IDENTIFYING JOB STRESSORS AMONG THE MANAGERIAL AND NON-MANAGERIAL EMPLOYEES IN THE MANUFACTURING SECTOR

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Abstract

Stress, since ancient times is known to be studied in different areas. In the field of engineering, stress is studied as a force which deforms bodies. In Biology and medicine, it refers to a process in the body, to the body's general structure for adapting to all the influences, changes, demands and strains to which it might be exposed. There is something common in these cases in the way the body attempts to change or adapt. This common denominator according to Selye (1971), is a kind of revving up is stress. Stress is, then, a stereotype in the body's responses to generally speaking, influences, demands or strains. In this paper, the researcher tries to find out the various kinds of stressors the managerial and non-managerial employees face in the manufacturing sector in Mangalore city with a sample size of 80 respondents. At times the reactions of the respondents are pleasant, sometimes unpleasant; sometimes useful, sometimes doing harm. It is seen from the findings of the study that the non-managerial employees face more job stress compared to the managerial level of employees.

Keywords: Manufacturing, managerial and non-managerial employees, stress, strain, boredom.

Introduction to the Manufacturing Sector

Manufacturing Industry in India has gone through various phases of development over the period of time. Since independence in 1947, the domestic manufacturing sector has travelled from building the industrial foundation in 1950's and early 1960's, to the license–permit Raj between the years 1965 to 1980. Then it went through a phase of liberalization of 1990's and finally to the present phase of global competitiveness. In a country like India, where employment generation is one of the key policy issues, this makes the manufacturing sector a critical one to achieve inclusive growth and overall development. But at the same time, the growth in the manufacturing sector, has led to the increase in the stress level among the employees working therein. Manufacturing sector, in the modern time is rightfully at the centre place of the Honourable Prime Minister's Vision for Make In India (MII), which is to increase contribution of manufacturing to GDP to 25%. While a number of factors like robust domestic demand, a growing middle class, a young population and a high return on

investment, makes Mangalore a credible investment destination and presents an attractive opportunity to manufacturers, MII campaign has emerged as a unifying factor with a holistic approach to take the manufacturing sector to a new level of economic growth.

Job stressor in the Manufacturing sector

Stress in the workplace is increasingly highlighted as a critical problem for employees, employers and societies. People normally use the term stress to describe the feeling they have when the pressure at work feel too much, when they are overloaded and don't feel that they are able to meet all the demands placed upon them by their superiors. Most current definitions state that stress is the mental and physical response and adaptation by our bodies to the real or perceived changes and challenges in our lives. A stressor is any real or perceived physical, social, or psychological event or stimulus that causes our bodies to react or respond. Each person's unique combination of heredity, life experiences, personality, and ability to cope influences how the person perceives an event and what meaning he or she attaches to it. Stress, according to Erkutlu & Chafra (2006), is defined as the reaction of individuals to demands (stressors) imposed upon them. It refers to situations where the well-being of individuals is detrimentally affected by their failure to cope with the demands of their environment. Occupational stress, in particular, is the inability to cope with the pressures in a job Rees (1997), because of a poor fit between someone's abilities and his/her work requirements and conditions Holmlund- Rytkonen & Strandvik (2005).Quick suggested that stress reaction is the general, regular and unconscious mobilization of the organisational natural ability resources when facing stress source, emphasizing the consequence of stress (Quick, 1984).

With regard to psychosocial stressors in the manufacturing work environment, evidence exists (Blohmke and Reimer, 1980) to support the assumption that a number of properties of systems design and job content are critical not only with regard to job satisfaction but also for health. As pointed out by Gardell (1976), Wilensky (1981) and others, the ill effects of mass production technology include the alienation of the worker not just during working hours but with a spill over to leisure time. Also the loud noise of the machinery, the increase in room temperature, poor lightening facilities, poor ventilation, isolation in work, lack of security in job, outdated and poor technology/machinery used, role ambiguity, lack/improper communication, boredom in doing the same repeated jobs are some of the reasons which increases the stress level of these employees. An increase in these stressors result in a decreased willingness of the worker to take part in activities outside work.

