal sector participation. Improvement in provide chain management and production coming up with can solve the problems like irregular provide, restricted stocks. It's the time for government to require effective policy call in association with Agriculture Department to encourage farmers to provide and market organic products.

#### **REFERENCES**

- **Chandrasekhar HM.** Consumers Perception towards Organic Products-A Study in Mysore City. *International Journal of Research in Business Studies and Management*. 2014;1(1):61-66.
- **Jasmin Pandiya, Nayankumar Vala.** Profiling of Organic Food Buyers in Ahmedabad City: An Empirical Study *Pacific Business Review International*. 2012;5(1):19-25.
- **Barret et al.** Organic Certification and the UK Market: Organic imports from Developing countries, *Food policy*, 2006;27(4):301.



**WORK-LIFE BALANCE AMONG WOMEN EMPLOYEES A LITERATURE  
REVIEWS**

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**ABSTRACT**

*The literature review on Work-life Balance has been framed up because of its gained popularity with the major aim to have the prosperity of society and the realization of fulfilling lives for its employees by supporting the growth of every employee and the further development of the companies. The literature identifies its effect on various quality life conditions i.e. Job Satisfaction, Work Stress, Career Growth, Turnover, Absenteeism, Appreciation, and competitive environment in context with Work-life Balance and its practices/policies. In this paper, an endeavor has been made to provide an overview of various aspects of Work-Life Balance through the review of existing literature. The sources referred include various journals, books, doctoral thesis, working papers, reports, magazines, internet sites, newspapers, etc, and have been reflected as references at the end.*

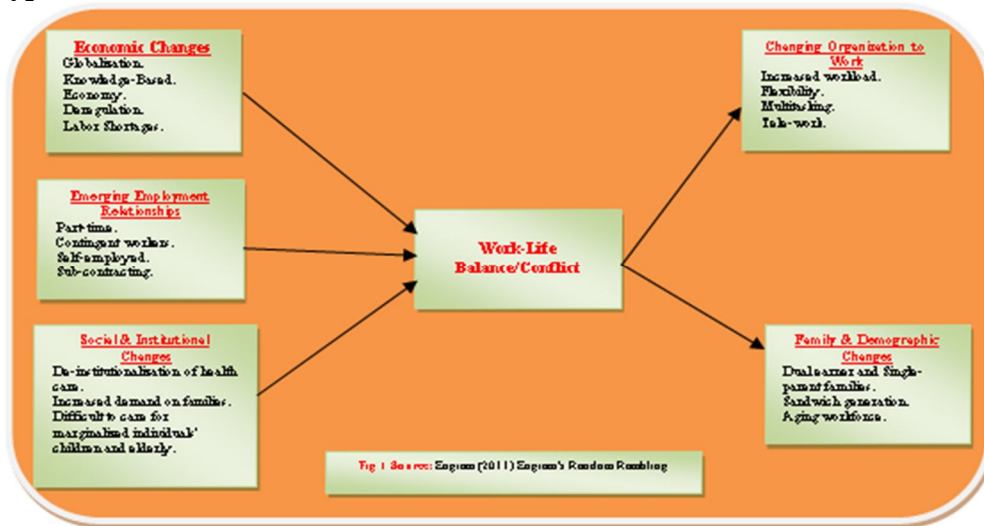
*Keywords: Social Support, Personal Factors, Work-Family Conflict, Work-Life Balance, Intent to Quit*

**1. INTRODUCTION**

Work-life stability (WLB) is a notion along with the applicable prioritization between work (career and ambition) and lifestyle (health, pleasure, leisure, family). The work-leisure dichotomy used to be invented in the mid. Paul Krassner, an American journalist, observed that anthropologists outline happiness as having as little separation as possible between your work and your play. The expression "work-life balance" used to be first used in the United Kingdom in the late 1970s to describe the balance between an individual's work and private life.

The motive of this paper is to assess the present literature on work-life stability with the identification and description of work-life balance with a wide variety of sections, first with Career increase and work-family conflict, They describes Motivation and Work-Life Balance, the third area exhibits to Job Satisfaction and Work-Life Balance, the fourth area examines Turnover, absenteeism, and Work-Life Balance, the fifth area assesses Competitive environment and Work-Life Balance, the sixth area explores appreciation and work-life balance, the seventh area identifies and describes Work-life practices/policies and work-life balance, & eight sections discuss on Work Stress and work-life imbalance, finally attracts conclusion.

