

## Risk management in local micro-enterprises

### Gestión de riesgos en la microempresa local

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#### Abstract

Risk management within the microenterprise implies the identification of future impacts, as well as anticipating the negative impacts to face effects that make the production process impossible, so that from this, actions are designed to eliminate the possibility of the risk occurring. Hence the importance derives since with the design of prevention actions and with the implementation of this, by the workers themselves it is feasible to avoid its occurrence, in order to achieve safer work spaces. The research was carried out in a local carpentry workshop whose objective is: to design an Occupational Risk Prevention Plan. Method used: and carried out the risk assessment, key risk factors were identified, to later define the appropriate preventive measures and the management of the business training plan. This research contributed to the design of a plan fully adapted to the productive characteristics of the company, which responds to more specific situations and that can be implemented during the working day, to achieve the sustainability of the organization by obtaining workspace cleaner and safer.

**Risk management, Preventive actions, Business training**

#### Resumen

La gestión de riesgos dentro de la microempresa implica la identificación de afectaciones futuras, así como anticipar los impactos negativos para hacer frente a efectos que imposibiliten el proceso productivo, para que a partir de ello se diseñen acciones para eliminar la posibilidad de que ocurra el riesgo. De ahí deriva la importancia ya que con el diseño de acciones de prevención y con la puesta en marcha de ésta, por los propios trabajadores es factible evitar su ocurrencia, para el logro espacios de trabajo más seguros. La investigación de llevó a cabo en un taller de carpintería de la localidad cuyo es objetivo es: diseñar un Plan prevención de riesgos laborales. Método utilizado: se llevo a cabo la evaluación de los riesgos, se identificaron de factores clave de riesgos, para posteriormente definir las medidas preventivas oportunas y la gestión del plan de formación empresarial. Con esta investigación se contribuyó con el diseño un plan totalmente adaptado a las características productivas de la empresa, que dé respuesta a situaciones más concretas y que pueden implantarse durante la jornada laboral, para lograr la sostenibilidad de la organización a través obtención de espacio de trabajo más limpio y seguro.

**Gestión de riesgos, Acciones preventivas, Formación empresarial**

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## Introduction

Micro-enterprises play an important role in the development of the regions, as they generate employment and wealth, which is why it is important to take decisions in an assertive manner. Bad decisions can represent losses and good decisions can represent advantages and profitability in the case of taking advantage of opportunities (Alonso López Aguilar).

In all organisations there are possibilities of positive and negative effects in each of its areas, and the organisation must be prepared to manage risks properly according to the impact and incidence that they can generate inside and outside the organisation.

For risk management in an organisation, the following must be considered: identify everything that at any given time may affect the organisation, so it must be properly prepared to deal with those effects and, based on that, develop plans, strategies and actions and implement procedures, so that based on that: eliminate the possibility of the risk occurring (prevent or avoid), on the other hand reduce the probability of it happening (mitigate), also outsource the effects of that risk (transfer) or, if necessary, accept that the risk may occur (COSO, 2004).

The Committee of Sponsoring Organisations of the Treadway Commission defines a framework with essential components for enterprise risk management, which discusses key principles for enterprise risk management (ERM) as well as concepts, suggests a common language with a business approach to risk management, as well as concepts such as: risk appetite, risk tolerance, portfolio view. Eight components are proposed:

