

Psychosocial Risks and Occupational Health in a Mexican Small and Medium-Sized Enterprises

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Abstract—Due to the importance that people represent for companies, the setting of a clear control of the risks that threaten the health and the material and financial resources of workers is essential. It is irrelevant if the company is a small and medium-sized enterprise (SME) or a large multinational, or if it is in the construction or service sector. The risk prevention importance is related to a constitutional and human right that all people have; working in a risk-free environment to prevent accidents or illnesses that may influence their quality of life and the tranquility of their family. Therefore, the objective of this study was to determine the level of psychosocial risks (physical and emotional) of the employees of an SME. The participants of this study were 186 employees of a productive sector SME; 151 men and 35 women, all with an average age of 31.77 years. Their seniority inside the SME was between one month and 19.91 years. Ninety-six workers were from the production area, 28 from the management area, as well as 25 from the sales area and 40 from the supplies area. Ninety-three workers were found in Uman, 78 in Playa del Carmen, 11 in Cancun and seven in Cd. del Carmen. We found a statistically significant relationship between the burnout variable and the engagement and psychosomatic complaints as well as between the variables of sex, burnout and psychosomatic complaints. We can conclude that, for benefit of the SME, that there are low levels of burnout and psychosomatic complaints, the women experience major levels of burnout and the men show major levels of psychosomatic complaints. The findings, contributions, limitations and future proposals will be analyzed.

Keywords—Psychosocial risks, SME, burnout, engagement, psychosomatic complaints.

I. INTRODUCTION

GIVEN the importance that people represent to companies, it is primordial to set a clear control on the risks that can threaten a worker's health and their material and financial resources.

Companies would not wish for work accidents and diseases for their professional employees, as these directly and negatively affect the company's normal workflows and thus they put at risk its solidity. Likewise, these risks can be converted into family and social implications for the workers. For these reasons, managers and human resources administrators need to explore and adopt good occupational health practices that can guarantee the company's maintenance and improvement of efficiency levels in their operations, thus, giving employees a safe working environment.

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Making reference to the topic, the International Labor Organization [1] establishes and provides accords related to the Occupational Hazards System that refer directly to the occupational health programs, which seek individual and collective benefits from the workers in their respective occupations.

A. The SME

People worldwide face professional risks to their health and security. Through the years, the world's occupational hygiene community has worked diligently to develop the means that can protect workers in both the developed and the developing world and in workplaces of any kind and size. The biggest challenge has been to elaborate viable occupational health programs in developing countries and in SMEs where resources and expertise scarce.

The importance of risk prevention is no different for big enterprises or SMEs, national or multinational enterprises or construction or services enterprises. Its importance is related to the constitutional and human right to work on a risk-free environment that all people have, avoiding accidents or diseases that can affect the life quality and tranquility of their families. The economic benefits related to productivity, quality and competitiveness may be found in other ways, but social protection or the human factor will definitely be the most important.

SMEs are recognized to be a driver of the local economy and as the main source of employment, present and future, in all countries. In response to the flexibility requirements arising from globalization, many big enterprises focus in a few essential specialized fields and leave aside others. The externalization and subcontracting of those activities are the elements that have contributed to the creation of a great number of SMEs and microenterprises, and an important boom of independent work. Given this context, it is important to understand from the difficulties faced by SMEs from the perspective of risk prevention:

The SME businessman, in a current environment, is required to concentrate in other fronts of his management like the enterprise growth, sales, production etc., that is to say, in everything that has to do with his survival. Because of this, risk prevention must be adjusted and respond to this reality in a way that the businessman gets involved and can see in the prevention actions an added value to the other management fronts.

SMEs are an important part of the productive chain of major enterprises, making it a necessity for members of that productive chain to develop the risk prevention topic, as they do in other aspects of business.

The evaluation of the psychosocial risks factors is a complex process that leads to a series of actions or successive interrelated stages. The participation of workers regarding which, where and how the elements must be evaluated is needed from the first phase and until the measures decision phase, which must be adopted for the enhancement, control and tracing of the mentioned preventive improvements.

