

OCCUPATIONAL RISK ANALYSIS IN AN ELECTRONIC TRADE

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ABSTRACT

The study of occupational risk analysis is a technique that has been gaining ground among companies that care about the health and safety of their employees. This study has as its main objective to identify and analyze the probable risks in a trade in the Center of Manaus, in order to prevent accidents and propose improvements to make the work environment adequate for the activities. This study basically consists of three steps: visual description where it was observed through site visit; Risk identification and proposed improvements to address the problem. As a result, it was found that commerce has ergonomic and accident risks. And it was proposed safety measures and use of PPE to prevent occupational accidents.

Keywords: Scratches; Commerce; Prevent accidents.

I. INTRODUCTION

The development and updating of risk analysis techniques contributes to the evolution of safety engineering history. Innovation brings a different view on the application of these techniques, always aiming to detect potential risks to reduce and eliminate occupational accidents, occupational diseases and environmental impacts, seeking to improve the quality of life of people at work [1].

The retailer sector is known for its high employee turnover and exhaustive workload, and few small and medium-sized establishments have a culture of caring about the health and safety of their employees. Thus, it is critical for management to manage the risks that workers are exposed to, often making improvements to the work environment and keeping track of employee health and safety. As a result, the quality and well-being of the workplace is improved, increasing productivity and reducing staff dropout.

Thus, over the course of the years, the concern with the well-being and physical integrity of employees has become a prominent element in the management of a business. An understanding has developed that people involved in work are the most valuable asset for a well-done activity that makes it possible to make a business organization socially competitive and successful [2]. Risk analysis is a technique that has been gaining ground among companies that care about the safety and health of

their employees, and aims to identify possible risks and prevent accidents, making the work environment appropriate for the activities. Investing in Security Increases Employee Awareness.

A work environment without proper ergonomic planning offers numerous risks to workers whether due to the imminence of accidents or the possibility of injury from overexertion. With an average of 8 hours a day dedicated to business activities, workers need to find ways to ensure a more appropriate and comfortable posture that avoids injury.

Thus, with organizations putting the health and safety of their employees first, various strategies and programs have been implemented with positive results in reducing workplace accidents. At the company, it is up to everyone to be zealous for a safer and healthier environment, but the employer is fully responsible for adopting safety and health preservation measures for its employees. Work safety values are increasingly aligned with the creation of an environment where all employees are motivated to achieve safety excellence, developing a concept in which concern over not only employee attitudes but also towards the consequences of these attitudes.

One way to prevent accidents and improve workers' health and safety is to carry out an analysis of existing risks. Due to the lack of culture, knowledge and regulation, small and medium businesses do not prevent themselves in situations of possible accidents and end up drafting their safety plans only when they are

notified in an inspection. In this context, the present study aims to evaluate the working conditions of a small retailer and wholesaler store, located in Manaus city center, in order to verify and evaluate the main risks workers are exposed and to propose improvements.

II. BIBLIOGRAPHIC REFERENCE

II.1 THE IMPORTANCE OF A RISK ASSESSMENT

The quality of life at work, in particular that favored by occupational safety, hygiene and health conditions, contributes not only to increased competitiveness. But also for the reduction of accidents, which is essential in any occupational risk prevention program [3].

Risk assessment is one of the most important, if not the most important aspects of any safety study. In the risk assessment it is essential to accurately identify potential hazards in the workplace [4].

Regardless of the method used to perform the risk analysis, it is necessary to follow a sequence in the study environment, such as: hazard identification and hazard identification based on hazard recognition.

Such data collection can be performed through field observations, interviews with collaborators who perform activities at the analysis site checklists, preliminary risk analysis and satisfaction surveys [5].

Risk assessment involves assessment, classification of assessed risks and classification of risk acceptability. This is an essentially descriptive step on the elements and work processes and aims to understand the professional activity performed.

It is important to create incentives and incentives to motivate the participation of workers, in order to enable them to identify with the security applied to the various risk situations that they face when performing work. Concerns about workers' health and safety can be eased if they have access to information about their legal rights and mechanisms to address workplace hazards [6].

II.2 WORK SAFETY

The occupational environment where the individual spends most of his or her life is a place that can present potentially harmful health risks due to the processes and activities that are performed. On many occasions, harmful chemical, physical, and biological agents that are part of the work have also impacted the community through pollution of water, air, soil, leading in some cases to problems of discomfort and public health. Therefore, the State has a duty to establish policies to ensure safety, occupational health, environmental protection and social responsibility, charging and supervising establishments to ensure compliance with current legislation [7].