From a psychophysiological viewpoint, it seems reasonable that the speed with which a person unwinds after work will influence the total wear on his or her biological system. Hence, the speed of unwinding is also likely to influence the extent to which stress at work is carried over into leisure time Frankenhaeuser (1977). An equally important finding is that the time for unwinding varies predictably with the individual's state of general well-being. Thus, in a group of industrial workers, the proportion of rapid adrenaline decreases was significantly higher after than before a vacation period, which had improved the workers physical and psychological well-being Johansson (1976).

Work on the assembly line, organised on the principle of the moving belt, is characterised by the machine system's rigorous control over the worker. The job is under stimulating in the sense that individual operations often are extremely simple, there are no options for variety in either pace or content, and the opportunities for social interaction are often minimal. At the same time the work contains elements of overload, such as rapid pacing, coercion and demands for sustained attention. The worker has no control over pace and his body posture and motility are narrowly restricted Dolan and Arsenault (1980). Walker and Guest (1952) showed how assembly-line work, with its mechanical element and rigidly fragmented tasks, was accompanied by discontent, stress and alienation among the workers. Similar results have been reported by several investigators (Blauner, 1964; Zdravomyslov and Yadov, 1966). Studies that focus on the task structure and its variations within similar technologies underscore that the restrictions imposed on the workers as to exercising skill and control affect not only alienation but also mental health (Kornhauser, 1965).

A related issue is the relation between stress and a remuneration system involving some type of piece-rate work Gardell 1979). The common factor in piece-rate systems is the payment of a price or rate per piece or unit of work; this price may be uniform at all levels of output or may vary as production rises. The desire - or necessity - to earn more can, for a time, induce the individual to work harder than is good for the organism and to ignore mental and physical warnings, such as a feeling of tiredness, nervous troubles and functional disturbances in various organs or organ systems. Again, older or handicapped persons working in groups with collective piece rates are liable to come under social pressure from their fellow workers, and workers with individual piece rates may conceivably be less disposed to help each other.

Objectives:

1. To find out the job stressors affecting the productivity of the manufacturing workers.
2. To study the effect of job satisfaction in the workplace.

Research methodology:

Primary data was used for the present study. The primary data was collected from 80 sample respondents from five manufacturing industries of Mangalore City. For collecting the data from the respondents, sample respondents were chosen by simple random sampling method. Questionnaire was the main tool used to collect the required data from the selected sample respondents. For this purpose, a well-structured questionnaire was framed. Field survey method was employed to collect the primary data from the selected sample respondents. The employees of five manufacturing industries in Mangalore of designations were classified as managerial and non-managerial positions**.** Secondary information is collected from sources like website, articles from magazines and journals. Job Stress Scale developed by Parker was adopted (Parker et al., 1983) to measure the stressors among the respondents of the manufacturing sector.

Scale Used for the study

In order to measure the level of stress among the various stressors among the managerial and non-managerial employees in the banking sector Organisational Role Stress scale by Udai

Pareek is used. This scale is used because of its higher construct validity and test re-test reliability. It has been successfully used by Bhatnager and Bose (1985), Khanna (1985), Pestonjee (1987), Rakesh R (2012). The total score of ORS ranges between 0 to 200, and on each Role Stress ranges from 0 to 20. A simple summation of the scores of the subject on each Role Stress would indicate the scores on that dimension. Pareek (1993) has identified the following ten stresses based on organization roles:

Inter- Role Distance (IRD)

IRD refers to the conflict between the organization role and other roles. When an individual occupies more than one role there are bound to be conflicts between the different roles that he occupies.

Role Stagnation (RS)

RS takes place when an individual feels that there are few opportunities for learning and growth in the role. In organizations which are fast expanding, and which do not have any systematic strategy of manpower development, managers are likely to experience this stress.

Role Expectation Conflict (REC)

REC means conflicting demands made on the role by different persons in the organization. One may receive conflicting expectations from the boss, subordinates, peers, or clients.

Role Erosion (RE)

RE is a feeling that some important functions a role occupant would like to perform, are being performed by some other person. This happens when organization are re-defining their structure, wherein it may lead to elimination of some roles and creation of new ones. This may prompt managers to feel that the new role is less important than the previous role.

Role Overload (RO)

Role overload is the result of large variations between the expected output and the actual output. When role overload is high, neither the delegation process nor assistance, is useful towards role performance.

Role Isolation (RI)

Role Isolation emanates due to lack of linkages between one's role with other roles in the organization. In a role set, a role occupant feels that certain roles are psychologically closer to him due to frequency and ease of interaction. When linkages are strong, the role isolation will be low and in the absence of it role isolation is felt high. Therefore role isolation can be measured in terms of the existing and the desired linkages.