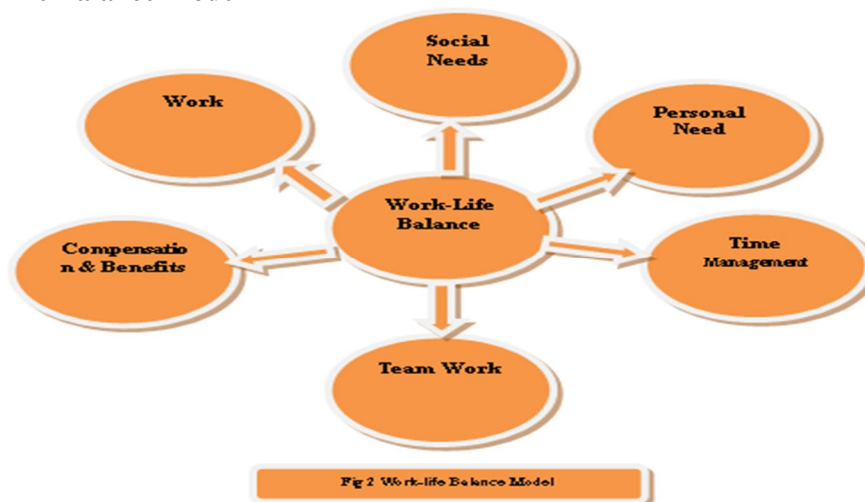
1.2. Types of work-life balance



1.3. Factors OF work-life balance - Organizations should undertake work-life balance programs as in their absence both men and women will be exposed to stress, depression, and anxiety. Programs aiming at work-life balance include:

- Child care at or near the workplace
- Job sharing
- Care for sick children and employees
- On-site summer camp
- Training supervisors to respond to work and family needs of employees
- Flexible work scheduling
- Sick leave policies
- Dropping children at school and making dinner reservations.

1.4. Work-life Balance Model



## **2. REVIEW OF LITERATURE**

### **2.1. Social Support**

**Aydın, A., Kahraman, N., & Hiçdurmaz, D. (2017)** studied that addressing perceived social support from the gender variable confirmed that perceived social help was appreciably excessive amongst men, while others concluded that it used to be considerably greater amongst girls. Some studies conclude that perceived social guide does not vary considerably as it can be considered from the lookup results. Social help performs a distinguished role in the lifestyles of individuals.

**Oktan, V. (2015)** studied the research on perceived social help that have been found in the literature, perceived social support and its subscales be high quality appreciably related to psychological well-being and psychological resilience, self-forgiveness and situations, self-esteem, and perceived bad social aid notably correlated with loneliness, difficult web use, parental recognition-rejection, and steady anger.

### **2.2. Work-Family Conflict**

**Ahmad (2018)** studied the effect of life orientation on work-family combat using a sample of 350 bankers in Qatar; the effects confirmed that the employees with correct position values in lifestyles confirmed low work-family hostilities when in contrast to the personnel with bad function values. In every other learn about via Livingston and Judge, the results of existence orientation and work-family conflict were examined using a pattern of 196 employees. The outcomes confirmed that work-family warfare was considerably negatively correlated with orientation. Consequently, Livingston and Judge have advised that in the existence of employees, there is a hole in lookup on predictors of work-family conflicts in the non-banking professions. Hence, similarly, studies can be prolonged to this conflict.

**Ogundele, Ayobami, Ayodeji, and Shittu (2017)** carried out a study to look at psychosocial predictors of existence orientation amongst the randomly selected physicians in the kingdom of Kwara, Nigeria. Using the sample of 212 medical practitioners in the country of Kwara, the consequences confirmed that the medical doctors with a high life orientation suggested much less work-family fighting whilst the medical practitioner with a low existence orientation pronounced excessive work-family warfare between their work and the demands of families. Therefore, similar research is wanted in this area to go broader contexts to enhance the generalizability results of the results and make bigger our grasp of the link between psychosocial variables and the work-family fighting between the personnel of more than a few professions in the workplace.

