

Job Satisfaction, Management Style, and Occupational Stress among Managerial Employees

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Abstract

The study examines the relationship between job satisfaction, stress, and management style in a large German MNC operating in the air-transportation industry. We find, employing tested questionnaires, that the middle level management of the study organization faces low levels of stress, stress is inversely related to job satisfaction, and that employees working under authoritarian managers report high levels of stress. The study suggests a simple protocol for using easy to administer questionnaires to develop a stress profile for a firm, which helps the HR management to react to possible sources of stress.

Introduction

Stress, as it compromises the effective and efficient execution of the tasks needed to complete assigned work, should be a major concern for management [1,2,3,4]. In recent studies, the deleterious effects of stress continue to be documented. For example, The Health and Safety Executive [5] note that job-related stress, which influences the health of the employees, leads to increased health care costs in organizations. This phenomenon has also been identified in Europe as reported by Gabriel and Liimatainen [6] in the latest International Labour Organization [ILO] report, which warns that the costs of workplace stress are rising and depression is increasingly common among employees. The study notes that in the European Union, about 4 percent of the GNP is spent on mental health problems. In the U.S., according to the ILO report, the annual national spending on depression treatment ranges from \$30 to \$44 billion and one in ten working age U.S. American adults is affected by clinical depression, leading to a loss of 200 million working days each year. The report shows that in Germany almost seven percent of premature retirements are due to depressive disorders. Mental health disorders account for an annual volume worth of approximately 2.5 €billion of production loss.

As stress is an important aspect contributing to a firm's productivity, it is a widely researched field of business management. There are various studies on occupational and organizational stress [e.g.7,8]. These studies assert that occupational and organizational stress is often inversely associated to employees' satisfaction with various job related factors. The broad range of literature in the field of occupational stress mostly emphasizes general relationships

without examining specific job contexts [9] or different cultural settings, which is also shown to have an influence on the determinants of stress [10,11]. Therefore, Sparks and Cooper [12] encourage more specific research in the field of occupational stress.

Responding to this call for research, our study (1) examines the relationship between job satisfaction, management style, and stress among German middle level managers, and (2) offers a simple protocol for creating information that can be used by HR managers to cope with stress at the workplace.

Theoretical Background and Hypotheses

There are three major approaches on stress in the literature, response-based, stimulus-based and transactional approach. The response based approach considers stress as a result of process [13], whereas the stimulus-based approach focuses rather on the variables causing distress or discomfort [14]. The third approach on stress, the transactional approach, does not consider the individual or the environment separately but defines it as an interaction [15]. Therefore, stress should rather be seen as a negative circumstance that may have positive consequences instead of differentiating between stress and distress.

Contemporary definitions of stress elaborate on the fact that stress can be viewed as an interaction between stimulus and response. According to Schuler [16: 188] it can be said that people are under stress “when the demands of the environment exceed (or threaten to exceed) a person’s capabilities or resources to meet them or the needs of the person are not being supplied by the job environment.” The definition by Kolbell [17: 31] includes, in addition to the discrepancy between perceptions and desires, also the resulting strain for the human being. The definition seems to deliver a more comprehensive idea of what stress actually is: it is “a condition that arises when an individual experiences a demand that exceeds his or her real or perceived abilities to successfully cope with the demand, resulting in disturbance to his or her physiological or psychological equilibrium”. Stress therefore depends on two factors: the situation and the individual. In order to show this relation, the transactional model will be used which “views the person and the environment in a dynamic, mutually reciprocal, bidirectional relationship” [18: 293]. Robbins [19] suggests that there are three major sources of potential stress: environmental, organizational, and individual factors. Our analysis will concentrate on the stress resulting from matters at the organizational level. That is, we will focus our analysis on aspects at work, which might make employees feel nervous or tense.

