



Is Occupational Stress a Good Predictor of Turnover Intention? Evidence From a Leading Garment Manufacturer in Sri Lanka

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Abstract

Managing occupational stress and the turnover intention have become momentous phenomena in career management literature. Majority of garment factories in Sri Lanka are experiencing high rate of labour turnover ratio and it becomes a critical problem to maintain their competitive advantages. Various factors affecting to the turnover intention and the occupational stress is one of the major determinant which leads the turnover intention. However, the relationship between the occupational stress of the Sewing Machine Operators and the Turnover Intention is under considered in Sri Lankan context. Thus, the paper based on two main objectives; first, it explores the relationship between occupational stress and the turnover intention of sewing machine operators. Second, study aims to identify the significant stressors of perceived occupational stress. Two hundred sewing machine operators are surveyed by using a self administered questionnaire and the results of the factor analysis extracted two main components of stressors as subjective work stressors and objective work Stressors. Regression analysis identified that working condition and the work load as the significant predictors of objective work stressors and the social image and the supervisory support as the significant predictors of subjective work stressors. Correlation Analysis revealed a positive relationship in between the occupational stress and the turnover intention but no significant relationship is found in between these two variables. The findings of the study would be important to the human resource managers of apparel industry to develop their stress management and retention programs.

Keywords: *occupational stress; objective work stressors; subjective work stressors; turnover intention*

1. Introduction

The ongoing, endless organizational changes turn the way the things are done and it creates a strain on organization and individuals as well (Vakola & Nikolaou, 2005). Because of these changes the stress to be risen (Sharma & Devi, 2011) and the issue of occupational stress has been widely discussed (Mimura & Griffiths, 2003) in this era.

Since the stressors adversely affect physical health and the psychological wellbeing (Watson & Pennebaker, 1989) of human beings through emotional, cognitive, behavioural and physiological mechanisms (Levi 1990), the occupational stress is somewhat serious phenomenon (McGowan, Gardner, & Fletcher, 2006) which has to be focussed on. Thus, the scholars defined the occupational stress as 'a feeling or a condition a person experienced when that person perceives that demands exceed the personal and social resources the individual is able to mobilize' (Whitt & Wilson, 2007). Many types of events and tensions may generate

occupational stress (Pearlin, 1999) such as psychosocial work environment, job strain (Kivimaki et al, 2002) and social structures and processors (Levi, 1990) and most of stressors are intellectual, emotional and perceptual (Healey and Picard, 2005).

Apart from the physical and mental health issues as a result of occupational stress, the occupational stress construct positive outcomes (McGowan, Gardner, & Fletcher, 2006) as well as variety of negative outcomes (McGowan, Gardner, & Fletcher, 2006) such as job related tension, lower performance (Pareek, 1983) lower job satisfaction, lower organizational commitment, and high quitting intention (Palagolla & Wickramasinghe, 2009). Thus, a clear relationship can be identified between these out comes (Podsakoff, & LePine, 2007) and a casual pattern of relationship prevails in between occupational stress, job satisfaction, job commitment and turnover intention where as higher occupational stress leads to lower satisfaction, lower satisfaction leads to lower commitment and finally lower commitment leads to greater turnover intention (Elangovan, 2001). Thus ultimately higher occupational stress leads to greater intention to quit. Although there are arguments to the contrary, high level of turnover adversely affect to business performance (Liyanage & Galhena, 2012) and it is a major problem the Asian countries are facing (Khatri, Budhwar, & Fern, 1999). On the other hand as a result of occupational stress, lower job satisfaction, lower commitment and turnover intention may occur and the productivity and the general operations of a firm are also affected. Due to these costs, creating a stress- free work life within an organization is critical to sustain the competitive advantages (Sharma & Devi, 2011). Thus, it is important to identifying the causes of occupational stress and make effort to reduce those stressors in order to get an effective and efficient use from human resource (Sharma & Devi, 2011) and to make them retain with the organization.