### **2.3. Work-Life Balance**

**Jodie Raffi, BA, Megha K. Trivedi, BS, BA, Lucile White, et.al (2020)** studied that doctors typically face challenges in balancing their work and life. Nowadays, contemporary technological know-how affects advancements in the clinical field. Electronic medical report administration and preserving computerized ways of working can reduce your workload. 25% of respondents reported that those who are dozing for much less than six hours are struggling to control their stress level.

**Kristy S. Chunta, (2020)** studied that the consumption of positions can affect work-life balance. Plan and prepare one night before. Social visits have to be averted by employing colleagues. Learn to say "NO" if it matters. Self-care and time administration are necessary for work-life balance.

**2.4. Intent to Quit**

**Ahmad, Bashir, et al., (2012)** studied and concluded that job delight is substantially and negatively correlated with the intention of turnover. Work stress also has a considerable negative relationship with the intention of turnover. Employees who have experienced more stress at work are greater likely to quit.

**Khadija Al Arkoubiet al., (2011)** studied and explored some determinants of turnover intent. They proposed a model that assumes the existence of relationships between equity attention and job satisfaction. The latter together with dedication is perceived in this mannequin as negatively correlated to quit. Not only these two factors lead to turnover intentions, however many different factors too can lead to turnover intentions.

**CONCLUSION**

The present study is to inspect the Standardization of work-life balance amongst personnel of the Insurance sector. It is no longer a single aspect that determines the job performance of Insurance employees. Factors like work Social Support, Personal Factors, Work-Family Conflict, Work-Life Balance, Intent to Quit, professional improvement, and rate of absenteeism. To gain WLB, every worker has to set the aim and excel each in career and family. Some of the strategies and competencies at work such as planning; organizing and putting limits can be used in domestic and work areas for carrying out a gratifying and pleasant well-balanced existence both professionally and personally. The employee needs to care for the family both physically and financially to fulfill the family needs. Also, work for the accomplishment of organizational objectives and character upliftment to fulfill the profession's needs. Organizations want to undertake human aid techniques and insurance policies to overcome the problems of the work-life balance of insurance plan personnel in the present-day enterprise environment.

**REFERENCES**

- **Ahmad, (2018).**“The influence of life role values on work-family conflict among bankers in Qatar”, Iranian Journal of Organizational Studies, 157, 113-142.
- **Ayd n, A., Kahraman, N., &Hiçdurmaz, D. (2017).** “Determining the levels of perceived social support and psychological well-being of nursing students”, Journal of Psychiatric Nursing, 8(1), 40-47.
- **Bashir Ahmad, Muhammad Shahid, Zill-e-Huma, SajjadHaider, (2012)** “Turnover Intention: An HRM Issue in Textile Sector”, Interdisciplinary Journal of Contemporary Research in Business, Volume 3, No 12.
- **Chunta, K. S. (2020).** “New Nurse Leaders: Creating a Work-Life Balance and Finding Joy in Work. Journal of Radiology Nursing”. doi:10.1016/j.jradnu.2019.12.007.
- **Jodie Raffi, Megha K. Trivedi, Lucile White, Jenny E. Murase. (2020).**“ Work-life balance among female dermatologists”, International Journal of Women's Dermatology, Volume 6, Issue 1 January 2020 Pages 13-19.
- **Khadija Al Arkoubi, James W. Bishop, Dow Scott,(2011)** “An Investigation of the Determinants of Turnover Intention among Drivers”
- **Ogundele, Ayobami, Ayodeji&Shittu (2017).**“Psychosocial predictors of life orientation among randomly selected doctors in Kwara state Nigeria”, Nigerian Journal of Organizational Psychology, 55, 2
- **Oktan, V. (2015).**“Problematic Internet use, loneliness and perceived social support among university students”, Kastamonu Education Journal, 23(1), 281-292.