1. Internal control environment: objectives and strategies are set out to raise human resource awareness and culture building for risk assessment and control engagement.
2. Establishment of objectives: the definition of objectives allows the identification of risks of deviation and facilitates the establishment of strategic actions and the mapping out of compliance.
3. Identification of events: considers internal and external factors that affect the achievement of the objectives, for which questions such as: "Could it happen, how would it affect us? External factors are considered, such as: economic and environmental situations, changes in government, changes in tax, commercial and labor legislation, changes in technology, changes in consumer habits and the evaluation of trends, among others. Internal factors include: infrastructure, personnel, processes, technology, generation of new products and salary compensation.
4. Risk assessment: define methods to assess the risks detected, using techniques such as: brainstorming on risks and opportunities, identifying risks, identifying the origin of the causes of the risk, calculating the impact that the risks will have and their impact on the objectives, identifying the key risks that require strategic attention, quantifying the monetary effect of the risks.
5. Risk response: once the risks have been established, the measures that will prevent them from occurring are determined in order to minimise their impact and control the causes that originate or trigger them during the process, defined for each risk, and the tolerance levels that may exist for each of them are measured.
6. Control activities: these include the policies and procedures established by the organisation, establishing What and how it should be done, the procedures How it should be done, the types of activities consist of business performance reviews, physical controls, segregation of duties, changes in methodology.
7. Information and communication: a communication process is defined for all levels of the organisational structure, sufficient and adequate, so that the human resources that make up the organisation identify the message that is being transmitted and assume the role that corresponds to them, in order to ensure the achievement of objectives and goals.

8. Follow-up: This involves the systematic supervision carried out by capable and responsible people in the detection, evaluation and response to risks, reducing possible weaknesses that may arise in the organisational structure.

This is in recognition of the perceived need for principles-based guidance to help entities design and implement effective enterprise-wide risk management approaches.

(COSO, Enterprise Risk Management Integrated Framework) COSO-ERM defines Risk Management as: A process carried out by the management of a business entity, which is directed and controlled. It involves the participation of all personnel, is applied before the definition of the business strategy and involves the participation of the entire entity, and is designed from the identification of potential events that may affect the organisation (diagnosis), its purpose is to manage these risks, which may be real and potential, these occur during the production process and have been accepted as feasible and real, so that their administration and control provides reasonable assurance that the objectives set will be achieved.

Risk management in organisations represents having the powers to:

- Align the detected risk, as well as and strategy and integrate it into the evaluation of strategic alternatives, whereby corresponding objectives are established and strategic actions are developed to manage the associated risks.
- Improve risk response decisions as formally within organisational processes procedures are in place to identify risks and select different response alternatives to: avoid, reduce, share or accept risks.
- Reducing operational surprises and losses in organisations by increasing their ability to diagnose and identify potential events and establish appropriate responses, associated costs or losses.

- Identify and manage the diversity of entity-wide risks in the different areas that make up the organisation, facilitating effective and practical responses.
- Seize opportunities by considering that a variety of potential events may occur, so management is in a position to identify and seize opportunities early.
- Improve the allocation of resources to obtain sound risk information, enabling management to assess risk effectively and better manage the allocation of its resources.

These capabilities, inherent in enterprise risk management, help management achieve the organisation's performance and profitability objectives and prevent loss of resources. Risk management in organisations helps in ensuring effective reporting and compliance with laws and regulations, as well as avoiding damage to the image and status of the entity, in its environment and context of location, as well as the consequences that may be derived as a result of events with a negative impact on the organisation.

(ebook-iso-31000-risk-management-organisations.pdfs, 2021) At the corporate level, risk is defined as the uncertainty that arises during the achievement of an objective. It is, in essence, adverse circumstances, occurrences or events that impede the normal development of a company's activities and that, in general, have economic repercussions for those responsible for them. All activities of an organisation that involve a risk. Organisations must implement a system for risk management by identifying the risk, analysing and then assessing whether the risk needs to be modified by treatment. Throughout this process it is important to communicate and consult with stakeholders, monitor and review the risk and implement controls in order to ensure results.

(Pirani, 2021) There are several methods to carry out the process including the Failure mode and effective analysis (FMEA) method which seeks to identify, classify and eliminate failures of projects or processes of a company in advance.

This method begins with the identification of errors, which are then classified by scoring the risks according to frequency, severity and detection. After ranking and prioritisation, the most serious failures are identified and addressed as a priority.