The apparel industry in Sri Lanka is in a prominent position and it is the main foreign exchange earner in Sri Lankan economy (Perera, 2010) and this industry provides more than 330,000 direct employment (Dheerasinghe, 2009) which contributing to nearly 1.2 million people (Kelegama, 2005). Ninety percent of the garment workers are females in many South Asian countries such as Bangladesh, India, Nepal, Pakistan and Sri Lanka (Joshi, 2002). In Sri Lankan garment industry the average labour turnover per factory is about 60 percent per annum and the net number of persons leaving the industry is nearly 25 percent per annum (Dheerasinghe, 2009).

It is also evident that many of the workers in the apparel industry in Sri Lanka hold non managerial and non technical jobs such as machine operators, checkers, helpers, line leaders, ironers and supervisors (Tilakatatne, 2006). Among those worker categories, since Sewing Machine Operators (SMOs) are playing a major role in the apparel industry by contributing to establish an image as a quality garment producer (Thilakatatna, 2006), elimination of their occupational stress is vital to decrease the turnover rate. So the present study mainly stands to identify whether the occupational stress of SMOs is a significant predictor of turnover intention and to identify the main stressors of SMOs' occupation. Despite the great volume of theoretical and empirical studies conducted on occupational stress and turnover intention very little attention up to date have been made in the context of Sri Lankan apparel industry. Findings of the study would be important to human resource managers in the apparel industry particularly in designing effective stress management programs to retain employees while achieving organizational expectations.

2. Literature Review

Occupational Stress is an awareness of personal dysfunction, leading to an uncomfortable short-term psychological state such as anxiety, tension or depression (Parker, & DeCotiis, 1983). On the other hand occupational stress is the condition or feeling, experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize (Whitt, & Wilson, 2007). The literature of stress emphasized that stress cannot be defined in a single way since it is not a nervous tension, not an emergency discharge of hormones from the adrenal medulla or not a reaction to a specific thing (Selye, 1976). Although occupational stress is variously viewed as an environmental stimulus to an individual perspective (Xie, & Johns, 1995), this study is based on the famous definition of "occupational stress is the psycho physiological arousal resulting

from workplace demands” (Frey, Quick, & Nelson, 2007). According to that definition optimally, stress results in enhanced job performance but when mismanaged, it leads to job strain, which includes psychological, medical, and behavioral costs.

Stress exists when resources are threatened by demands, when resources are lost, or when investments of resources do not reap the expected level of return (Halbesleben, 2006). Some researchers show that noise, electric shock, bureaucratic frustration, and task load are the main determinants of stress (Motowidlo, Packard, & Manning, 1986). Although the apparel industry plays a vital role in Sri Lankan economy many of the workers are suffering from occupational stress due to numerous causes such as work anxiety, frustration, autonomy, role ambiguity, role conflicts (Spector, & O’Connell, 1994) and poor working conditions, poor incentives for workers, inadequate human resource development etc (Joshi, 2002).

Among the various stressors, this study focuses mainly on seven popular stressors which have widely used for several stress related articles before. First, increased role ambiguity causes for decreased job satisfaction and it increase the perceived occupational stress (Spector & O’Connell, 1994). Second, work load (Spector, & O’Connell, 1994) increases the occupational stress. Third selected variable, poor working conditions also related with the occupational stress (Joshi, 2002; Greenhouse, Callahan & Goshawk, 2000,) and poor working conditions are negatively correlated with the occupational stress (Kyriacou & Sutcliffe, 1978). Many researchers found out that while working hours have been specified by labor regulations, there are numerous instances where garment workers are required to work longer hours to achieve production targets and however for the additional hours of input, most often the workers are not entitled to extra payment (Joshi, 2002). Thus salary is considered as the fourth determinant. Fifth, the high social support mitigates the occupational stress and a variable which moderate the stress (Viswesvaran, Sanchez, & Fisher, 1999). Another cause of occupational stress is work life balance. If one or both spouses worked more than normal working hours it creates work life conflicts and high level of occupational stress (Albertsen, Rafnsdóttir, Grimsmo, Tomasson, and Kauppinen, 2008). Finally, conflicts within and between groups due to inequitable or inadequate supervisor support leads to be stressed the employees (Greenhouse, Callahan & Goshawk, 2000). Thus, the conceptual framework for this study is based on these above determinants.

