Impacts of the New NR-1 on the Reduction of Financial Costs of Micro Enterprises: A Study of Multiple Cases in the Sectors of Restaurant, Bakery and Textile Industry

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ABSTRACT

The costs with the safety and health of employees are essential to guarantee the integrity of the workforce and maintain the productivity of the organization, nevertheless, the procedures and bureaucracy encountered by small entrepreneurs are a challenging factor for the class supporting a Management disproportionate risk for the size of the activities. That said, the NR-1 is a standard responsible for noting general actions which employers must comply with related to the Safety and Health of their employees in the most diverse work environments. In 2019, the Standard underwent changes through Ordinance No. 915 directly reflecting MEI's, micro and small businesses covering matters such as PPRA and PCMSO. This article seeks, through a case study, to analyze the economic impact obtained by altering the NR-1 in three companies from different sectors located in the city of Manaus. Through analysis, it was possible to prove the economic effectiveness of the standard in the companies studied, providing speed and ease in the legal processes, in addition to facilitating the managerial routine.

Keywords: NR-17, Occupational Safety and Health, Risk Management, Regulatory Standard.

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I. INTRODUCTION

Created in 1978, through Ordinance No. 3.124 of the Ministry of Labor, now the Ministry of Economy, the Regulatory Norms (NR) are norms that come from the legal text of the Consolidation of Labor Laws (CLL), regulating articles 154 to 201 of Chapter V of Title II of the CLL with regard to Occupational Safety and Medicine.

According to the Ministry of Economy, there are 37 regulatory standards in force, two of which are revoked (NR 02 - Prior Inspection, revoked by SEPRT Ordinance No. 915 and NR 27 - Professional Registration of the Occupational Safety Technician revoked by the ordinance No. 262 of May 29, 2008). Among these, there is the Regulatory Standard No.

1 – NR 01, which was initially published on June 9, 1978 by means of Ordinance MTB No. 3.214 and has undergone important updates over the years, the most current being Ordinance No. 915 of the Special Secretariat for Social Security and Labor (SSSSL) of June 30, 2019, which reformulated the standard, making it less bureaucratic with clearer rules for the prevention of occupational diseases and accidents, in addition to reducing costs for micro and small companies, referring to compulsory documentation such as the Environmental Risk Prevention Program (ERPP), Occupational Health Medical Control Program (OHMCP) and compulsory training.

The main changes with regard to the programs are that micro and small businesses that have risk levels 1 and 2

according to the National Classification of Economic Activities (NCEA), are not required to prepare such documents, as long as they are proven that do not pose chemical, physical or biological hazards. Another important change is related to training that allows them to be validated or complemented by another company.

The Ministry of Economy claims that these changes will bring savings of 25 billion reais over a ten-year period, bringing a significant impact, mainly to micro-enterprises, small businesses, and individual micro-entrepreneurs.

The main objective of this work is to evaluate companies that fit these changes, making a comparison with the year prior to the entry into force of this regulatory standard, analyzing the economic impact generated for these companies.

II. LITERATURE REVIEW

A. *New Regulatory Norm 1 (NR-1)*

NR-1 is a standard with the force of law created at the time by the Ministry of Labor through Law No. 6.514/77 and approved by Ordinance No. 3.214/78 which addressed general provision, application, definitions, among other related negotiations to Occupational Health and Safety common to the Regulatory Standards, in addition to guiding actions concerning the Management of Occupational Risks and prevention measures (Brazilian Government, 1977). In this way, its application for CLL is mandatory. That is, for jobs governed by the Consolidation of Labor Laws (CLL).

Regulatory Standard No. 1, which refers to be general provisions, takes on a more important meaning after its last update. The main changes are in the digital certification of documents related to health and safety at work, adapting to the digital universe and making this information more transparent, thus, "organizations must provide information on safety and health at work in a digital format, according to the model approved by STRAB, after consultation with SIT" (Brazilian Government, 1978; Brazilian Government, 2020).

Another important change is the exemption from ERPP and OHMCP for individual Micro entrepreneurs, micro enterprises and small businesses that have risk level 1 and 2, which are considered, respectively, as very low risk level and low in accordance with NR-4, which establishes the intensity of risk to which workers from each type of company are exposed, the issuance of such documents is not mandatory, provided they prove that they do not have chemical, physical and biological risks. Regarding PCMSO, it is worth highlighting what the excerpt of this standard mentions: "The waiver of the PCMSO does not exempt the company from carrying out medical examinations and issuing the Occupational Health Certificate." (Brazilian Government, 2020).