The study was carried out in a local carpentry company, with the aim of designing an occupational risk prevention plan and disseminating it among the staff, so that they become aware that risks exist and that there are ways of carrying out routine operations within the production processes that allow for the prevention, mitigation and control of risks. Method used: a risk assessment was carried out, key risk factors were identified by functional areas, in order to subsequently define the appropriate preventive measures and the management of the company's training plan. Development.

In order to carry out the research, information was collected by means of an interview with the company's workers and the head of the administrative area, an observation matrix in the company's areas and a questionnaire applied to the workers to find out what type of risks both the company and the workers are exposed to during the production process.

The identification of functional areas, according to the company's operations, in accordance with its capacities (see figure 1).

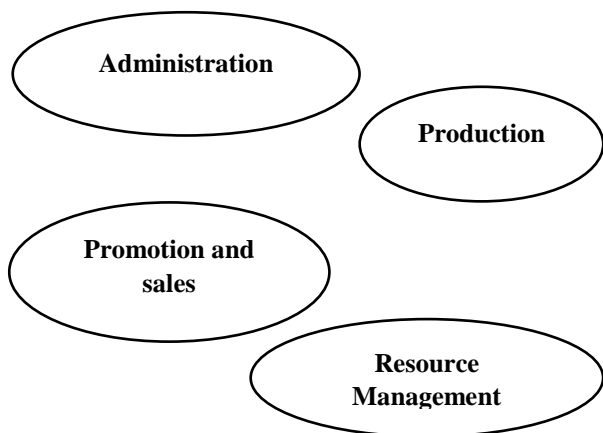


Figure 1 Distribution of functional areas in the carpentry workshop

Once the functional areas were defined, the identification of risks within the areas was carried out.

- Administration: accounting and marketing.
- Production: design, carpentry, painting and installation.
- Promotion and sales: Budgets and collections.
- Resource management: material resources and services, environmental care.

The procedures and the origin of the risks were identified, having: (See table 1)

Area of risk identification	Procedure	Source of risk
Accounting	Generation of Invoices and R.H.	Failure to complete calculations on time
Marketing	Generate Appointments by Social Networks	Failure to generate sales
Design Carpentry	Dimensioning	Poor communication; ideas expressed by the customer are not reflected in the product design, or are not feasible to implement, nor are they functional.
	Generate the design	Sales management
Painting	Elaboration of the furniture	Lack of information
Installation	Retouching and painting of the furniture	Not to the customer's liking
Clients	Installation and placement	Wrong measurements taken for the installation of the piece of furniture.
Budgets	Increasing sales, and appointment management	Appointment cancelled
Collection	Generate quotation	High quotation
Material resources and services	Collections	Lack of full payment
Care of the environment	Control of materials and machinery in stock	Lack of material
Area of risk identification	Waste and by-product management	Accumulation of sawdust
	Water consumption	High water consumption
	Electricity consumption	High electricity consumption
	Urban and hazardous waste	Waste spillage

Table 1 Procedures and origin of risks in the carpentry workshop company

Once the origin of the risk by area was determined, the risk index was determined taking into consideration the impact, classifying it as: Low, Medium and High, and the probability of occurrence: Improbable, Rare, Possible and Probable.

Determination of risk index as shown (See table 2 and 3).

Probability	Impact
Unlikely 1	Low 1-8
Rare 2	
Possible 9-16	Medium 9-16
Likely 17-25	High 17-25

Table 2 Risk index classification

Risk	Evidence	Probabilidad	Impact	Risk Ratio
No payroll	Disgruntled workers	Improbable	Low	1
Lack of publicity	Facebook page, Instagram and website	Rare	Low	3
After-sales service	Nothing is generated	Rare	Low	8
Failure to complete the sale	Advance 60% and design	Rare	Low	8
Incorrect furniture, of inadequate dimensions	after sales service	Rare	Low	4
Customer asks for colour change	Full payment for new colour	Improbable	Low	1
Return for adjustment	Nothing	Rare	Low	4
Failure to complete quotation	Cancellation message or email	Possible	Medium	16
Failure to complete sale	Sketch for taking measurements	Rare	Low	8
Late payment or failure to pay in full	60% down payment	Rare	Low	8
Ancillary costs	Proof of purchase or Invoices	Probable	High	25
No sale	Accumulation in the carpentry shop	Probable	High	17
More water consumed	Receipt	Rare	Low	8
More electricity is consumed	Receipt	Rare	Low	8
A worker gets burned or falls to the floor	Troughs in warehouse	Rare	Low	8