However, stress is not necessarily something bad and it all depends on how we take it (Selye, 1976). In particular, the climate dimensions of work pressure, autonomy, peer cohesion, supervisor support have consistently been found to be related to perceived stress (Hemingway & Smith, 1999). Optimal levels of stress can be challenging and produce eustress (positive feelings and high involvement) rather than distress (Greenhouse, Callahan & Goshawk, 2000). Stress at work is a well known factor for low motivation and morale, decrease in performance, high turnover and sick-leave, accidents, low job satisfaction, low quality products and services, poor internal communication and conflicts etc. (Vakola & Nikolaou, 2005).

Among the various consequences of stress, turnover intention is dominant and organizational professional commitment have been found to moderate the relationship between the stress and anticipated turnover, absenteeism and tardiness (Sullivan, & Bhagat, 1992). The turnover is the process in which employees leave an organization and have to be replaced. Like absenteeism, turnover is related to the job satisfaction and organizational commitment (Mathis & Jackson 2006). The literature regarding turnover intention suggests that, pertaining to work related factors, particularly conditions of employment (e.g. salary, career opportunities) are important causes of turnover intention (Houkes, Janssen, Jonge, & Bakker, 2003). Turnover intentions were clearly and mainly determined by the unmet career expectations like higher salary and more responsibility, and to a lesser scope by quality of job content (Houkes, Janssen, Jonge, & Bakker, 2003). Therefore as per the different researchers argue, almost each and every factor that affects to employee stress is closely related to the intention to quit (Mark, & Sockel, 2001).

Accordingly, the study is designed to explore how the occupational stress is determined and how the occupational stress relates with turnover intention. The proposed model is exhibit in figure 1.

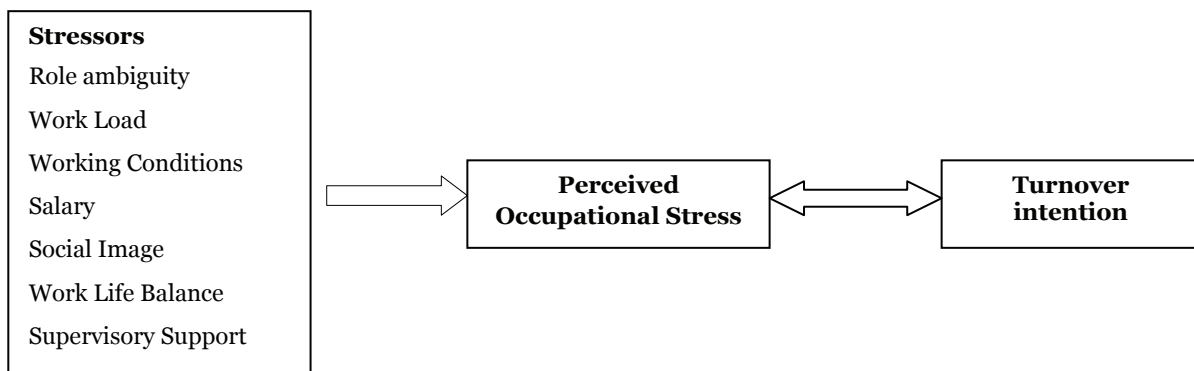


Figure 1: Conceptual Framework

3. Methods

The objectives of this study are to determine significant determinants of perceived occupational stress and to identify whether perceived occupational stress is a significant predictor of turnover intention of the SMOs. A structured questionnaire was used to collect data from a sample of 250 SMOs selected from the group which has a high turnover ratio in the reputed garment factory. The questionnaire comprised four parts to examine demographic variables, determinants of occupational stress, perceived occupational stress, and turnover intention. Semi-structured interviews were conducted with five SMOs at the cafeteria during their lunch break, with an average of half an hour spent on each interview. Based on the interview results, the initial questionnaire was slightly modified, particularly the wordings of the questions, and a final version of the questionnaire for the survey was prepared. The questionnaires were distributed among 250 SMOs, and 215 respondents replied (86%). After accounting for incomplete questionnaires, only 200 questionnaires were used for statistical analysis.