Even with the changes, the rights and duties do not change, and it is up to the employer to inform workers about the existing risks in the work environment, preventive measures adopted by the company to minimize such risks, elimination of risk factors by implementing collective protection measures and the employee as established in art. 158 of Law No. 6,514, of December 22, 1977, "to collaborate with the company in the application of norms on medicine and safety

at work" (Brazilian Government, 1977). Occupational Health and Safety are designed to protect, prevent, and recover the health and safety of workers. Therefore, it is observed that duties are assigned to both the employer and the employee (Melo, 2004).

B. *Risk Management*

Since the beginning, the human being has been present to the risks associated with a life with exposure to predators and survival with scarce resources, looking for solutions for each difficulty so that humanity exists until the present day. However, the growth of Risk Management followed after World War II, through the economic expansion, mostly among Western companies, causing an exponential growth in risks and accidents at work (Ruppenthal, 2013).

According to (Ruppenthal, 2013), Risk Management is a structured procedure that aims to identify, categorize and carry out actions that mitigate uncertainties found in the process, with the main objective of achieving its organizational goals and protecting human and material resources and economical. In this way, maintaining knowledge and control of risks benefits both businessmen by minimizing economic losses arising from accidents with employees, equipment, structures, among others, as well as employees who perform their functions safely and productively.

In its update, Regulatory Standard No. 1 incorporated the Occupational Risk Management (GRO) in order to cover all activities and work environments in an organization, assess all types of hazards and risks, even those that are not regulated in any legislation, analyze work-related illnesses and prepare emergency preparedness plans. This update establishes guidelines and requirements for the implementation of health and safety management in the workplace through the Risk-Management Program, which is the way in which occupational risk management takes place, but there is no single one, as the new standard establishes that this program can be served by a management system already implemented by organizations that adopt ISO 45001 and OHSAS 18001, with this, employers will be responsible for the management of occupational risks, not limiting to environmental risks (chemicals, physical and biological), but also the risks of accidents and ergonomics. It is worth noting that the Risk-Management Program does not apply to the characterization of unhealthy activities and operations and special retirement. Occupational Risk Management is a continuous process that involves a set of steps as established by the standard, through the process of continuous improvement, the PDCA cycle, following the steps below:

1. Preliminary Hazard Survey: Stages in which hazards are identified and occupational risks are assessed.
2. Prevention Measures: Where processes are implemented as planned in the previous step, adopting preventive measures to eliminate, reduce or control risks.
3. Action Plans: Where the prevention measures to be introduced, improved, or maintained will be indicated.
4. Implementation and Monitoring of Prevention Measures: Where planned actions, inspections of work sites and equipment, and monitoring of environmental conditions will be verified.

Regarding the implementation of the Risk-Management Program, the standard allows it to be implemented by operating unit, sector, or activity, and it is important to highlight the following item:

The PGR must include or be integrated with plans, programs and other documents provided for in the occupational health and safety legislation (NR 1, 2020, 1.5.3.1.3).

It is important to highlight that the Risk-Management Program is not a document but can be served as a management system consisting of a risk inventory and an action plan, which as of August 1, 2021, comes into force, together with the new normative texts of NRs 7,9,17 and 18.

III. METHODOLOGY

The present study was carried out in three companies from different segments, located in the city of Manaus. The companies in question, meet the requirement of the new standard, all of them are micro companies that have risk level 2 according to the National Code of Economic Activities.

This work is characterized as a case study, where the collection of information was generated through technical visits to the companies in question. A case study is an in-depth study that allows a wealth of details of one or more objects with the purpose of explaining causal variables of a given phenomenon (Gil, 2002).

To collect the data, contact was initially made by telephone with each company to clarify the research. The interviews were scheduled directly with the managers via telephone and were carried out in the companies between November and December 2020, with an average duration of 30 minutes each. The companies under study were a medium-sized restaurant with 27 employees, a bakery with seven employees and a small textile industry with 11 employees.

