

Scientific Journal of Applied Social and Clinical Science

VARIOUS COSTING SYSTEMS APPLICABLE TO MSMEs

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Abstract: The determination of the costs of products or services in micro, small and medium-sized MSME companies is an elementary part of their daily actions; the appropriate registration according to the type of business directly impacts the profit margin. Each MSME must choose the type of costing that corresponds to its activities and needs, so that here the objective is to describe the most representative types of costing applicable in the MSME as a means of supporting the continuity of the businesses of different companies. magnitudes, for this purpose the deductive research method is established, with descriptive scope and documentary technique. The results allow us to differentiate the types of costing and even the most appropriate costing to be applied for micro, small and medium-sized companies.

Keywords: Microenterprise, administrative accounting, costs, direct costing

INTRODUCTION

The microenterprise as an economic entity fulfills its social function by directly generating jobs in its immediate context, since the family sector is the first to benefit and along with it, the closest friends or local neighbors benefit.

In Mexico, the National Institute of Statistics, Geography and Informatics (INEGI, 2019), when presenting the results of the National Survey on Productivity and Competitiveness of Micro, Small and Medium Enterprises (ENAPROCE) 2018, reports that there were 6.3 million establishments, the study concludes that within the census, just over 4.1 million entities classified as micro, small and medium-sized enterprises (MSMEs) were registered, classified in the sectors of manufacturing, commerce and non-financial private services. Table 1 shows the breakdown of the mentioned entities.

Size	Companies	
	Number	Stake
Microbusinesses	4,057,719	97.3
Small and medium businesses	111,958	2.7
Total	4,169,677	100.0

Table 1: Number of companies by size, 2018

Source: Taken from INEGI (2019) ENAPROCE 2018

Results. <https://www.inegi.org.mx/contenidos/saladeprensa/boletines/2019/especiales/ENAPROCE2018.pdf>

The 2019 economic census establishes that 99.8% of the country's establishments are micro, small or medium, and that these entities present greater changes with respect to large companies, in terms of income, employed personnel, location, closings and openings, among other aspects (EDN, 2023).

Regarding the number of jobs, the results of the EDN 2021 reveal that on average there were 2.45 people employed for each establishment classified as MSME. Therefore, when considering 6.3 million establishments, the total inhabitants to whom employment is provided amounts to an average of 15,435,000 people, in such a way that these economic entities have a favorable impact on the socioeconomic sector. The economic census is carried out every 5 years, so it is in the year 2024 between the months of February to August when new data will be collected, and while waiting for them, the present one is prepared with data reported in 2019.

For the country's economy, MSMEs are entities of great relevance, due to the majority percentage they represent in the business sector and the job creation they incorporate in their operations. In the daily activities aimed at achieving continuity, it is necessary to analyze the elements that, although managed properly, allow the healthy development of the organization, therefore administrative accounting and cost accounting are two of the

basic elements that They allow those who run the company to make rational decisions.

Administrative accounting according to Sulbaran (2024, paragraph 3) “is part of the general accounting or accounting structure of a company. Its relevance is manifested in the ability to provide detailed and important internal information to senior management in the organization. For example, reports on production costs, profitability analysis by product or service, budgets and projections, which are essential for planning and control within the company.” Based on the use and application of administrative accounting, actions are designed to achieve the desired objectives in a specific period concerning the operation of the organizations.

Describing the most representative types of costing applicable in MSMEs as a means of supporting the continuity of businesses of different magnitudes is the main purpose of this document. For this purpose, the deductive research method is established as a research method, with a descriptive scope and documentary technique.

The present has been structured in three sections, the first addresses administrative accounting and cost accounting, the second discusses the generalities of micro, small and medium-sized enterprises and the third presents the cost elements. more representative in MSMEs. Finally, the discussions and conclusions reached by the authors are carried out.

METHODOLOGY

Based on the analysis of the costs reported by themicro, small and medium-sized companies, through the deductive method with descriptive scope and documentary technique, the areas of opportunity and action are raised from the central scope of administrative accounting and cost accounting.

RESULTS

MANAGEMENT ACCOUNTING AND COST ACCOUNTING

Rodríguez (2006) considers that administrative accounting is a type of accounting that focuses on the interior of the company and at the same time focuses on its future, since it is related to its approach to planning, control and decision making, governed by the cost-benefit binomial.

Management accounting focuses on the future, relying on statistical data to propose various options for action that focus on details to predict results.

The objectives of administrative accounting focus on making decisions, both strategic and operational, examples of the former are: disappearance of products from the market, relaunch of products or launch of new products, the purchase of fixed assets to extend the installed capacity. Examples of operational decisions are: performance evaluations, increasing working capital, increasing petty cash flow. Table 2 shows the tools of administrative accounting from Rodríguez’s approach.