Demographic variables such as age, gender, civil status, service period, and residency were measured by asking close-ended questions. All other variables were measured using a seven-point scale where 1 = strongly disagree and 7 = strongly agree. Seven items were included in the questionnaire as stressors/determinants of occupational stress, consistent with the literature review. Sample questions used to measure the determinants were "I am satisfied with the working environment of the factory," and "I am satisfied with my salary". Reliability of the scale for this study was 0.846. Perceived occupational stress was measured using the original scale developed by House and Rizzo (1970) with slight modifications, and a sample item included "I am highly satisfied about my job compared to the other SMOs working other than this factory". A new scale was developed to measure turnover intention, and a sample item included "I am frequently alert on the vacancies published in newspapers and posters etc". This met the threshold reliability (0.561) measured using Cronbach's alpha.

Occupational stress is determined by various factors. For this study, Role Ambiguity (RA), Work Load (WL), Working Conditions (WC), Salary (S), Social Image (SI), Work Life Balance (WLB), and Supervisory Support (SS) are used as the determinants of Occupational Stress (OS). To identify which stressors lead to occupational stress of the SMOs, a regression model is used where α denotes the constant, β_n denotes regression coefficients, and ε denotes the error term.

$$OS = \alpha + \beta_1 RA + \beta_2 WL + \beta_3 WC + \beta_4 S + \beta_5 SI + \beta_6 WLB + \beta_7 SS + \varepsilon$$

Occupational stress constructs positive as well as negative outcomes (McGowan, Gardner, and Fletcher, 2006). Turnover intention is the outcome studied in this study, and the prevailing literature emphasized a positive relationship between occupational stress and turnover intention, where higher occupational stress leads to greater intention to quit (Elangovan, 2001). Thus, it is assumed that;

H₁: Perceived Occupational Stress is positively correlated with turnover Intention

4. Results

The demographic variables were analysed as the initial step and 62% of SMOs are in young age (18-30), 36% are in between 30 to 45. Only 1.5% of SMOs are in matured category. Out of the total respondents 90% were female and remaining 10% were males. Approximately 69.5% of respondents are married and rest of 30.5% is single. The results revealed that 93.5% resides near to the factory and rest of the sample (6.5%) resides far away from the factory.

A factor analysis was performed to identify the determinants of stress. Eight items were identified as the determinants of occupational stress through the literature review and before implementing the factor analysis with the use of Principle Component Analysis (PCA), the suitability for factor analysis was assessed. Kaiser–Mayer–Olkin measure of sample adequacy (KMO value) was 0.828 which exceeded the minimum value of 0.6 in determining factorability (Sullivan 2009). The Bartlett’s test of Sphericity accounts for significant value of zero ($p=0.000$). Factor analysis using the extraction method of principal component analysis with Varimax rotation identified three factors with the Eigen value is higher than 1.0 and the cumulative total variance explained 70.7%. Reliability of the variables also measured using the Cronbach’s alpha and values are illustrated in Table 02. Since one component is not met the requirement of threshold reliability value it is excluded from further analysis. Remaining two components are categorized as Objective Factors and Subjective Factors which explained 57.7% of cumulative variance.

Table 1 : Results of Factor Analysis

Factors	Alpha	1	2
Objective Work Stressors	0.814		
Role ambiguity		0.753	
Work Load		0.768	
Working Conditions		0.652	
Salary		0.827	
Total variance explained		0.339	
Subjective Work Stressors	0.684		
Social Image			0.855
Work Life Balance			0.680
Supervisory Support			0.551
Total variance explained			0.238

Multiple regressions were carried out to identify the significant determinants of SMOs’ perceived stress and results are shown in the table 2. The results of the regression analysis revealed that only two of the objective work stressors that is working conditions ($\beta = 0.170, p < 0.05$) and work load ($\beta = 0.131, p < 0.05$) are significantly influence in determining perceived occupational stress. However role ambiguity ($\beta = -0.094, p < 0.05$) and salary ($\beta = 0.078, p < 0.05$) did not significantly influenced on perceived occupational stress. When considering the subjective Work Stressors, social image ($\beta = -0.151, p < 0.05$) and supervisory support ($\beta = -0.161, p < 0.05$) are significantly contributed in explaining variance of perceived occupational stress. However, this study failed to find a significant relationship between the work life balance ($\beta = 0.256, p > 0.05$) and perceived occupational stress.