**PROCESS OPTIMIZATION OF CHITINASE PRODUCTION BY TRICHODERMA HARZIANUM USING WHEAT BRAN****Sudhakar. P<sup>1</sup> and Nagarajan. P<sup>2</sup>**<sup>1</sup>Associate Professor and <sup>2</sup>Professor, Department of Chemical Engineering, Annamalai University**ABSTRACT**

Statistics based experimental design on chitinase production by *Trichoderma harzianum* was optimized in solid state fermentation using Response surface methodology. Central composite response surface methodology was performed to evaluate the effects of temperature, pH, inoculum size and substrate concentration on production of chitinase by *Trichoderma harzianum* was studied using sugarcane bagasse under solid state fermentation. Statistical analysis of results showed that, the linear and quadric terms of these four variables had significant effects and evident interactions existing between pH and substrate concentration were found to contribute to the response at a significant level. Under these conditions, namely temperature of 30°C, pH of 6, inoculum size of 1.2 g/l and substrate concentration of 2.0 %, the model predicted a chitinase activity of 55U/gds

*Keywords: Chitinase, Optimization, Wheat bran, Trichoderma harzianum.*

**1. INTRODUCTION**

Chitin, a  $\beta$ -1, 4-linked homopolymer of *N*-acetylglucosamine is the second most abundant polysaccharide in nature. It is insoluble in water, dilute and concentrated alkalis, alcohol and other organic solvents. It forms the major structural component in the shells and cuticles of arthropods, crustaceans and insects and in cell walls of fungi. The major contribution of chitin to nature is in the form of animal biomass. Chitinases, belonging to the family of glycosyl hydrolases [1], are the enzymes responsible for biological conversion of chitin. These enzymes find major applications in the field of agriculture [2], medicine [3], biotechnology [4], food technology, waste management [5] and industry [6]. Studies on optimization of chitinases have been reported earlier with effects of different media ingredients on its production. The concept of response surface methodology (RSM) has eased process development and has been of significant use at industrial level. At a basic biological level, recent studies have indicated the use of RSM for analyzing effects of different factors on proteolytic activity [8] and optimization of enzyme production [9]. This study is an attempt to evaluate the effects of several factors on the production of an industrially important enzyme, chitinase. Solid-state fermentation (SSF) has emerged as an appropriate technology for the management of agro-industrial residues and for their value addition. SSF is a promising technology for the development of several bioprocesses and products including production of industrial enzymes on large-scale [4, 5]. Different types of substrates, which contain chitin, have been tried for the production of chitinase [7], which included fungal cell walls, crab and shrimp shells and agricultural residues [6, 8]. The use of *Trichoderma* sp. in SSF for the production of lytic enzymes such as cellulose and chitinase has tremendous impact for an industrial scale production [9, 11].

**2. MATERIALS AND METHODS****2.1. Micro-organism and inoculum preparation**

A fungal isolate, *T. harzianum*792 obtained from the MTCC, Chandigarh was used in the present study. The culture was maintained on potato-dextrose agar (PDA) medium and subcultured every fortnightly. Slants were incubated for 8 days at 30°C and stored at 4 C. The spores of a fully sporulated slant were dispersed in 10 ml of 0.1% Tween 80 solution by

dislodging them with a sterile loop under aseptic conditions. The spore suspension obtained was used as the inoculum. Viable spores present in the suspension were determined by serial dilution followed by plate count.

## 2.2 Chitinase assay

Chitinase activity was determined by a dinitrosalicylic acid (DNS) method [12]. This method works on the concentration of *N*-acetyl glucosamine (NAG), which is released as a result of enzymic action [13, 14]. The 2ml reaction mixture contained 0.5 ml of 0.5% colloidal chitin in phosphate buffer (pH 5.5), 0.5 ml crude enzyme extract and 1ml distilled water. The well vortexed mixture was incubated in a water bath shaker at 50 C for 1 h. The reaction was arrested by the addition of 3ml DNS reagent followed by heating at 100 C for 10 min with 40% Rochelle's salt solution. The coloured solution was centrifuged at 10,000 rotations per minute for 5 min and the absorption of the appropriately diluted test sample was measured at 530 nm using UV spectrophotometer (UV-160 A, Shimadzu, Japan) along with substrate and enzyme blanks. Colloidal chitin was prepared by the modified method of Roberts and Selitrenkoff [15]. One unit (U) of the chitinase activity is defined as the amount of enzyme that is required to release 1<sub>μ</sub>mol of *N*-acetyl-*D*-glucosamine per minute from 0.5% of dry colloidal chitin solution under assay conditions.