ITEMS	TOOLS
Planning	Budget Cost-volume-profit model Safety margin
Control	Costs (analysis of variations to standard cost) Primary and secondary prorations Accounting by areas of responsibility
Decision making	Marginal, incremental analysis and total approach Pricing inference point Optimization Opportunity cost

Table 2: Administrative accounting tools.

Source: Rodríguez (2006, page 14)

Valdez (2016) makes an indication regarding Management Accounting and cost accounting; Regarding Cost Accounting, it

indicates that it is considered as an information system used to determine, record, analyze, control and interpret information related to production costs, so it is aimed at determining unit production costs. , contribute to budget preparation, provide cost information in a timely manner.

In reference to administrative accounting, he indicates that administrative accounting plays an important role in the operational aspect.

which consists of designing actions that allow achieving the desired objectives in

a certain period referring to the operation of the company; but how to achieve

this?, by preparing the budget and the cost – volume – model.

usefulness, both are useful tools that support operational planning and strategic of the organization.

García (2014, page 7), establishes that cost accounting “is an information system used to predetermine, record, accumulate, control, analyze, direct, interpret and report everything related to the costs of production, sale, administration and financing.

Cost accounting represents direct support for administrative accounting for decision-making purposes, given that the costing breakdown report in the production of products and/or services directly supports control.

MICROENTERPRISE, SMALL BUSINESS AND MEDIUM-SIZED ENTERPRISE MSME

In Mexico, companies that are not integrated at the level of large companies have become the representative part of the economy, given that in ehe 2019 economic census reported that 99.8% of the country’s establishments are micro, small or medium, so there is no doubt about the representativeness that this sector has acquired.

BBVA (s/f) considers that Microenterprises employ less than 10 people and do not generate more than \$4 million pesos per year in sales. The Secretary of Economy (2009) through publication of the Official Gazette of the Federation (Tuesday, June 30, 2009) establishes the agreement for the stratification of micro, small and medium-sized companies, as presented below:

Estratificación				
Size	Sector	Number range workers	Annual sales amount range (mdp)	maximum limit combined*
Micro	All	Up to 10	Up to \$4	4.6
Small	Trade	From 11 to 30	From \$4.01 to \$100	93
	Industry and Services	From 11 to 50	From \$1.01 to \$100.	95
Median	Trade	From 31 to 100	From \$100.01 to \$250	235
	Services	From 51 to 100		
	Industry	From 51 to 250	From \$100.01 to \$250	250

*Maximum Combined Cap = (Workers) X 10% + (Annual Sales) X 90%.

Figure 1: Stratification of Micro, Small and Medium Enterprises MSME

Source: Taken from the DOF of Tuesday, June 30, 2009. https://www.gob.mx/cms/uploads/attachment/file/550589/DOF.Estratificacion_n_PYMES.pdf

The microenterprise as an economic entity is integrated into the economy through the purchase and sale of products and services. Its offer allows it to generate jobs that allow family subsistence, which is why it becomes one of the main actors in the economic context. generally in local contexts, in the form of grocery stores, pharmacies, beauty shops, butcher shops, economic kitchens, mechanical workshops, locksmiths, greengrocers, etc. That is, they appear providing the closest service to the community.

The small business with a larger number of employees than the microenterprise reports also does the same, when it is in charge of distributing or producing the items that the microenterprises can make available to consumers.

The medium-sized company that is integrated into the sectors of the economy (productive, transformation or services) is in charge, together with smaller companies, of serving as the main engine of the economy, since, at the same time as being in charge of covering the needs of the residents, it is also an important source of jobs in the country.

Each company is different, the differences are detected if we carefully analyze its main characteristics (those that give rise to it and allow it to operate), these differences are established from the field in which they are dedicated to the impact they achieve in the market, According to the above, among the main differences are the number of employees, the level of income and the product offering. "In 2021, there were 280,489 companies with six or more employed people in the construction, manufacturing, commerce and services sectors. Of those, 6.9% were medium; 35.3%, small and 52.8%, microenterprise." (INEGI, 2023 paragraph 7)

In table three you can see the differences of each of the entities integrated into the MiPyMES.

The particularities described in the previous table clearly differentiate the entities with respect to their main constituent and operational elements. From them it can be seen that the size of the entity has an impact on the financial capacity for the purposes of improvement in the organization and the impact on the market. It must not be lost sight of that, with a better provision of human, material, technological and financial resources, entities can face the problems that impact their development, proof of the above is the data reported by the INEGI (2023 paragraphs 2 -4), as presented below.

- "In 2021, almost half of medium-sized companies had started activities for 21 years or more. Just over 65% of small businesses and 62% of microbusinesses

with six to 10 employees were 11 years old or older.