5. Discussion

The study mainly focuses on determining the impact of perceived occupational stress as a predictor of turnover intention and determining the significant determinants of perceived occupational stress. Thus the re-

search question was whether the occupational stress is a significant predictor of turnover intention of SMOs? Although there are number of reasons attributed to the high rates of labour turnover and absenteeism (Joshi, 2002) such as residency, civil status, recognition, social image, job alternatives and work life balance which are the significant predictors of turnover intention (Liyanage & Galhena, 2012), this study found that the perceived occupational stress is not a significant predictor of turnover intention among SMOs. Furthermore, by supporting to the Palagolla and Wickramasinghe (2009) findings, the study found a positive correlation between the turnover intention and the perceived occupational stress and the null hypothesis H_0 can be rejected. Thus, high perceived occupational stress can lead to a high turnover intention and vice versa.

Despite the various categorizations of stressors suggested by literature, the present study identifies a simple categorization of stressors as objective work stressors and subjective work stressors. The objective work stressors are measurable and quantifiable and no control over the stress holder. The subjective work stressors are varies and depend on person to person and entirely a physiological perspective. Any work stressor can be categorized under these two categories and based on this categorization the study design a model for work related stress which depict in figure 2. Under these two categories the study found that working conditions, work load, social image and supervisory support are the significant predictors of the perceived occupational stress which support to the extend literature.

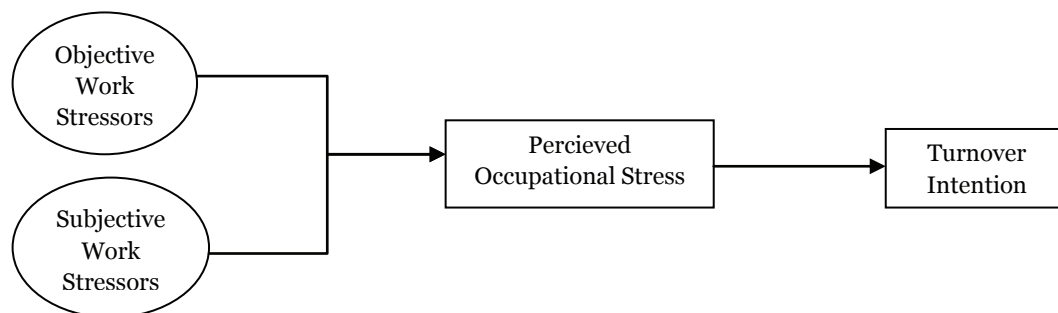


Figure 2: Work related Stress model

Certain limitations of this study should be stated. First, the study limits to a limited number of independent variables considered as work related stressors despite a great volume of theoretical and empirical work related stressors exist. Second, the study limited to a single research site to collect the data and it may lead to hinder some important findings from various respondents. Thus, we stress the importance of future research using more variables as work related stressors and increase the length of the research site. A new conceptual model suggested by this study would be particularly valuable to study the various work related outcomes of perceived stress except the turnover intention such as job satisfaction, organizational commitment and specially physical and mental health issues.

6. Conclusion

The primary purpose of this study was to determine the significant stressors of perceived occupational stress and investigate the impact of perceived occupational stress as predictors of turnover intention among SMOs deployed in apparel industry. Although there are substantial causes for occupational stress, the significant causes of perceived occupational stress of the sewing machine operators are the working condition, work load, social image and supervisory support. As per Milcovich and Bendream (1994), burnout, absenteeism and turnover are the negative outcomes of the perceived occupational stress and Podsakoff and LePine, (2007) have identified a clear and casual relationship between occupational stress and these outcomes. Higher perceived occupational stress ultimately leads to high turnover intention because higher occupational stress reduces the satisfaction and the commitment. Thus, a positive relationship exists between the perceived occupational stress and the turnover intention. Strengthening this argument this study found a positive correlation between the perceived occupational stress and the turnover intention.

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