Personal Inadequacy (PIN)

When a role occupant feels that he is not prepared to undertake the role effectively. He may experience this stress. The role occupant may feel that has not had enough time to prepare for the assigned role. Persons who are assigned new roles without enough preparation or orientation are likely to experience this type of stress.

Self-Role Distance: (SRD)

This stress arises out of the conflict between the self-concept and the expectations of the role, as perceived by the role occupant. For example, an introvert who is fond of studying and writing may develop a self-role distance if he accepts the role of a statement in an organization.

Role Ambiguity (RA)

When an individual is not clear about the various expectations that people have from his role, he experiences this types of conflict. It may be due to lack of information of feedback to the role occupant. Role ambiguity may be in relation to the activities, responsibilities, priorities, norms or general expectations. Sometimes role ambiguity may emanate out of occupying roles which are newly created in an organization.

Resources Inadequacy (RIN)

This stress is experienced due to non-availability of resources needed for effective role performance. These may be information, people, material, finance or facilities.

Organizational Stress Level Using ORS Scale among Managerial Employees of Manufacturing sector

Organisational Role Stress (ORS) Scale is used to study the stress level among managerial employees of the manufacturing sector. The t test was computed on the ten dimensions of the Organisational Role stress scale among the managerial and non-managerial employees in the manufacturing sector.

Table 1: Table showing the level of Stress among managerial employees of Manufacturing Sector.

Stressors	N	Managerial Employees		Non-Managerial Employees		T test
		Mean	Std. Deviation	Mean	Std. Deviation	
Inter Role Distance	80	2.0266	.24361	3.2536	.23661	-16.754
Role Stagnation	80	2.0072	.32474	2.6532	.33574	-11.064
Role Expectation Conflict	80	3.0562	.23473	3.5222	.25473	-24.237
Role Erosion	80	2.8950	.52635	2.5750	.52435	-14.346
Role Overload	80	2.6782	.36122	3.8922	.38912	-23.510
Role Isolation	80	2.9852	.29995	2.3552	.22157	-19.223
Personal Inadequacy	80	1.2531	.35917	2.3231	.32457	-42.434
Self Role Distance	80	1.3256	.36201	1.7856	.32361	30.615
Role Ambiguity	80	3.0125	.48242	2.9575	.41572	32.043
Resources Inadequacy	80	1.2305	.23199	1.8795	.22369	21.344
Total	80	2.24701	0.342619	2.71971	0.32497	-6.7566

To find out the level of role stress among employees of Manufacturing Sector, the results of the above table shows that there is a significant difference among the managerial and non-managerial employees of the manufacturing sector. It is clearly seen from the results that the managerial employees face Role Ambiguity as highly stressed followed by Role Expectation Conflict. Whereas among the non-managerial employees face Role Overload followed by Role Expectation Conflict and Role expectation conflict and so on. This means that the non-managerial employees are unable to fulfil the demands of their organisational life with those of the family life. The various roles which the managerial employees perform within the organisation leaves little time for their other important roles that they have to perform in their personal life.

