Is stress management related to workforce productivity?

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Abstract

The purpose of the study was to determine the relationship between stress management and workforce productivity of Amol Industrial Park located in Mazandaran Province. The total population size in the research was 250 from top managers, middle managers and supervisors responsible in the before-mentioned Industrial Park and the sample size was determined through Morgan sample population volume table (n=150). For data collection, Background Information questionnaire, Stress Management and Workforce Productivity questionnaires were used. As for analyzing the data gained after collecting the questionnaires; Descriptive and inferential statistics were used. Pearson Correlation Test, One Sample T Test, Independent Samples Test and Regression Tests were used for hypothesis testing.

The results from analyzing the Sub Hypotheses of the research demonstrated that there was a positive and significant correlation between respectful and responsible managers (P=0.005), Managing and communicating existing and future work (P=0.002), Managing the individual within the team (P=0.01), Reasoning/managing difficult situations, (P=0.004) and workforce productivity in this research. As for analyzing the Main Hypotheses of the research, the results demonstrated that there was a positive and significant correlation between stress management and workforce productivity in this research. The results also demonstrated that there was no significant difference between the opinions of male and female managers about the level of workforce productivity and stress management being put in practice in the before-mentioned Industrial Park. And finally the results indicate that the level of workforce productivity and stress management being put in practice in the before-mentioned Industrial Park is not under the influence of any of Individual characteristics of managers (e.g. Age, Education Level, Job Title, Employment Background and Employment Status).

Keywords:
workforce productivity, stress management, Respectful and responsible manager, Managing and communicating existing and future work, managing the individual within the team, Reasoning/managing difficult situations.

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Introduction

Nowadays, productivity improvement has been recognized as one of the most significant approaches for economic, social and cultural developments of various nations, and success in speeding up the procedure of productivity process. It has been proved to be one of the main conditions for improving the people’s standard living and reaching a suitable condition at the scene of the world by having fierce competition to gain a much bigger portion of the market. Year in and year out, researchers have been indicating that the productivity of organizations has been under the sheer influence of some factors (Armstrong, 2006; Clawson & Newburg, 2005; Hankin, 2004; Williams, 2003; Griffin, 2002). Knowing what factors may influence productivity is regarded as a prerequisite to improve the performance of organizations (Gryna, Chua & DeFeo, 2007; Coggburn & Schneider, 2003; Longenecker & Leffakis, 2002). Manpower engaged in the activities of an organization is considered one of the fields which can be improved. Due to the growth and development of countries, particularly developing ones, is in the hands of productive workforce and such a thing is quite impossible without this prerequisite. The workforce is regarded as the most vital capitals of organizations and if they want their workforce to put their utmost energy into practice to reach the set aims and objectives, organizations must pay attention to their workforce needs. By the late 19th century, the importance of the human being was not recognized as the most significant factor by employers and managers (Hasanzadeh, 2004). Highly productive workforce is one of the main factors for countries to reach scientific, industrial and in the end economic developments (Khodaparast Shirazi, 1996).

In most organizations, the productivity of the workforce is still being considered as the core factor of success and has always been
played special attention by managers (Haenisch, 2008). Studies demonstrate that only those managers will win the competitiveness that are able to identify the influential factors on workforce productivity effectively and put some action into practice to deal with them before coming into existence. Through assessing the level which workforce would understand the main factors influencing their productivity in their workplace, fields in need of improvements can be identified (Ibid). If workforce knows exactly about influential factors on their performance and productivity, management would be able to examine such factors with much more confidence (Allie, 1996).

One of the influential factors affecting workforce productivity is stress in organizations, which reduces the productivity level of workforce by a large amount. A whale of theories have been proposed about how this destructive factor affects the workforce performance and productivity, but as for its management, in recent years some books and articles are also being put in print; Demonstrating that there is a relationship between stress management and an increase in performance level. Stress management interventions are activities/programs being put into practice by organizations to reduce the existence of job stressors or help individuals in minimizing the negative outcomes resulting from being in contact with such stressors (Ivancevich, Matteson, Freedman & Phillips, 1990). Mental hygiene of workforce and its relationship with management methods is an issue being examined times without number in a variety of studies. Results from studies demonstrate that if managers and supervisors adopt scientific and moderate methods, not only do they put their workforce under the influence of less stress, but also they would create a two-way communication between the workforce and themselves (Ross & Altmaier, 1998).

