A STUDY ON SOURCES OF STRESS FOR EMPLOYEES INSMALL SCALE INDUSTRIES IN MADURAI DISTRICT

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Abstract
The employees in the small scale industries in developing countries like India are at a higher risk of developing job-related stress than in developed countries. Stress is ubiquitous and has become a universal phenomenon in every work place. Work which requires a lot of manual dexterity have a greater chance of inducing stress in the worker who work there. Work in the organization can induce stressors when the activities to be performed are either too difficult and complex or repetitive and monotonous. The exploratory factor analysis shows that unfavourable work environment, work pressure, lack of attentiveness and unjust work distribution are the sources of stress for employees in small scale industries. The results indicate that there is a significant difference between socio economic profile of employees and sources of stress among employees in small scale industries. The regression analysis shows that unfavourable work environment, work pressure, lack of attentiveness and unjust work distribution are positively and significantly influencing the level of stress of employees in small scale industries.

Key Words: Exploratory Factor Analysis, Regression, Small Scale Industries, Sources of Stress.

1. INTRODUCTION
In a developing country like India, the role and importance of small scale industries is very significant towards poverty eradication, employment generation, rural development and creating regional balance in promotion and growth of various development activities. It is estimated that this sector has been contributing about 40% of the gross value of output produced in the manufacturing sector and the generation of employment by the small-scale sector is more than five times to that of the large-scale sector. The small scale industries have been playing an important role in the growth process of Indian economy since independence in spite of stiff competition from the large sector and not very encouraging support from the government.

However, employees in the small scale industries in developing countries like India are at a higher risk of developing job-related stress than in developed countries. Stress is ubiquitous and has become a universal phenomenon in every work place. Work place stress has become a major challenge facing organizations (Donaldson-Feilder, et, al., 2011) and now becoming the global issue which is affecting all the countries, all categories of employees and societies (Haider and Supriya, 2007).

Work which requires a lot of manual dexterity have a greater chance of inducing stress in the worker who work there. Work in the organization can induce stressors when the activities to be performed are either too difficult and complex or repetitive and monotonous. Stress is inevitable / unavoidable, when large amount of work is expected beyond the capacities of the worker and work has to be performed keeping in view the set deadlines. With this back ground, the present research is attempted to study sources of stress for employees in small scale industries in Madurai district.

2. METHODOLOGY
Among the different districts in Tamil Nadu, the Madurai district has been purposively selected for the present study. The 900 employees of small scale industries have been selected for the present study by adopting random sampling technique and the data and information pertain to the year 2014-2015. In order to examine the socio-economic profile of employees of small scale industries, the frequency and percentage analysis have been carried out. In order to identify the sources of stress for employees is small scale industries, the exploratory factor analysis has been employed. In order to examine the difference between socio economic profile of employees and sources of stress among employees in small scale industries, the ANOVA (Analysis of Variance) has been applied. In order to examine the influence of sources of stress on level of stress of employees in small scale industries, the multiple linear regression has been employed

3. RESULTS AND DISCUSSION
3.1 SOCIO-ECONOMIC PROFILE OF EMPLOYEES OF SMALL SCALE INDUSTRIES

The socio-economic profile of employees of small scale industries was analyzed and the results are presented in Table 1.

Table – 1, Socio-Economic Profile of Employees of Small Scale Industries

Socio-Economic Profile	Frequency	Percentage
Gender		
Male	516	57.33
Female	384	42.67
Age Group		
21 – 25 years	202	22.45
26 – 35 years	328	36.44
36 – 45 years	172	19.11
46 – 55 years	162	18.00
56 – 60 years	36	4.00
Educational Qualification		
Primary	59	6.56
Secondary	171	19.00
Higher Secondary	238	26.44
Diploma	216	24.00
Graduation	144	16.00
Post Graduation	72	8.00
Designation		
Managers	144	16.00
Supervisors	288	32.00
Workers	468	52.00
Monthly Income		
Below Rs.10,000	116	12.89
Rs.10,001 – Rs.15,000	172	19.11
Rs.15,001 – Rs.20,000	247	27.44
Rs.20,001 – Rs.25,000	216	24.00
More than Rs.25,000	149	16.56

The results show that about 57.33 per cent of employees are males and the rest of 42.67 per cent of employees are females. It is observed that about 36.44 per cent of employees belong to the age group of 26 – 35 years followed by 21 – 25 years (22.45 per cent), 36 – 45 years (19.11 per cent), 46 – 55 years (18.00 per cent) and 56 – 60 years (4.00 per cent).