Table 2: Independent Samples test among Employees of Manufacturing sector

Independent Samples Test										
Stressors	**Equal Variances assumed/not assumed**	**Levene's Test for Equality of Variances**		**t-test for Equality of Means**						
									95% Confidence Interval of the Difference	
		F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Std. Error Difference**	**Lower**	**Upper**
Inter Role Distance	Equal variances assumed	23.758	.000	-25.754	898	.000	-.56527	.02113	-.60674	-.52381
	Equal variances not assumed			-23.607	803.305	.000	-.56527	.02124	-.60698	-.52357
Role Stagnation	Equal variances assumed	20.537	.000	-12.068	898	.000	-.25084	.02079	-.29163	-.21004
	Equal variances not assumed			-12.006	813.486	.000	-.25084	.02089	-.29185	-.20983
Role Expectation Conflict	Equal variances assumed	94.563	.000	-27.237	898	.000	-.44767	.01644	-.47993	-.41541
	Equal variances not assumed			-26.989	692.314	.000	-.44767	.01659	-.48024	-.41510
Role Erosion	Equal variances assumed	32.639	.000	-15.846	898	.000	-.42229	.02507	-.47149	-.37309
	Equal variances not assumed			-16.762	817.510	.000	-.42229	.02519	-.47174	-.37284
Role Overload	Equal variances assumed	26.358	.000	-43.510	898	.000	-1.08706	.01479	-1.11608	-1.05804
	Equal variances not assumed			-72.741	648.518	.000	-1.08706	.01494	-1.11641	-1.05772
Role Isolation	Equal variances assumed	.126	.703	-29.449	898	.000	-.65277	.02217	-.69627	-.60927
	Equal variances not assumed			-29.487	896.774	.000	-.65277	.02214	-.69622	-.60932
Personal Inadequacy	Equal variances assumed	35.807	.000	-35.434	898	.000	-1.03297	.02274	-1.07759	-.98835
	Equal variances not assumed			-44.753	510.305	.000	-1.03297	.02308	-1.07832	-.98762
Self Role Distance	Equal variances assumed	26.801	.000	33.615	898	.000	.70005	.02083	.65918	.74092
	Equal variances not assumed			33.745	869.432	.000	.70005	.02075	.65933	.74077
Role Ambiguity	Equal variances assumed	41.795	.029	72.043	898	.000	1.83673	.02549	1.78669	1.88677
	Equal variances not assumed			71.838	865.034	.000	1.83673	.02557	1.78655	1.88691
Resources Inadequacy	Equal variances assumed	47.380	.000	13.344	898	.000	.53859	.01718	.50486	.57231

Independent Samples Test										
Stressors	Equal Variances assumed/not assumed	Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Inter Role Distance	Equal variances assumed	23.758	.000	-25.754	898	.000	-.56527	.02113	-.60674	-.52381
	Equal variances not assumed			-23.607	803.305	.000	-.56527	.02124	-.60698	-.52357
Role Stagnation	Equal variances assumed	20.537	.000	-12.068	898	.000	-.25084	.02079	-.29163	-.21004
	Equal variances not assumed			-12.006	813.486	.000	-.25084	.02089	-.29185	-.20983
Role Expectation Conflict	Equal variances assumed	94.563	.000	-27.237	898	.000	-.44767	.01644	-.47993	-.41541
	Equal variances not assumed			-26.989	692.314	.000	-.44767	.01659	-.48024	-.41510
Role Erosion	Equal variances assumed	32.639	.000	-15.846	898	.000	-.42229	.02507	-.47149	-.37309
	Equal variances not assumed			-16.762	817.510	.000	-.42229	.02519	-.47174	-.37284
Role Overload	Equal variances assumed	26.358	.000	-43.510	898	.000	-1.08706	.01479	-1.11608	-1.05804
	Equal variances not assumed			-72.741	648.518	.000	-1.08706	.01494	-1.11641	-1.05772
Role Isolation	Equal variances assumed	.126	.703	-29.449	898	.000	-.65277	.02217	-.69627	-.60927
	Equal variances not assumed			-29.487	896.774	.000	-.65277	.02214	-.69622	-.60932
Personal Inadequacy	Equal variances assumed	35.807	.000	-35.434	898	.000	-1.03297	.02274	-1.07759	-.98835
	Equal variances not assumed			-44.753	510.305	.000	-1.03297	.02308	-1.07832	-.98762
Self Role Distance	Equal variances assumed	26.801	.000	33.615	898	.000	.70005	.02083	.65918	.74092
	Equal variances not assumed			33.745	869.432	.000	.70005	.02075	.65933	.74077
Role Ambiguity	Equal variances assumed	41.795	.029	72.043	898	.000	1.83673	.02549	1.78669	1.88677
	Equal variances not assumed			71.838	865.034	.000	1.83673	.02557	1.78655	1.88691
Resources Inadequacy	Equal variances assumed	47.380	.000	13.344	898	.000	.53859	.01718	.50486	.57231
	Equal variances not assumed			31.096	731.698	.000	.53859	.01732	.50458	.57259
ORS Scale	Equal variances assumed	66.608	.000	-16.291	898	.000	-.09500	.01510	-.12464	-.06536
	Equal variances not assumed			-6.198	517.045	.000	-.09500	.01533	-.12512	-.06489

An independent-samples t-test presented in table 2 was conducted to identify the role stressors among the employees of Manufacturing Sector. The results of Table 1 and Table 2 are analysed as follows:

To find out the Inter Role Distance among the managerial and non-managerial employees of Manufacturing Sectors the results of table 1 and 2 shows that there is a significant difference in the scores of managerial (M=2.0266, SD=.243) and non-managerial employees (M=3.2536, SD=0.236) conditions; t (898)= -16.754, p = 0.000. These results show that Inter

Role Distance stressor is more among the non-managerial employees as compared to managerial employees.