## 2.3. Experimental designs

From the optimized nutrient composition for *Trichoderma harzianum* growth rate, the effect of the temperature, pH, inoculum size and substrate concentration level were studied using Central Composite Design (CCD)[17]. A Central Composite Design consists of:

**Table 2.1 Range and levels of the independent variables selected for the production of Chitinase**

- 1) A complete  $2^k$  factorial design, where the factor levels are coded to the usual -1, +1 value. This is called the factorial portion of the design
- 2) No center points ( $n_0 > 1$ )
- 3) Two axial points on the axis of the design variable at a distance of  $\pm a$  from the -design center. This is called the axial portion of the design.

The total number of design points is thus equal to  $\alpha = [2^k]^{1/4}$

For this investigation, temperature ( $X_1$ ), pH ( $X_2$ ), inoculum size ( $X_3$ ) and substrate concentration ( $X_4$ ) are the independent variables in a series of chitinase production experiment.

Thus  $K = 4$      $\alpha = 2 \times 4^{1/4}$      $\alpha = 2$

A CCD with six star points ( $a = 2$ ) and six replicates at the center point (no 6) with a total number of experiments (N)  $N = 31$

The experiments were conducted by five different levels were employed simultaneously covering the spectrum of variables for the production of chitinase in the Central Composite Design. Table 2.1 indicates the range and levels of the independent variables selected for the production of chitinase. To understand the effects of the parameters temperature, pH, inoculum size, substrate concentration, and their interactions on the production of chitinase process, statistically designed experiments were used.

Parameters	-2	-1	0	1	2
Temperature	25	30	35	40	45
pH	3	4	5	6	7

Inoculum Size	0.6	1.2	1.8	2.4	3.0
Substrate Concentration	0.5	1	1.5	2	2.5

### 3. RESULTS AND DISCUSSION

#### 3.1. Chitinase activity

*Trichoderma harzianum*.792 gave maximum chitinase activity of 62.2 U/gds for wheat bran after incubation for 6 days.

#### 3.2 Central composite design

Response surface methodology was used to optimize the levels of the significant variables identified by the 2-level fractional factorial design. A CCD matrix was developed for each isolate depending on the number of factors considered for optimization. Based on the identification of variables by the 2-level fractional factorial, a central composite design was developed for variables significantly affecting chitinase production in each isolate. All the non-significant factors were maintained at central points ('0' coded level) of the levels used in the 2-level fractional factorial design.

Table 2.1 shows the five levels of variables chosen for trials in CCD. For response surface methodology (RSM) based on the Box-Wilson, which was used to optimize cultivation conditions for chitinase production, 31 experimental runs with different combinations of four factors and five levels were carried out (Table 3.1). The variables used for the factorial analysis were temperature, pH, inoculum size and substrate concentration, named  $X_1$ ,  $X_2$ ,  $X_3$  and  $X_4$  this design, respectively. The effects of the four independent variables on chitinase production and the experimental response along with the predicted response obtained from the regression equation for each run are shown in Table 3.1. It can be seen from Table 3.1., there was a considerable variation in the chitinase production depending on the four chosen variables. The maximum chitinase production (58.5 U/gds) was achieved in run number 11 while the minimum chitinase production (30 U/gds) was observed in run number 14 for wheat bran. The former was much higher than the latter, which adequately indicated that choosing appropriate cultivation conditions could evidently enhance the yield of chitinase. By applying multiple regression analysis on the experimental data, the following second order polynomial equation was found to explain the chitinase production by only considering the significant terms and was shown as below:

$$Y = 55 - 2.920x_1 + 3.404x_2 + 0.640x_3 - 0.285x_4 - 2.633x_1^2 - 3.588x_2^2 - 0.463x_3^2 - 2.199x_4^2 + 2.828x_1x_2 + 2.328x_1x_3 - 1.547x_1x_4 + 1.797x_2x_3 + 3.922x_2x_4 - 2.078x_3x_4 \quad \text{Eq--- (3.2)}$$

Where  $X_1$  = Temperature,  $X_2$  = pH,  $X_3$  = Inoculums Size and  $X_4$  = Substrate Concentration