There are three interventions for managing and dealing with stress: stress management at the individual level, stress management at the
individual / organization level and stress management at the organization level, not to mention each of them have some categorization too (DeFrank & Cooper, 1987). Also, in 2011, Donaldson et al, in their book by the title of “managing stress in organizations: how to develop positive managers” stated that stress can be managed at different levels (organizational, managerial and individual) within the organization (p: 38). Given such levels, one of the managerial levels for intervention within organizations is the positive manager behavior framework in workplace proposed by Emma Donaldson-Feilder, Joanna Yarker and Rachel Lewis. In this approach, the behaviors that should exist in a manager present within the workplace have been identified and this way, managers would be able to execute stress risk management within organizations.

In these three researcher’s view, stress can be avoided within the organizations before it would cause destructions and damages like absenteeism, turnover, accidents and injury and other hidden costs (including negative PR, employee relations disputes, insurance premiums) through the agency of putting into practice four broad themes of behavior that are important for managers which are as follows:

1. Respect and responsibility (Management competency 1);
2. Managing and communicating existing and future work (Management competency 2);
3. Managing the individual within the team (Management competency 3);
4. Reasoning/managing difficult situations (Management competency 4) (Donaldson et al., 2011, p: 15).

**Significance of the research**

In recent years, giving consideration to job environments, work conditions and workers for increasing work quality, keeping health and safety of workers and also for further and better utilization of
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workers’ experiences has interested many authors and researchers (National Safety Council, 1992; Robbins, translated by Parsaian & Erabi, 1994; Ross & Altmaier, translated by Khajepoor, 1998; Malakooti et al., 1994). The Manpower constitute a large portion of Iran’s population and dealing with the issues related to mental hygiene of workers and organizations has a special preference, because creating safe job conditions is synonymous with making workforce healthy and healthy workforce is a vital necessity for industrial advancement of our country.

The industry is considered as one of the important sectors of any countries, because while growing itself, it provides the opportunity for growth of other economic sectors (Mashaiekhi, 1995). Industrial organizations, because of the type and conditions of work, possibility of experiencing accidents and also an important achievement named” Production”, need more attention. In the process of production, nothing is much more important than the mental health of workforce within an organization, because unhealthy and unfocused workforce is regarded as a destructive factor in organizations (Saatchi, 1996).

One group of these industrial sectors is Industrial Parks engaged in production in the country. By considering the speech given by an assistant director of the economic planning for Industrial Parks corporation located in Iran saying “ At present, there are 24,500 manufacturing and industrial Units situated in 863 active Industrial Parks across the country and employment of 508,000 persons in these Units”, it can be concluded that focusing upon influential factors affecting workforce involved in this industry and also its management can play a vital role in the progress of our country (cited in: http://www.khabaronline.ir/news-88620.aspx). By studying Industrial Parks of Iran, it becomes obvious that such organizations constitute a significant portion in the capital market of our country and are among organizations which have gained a wonderful growth in recent years.
Because of having sub-branches and sensitivity of such branches, such organizations hold a main status in terms of productivity. Now the main issue is that “Is there a relationship between stress management and productivity of workforce in Industrial Park of Amol?

Literature Review

The line manager is cited by employees as one of the most significant sources of stress (Hogan, Curphy & Hogan, 1994; Tepper, 2000). The line manager can influence employee stress by (Donaldson et al, 2011, p: 5):

- Causing (or preventing) stress by the way they behave towards their staff;
- Influencing the impact of the work environment (demands, control etc.) on their staff;
- Identifying, monitoring and working to reduce work-related stress through the uptake of risk assessments; and
- Supporting the design and implementation of stress management solutions.

Stress can be managed at different levels (organization, management, team and individual) within the organization (Ibid, p: 38). The approach that can be used for dealing with stress existing within workplaces is called positive manager behavior framework. This framework has been developed by Emma Donaldson, Joanna Yarker and Rachel Lewis, over five years of research, working with dozens of organizations, involving hundreds of managers and employees across many different sectors (Ibid , p:45). This framework was developed in a three-phase research plan and at the end four broad themes of behavior were introduced which managers should show in order to minimize stress in their staff (Ibid, p: 55):
Respectful and responsible manager (management competency 1)
This competency is about treating staff with respect, including acting with integrity, managing emotions and being considerate (Ibid, p:67). The behaviors included in this competency fall into three different clusters (Ibid):
- Integrity
- Managing emotions
- Considerate approach

Managing and communicating of the existing and future workforce (management competency 2)
This competency is about managers proactively managing their work and the work of their team members, dealing with problems at work and decision making, keeping team members involved and encouraging participation across their team (Ibid,p:89). The behaviors included in this competency fall into three different clusters (loccit):
- Proactive work management
- Problem solving
- Participation/ Empowering.