The stakeholders' involvement is necessary for the following reasons: The worker can best review his working conditions. It is the employee who experiences the day by day adverse situations that arise from their professional status, and for being responsible for describing the different aspects of their role and functions, as well as highlighting any possible unfavorable conditions and aspects that would be convenient to modify; otherwise, it is difficult to adopt new measures or make changes after the analysis of the determined work situation or condition.

B. Psychosocial Risks

Psychosocial risks are considered both hazardous substances and behaviors that may cause damage or injury to an employee. There are many dangers that employees can be exposed to in their workplaces, both physical and psychological. Because of this, and being congruent with this idea, evaluations were made with the most frequent psychosomatic complaints being headaches, sleep disorders, food and substance abuse, etc.; as well as physical complaints of high levels of burnout among workers of an SME. Although often they focus on physical health, health programs can also have an impact on mental health.

High stress level of employees is the number one concern for decision makers of small enterprises; mainly those who belong to smaller enterprises, where the stress levels represent more than three times higher in relation with other employees' health concerns.

The capacity to comprehend this topic and incorporate the stress management in the health offers will be an important consideration for the owners of small enterprises to keep advancing.

"Burnout" syndrome is actually considered as one of the most important psychosocial detriments to productivity. It originates as a consequence of chronic work stress, in which variables of individual, social and organizational character are combined. It is a syndrome with negative connotations that affect workers at personal, social and work levels [2], [3]. "Burnout" syndrome is defined as a response to a chronic emotional stress whose main features are represented in three dimensions: a) exhaustion, b) cynicism or depersonalization and c) low self-realization [4], [5].

C. Positive Occupational Health

Positive occupational health psychology (POHP) can be defined as the study and application of the conditions and processes that contribute to the optimal performance of the workplace. It promotes health at work and the development of workers, and examines how the positive phenomena

(strengths, virtues and personal resources) can be used as protection against work-related risks [6].

Health at work and wellness are central factors for POHP, but also, researchers and organizations are equally interested in occupational health causes (for example, workplace design) and its possible consequences (for example, performance). The POHP is still in its early stages of development, and some people question the importance of developing this field [6].

As noted, "burnout" syndrome is actually considered as one of the most important psychosocial detriments to productivity. Nevertheless, from a positive perspective, humans have a great capacity to adapt, to find meaning and personal growth through traumatic or stressful experiences.

"Burnout" syndrome has not remained untouched by the tendency to focus on building positive factors. After several years of study of the syndrome, researchers raised the existence of an opposing situation, i.e., a positive state, psychological linked with work or *engagement* [3], [5], [7].

References [8], [9] define the psychological link with work as "a positive mental state related to work and characterized by force, dedication and absorption". The *force* dimension makes reference to high levels of mental energy and endurance during work, and the desire to endeavor, even in difficult situations; *dedication* makes reference to a strong implication, as well as to feelings of significance, enthusiasm, pride, etc.; while, *absorption* refers to a level of maximum concentration.

D. Importance of Evaluating the Psychosocial Risks in Enterprises

Occupational health seeks to monitor accidents and reduce disease risk conditions for workers ensuring mental, social and physical wellbeing.

Companies must have a plan to reduce expenses, incidents, and consequences on their partners and allow them to improve their quality and productivity. Companies have a tendency to function the same way as the rest life: dangers, risks and threats are simply denied, and it is believed that "it will not happen to us". But we know that a common problem in most companies is absenteeism among employees, as a result of exhaustion, illness or accident. And it also frequently results in high personnel turnover, loss of production and damage to machinery, equipment or tools. In addition, the costs associated with employee benefits and compensation increases, as well as the bonus payable by the policyholders' risks and the lost wages while an employee is unable to work.