**Table 3.1. Observed and predicted responses for the experiments performed using CCD design for wheat bran**

Run	Temperature	pH	Inoculum size	Substrate Concentration	Chitinase Production (U/gds)	
					Experimental	Predicted
1	-1	-1	-1	-1	54.50	50.56
2	1	-1	-1	-1	35.00	37.50
3	-1	1	-1	-1	38.50	40.27
4	1	1	-1	-1	39.50	38.52
5	-1	-1	1	-1	47.50	47.74
6	1	-1	1	-1	41.50	44.00
7	-1	1	1	-1	44.50	44.65
8	1	1	1	-1	53.50	52.21

9	-1	-1	-1	1	48.00	49.39
10	1	-1	-1	1	31.50	30.15
11	-1	1	-1	1	58.50	55.00
12	1	1	-1	1	47.00	46.86
13	-1	-1	1	1	38.50	38.27
14	1	-1	1	1	30.00	28.33
15	-1	1	1	1	53.25	50.86
16	1	1	1	1	49.50	52.23
17	-2	0	0	0	47.50	50.31
18	2	0	0	0	40.33	38.63
19	0	-2	0	0	34.23	33.96
20	0	2	0	0	46.20	47.57
21	0	0	-2	0	42.19	43.87
22	0	0	2	0	47.00	46.43
23	0	0	0	-2	47.80	46.77
24	0	0	0	2	43.50	45.63
25	0	0	0	0	55.00	53.00
26	0	0	0	0	55.30	53.00
27	0	0	0	0	54.80	53.00
28	0	0	0	0	55.20	53.00
29	0	0	0	0	54.80	53.00
30	0	0	0	0	54.90	53.00
31	0	0	0	0	55.00	53.00

The independent variables were fitted to the second order model equation and examined for the goodness of fit. Several indicators were used to evaluate the adequacy of the fitted model and the results are shown in Table 3.2. The determination coefficient  $R^2$  value, correlation coefficient  $R$  value, coefficients of variation (CV) and model significance ( $F$ -value) were used to judge the adequacy of the model.  $R^2$ , or coefficient of determination, is the proportion of variation in the response attributed to the model rather than to random error. Suggested for a good fit of a model,  $R^2$  should be at least 80%. The determination coefficient ( $R^2$ ) implies that the sample variation of 95.26% for chitinase production using wheat bran as substrate is attributed to the independent variables, and only about 0.4% of the total variation can not be explained by the model. The closer value of  $R$  (correlation coefficient) to 1, the better is the correlation between the experimental and predicted values. The model significance ( $F$ -value) indicates the level of confidence that the selected model can not be due to experimental error. Linear and quadratic terms were significant at the 1% level. Therefore, the quadratic model was selected in this optimization study. The Student  $T$ -distribution and the corresponding  $P$  value, along with the parameter estimate, are given in Table 3.2. The  $P$ -values are used as a tool to check the significance of each of the coefficients which, in turn, are necessary to understand the pattern of the mutual interactions between the best variables.

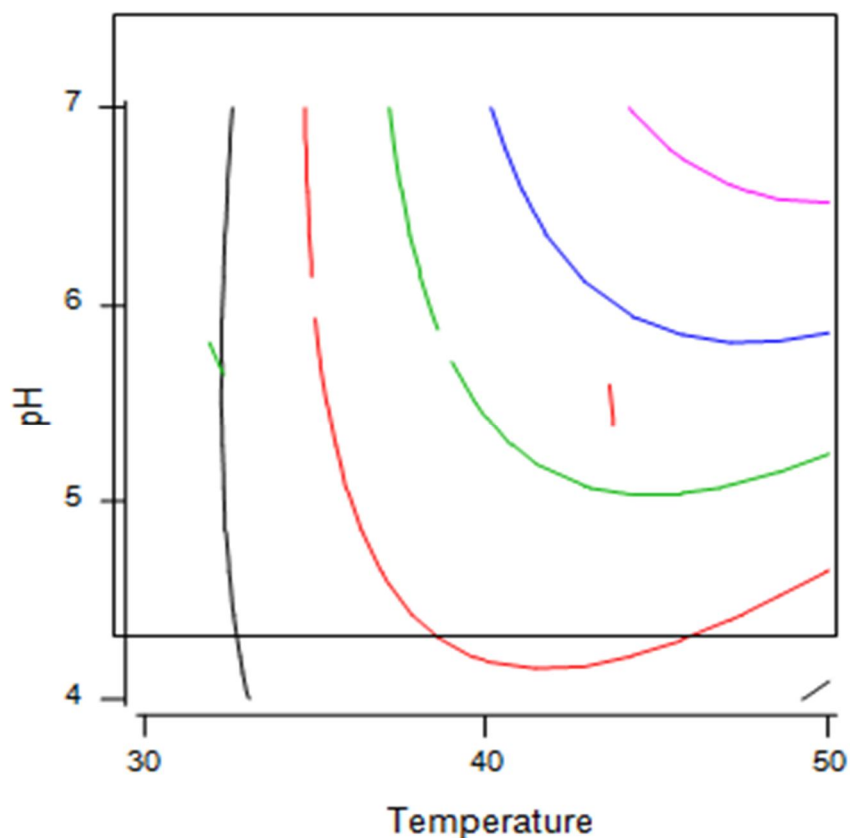
**Table 3.2 Regression coefficients and their significances for chitinase production from the results of Central Composite design for chitinase production in SSF**