According to [7], the right to decent, safe and healthy and environmentally sustainable work has not always had a systemic and strategic vision, within public and organizational policies. These aspects are recent achievements and have become more important with the establishment of the ILO. Through the ILO, the United Nations (UN) has promoted a series of awareness-raising actions among countries on the need to integrate various areas of knowledge in order to adapt work to man, through some basic principles:

- Preserve worker health by applying the principles of preventive, emergency and rehabilitation medicine;
- Promote worker interaction with their work by applying the principles of human behavior;

- Assess worker social, economic, psychological and administrative needs and responsibilities;
- Promote and maintain to the highest degree the physical, mental and social well-being of workers in all occupations;
- Protect and prevent occupational diseases caused by exposure to environmental hazards;
- Keep workers in occupational environments adapted to their physiological and psychological skills;
- Create technical alternatives to minimize and / or eliminate worker exposure to environmental hazards and potential hazardous situations;
- Implement a management system aimed at identifying risks, planning preventive and / or corrective actions, assessing the effectiveness of controls and monitoring the work environment.

II.3 RISK MANAGEMENT

Risk management is a dynamic process, including all aspects such as risk identification, analysis, assessment and control. Aiming at reducing the inherent in the process or equipment to fit it into an acceptable level of exposure. Thus, this management process meets the occupational safety requirements, as it manages the risks by identifying the vulnerabilities of the system under analysis [8].

Through risk management techniques it is possible to achieve the goal of accident prevention as well as cost reduction involved in work accidents within the work environment. For this reflects the concept of organizational culture, which is formed by external and internal agents, being variable depending on changes that may occur within the organization or even political and economic factors.

Taking this into account, it is important for companies to have this broad and systematic view of a risk management system, building a predictive environment and using interpersonal relationships as an instrument to build a healthy working environment [9].

The [10] Institute of Risk Management integrates the various internal and external factors into the organization and the key natures of risk that deserve attention in designing a risk management program (financial, strategic, operational, and security) for enterprises across a variety of industries. And its operations.

II.4 WORK ACCIDENT

The Brazilian Association of Technical Standards (ABNT) has the following definition for occupational accident "occupational accident is the unforeseen and undesirable occurrence, instantaneous or not, related to the exercise of work that causes personal injury or is due to near or remote risk. of this injury" [11].

Brazilian labor law (Law No. 8213) defines a work accident as that which results from the exercise of work in the service of the company, causing bodily injury or functional disturbance, which causes the death, or permanent or temporary loss or reduction of capacity for work.

According to [12] the worker suffers an accident at work when one of the three situations described below is verified:

- You are the victim of an accident that occurs as a result of the characteristics of your professional activity (typical accident);
- You are the victim of an accident on the commute between home and work (commuting accident);

- You are the victim of an accident caused by any type of occupational disease, due to the exercise of the specific work performed, or a work illness acquired or triggered due to the special conditions in which the work is performed and directly related to it.

The work accident, according to [13], begins to happen when some element of the work process stops working as planned, that is, when it presents a dysfunction. This dysfunction indicates loss of system reliability as they degrade the work as a whole, requiring greater actions throughout the work environment. The accident can have serious economic or social consequences and result in personal injury or property damage.

III. MATERIAL AND METHODS

III.1 PROJECT DESCRIPTION

The trade analyzed is a small wholesale and retail store located in downtown Manaus. It is a general merchandise trade, predominantly in electronics, equipment and personal articles, distributed in an area of 60.0 m² with 12 employees.

According to the National Classification of Economic Activities (CNAE), Table I, NR-4 Specialized Services in Safety Engineering and Occupational Medicine - SESMT, the establishment has activity code: 46.49-4 Wholesale trade of equipment and articles of personal and domestic use - hazard degree 2.

According to NR-4, risk grade 2 establishments require SESMT professionals from 501 employees.

III.2 SEARCH RANK

The methodology used for the development of this work was a case study in a store located in the downtown district, south zone of Manaus.

The case study is a detailed research that studies a phenomenon within its real context, based on sources of evidence to support the development of theoretical assumptions leading to the collection and analysis of data and to conduct a A quality case study provides six sources of evidence: a) documentation, b) archival records, c) interviews, d) direct observation, e) participant observation, and f) physical artifacts [14].

III.3 SURVEY AND BIBLIOGRAPHIC STUDY

The bibliographic survey consisted of the study of theoretical bases to facilitate the understanding on the studied subject as theses, dissertations, monographs, articles, books, among other sources that provided the basis for the work. Collecting this material, the bibliographies obtained were read, aiming to capture definitions and terminologies necessary for the elaboration of this work.

III.4 DATA COLLECTION AND INTERPRETATION PROCEDURE

The survey of the place where the case study was conducted was made by collecting data through the photographic survey of the place, pointing out the possible risks of the trade. Some data were collected through verbal survey with employees and owner.