The results indicate that about 26.44 per cent of employees have the educational qualification of higher secondary followed by diploma (24.00 per cent), secondary (19.00 per cent), graduation (16.00 per cent), post-graduation (8.00 per cent) and primary education (6.56 per cent). It is apparent that about 52.00 per cent of employees are workers followed by supervisors (32.00 per cent) and managers (16.00 per cent). Besides, it is clear that about 27.44 per cent of employees belong to the monthly income of Rs.15,001 – Rs.20,000 followed by Rs.20,001 – Rs.25,000 (24.00 per cent), Rs.10,001 – Rs.15,000 (19.11 per cent), more than Rs.25,000 (16.56 per cent) and below Rs.10,000 (12.89 per cent).

3.2 IDENTIFICATION OF SOURCES OF STRESS FOR EMPLOYEES IN SMALL SCALE INDUSTRIES
In order to identify the sources of stress for employees is small scale industries; the exploratory factor analysis has been employed. The principal component method of factor analysis has been carried out with Eigen values greater than one through varimax rotation and the results obtained through rotated component matrix are presented in Table 2. The results of Kaiser-Meyer-Olkin (KMO test) measure of sampling adequacy (KMO = 0.889) and Bartlett's test of Sphericity (Chi-square value = 0.0010; Significance = 0.000) indicates that the factor analysis method is appropriate.

There are four factors which are extracted accounting for a total of 75.15 per cent of variations on 20 variables. The each of the four factors contributes to 24.09 per cent, 19.73 per cent, 16.65 per cent and 14.68 per cent respectively.

Table – 2, Identification of Sources of Stress for Employees in Small Scale Industries - Exploratory Factor Analysis

Factor	Item	Rotated Factor Loadings	Eigen Value	% of Variation	Factor Name
I	Irradiation during or through the work	0.83	3.31	24.09	**Unfavourable Work Environment**
	Forgetful during or through the work	0.80			
	Boring work	0.82			
	Worry about the work	0.79			
	Mentally exhausted during or through the work	0.87			
	Feel listless during or through the work	0.73			
	Under utilization of skills and knowledge	0.79			
II	Emotional during or through the work	0.74	2.82	19.73	**Work Pressure**
	Cynical about the work	0.79			
	Very heavy workload	0.84			
	Meeting deadlines	0.75			
	Job insecurity	0.71			
	Poor supervision	0.76			
III	Anxious during or through the work	0.77	1.37	16.65	**Lack of Attentiveness**
	Poor concentration during or through the work	0.73			
	No enjoyment in work	0.79			
	Inadequate break times	0.80			
IV	Find it hard to switch off after work	0.72	1.03	14.68	**Unjust Work Distribution**
	Shift work	0.76			
	Unfair distribution of work	0.79			
	Cumulative % of Variation	-	-	75.15	-
	Cronbach's Alpha	-	-	-	0.89

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 6 iterations.

Factor-I: From the results, it is inferred that out of 20 variables, seven variables have their high, relatively tightly grouped factor loadings on factor-I.
This factor consists of:
- Irradiation during or through the work (0.83)
- Forgetful during or through the work (0.80)
- Boring work (0.82)
- Worry about the work (0.79)
- Mentally exhausted during or through the work (0.87)
- Feel listless during or through the work (0.73)
- Under utilization of skills and knowledge (0.79)

Hence, this factor is named as **"Unfavourable Work Environment".**

Factor-II: is formed with:
- Emotional during or through the work (0.74)
- Cynical about the work (0.79)
- Very heavy workload (0.84)
- Meeting deadlines (0.75)

- Job insecurity (0.71)
- Poor supervision (0.76)

These variables are named as **"Work Pressure".**

Factor-III: This factor includes:
- Anxious during or through the work (0.77)
- Poor concentration during or through the work (0.73)
- No enjoyment in work (0.79)
- Inadequate break times (0.80)

These variables are named as **"Lack of Attentiveness".**

Factor-IV: This factor is formed with:
- Find it hard to switch off after work (0.72)
- Shift work (0.76)
- Unfair distribution of work (0.79)

This factor is named as **"Unjust Work Distribution".**

The Cronbach's Alpha of the scale was 0.89 indicating that each measure demonstrated acceptable internal consistency. It is inferred that unfavourable work environment, work pressure, lack of attentiveness and unjust work distribution are the sources of stress for employees in small scale industries.