Source	Coefficient factor	Sum of squares	DF	F	P
Model	55.000	1786.35	14	22.96	0.0001
$x_1$	-2.920	204.69	1	36.84	0.0001
$x_2$	3.404	278.05	1	50.04	0.0001
$x_3$	0.640	9.84	1	1.77	0.2019
$x_4$	-0.285	1.96	1	0.35	0.5613

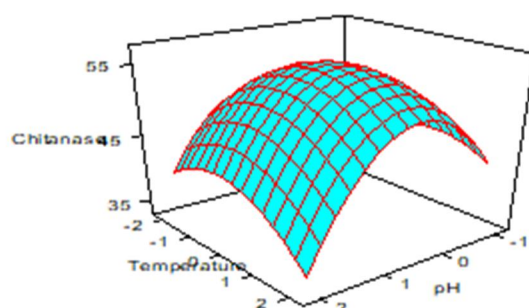


$x_1*x_1$	-2.633	198.28	1	35.69	0.0001
$x_2*x_2$	-3.558	362.05	1	65.16	0.0001
$x_3*x_3$	-2.463	173.5	1	31.23	0.0001
$x_4*x_4$	-2.199	138.34	1	24.9	0.0001
$x_1*x_2$	2.828	127.97	1	23.03	0.0002
$x_1*x_3$	2.328	86.72	1	15.61	0.0011
$x_1*x_4$	-1.547	38.29	1	6.89	0.0184
$x_2*x_3$	1.797	51.66	1	9.3	0.0077
$x_2*x_4$	3.922	246.1	1	44.29	0.0001
$x_3*x_4$	-2.078	69.1	1	12.44	0.0028
Residual		88.9	16		
Lack of fit		88.9	10		
Pure Error		0	6		
Total		1875.25	30		

Positive coefficients for  $X_1$  and  $X_3$  indicated a linear effect to increase chitinase production, while negative coefficient of  $X_4$  revealed the opposite effect. It was included that  $X_2$  (pH) was the key factor influencing chitinase production, due to its largest t-value among the four variables. So, compared with the traditional ‘one- variable-at- a-time’ approach which is unable to detect the frequent interactions occurring between two or more factors although they often do occur, RSM has immeasurable effects and tremendous advantages.



**Figure 3.1 Counter plot for chitinase production showing the interactive effects of temperature and pH for wheat bran**



**Figure 3.2 Three-dimensional response surface plot for chitinase production showing the interactive effects of temperature and pH for wheat bran**

Three-dimensional response plots and their corresponding contour plots for the chitinase production using wheat bran model were shown in Figures 3.1. The contour plots affirm that the objective function is unimodal in nature which shows an optimum in the boundaries. The boundary optimum point was evaluated using gradient method in the direction of steepest ascent. The graphical representation provides a method to visualize the relation between the response and experimental levels of each variable, and the type of interactions between test variable in order to deduce the optimum conditions. Figure 3.2 depicts the three-dimensional plot and figure 3.1 its respective contour plot showing the effects of temperature vs. pH on chitinase production.