- During 2021, in 8.8% of medium-sized companies, in 20% of small companies and in 23.5% of microbusinesses with six to 10 employed people, decisions were made mainly by a woman.
- Since the beginning of their operations, 46.6% of companies have requested some financing from a bank, financial institution, supplier or other: 43.2% have obtained it."

The MiPyME has been integrated into the economic sector by carrying out the most appropriate management according to its number of operations, employees and its level of income. The work carried out within it represents the success or loss of the entity, therefore, Internally, its members will have to take care of their systems and their costing process.

COSTING APPLIED TO MSMEs

In an MSME, choosing the right costing system depends on several factors such as the nature of the business, the type of products or services offered, the cost structure and the available resource capacity.

In organizations, within the control process, costs have been established as a tool. Within costs, costing systems represent a set of procedures and techniques used by a company to calculate and assign prices to products, services or activities. These systems are critical to financial management and decision making within an organization as they provide crucial information about the costs associated with production and operation.

There are several types of cost systems, each with its own characteristics and calculation methods.

Some of the most common cost systems are:

Particularity	Description of Micro and Small Enterprises (MyPE)	Description of the Medium Enterprise (ME)
Business idea	It arises from the initiative (need) of an entrepreneur.	It arises from the initiative of an entrepreneur, but from its beginning or shortly after having started, various people come together in order to form a company.
Address	In charge of the leader or head of the family.	A board of directors and a general administrator are appointed.
Labour	Coming from family members and sometimes no remuneration is contemplated in response to the work done.	Due to its formality when it was established, the human resources department is established, from where personnel recruitment, selection and integration processes are established.
Products	Prepared from routine processes dependent on direct labor.	Prepared from production processes formally established in the organization and with clearly defined division of positions.
Product innovation	Based on the client's demand or what is observed in everyday life.	With market studies that detect needs and opportunities in the market.
Product Cost	Due to the man-hours used to make them.	Serial production and installed capacity benefits the price of products by reducing them.
Product offering	Not very competitive due to poor competition vs companies that produce in chains or mass.	With the possibility of good competition against the various offers of competitors.
The use of technology	Little or none. It is limited to the economic capacity of the business.	Their financial capacity and the size of the business make the use of better technology possible.
Financial capability	Limited.	Based on results, it has better chances than small businesses to be considered in the financial field.
Financial Accounting	Deficient due to creating an accounting department. But it is corrected by hiring the service in an accounting firm (limited to complying with tax obligations).	With the possibility of establishing an accounting department with a general accountant in charge.
Continuity	With the possibility of becoming a small business.	With the possibility of integrating into the economy within the percentage of large companies.

Table 3: Particularities of the MSME

Source: Own elaboration

1. Absorbent costing. This procedure attempts to include within the cost of the product all the costs of the productive function regardless of its fixed or variable behavior, under the argument that, to achieve production, both are required. (Ramirez, 1994)
2. Standard cost. "The standard cost is determined in advance considering the normal levels of utilization of raw materials, materials, labor and manufacturing expenses and the efficiency and utilization of installed production capacity. The standard cost may be used for convenience as long as the result of applying it is close to the cost incurred. The standard cost must be reviewed periodically and adjusted to the extent that it differs substantially from the actual cost" (NIF, 2022 paragraph 44.8.3.1)
3. Historical costing. Known as real costs, they refer to the original monetary value of the product or service at the time of its production. "Historical cost valuations provide monetary information about assets, liabilities and related income, costs and expenses, using information derived essentially from the price of the transaction or other event that gave rise to them. Unlike current value, historical cost does not reflect changes in values, except when those changes relate to the impairment of an asset, or when a liability becomes onerous." (NIF, 2022 paragraph 71.8)

“If historical cost is used, changes in value do not occur when that value changes, but rather when an event occurs such as the disposal or impairment of an asset or fulfillment of a liability. This could be incorrectly interpreted as meaning that all revenues, costs and expenses recognized from an event arose at that time, rather than over the periods during which the asset or liability was held; Likewise, since historical cost valuation does not provide timely information on changes in value, income, costs and expenses presented on that basis may lack predictive and confirmatory values, as they do not describe the full effect of the entity’s exposure to the “risk that arises from maintaining the asset or liability during the reporting period.” (NIF, 2022 paragraph 72.8)

4. Direct Costing. Costs that can be directly recognized in a cost object through a clear tracking mechanism. Only variable costs are integrated into the production of the product and fixed costs are integrated into expenses.

Toro (2017) considers that the cost allocation is carried out as shown below:

In this sense, both direct and indirect costs contribute to determining the cost of a product, both are necessary for the product or service to become a reality, so each product is treated as a unit of production.