Table 3 Determination of the risk index

Two impacts have been identified with a high risk index for the performance of the activities and achievement of the objectives of the carpentry workshop company, which puts the operation of the organisation at high risk, These are located in the area of resource management: material resources and services, where a purchasing process is required to avoid purchases with ant costs, and with regard to environmental care, for obvious reason of the company's line of business, if the accumulation of waste is generated, the risk index is very high, ranging from level 1 to level 25.

Results

In order to define the strategic actions to be implemented in the organisation, the functional areas have been identified, the identification of the risk by area, the procedure carried out in the area, the origin of the risk, the evidence and probability of occurrence and its impact, as well as the definition of the risk index and its consequence, the area of impact and the proposed treatment as a preventive measure, the latter considered in Table 4.

Functional areas in the company	Risk identification area	Procedure	Risk	Consequence	Impact area	Preventive action	
Administration Production	Accounting	Generation of Invoices and R.H.	No payroll	Work stoppage	Production, sales and administration	Generate payrolls on time	
	Marketing	Generate Appointments via Social Networks	Lack of publicity	Loss of sale	Production, sales and administration	Set a picture or video reminder	
Promotion and sales Functional areas in the company Administration Production Functional areas in the company	Design Carpentry	Dimensioning	Dissatisfied customer	Modification of the furniture	Production	Design an effective communication process with the client: oral, graphical, documentary, electronic	
		Generate design	Failure to complete the sale	Loss of sale	Production, sales and administration	Generate proposals in line with the client's budget	
	Painting	Material resources and warehouse m	Accumulation of waste and sawdust	Fire	Company-wide	Implement an effective health and safety procedure.	
	Installation	Elaboration of the furniture	Incorrect furniture, of inadequate dimensions	Delay of delivery	Production and sales	Clear the warehouse area to avoid accumulation of sawdust and wood waste in the area.	
		Retouching and painting of the furniture	Customer asks for colour to be changed	Delay of delivery	Production and sales	Manufacture by-products from sawdust and waste wood cuttings.	
	Quotations	Installation and fitting	Return for adjustment	Delay of delivery	Production and sales	Verify measurements during the manufacturing process	
	Administration	Risk identification area	Generate strategies to increase sales	Failure to make appointment	Loss of sale	Production, sales and administration	Verify customer decision during the manufacturing process.
		Accounting	Generate budget	Failure to finalise sale	Loss of sale	Production, sales and administration	Verification of measurements integrated in the process
		Collections	Collections	Late payment or non-payment in full	Revenue shortfall	Accounting	Contacting the customer to verify the appointment and to make them aware of the products of interest.

Table 4 Risk management proposal for a carpentry workshop

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## Conclusions

It is very important for companies to have risk management programmes at their disposal, given that there are major profitability problems, often due to a lack of knowledge that in each of their areas there is the possibility of risks that can have a high impact on the organisation. The participation of the scholarship student has contributed greatly, given that the approach with the company has made it possible to achieve the objective of the research, which was: to design an occupational risk prevention plan with the use of an established method, carrying out the risk assessment, identifying key risk factors, in order to subsequently define the appropriate preventive measures and the management of the company's training plan.

This research contributed to the design of a plan fully adapted to the productive characteristics of the company, which responds to more specific situations and which can be implemented during the working day, in order to achieve the sustainability of the organisation by obtaining a cleaner and safer work space.

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