For data collection in this research, the structured interview technique was used. According to (Chizzotti, 2018), the structured interview is a communication between a researcher and an individual in possession of information regarding the object of study, which aims to collect it for use in a given research.

After scheduling with the companies, a technical visit was first made to company A, which refers to a restaurant, where information was collected with the establishment manager, where he presented information regarding costs with health and safety at work. The visit took place in a bakery and confectionery company (company B) where its owner presented his costs related to safety in the workplace and

finally the visit was to a small garment manufacturing industry (company C), except underwear, whose owner presented his spreadsheet with information about the adoption of measures with safety in his work environment. In all the companies that were studied, the managers and owners themselves were responsible for managing occupational safety and medicine in their establishments, since, according to the degree of risk and the number of employees they have. They are not required to maintain a Specialized Service in Safety Engineering and Occupational Medicine.

The interviews with the companies followed a specific script, consisting of the following items: Costs in the preparation, maintenance and control of the Environmental Risk Prevention Program, Occupational Health Medical Control Program and some mandatory training programs such as of personal protective equipment, fire protection and first aid.

The schedule with the steps of data collection is presented in Table I.

Table II shows the current costs of occupational safety actions in the surveyed companies.

IV. RESULTS AND DISCUSSIONS

With the modification of Regulatory Standard 1 that releases companies from the preparation of the PPRA (Environmental Risk Prevention Program) and the PCMSO (Occupational Health Medical Control Program), the micro enterprises in question start from August 1, 2021, according to the meeting formed by representatives of employees, employers and the Federal Government and the Permanent Tripartite Joint Commission to adapt to the new standard [3]. From a projection of the analysis of the economy generated by these companies, aiming at the year in which the standard comes into force, we can observe as shown in Table III.

TABLE I: DATA COLLECTION SCHEDULE

Activity	November 2020	December 2020
Scheduling the interview company A	X	
Carrying out the technical visit and interview in company A		X
Scheduling the interview company B		X
Carrying out the technical visit and interview in company B		X
Scheduling the interview company C		X
Carrying out the technical visit and interview in company C		X

TABLE II: COSTS WITH OCCUPATIONAL SAFETY BEFORE UPDATE

Company	PPRA	PCMSO	Trainings	Individual protection equipment	Fire Fighting Equipment	Total
Company A	R\$ 1.290,00	R\$ 1.050,00	R\$ 1.200,00	R\$ 3.249,30	R\$ 1.931,19	R\$ 8.720,49
Company B	R\$ 450,00	R\$ 400,00	R\$ 300,00	R\$ 630,68	R\$ 541,02	R\$ 2.321,70
Company C	R\$ 900,00	R\$ 825,00	R\$ 740,00	R\$ 1.910,48	R\$ 1.425,98	R\$ 5.801,46

TABLE III: COSTS WITH OCCUPATIONAL SAFETY AFTER UPDATE

Company	PPRA	PCMSO	Trainings	Individual protection equipment	Fire Fighting Equipment	Total
Company A	R\$ -	R\$ -	R\$ 1.200,00	R\$ 3.249,30	R\$ 1.931,19	R\$ 6.380,49
Company B	R\$ -	R\$ -	R\$ 300,00	R\$ 630,68	R\$ 541,02	R\$ 1.471,70
Company C	R\$ -	R\$ -	R\$ 740,00	R\$ 1.910,48	R\$ 1.425,98	R\$ 4.076,46

It was possible to observe through the analysis of the costs that company A obtained savings of 26.84%, company B of 36.61% and C of 29.74%. This shows a very significant impact on the economy of all analyzed companies, but it is worth noting that the waiver of PPRA and PCMSO will represent a proportionally greater benefit for companies with few workers.

V. CONCLUSIONS

After this study with direct interviews with managers of micro enterprises, it was possible to validate the reduction of financial costs combined with the prevention of occupational diseases and accidents mentioned by the Ministry of Economy in the three investigated organizations, so that after updating the Standard, entrepreneurs in this segment have more resources to invest in other areas of the company, in addition to alleviating the bureaucratic procedures that are faced by this class in the country.

Nevertheless, it is important to highlight that this impact does not exempt companies from continuing to assess and control the risks to which they are exposed, already that with the update, this information should be kept up to date.

However, the research generates a study path to verify if, in fact, these environments are safe for employees, as well as their physical structure and execution of daily activities.

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