There are several advantages that imply a good prevention of occupational risks through health management and occupational security programs. These advantages, in addition to complying with national legislation and other rules applicable to the company, include that companies can avoid sanctions, fines or penalties, caused by a breach of any requirements for the prevention of occupational risks. In addition, costs are reduced (insurance premiums, medical expenses, etc.), improvements are implemented to limit occupational incidents, the costs of the causes of such incidents are diminished, and reductions are obtained in some

insurance premiums. At the same time, an increase in the quality and productivity of employees is achieved, as well as boosting the image of the company to demonstrate its commitment to the health and safety of employees. Therefore, the purpose of this study was to determine the level of psychosocial risks (physical and emotional) of employees of an SME.

II. METHOD

A. Sample and Procedure

The results correspond to the answers given by 189 workers, 151 men and 35 women (three unanswered), with an average age of 31.77 years, in an age range of 18-56 years. The seniority of the participants in the company varied between one month and 19.91 years, with an average of 3.40 years.

Regarding the department in which they work, 96 were in Production, 28 Administration 25 in Sales and 40 in Supply. By plant locations, 93 were found in Uman, 78 in Playa del Carmen, 11 in Cancun and seven in Cd. Del Carmen.

The sample selection and data collection was done using a convenience sample, using the steps that are described in detail next.

First, the SMEs were contacted to agree on the next steps, and also get a list of employees per branch and department to analyze using a quick and clear process to obtain the information.

The interviewers explained in detail, in groups or individually, the instructions and general objectives of the study. When possible, the participants completed the questionnaire in the presence of the interviewer; otherwise, the questionnaires were distributed and subsequently collected. In case that some questionnaires were not completed, it was requested that they were sent to the head of human resources.

The proposed research design is quasi-experimental with a cross-cutting strategy for collecting data in a single moment in time.

B. Instruments

Burnout was measured using the Spanish version of the Maslach Burnout Inventory-General Survey scale (MBI-GS) [5]. This scale measures the responses to chronic emotional stress whose main features are represented in three dimensions: exhaustion, cynicism or depersonalization and low personal accomplishment [5].

In the present study, it has been considered a unique global scale. The response scale is a Likert-type scale with seven anchor points, from 0 ("Never") to 6 ("Everyday"). Items in the small-scale fulfillment were reversed, so that higher scores indicate higher levels of "burnout" syndrome. The reliability (Cronbach's alpha) of the total scale is 0.84.

The psychological link with work (engagement), was measured through the *Survey of Welfare and Labor*, the Spanish adaptation of the short version of the *Utrecht Work Engagement Scale* [9]. This scale measures the positive mental

state related to work and characterized by three factors: vigor, dedication and absorption [9].

In this study, a single global scale was used. The response scale is a Likert type scale with seven anchor points, from 0 ("Never") to 6 ("Everyday"). A higher score indicates a greater *psychological link with work*. The reliability (Cronbach's alpha) of the total scale is 0.90.

For Psychosomatic Complaints (physical health part B), a reduced version of nine items was measured through the Spanish adaptation of a short version of the *Occupational Stress Indicator Management Guide* [10]. The response scale is a Likert-type scale with six anchor points, from 1 ("Never or rarely") to 6 ("Very often").

C. Data Analysis

SPSS 15 statistic software was used. The preliminary analysis was performed using descriptive statistics: mean and standard deviation. The reliability was calculated (Cronbach's alpha) and statistical bivariate correlation analyzes were performed by calculating the correlation coefficients of Pearson and Spearman Brown.

III. RESULTS

The mean and standard deviations of each scale are presented in Table I.

TABLE I
 MEANS AND STANDARD DEVIATIONS OF BURNOUT, ENGAGEMENT AND PSYCHOSOMATIC COMPLAINTS VARIABLES

	M	SD
Burnout	1.20	.73
Engagement	5.18	.91
Psychosomatic Complaints	1.48	.51

As we can see, the highest mean was for Engagement, i.e., that for the benefit of the SMEs there are low levels of Burnout and Psychosomatic Complaints (see Table I).