## CONCLUSIONS

Central composite design (CCD) and RSM were applied to determine the optimal levels of process variables on chitinase enzyme production. The optimum conditions for the maximum production of chitinase are: Temperature - 32.3°C, pH - 5.6, inoculum size - 1.47ml and substrate concentration - 1.89g. Validation of the experimental model is tested by carrying out the batch experiment under optimal operation conditions. Three repeated experiments are performed and the results are compared. The chitinase activity obtained from experiment is very close to the actual response predicted by the regression model, which proved the validity of the model. At these optimized conditions the maximum chitinase activity is found to be 62.20 U/gds. The research results indicated that RSM not only helps us locate the optimum conditions of the process variables in order to enhance the maximum chitinase enzyme production, but also proves to be well suited to evaluating the main and interaction effects of the process variables on chitinase production from waste agricultural residues.

## REFERENCES

- **Aloise P.A., Lumme M., and Aynes C.A.,** *N-Acetyl-d-Glucosamine* Production from Chitin-Waste Using Chitinases from *Serratia marcescens*, In: Muzzarelli RAA, editor. *Chitin enzymology*, vol. 2. Italy: Nona, 581–594. (1996).
- **Chahal DS.** Solid State fermentation in *Trichoderma reesei* for cellulose production. *Appl Environ Microb*, **499**, 205–10, (1985).
- Fenton D.M., and Eveleigh D.E., Purification and Mode of Action of a **Chitinase from *Penicillium islandicus***, *J Gen Microbiol* , **126**, 151–154, (1981).
- Henrissat B., and Bairoch A., New Families In The Classification of Glycosyl Hydrolases Based on Amino Acid Sequence Similarities, *BiochemJ*, **293**, 781–788, (1993).

- **K.Madhavan Nampoothiri, T.V.Baiju, C.Sandhya**, Ashok Pandey. Process optimization for antifungal chitinase production by *Serratia marcescens*. *Process biochemistry*, **39**, 1583-1590, (2004).
- **Lorito M., diPietro A., Hayes C.K., Woo S.L., and Harman G.E.**, Antifungal, Synergistic Interaction between Chitinolytic Enzymes from *Serratia marcescens* and *Enterobacter cloacae*, *Phytopathology*, **83**, 721–728, (1993).
- **Massimiliano F, Jean-Louis L, Federici F.** Chitinolytic enzymes activity of *Penicillium janthinellum*P9 in bench top bioreactor. *J Ferment Bioeng*, **86**, 620–2, (1998).
- **Miller GL.** Use of dinitrosalicylic acid reagent for determination of reducing sugars. *Anal Chem*,**31**, 426–8, (1959)
- **Montgomery DC.** Design and analysis of experiments, 4th ed. New York: *John Wiley and Sons*; (1997).
- **Nawani.N.N, Kapadnis B.P.** Optimization of chitinase production using statistics based experimental designs. *Process biochemistry*, 40, 651-660, (2005).
- **Rajiv vaidya**, Pranav vyas, chhatpar H. S. Statistical optimization of medium components for the production of chitinase, by *Alcaligenes xylosoxydans*. *Enzyme and Microbial Technology*, **33**, 92-96, (2003).
- **Roberts A, Selitrenkoff N.** Colloidal chitin preparations. *J Gen Microbiol*, **134**, 169–76, (1985)
- **Rose M.D., Winston F., and Hieter P.**, Methods in Yeast Genetics: A Laboratory Course Manual, *New York: Cold Spring Harbor Laboratory Press*, (1990).
- **Sim T, Oh JCS.** Spent brewery as substrate for the production of cellulase by *Trichoderma reesei*QM 94114. *J Ind Microbiol*, **5**, 153–8, (1990).
- **Souza M., Roberto I.C, and Milagres A.M.F.**, Solid-State fermentation for xylanase production by *Thermoascus aurantiacus*using response surface methodology. *Appl Microbiol Biotechnol*; **52**, 768–772., (1999)
- **Ulhoa CJ, Peberdy JF.** Regulation of chitinase synthesis in *Serratia marcescens*. *J Gen Microbiol*, **14**, 2163–9, (1991)
- **Usai T., Hayashi Y., Nanjo F., Sakai K, and Ishido Y.**, Transglycosylation reaction of a chitinase purified from *Nocardia orientalis*, *Biochem Biophys Acta*, **923**,302- 309, (1987).

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