As occupational stress is a widely researched field, so is job satisfaction. The classic model presented by Lawler [20] is a combination of equity and discrepancy theory, which “are the two strongest theoretical explanations of satisfaction” [20: 72]. Lawler considers satisfaction to be the difference between the perceived amount a person thinks he or she should receive and what is actually perceived to be received. Lawler states that satisfaction is only reached when the perceived outcome level is equal to what it should be. If that is not the case, the employee will either be dissatisfied (perceived outcome level is below what it should be) or have feelings of guilt, inequity and discomfort because the perceived outcome level exceeds the one that it should be. The perceived personal job inputs and the job characteristics play the largest role in assessing the level of satisfaction. The aspect of equity theory incorporated in the model is the mere fact that “a person’s perception of what his outcomes should be is influenced by what the person perceives his comparison-other’s incomes and outputs to be” [20: 76]. According to Lawler [20] three factors seem to have a large contribution to overall satisfaction when he considers weighting the facet-satisfaction according to their importance: pay satisfaction, satisfaction with

the work itself, and satisfaction with supervision. These variables are also shown to influence occupational stress [21], which connects the two topics, job satisfaction and occupational stress to each other.

There are various studies on occupational and organizational stress and job satisfaction. [e.g. 22,23,7,9,8]. These studies assert that occupational and organizational stress is often inversely associated to employees' satisfaction with various job related factors. Kraut and Ronen [24] used indicators of work goals and satisfaction to show that the work goals that contributed most to overall satisfaction contributed least to subjective stress and vice versa. This is also what we will do in our study. Given the literature, we hypothesize that:

Hypothesis 1 (H1): *Job satisfaction and occupational stress are inversely associated.*

Job satisfaction can be seen as the actionable variable, and stress as the effect variable. This means that satisfaction can be influenced, for example, by management actions, whereas stress is the result of low satisfaction. Therefore, from the management perspective, it is of pivotal importance to observe and maintain the satisfaction of the employees in order to keep the stress of the employees in control.

Since the satisfaction of the employees is such an important issue for their well being at work, the question of optimal or satisficing management style arises. Literature shows that different leadership styles seem to influence the pressure employees feel at work [25]. Especially involvement in decision making appears to contribute to reduced levels of stress [26], which, as discussed above, is usually caused by higher levels of job satisfaction. Therefore, we assert that:

Hypothesis 2 (H2): *The Authoritarian management style increases job related stress of the supervised employees.*

Again, here the management style is the actionable variable which can be controlled or modified by a firm's management, whereas the level of stress is the result of the management practice.

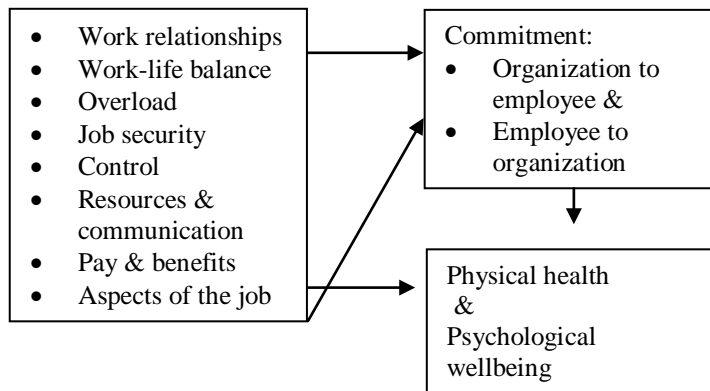
In addition, we examine, in an exploratory mode, factors that contribute to job satisfaction. This will help the human resource management focus their strategies on identifying potential sources of stress and reacting to the danger of stress related problems.

Method

The study was completed at a large German MNC operating in the air-transportation industry. The sample consists of responses from the middle level management of the organization working at a single functional area of the organization. A combination of two pretested questionnaires, the ASSET (A Shortened Stress Evaluation Tool) [27] questionnaire as well as the Country-Compatible Incentive Design Questionnaire [28], was used. The ASSET questionnaire measures potential exposure to stress in respect to common work place stressors linking the exposure to sources of stress (work relationships, work-life balance, overload, job security, control, resources & communication, pay & benefits, aspects of the job) with the effects of stress (aspects of the job, perceived commitment of organization to employee, perceived commitment of employee to organization, psychological wellbeing, physical health). The model (Figure 1) [27] behind the questionnaire is influenced by authors such as Cooper and Marshall [29]; however, it recognizes that factors such as overall satisfaction and organizational

commitment might act as sources of stress and not as commonly assumed as outcomes of stress [27].