TABLE II
 CORRELATIONS BETWEEN THE BURNOUT, ENGAGEMENT AND PSYCHOSOMATIC COMPLAINTS VARIABLES

	1	2
1. Burnout		
2. Engagement	-.530**	
3. Psychosomatic Complaints	.399**	-.093

**p ≤ .01

In Table II, it can be noted that a negative and statistically significant relationship was found at $**p \leq .01$ between the Burnout and Engagement variables. That is, the lower the level of Burnout, the higher the level of Engagement, and vice versa (see Table II). On the other hand, it also shows that there is a positive and statistically significant correlation at $**p \leq .01$ between the Burnout and Psychosomatic Complaints variables. This indicates that the lower the Burnout level, the lower Psychosomatic Complaints level (see Table II).

With regards to Table III, note that there is a negative and statistically significant relationship at $*p \leq 0.05$ between the Gender and Burnout variable. That is, that women are

experiencing higher levels of Burnout than men (see Table III).

TABLE III
 CORRELATIONS BETWEEN SEX, MARITAL STATUS, BURNOUT, ENGAGEMENT
 AND PSYCHOSOMATIC COMPLAINTS VARIABLES

	1	2	3	4
1. Sex				
2. Marital Status	.060			
3. Burnout	-.158*	-.153		
4. Engagement	.069	.044	-.438**	
5. Psychosomatic Complaints	.151*	.141	.423**	-.188*

*p ≤ .05, **p ≤ .01

Finally, a positive and statistically significant relationship at * p ≤ 0.05 between the Gender and Psychosomatic Complaints variables is observed. This means that men present higher levels of Psychosomatic Complaints (see Table III).

IV. DISCUSSION AND CONCLUSIONS

Given the importance people represent for enterprises, it is essential to set a clear control to the risks that threaten the health of workers, as well as their material and financial resources.

No company would wish work accidents or occupational disorders on their employees; this could impair directly and negatively, the flow of the production and thus endanger unity and teamwork. Likewise, the risks to workers could also likely have negative implications for their family-life and for society. For all these reasons, company management and human resources administrations should seek and adopt good occupational health practices that guarantee companies sustainable and improved levels of efficiency in its operations, giving workers a safe working environment. Therefore, the objective of this study was to determine the level of psychosocial risks (physical and emotional) of employees of an SME.

The results of this study showed that psychosocial risk levels are not a concern, since the means for Burnout and Psychosomatic Complaints variables were low. However, with respect to the sex variable, it was possible to determine that the women experience burnout more than men, confirming evidence that indicates that women, unlike men, experience higher stress levels, higher levels of anxiety, burnout and stress reactions [11]-[14]. On the other hand, male participants in the study showed higher levels of Psychosomatic Complaints. These results contradict what is quoted in reference [15], in relation to psychosomatic complaints that suggested women have more mental health related symptoms and somatic disorders than men.

Regarding the introduction of the positive variable Engagement, it was gratifying to find high levels of this phenomenon in the participants of this study.

Referring to the subject, the International Labor Organization [1] establishes and provides related Occupational Hazards System agreements that make direct reference to occupational health programs, which seek individual and

collective benefit of workers in their corresponding occupations.

Considering and understanding the risks that workers face every day, and employing the effective and optimal use of existing occupational health programs can be useful. On the other hand, a lack of knowledge and interest could negatively affect health and reduce productivity.

In conclusion, it very important the right to a risk-free workplace that can impact the quality of life of individuals and family, the most important factor over other justifications, also the commitment of all workers and employers are required for the development, compliance and knowledge of the SMEs' context, and actions in professional intervention risks could to be a response in line with their reality.

A. Implications and Future Directions

From Positive Psychology, the focus of the research is in the positive aspects of psychological functioning, instead of or in addition to the investigation of the negative aspects, such as repair, illness or damage like traditionally researched [16]. This approach has considered more holistic models of job stress research which investigates both the positive aspects and the negative aspects of this phenomenon [17].

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