The risks detected were studied considering the most frequent occurrences. All carefully scrutinized to make a diagnosis that should underlie future risk analysis in the trade.

IV. STUDY APPLICATION

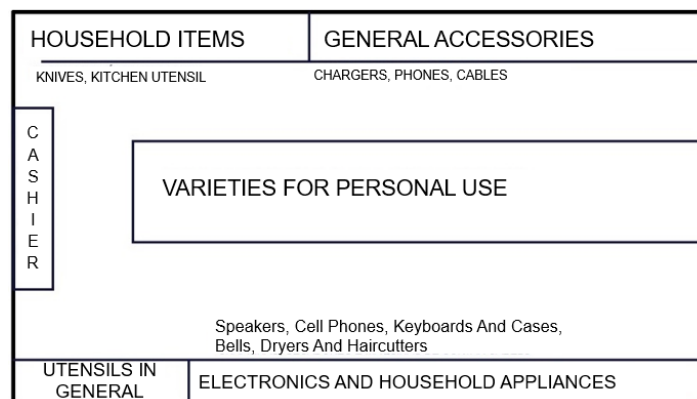


Figure 1: Thematic map of the store.
Source: Authors, (2019).

The store has two shopping aisles, with serpentine-shaped luminaires that span the length of the aisles. The environment still has natural light near the entrance.

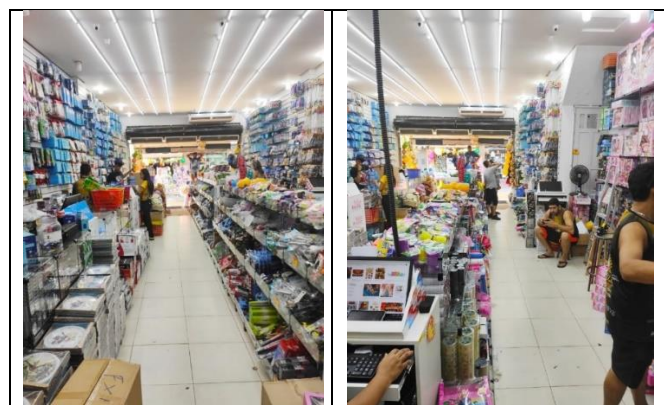


Figure 2: Example of corridors.
Source: Authors, (2019).

Each corridor has 1 meter free, on busy days, customers and employees have difficulty in transit and makes it difficult to attend.



Figure 3: Workers without protective equipment.
Source: Authors, (2019).

The working hours of employees at the store are from Monday to Friday from 8:30 to 17:30 and on Saturday from 8:30 to 17:00 hours. Employees feel free to dress and put on as they please.



Figure 4: Intervals and rests.
Source: Authors, (2019).

Workers have an hour break and rest in periods with little movement in the establishment, during which time they are sitting on benches.



Figure 5 - Lack of security to pick up products
Source: The Author (2019)

Figure 5 aims to present the lack of security in reaching the top products.

V. FINAL CONSIDERATIONS

There were three visits to the store, two during the week and one visit on a Saturday morning and due to the location of the store being in the city center, there were many people in the place, making it impossible for all products to be visible in a conversation with the customer. The owner was informed that they recently moved to this location that the old store was smaller, because they work a lot with wholesale have several products, and the new store is still small, this ends up affecting retail sales that not everyone likes to enter small places. And crowded.

Figure 3 shows us that employees work with shoes that are unsuitable for a daily standing routine, according to one employee, the employer does not require wearing specific shoes, each wearing what feels best. And in figure 5 shows us an ergonomic risk in the inadequate posture of employees at rest times, employees do not have chairs for breaks. NR 17 which deals with ergonomics specifies in item 17.3.5. For activities in which work is to be performed standing, rest seats shall be provided where all workers may use them during breaks.

In all figures that show employees we can observe a wrong posture, both at work and at rest times. Figure 6 noted the risk of an employee accident when using a ladder to pick up a product on high, which is repeated several times during the day.

Commerce is also vulnerable to burglary due to lack of security on site, the store has an employee to observe the flow within the store, but on days with high flow is unable to monitor all trade. The work environment analyzed presented several risks and it is evident the need for a risk analysis in these sectors, so that they can be avoided. It is important to emphasize that workers have the right to perform the service safely in increasingly safe

environments. Initially, it is proposed that the employer adopt minimum safety precautionary measures, such as the use of PPE, such as safety shoes, which should be worn throughout the day to prevent occupational diseases, none of the employees. Was suitable for daily service.

Thus, the elimination of risks is essential for worker safety. Risk analysis helped to identify the risks studied and preventive and control measures were proposed to avoid occupational accidents and diseases, it is up to the employer to promote improvements and workers to be aware of the prevention of accidents that may occur.

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