Figure 1. The ASSET Model



The Country-Compatible Incentive Design questionnaire, which is based on Hofstede’s Attitude Survey, published in Hofstede [30], was used to measure the extent of stress at work (How often do you feel nervous or tense at work?), the overall satisfaction (Considering everything, how would you rate your overall satisfaction in this company at the present time?), as well as the management style of the current manager (Authoritarian, Mentor, Consultative, or Collaborative as presented in Table 1).

Table 1. Typology for Management Styles

Managers of Type 1 Authoritarian	Usually make their decisions promptly and communicate them to their subordinates clearly and firmly and expects them to carry out these decisions loyally and without raising difficulties.
Managers of Type 2 Mentor	Usually make their decisions promptly, but before going ahead, try to explain them fully to their subordinates giving them the reasons for the decisions and answer whatever questions they may have.
Managers of Type 3 Consultative	Usually consult with their subordinates before reaching decisions. These managers are good listeners and consider the advice provided by their supervisees before announcing their decision. After the decision is made, they expect that it will be carried out whether or not it is in accordance with the advice received from their supervisees.
Managers of Type 4 Collaborative	Usually call a meeting of their subordinates when there is an important decision to be made. They put the problem before the group and try to obtain consensus. If consensus is obtained, they accept this as the decision. If consensus is impossible, they usually make the decision.

Hofstede [31] discusses the stress/satisfaction balance of occupations. He uses the question “How often do you feel nervous or tense at work?” as a “simple operationalization of subjective stress” [31: 54]. From this, one could expect that the factors of stress, presented by the ASSET questionnaire (Work relationships, Your job, Overload, Control, Job security, Resources and communication, Work life balance, Pay and benefits) would contribute to the Hofstede measure of stress, which could then be seen as a simple overall measure of stress.

We accrued 44 responses from the middle level managers of a major air-transportation firm headquarter in Germany; about two-thirds of the respondents were women and almost 70 percent below the age of 40.

The initial step in the analysis was to examine the factor structure of the 12 ASSET variables (sources and results of stress) and the Hofstede stress variable. We found, as expected, that all 13 of these variables were independent in correlation association. This suggests that all 13 variables are independently affecting the stress profile of the firm (the detailed results are available from the authors). This is an important step for creating an effective and efficient HR-action plan. Effective in this content means that the HR manager has identified the variables creating stress, whereas the efficiency aspect is that this set is represented by only independent variables. For example, assume that there were two variables which were not independent, then there would be only one source of simultaneous effect but it may appear to the HR manager that there needed to be two actions taken, when in fact there was only one action driving the two variables. Therefore, it would not be efficient to try to take two corrective actions when in fact only one was needed.

Results

All in all, our results show that the level of stress at the study organization is lower than the ASSET norm [32]. For all 13 ASSET variables, the normed results, we find that the study respondents are less stressed compared to the norms. The firm is profitable and been a long-time survivor in its industry; this likely has created the impression of stability among the work force, which of course is consistent with the overall low level of stress document in Table 2.

Table 2. Relationship between the 13 ASSET Variables and the Population Benchmarks

Variables	Study Respondents Mean	Population Benchmark	Two-Tailed p-value
Work Relationships	15.15	20.26	<0.0001
Work Life Balance	9.00	12.42	<0.0001
Overload	8.56	12.59	<0.0001
Job Security	6.98	11.04	<0.0001
Control	9.34	13.30	<0.0001
Resources & Communication	8.33	13.12	<0.0001
Aspects of the Job	14.05	24.76	<0.0001
Pay and Benefits	2.81	3.31	0.04
Commitment to Employees	23.95	19.12	<0.0001
Commitment to Organization	18.15	17.08	0.02
Physical Health	12.10	13.32	0.03
Psychological Wellbeing	19.77	23.07	<0.0001

As indicated above, the factor analysis produced 13 possible action variables, which are surrogates for stress, its creation, and the effects. However, as the ASSET group focuses on eight variables that are identified as sources of stress, we will concentrate on these eight variables and the Hofstede stress variable in the testing H1. Therefore, as stress, the effect variable, has nine independent dimensions. The results of the correlation analysis are presented in Table 3.