Managing the individual within the team (management competency 3)
This competency points specifically to the human side of people management (Ibid, p: 123). The behaviors included in this competency fall into three different clusters (Ibid, p: 124):
- Personally accessible
- Sociable
- Empathetic engagement.

Reasoning/managing difficult situations (management competency 4)
This competency is perhaps the only management competency that refers to behaviors that may not be “the everyday” behaviors, but
those that managers would be required to display during difficult situations such as conflict in the team, or through incidents of bullying and harassment (Ibid, p:147). The behaviors included in this competency fall into three different clusters (Ibid, p: 148):

- Managing conflict
- Use of organizational resources
- Taking responsibility for resolving issues.

Methodology

This research is a descriptive and Correlational kind of survey. Total participant were 250 in this research. By using the stratified random sampling 150 questionnaires were distributed. Questionnaires were given to the top managers, middle managers and supervisors in Imamzadeh Abdullah Industrial Park that located in Amol, Mazandaran.

Measure

The scale used to measure stress Management and Workforce Productivity were taken of Donaldson (Donaldson et al., 2011) and Hersey& Goldsmith (Hersey & Goldsmith, 1980). Workforce Productivity questionnaire consists of 26 questions with Likert Scaling (1=very little, 5= very much) and examines 7 factors: Ability, Clarity, Help, Incentive, Evaluation, Validity and Environment. Management competencies for Stress Management questionnaire consist of 66 questions with Likert Scaling(1= strongly disagree, 5=strongly agree) and examines 4 factors: Respect and responsibility, Managing and communicating existing and future work, managing the individual within the team, Reasoning/managing difficult situations.
Validity and reliability

Validity
The content validities of the questionnaires were confirmed by several specialists of management. The validity of questionnaires Stress Management (Donaldson et al., 2011) and Workforce Productivity (Hersey & Goldsmith, 1980) by using standard model is provided.

Reliability
As for examining the Reliability of questionnaires, the Cronbach Alpha was used in a pilot study of 30 managers (top managers, middle managers and supervisors) and results indicated that $\alpha =0.92$ for Workforce Productivity questionnaire and $\alpha =0.97$ for Stress Management questionnaire. As for analyzing the data gained after collecting the questionnaires; Descriptive and inferential statistics were used. And also Pearson Correlation Test, Independent Samples Test and Regression Tests were used for hypothesis testing.

Theoretical Model of Research
This model has been inferred based upon ACHIEVE model of Hersey, Paul & Goldsmith Marshal (November, 1980) and theoretical framework existing in Emma Donaldson (2011) by the title “managing stress in organizations: how to develop positive managers”.

The Main Hypotheses
1. There is a significant correlation between stress management and workforce productivity.
2. The level of workforce productivity is different in male and female managers’ point of view;
3. The executed level of stress management being put into practice is different in male and female managers;
4. The workforce productivity is under the influence of Individual characteristics of managers (e.g. Age, Education Level, Job Title, Employment Background and Employment Status);

5. Stress management being put into practice is under the influence of Individual characteristics of managers (e.g. Age, Education Level, Job Title, Employment Background and Employment Status).

**Subsidiary Hypothesis**

1. There is a significant correlation between respectful and responsible manager and workforce productivity;

2. There is a significant correlation between Managing and communicating existing and future work and workforce productivity;

3. There is a significant correlation between Managing the individual within the team and workforce productivity;

4. There is a significant correlation between Reasoning/managing difficult situations and workforce productivity.
Result

These results are the indicator relation between stress management and work productivity.

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Discussion and Conclusion

In this section, results from analyzing hypothesis testing will be discussed; a conclusion will be drawn and then will be compared with the results of other studies done before. As for determining the relationship between stress management and workforce productivity of the mentioned Industrial Park, results indicated that there is a positive and significant correlation between them. This result is consistent with the results from Soltani et al’s studies (2008) by the title of “The impact of stress management training on students’ educational advancement in female high schools of Tiran and Keroon in Isfahan”. In this study, results indicated that stress management training has got a straight and significant correlation with students’
educational advancement. This result is consistent with the results from Tahery Sartashnizi’s studies (2008) by the title of “The impact of stress management training course with job stress ability related beliefs of teachers”. In this study, results indicated that stress management training has got a straight and significant correlation with ability related beliefs of teachers.