In order to find out the possible differences among the managerial and non-managerial employees of Manufacturing Sectors regards Role Stagnation Stress, the results of Table 3 and Table 4 shows that there is a significant difference in the scores for managerial (M=2.0072, SD=.324) and non-managerial employees (M=2.6532, SD=0.335) conditions; t (898)= -11.064, p = 0.000. These results show that Role Stagnation stressor is more among non-managerial employees as compared to managerial employees.

In comparing the results of the differences regards Role Expectation Conflict, the results of Table 3 and Table 4 shows that there is a significant difference in the scores for managerial (M=3.0562, SD=.234) and non-managerial employees (M=3.5222, SD=0.254) conditions; t (898)= -24.237, p = 0.000. These results show that Role Expectation Conflict stressor is more among the non-managerial employees as compared to managerial employees.

To compare Role Erosion, the results shows that there is a significant difference in the scores of managerial (M=2.8950, SD=.526) and non- managerial (M=2.5750, SD=0.524) conditions; t (898)= -14.346, p = 0.000. These results show that Role Erosion stressor is more among the managerial employees as compared to non-managerial employees.

To compare Role Overload, the results shows that there is a significant difference in the scores of managerial (M=2.6782, SD=.361) and non- managerial (M=3.892, SD=0.389) conditions; t (898)= -23.510, p = 0.000. These results show that Inter Role Overload stressor is more among the non- managerial employees as compared to managerial employees.

As regards Role Isolation, the results shows that there is a significant difference in the scores of managerial (M=2.9852, SD=.299) and non- managerial employees (M=2.3552, SD=0.221) conditions; t (898)= -19.223, p = 0.000. These results show that Role Isolation stressor is more among the managerial employees as compared to managerial employees.

To check the contrast among the employees as regards Personal Inadequacy, the independent-samples t-test results shows that there is a significant difference in managerial (M=1.2531, SD=.359) and non-managerial (M=2.323, SD=0.324) conditions; t (898)= -42.434, p = 0.000; that Personal Inadequacy stressor is more among the non-managerial employees as compared to managerial employees.

To weigh the possible differences regards Self Role Distance the results shows that there is a significant difference in the scores of managerial (M=1.3256 SD=.362) and non-managerial (M=1.7856, SD=0.323) conditions; t (898)= 30.615, p = 0.000. The results show that Self Role Distance stressor is more in non-managerial employees to managerial employees.

On assessing Role Ambiguity, independent-samples t-test result shows that there is a significant difference in the scores of managerial (M=3.0125, SD=.482) and non-managerial (M=2.9575, SD=0.415 conditions; t (898)= 32.043, p = 0.000. These results show that Role Ambiguity stressor is more in managerial employees to non-managerial employees.

In measuring the possible differences regards Resources Inadequacy, the result shows that there is a significant difference in the scores of managerial (M=1.2305, SD=.231) and non-managerial (M=1.8795, SD=.223) conditions; t (898)= 21.344, p = 0.000. The results show that Role Isolation is more among the non-managerial employees as compared to managerial employees.

The managerial employees received a highest mean score for 'Role Expectancy Conflict' (3.05) and "Role Ambiguity" (3.01) stressor of Organisational Role Stress Scale, whereas, non-managerial employees received a highest mean score for "Inter role distance" (3.25), ''Role Expectancy Conflict' (3.52) and "Role Isolation' (3.89) stressor of Organisational Role Stress (ORS) scale.

Conclusion

The future of the Manufacturing industry remains bright as this sector is going from strength to strength in the coming years. In this study, Organisational role stress (ORS) scale examines the ten role stressors as major contributors of stressors in the respondents of managerial and non-managerial employees in the manufacturing sector. The results of table1 and table 2 clearly indicate that on all the ten role stressors there is a significant difference between the managerial and non-managerial employees of manufacturing sectors; stating that non-managerial employees face more stress compared to the managerial employees. Therefore, adequate and reliable measures need to be taken by the management to de-stress the employees to ensure high productivity and efficiency in the organisation.

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