A costing system that is usually appropriate and relatively simple to implement in MSMEs is Direct Costing. Direct Costing is a system that only considers variable production costs (direct materials, direct labor, and variable manufacturing costs) as product costs. Fixed costs are considered period expenses and are not directly assigned to products. This approach may be more suitable for MSMEs due to its simplicity and flexibility.

Simplicity is one of the reasons why Variable Costing can be beneficial for a microbusiness, since Variable Costing is easier to understand and implement compared to other more complex systems such as Absorption Costing or Historical Costing.

Direct cost can be measured based on how raw materials and personnel are used to produce each unit; indirect costs (overhead) must also be included. Within this costing, the price is calculated by adding the direct and indirect production costs with a profit margin that results in the sales price.

It is necessary to consider that the higher the cost, the greater the probability of finding an economically feasible formula. It must not be lost sight of that the cost generator is the factor that determines the total cost of a product or service. The following are cost generators: Research and development, product and service design, production, marketing, distribution and customer service (Toro, 2017).

Other cost calculation procedures that are also very useful for organizations in order to determine sales prices are presented in table 4, taking into account the sector, type, size of the company and the method of production.

The valuation methods contemplated within a costing system are Last In First Out UEPS, First In First Out FIFO, retail and specific costs. The inventory valuation method to be used in marketing entities is the retail method.

Within the NIF, the retail method is described as follows: “With the retail method, inventories are valued at the sales prices of the items that comprise them, deducted from the corresponding gross profit margin. For the purposes of the retailer method, gross profit margin must be understood as the amount of the sales price assigned to an item reduced by its acquisition cost. The gross profit margin percentage is determined by dividing the gross

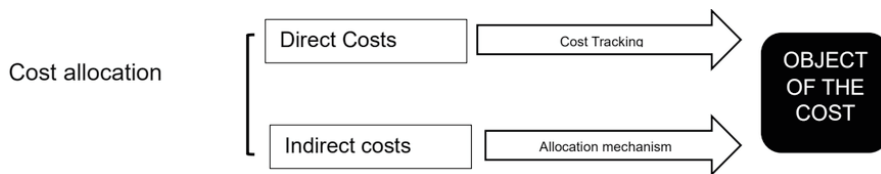


Figure 2: Cost object

Source: Taken and adapted from Toro (2017, p. 7)

Cost type	Its use according to the entity	Example
Custom cost	It is used to create an order that is made according to the customer's specifications.	Printing company producing a brochure for a client. A bakery that makes cakes to order.
Batch cost	It is used when making a batch of identical products.	A company that manufactures blenders. A company that manufactures spoons.
Contract cost	It is used for large one-off projects, often obtained through a tender, carried out on the client's land.	A construction company that builds houses in a new development. A company that will sell gasoline to the government at its own facilities.
Process cost	It is used for ongoing and continuous work, which involves various manufacturing processes, making unit cost difficult.	A refinery that processes crude oil and obtains diesel.
Service cost	It is used when the product for sale is a standard service offered to customers.	A beauty salon that offers a manicure and pedicure service in a certain period of time and for a fixed price. Renting rooms in a hotel.

Table 4: Other costing procedures

Source: Own elaboration, based on the book *How a Company Works*, Dorling Kindersley Limited publishing house.

profit by the sales price. The retailer method is used in entities that have large quantities of items with similar gross profit margins and high turnover, making it impractical to use another method. The amount of inventories and the cost of sales are determined by valuing the items in inventory at their selling price less an appropriate percentage of gross profit. The percentage used of gross profit margin must consider, when applicable, that the selling price of the inventory has been reduced through rebates, bonuses and discounts. It is common for each department in a store to use an average percentage.” (NIF, 2022 paragraphs 44.8.4.1 and 44.8.4.2)

CONCLUSIONS AND DISCUSSIONS

Choosing the costing system applicable to MSMEs can be a difficult task, especially for businesses that are starting out and that do not have an established structure that includes an accounting department, so establishing the costing system at the beginning of the business. It is up to the correct choice of the leader or entrepreneur of the organization. In this sense, the application of the valuation technique can be costly and complex, which is why it is recommended that the most appropriate procedure be chosen for the profile of the company so that The information generated serves as a basis for decision making.

In microenterprises, the installation of costing systems is difficult, given that they do not have an accounting area aimed at generating accounting information; however,

it is necessary that as it grows, an effort is made to implement the mentioned area.

In small and medium-sized companies, the well-installed and properly applied costing system allows these entities to generate strengthened financial statements that serve as a tool to achieve continuity, continuity that

generates the possibility of greater seniority, and upon reaching greater seniority they are more susceptible to receiving, for example, financial support from various institutions.

Direct costing is presented as the most appropriate to be implemented in MSMEs.

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