As for determining the level of difference between male and female managers in terms of the stress management they execute, results indicated that there is no significant difference between the two. This result is inconsistent with the results from Robbins (1998); Cook, Hunsaker & Coffey’s studies (1997). In these studies, results indicated that the individual characteristic of Sex influences participative management which is an aspect of Managing and communicating existing and future work (one of stress management factors).

As for determining the relationship between Individual characteristics of managers (e.g. Age, Education Level, Job Title, Employment Background and Employment Status) and workforce productivity of Industrial park, results indicated that none of these variables have a straight and strong impact on workforce productivity of Industrial park. This result is consistent with the results from Moshref Javadi et al’s studies (2004) by the title of “Effective factors on increasing physical education federation from the point of managers and experts and providing a Model”. In this study, results indicated that the Individual characteristics of managers (Employment Background, Major and Education level) do not have any impact on workforce productivity and because the $P > 0.05$, there was no significant difference between them. As for determining the relationship between Individual characteristics of managers (e.g. Age, Education Level, Job Title, Employment Background and Employment Status) and executing stress management in Industrial park, results indicated that none of these variables have a straight and
strong impact on executed stress management in the Industrial Park. This result is inconsistent with the results from Robbins (1998); Cook, Hunsaker & Coffey’s studies (1997). In these studies, results indicated that Employment Background and Education Level influence participative management which is an aspect of Managing and communicating existing and future work (one of stress management factors).

As for determining the relationship between respectful and responsible manager and workforce productivity of Industrial park, results indicated that there is a positive and significant correlation between the two. This result is consistent with the results from Alavi Naeeni’s study (1999) by the title of “Examining managers’ attitude towards the impact of factors reducing incentive on their performance in the Medical University of Isfahan”. In this study, results indicated that when managers do not have integrity, this factor reduces the incentive and influences their performance. As stated in the theoretical background, integrity is one of the aspects of respectful and responsible manager (one of stress management factors). Also, in this study, results indicated that not executing rules evenly for all would reduce the managers’ incentive and influences performance. Executing rules evenly for all, as stated in the theoretical background refers to a considerate approach which is one of the aspects of respectful and responsible manager (one of stress management factors).

As for determining the relationship between Managing and communicating existing and future work and workforce productivity of the Industrial park, results indicated that there is a positive and significant correlation between the two. This result is consistent with the results from Robbins (1997); Talebi (1994); Ansari (1996); Alborzi (1996); Amiran (1992); Islamipoor (1995) and Amini’s studies (1996). In these studies, results indicated that participative
management impacts workforce productivity. As stated in the theoretical background, participative management is one of the aspects of Managing and communicating existing and future work (one of stress management factors). This result is also consistent with the results from Tizihi (2002); Qasemi (2002) and Ahmadi’s studies (2001). In these studies, results indicated that organizing and planning which are synonymous with proactive work management impact productivity. As stated in the theoretical background, proactive work management is one of the aspects of Managing and communicating existing and future work (one of stress management factors).

As for determining the relationship between Managing the individual within the team and workforce productivity of the Industrial Park, results indicated that there is a positive and significant correlation between the two. This result is consistent with the results from Alexi’s study (2005) by the title of “Examining the impact of the effective factors on managers’ productivity in governmental organizations located in Arizona University”. In this study, results indicated that the role of human relations governing the organization, or to put it another way, being a sociable impacts productivity. As stated in the theoretical background, being sociable is one of the aspects of Managing the individual within the team (one of stress management factors). This result is also consistent with the results from Sekro’s study (2007) by the title of “Examining the influencing factors on workforce productivity”. In this study, results indicated that existing fundamental human relations which is synonymous with being sociable impacts productivity of managers. As stated in the theoretical background, being sociable is one of the aspects of Managing the individual within the team (one of stress management factors).

As for determining the relationship between Reasoning/managing difficult situations and workforce productivity of the Industrial Park,
results indicated that there is a positive and significant correlation between the two. This result is consistent with the results from Boluestino’s study (1998). Also in this study, results indicated that manager’s mistakes in correct utilization of organizational resources are a significant factor in reducing productivity and the performance level of organizations. As stated in the theoretical background, utilization of organizational resources is one of the aspects of Reasoning/managing difficult situations (one of stress management factors).
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