Table 3. The Relationship between Job Satisfaction and the ASSET and Hofstede Stress Related Variables

The 9 Stress Related Variables	Spearman	P-Value [Two-Tailed]
Work Relationship	-0.45	0.01
Work Life Balance	-0.30	0.05
Overload	-0.37	0.02
Job Security	-0.13	0.43
Control	-0.37	0.02
Resources & Communication	-0.39	0.01
Pay and Benefits	-0.23	0.15
Physical Health	-0.33	0.04
Hofstede Stress	-0.41	0.01

The results are clear. In eight out of the nine cases, job satisfaction is inversely associated with the stress variables at one-tailed p-value < 0.1. Conservatively, for testing we have used the Spearman correlations. This is strong support for H1.

H2 proposed that authoritarian management style increases job related stress of the supervised employees. Overall, the respondents at the sample firm do not exhibit high levels of stress benchmarked against population norms. This finding also fits to Hofstede's [30] argument,

as he proposes that employees at higher hierarchical levels are often more satisfied and healthier than employees at lower levels of the organization. However, even in this context, employees with authoritarian manager as the current manager show are relatively elevated level of stress. This is a definitive result supporting H2 given the relatively low level of stress in the firm. Specifically, the test of H2 finds that the reported stress associated with employees that have judged their immediate supervisor as authoritarian in nature was statistically significantly higher than the stress reported by employees supervised by mentor, consultative, or collaborative rated managers. The two-tailed p-values for the parametric t-test and non-parametric median-test were 0.039 and 0.046 respectively providing strong support for H2.

Discussion and Conclusion

We demonstrated that stress is inversely related with job satisfaction. That is, it is of pivotal interest that the management of a firm concentrates on creating a work environment which provides the employees with high levels of job satisfaction. HR needs to monitor the various aspects of work, especially the work relationships, work-life balance, overload, control, resources and communication, pay and benefits as well as the various aspects of a job in order to minimize the stress that the employees face at work.

Our results argue convincingly for the careful evaluation and monitoring of the nature of supervision. For this firm, there were a few supervisors that were judged to be authoritarian. They seemed to create stress. All of the other managers, who were judged to be mentoring, collaborative, or consultative, that is to say there is some degree interactivity, were associated with relatively lower stress. This finding is supported by the study of Lancefield, Lennings, & Thomson [26] who show that involvement in decision making contributes to reduced levels of stress.

Interestingly, if we would have only investigated the level of stress and compared it to the norm, we would have concluded that the firm is doing very well. This is probably also true, but there was a sign of a potential problem that was identified by our method of developing the stress profile information as presented above. That is, the employees working under authoritarian managers demonstrate significantly higher levels of stress as the ones working under more communicative managers. This provides a useful insight for human resource managers. In order to draft a stress profile of a firm such as was demonstrated above, it is important to examine the overall satisfaction of the employees. Even though the satisfaction seems acceptable at the first glance, it is of benefit to examine the factors contributing to job satisfaction. Especially, the management style of the current manager seems to play a pivotal role with respect to stress. Therefore, it might be of benefit to perform a management style analysis. Based on the results, the managers can be trained to adjust their style of management to increase job satisfaction and thereby reduce stress.

Our results are certainly subject to a specific corporate culture and country. Studies have shown there are differences in management style preferences among cultures [33]. Therefore, our results present a picture of a German long-time surviving MNC in a very dynamic industry. The method to measure stress is of course generalizable in that we expect that the process can be used in any context. However, our stress profile and HR recommendation are specific and not generalizable.

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