3.3 SOCIO-ECONOMIC PROFILE OF EMPLOYEES AND SOURCES OF STRESS FOR EMPLOYEES IN SMALL SCALE INDUSTRIES

In order to examine the difference between socio economic profile of employees and sources of stress among employees in small scale industries, the ANOVA (Analysis of Variance) has been applied and the results are presented in Table 3.

Table- 3, Difference between Socio Economic Profile of Employees and Sources of Stress for Employees in Small Scale Industries

Particulars	F-Value	Sig.
Gender and Sources of Stress	5.741	.017
Age and Sources of Stress	9.754	.000
Educational Qualification and Sources of Stress	7.903	.000
Designation and Sources of Stress	7.632	.006
Monthly Income and Sources of Stress	14.186	.000

The F-value of 5.741 is significant at five per cent level indicating that there is a significant difference between gender of employees and sources of stress. The F-value of 9.754 is significant at one per cent level indicating that there is a significant difference between age group of employees and sources of stress. The F-value of 7.903 is significant at one per cent level indicating that there is a significant difference between educational qualification of employees and sources of stress. The F-value of 7.632 is significant at one per cent level indicating that there is a significant difference between designation of employees and sources of stress. The F-value of 14.186 is significant at one per cent level indicating that there is a significant difference between monthly income of employees and sources of stress.

3.4 INFLUENCE OF SOURCES OF STRESS ON LEVEL OF STRESS OF EMPLOYEES IN SMALL SCALE INDUSTRIES

In order to examine the influence of sources of stress on level of stress of employees in small scale industries, the multiple linear regressions has been employed and the results are presented in Table 4. The sources of stress derived from exploratory factor analysis are considered as independent variables and the level of stress is considered as dependent variable.

The results indicate that the coefficient of multiple determinations (R^2) is 0.61 and adjusted R^2 is 0.59 indicating the regression model is good fit. It is inferred that about 59.00 per cent of the variation in dependent variable (Level of Stress) is explained by the independent variables (Sources of Stress). The F-value of 59.954 is statistically significant at one per cent level indicating that the model is significant.

Table - 4, Influence of Sources of Stress on Level of Stress of Employees in Small Scale Industries

Sources of Stress	Regression Co-efficient	t-value	Sig.
Intercept	1.782[**]	10.314	.000
Unfavourable Work Environment (X_1)	.435[**]	9.713	.000
Work Pressure (X_2)	.399[**]	8.685	.000
Lack of Attentiveness (X_3)	.407[**]	9.372	.000
Unjust Work Distribution (X_4)	.384[**]	8.066	.000
R^2	0.61	-	-
Adjusted R^2	0.59	-	-
F	59.954	-	.000
N	900	-	-

Note: [**] Significance at one per cent level.

The results show that unfavourable work environment, work pressure, lack of attentiveness and unjust work distribution are positively and significantly influencing the level of stress of employees in small scale industries at one per cent level. Therefore, the null hypothesis of there is no significant influence of sources of stress on level of stress of employees in small scale industries is rejected.

4. CONCLUSION
The study reveals that majority of the employees are males and most of the employees belong to the age group of 26 – 35 years. Majority of the employees have the educational qualification of higher secondary and most of the employees are workers. Besides, majority of the employees belong to the monthly income of Rs.15,001 – Rs.20,000.

The exploratory factor analysis shows that unfavourable work environment, work pressure, lack of attentiveness and unjust work distribution are the sources of stress for employees in small scale industries. The results indicate that there is a significant difference between socio economic profile of employees and sources of stress among employees in small scale industries.

The regression analysis shows that unfavourable work environment, work pressure, lack of attentiveness and unjust work distribution are positively and significantly influencing the level of stress of employees in small scale industries.

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