Journal of Namibian Studies, 33 S2(2023): 2786–2830 ISSN: 2197-5523 (online)

COMPUTERIZED SYSTEMATIZATION OF COSTS OF CHEMICAL COMPANIES OF ECUADOR APPLYING PRINCIPLES OF SUSTAINABLE DEVELOPMENT

MARCO ANTONIO GAVILANES SAGÑAY[1], EDWIN ROGELIO GUANGA CASCO[2], DIEGO IVAN CAJAMARCA CARRAZCO[3], DANILO FERNANDO FERNÁNDEZ VINUEZA[4]

[1]Escuela Superior Politécnica de Chimborazo, marco.gavilanes@espoch.edu.ec

[2]Escuela Superior Politécnica de Chimborazo, edwin.guanga@espoch.edu.ec

[3]Escuela Superior Politécnica de Chimborazo, diego.cajamarca@espoch.edu.ec

[4]Escuela Superior Politécnica de Chimborazo, Danilo.fernandez@espoch.edu.ec

Abstract

Starting from the premise that small and medium-sized enterprises their production and marketing has been affected, by factors such as unfair competition, high costs of raw materials, low prices in the market among others.

At the same time, these SMEs do not have defined a real cost of production, for each process that is carried out, they do not have a cost system that allows them to reduce costs to the maximum, determine sales prices, control inventories, obtain timely information that allows decision making, better use their material resources, the performance of its elements and the profit margins obtained in production.

In addition, these companies do not have the indicated personnel to help with the costing calculations in each procedure of the manufacture of the product, which causes a variation and instability of costs and in the same way an insecure profitability.

Another frequent problem is the lack of control of raw material, which causes waste of materials by the staff causing a high cost to the finished product.

Finally, all this results in the lack of competitiveness with domestic and foreign producers, and an obstacle to the growth of the company, also an insecure stability in the market.

Key Words: Cost Structure, Chemical Companies, Manufacturing Costs, Computerized Cost Systematization, Sustainable Development.

1. Introduction

The present proposed researchis on costs by processes for small and medium production companies using the definitions and methods of several authors on the subject, finding solutions that act to productivity optimizing resources and achieving the objectives of the entity.

For the fulfillment of the objectives of the research we will take into account the Cost Accounting by process s as an instrument to control the costs and expenses in each of the stages of the productive process of the s small and medium enterprises, through the use of charts of accounts that seek greater profitability, We will also use methods, techniques and instruments.

It should be noted that research such as this is relevant, because it allows companies to obtain important accounting tools and information that facilitate timely decision-making to guide or redirect the financial resources involved in achieving the planned objectives within production.

It is also soughtthat through this design will allow obtaining sufficient, accurate, timely and truthful information that allows corrective decisions to be taken that contribute to the development and progress of SMEs.

To ensure that the established objectives and goals, the development of this research is of great interest because it will allow us to know the possible difficulties in the operational activities of costs carried out by the producers, which complements the theoretical study with the real practice.

2. Development

DIFFERENCES BETWEEN ACCOUNTING OF A MERCHANT AND AN INDUSTRIALIST

Within the website, guidelines are needed to provide for this research (www.cursos.aiu.edu/Contabilidad, 2014).

It is determined howthe act of buying goods to later proceed to their sale is carried out by natural and legal persons that we call "merchants".

The merchant has no need to carry a cost system since he is not engaged in manufacturing, his cost is known from the moment he places the order with the supplier. Therefore, it will carry out the procedure on the

basis of the global account or detailing analytical with the accounts that suit it.

The industrial aims at the production of economic goods to be able to compete in the market and although there is no competition, to make the product available to the consumer at the lowest possible price, with a sale price that leaves an adequate return on the capital invested and a fair reward to the directors and owners of the company, creating funds necessary to keep the equipment in good condition and at the height of technical progress since outdated equipment is uneconomical.

According to the site (www.cursos.aiu.edu/Contabilidad, 2014) determines that theindustrial in order to know the results obtained in each product or product line, needs to determine its production costs and these increase their administration, distribution, financial and other costs, until the determination of their total costs; once known, it will increase its profit margin and determine its sales prices, same that must be compared and reviewed periodically with those that have carried out their operations, giving them a reason or judgment to regulate their criteria and policies of prices and discounts established knowing the product or products that leave the profit margin and those that leave loss.

The industrialist, unlike the merchant, has to manufacture his articles using raw materials, paying wages and salaries to the factory personnel, which requires facilities, machinery, equipment, maintenance, and all those indirect costs inherent in its operation; The set of factors involved in production are called cost elements and are technically distinguished as: Direct raw material. Direct wages and salaries. Indirect production costs. (www.cursos.aiu.edu/Contabilidad, 2014)

Cost accounting.

Cost Accounting provides records on costs, inventories, cost of sale and distribution, sales and profits of each of the different types of manufactured products. These reports are transmitted in detail to include each of the orders that make up a product. In this sense, cost accounting is the one that provides detailed reports of business operations.

It is a practical tool for:

Evidence, curb and control corruption.

Promote savings by avoiding waste.

Create space to develop a culture of quality.

Mark the performance of the market in any scenario and condition.

Objectives of cost accounting

Provide cost reports to measure profit and evaluate inventory (income statement and balance sheet).

Offer information for the administrative control of the operations and activities of the company (control reports).

Provide information to management to inform planning and decision-making (analysis and special studies).

BACKER, Jacobsen, "Cost Accounting: An Administrative Approach to Decision Making," Second Edition, 1998 (p. 2-3)

Costs- concept - cost elements

The cost or cost is the economic expense that represents the manufacture of a product or the provision of a service. In determining the cost of production, the retail price of the good in question can be established (the retail price is the sum of cost plus profit).

The word cost has two basic meanings, which mean, in the first place, the sum of efforts and resources that have been invested to produce a good. The second meaning refers to what is sacrificed or displaced instead of a chosen thing, in this case the cost of a good equals what is renounced or sacrificed in order to obtain it.

Cost concept

BACKER, Jacobsen, "Cost Accounting: An Administrative Approach to Decision Making," Second Edition, 1998 (p. 2-3) defines "Cost is a resource that is sacrificed or given up to achieve a specific goal."

The cost of production is the value of the set of goods and efforts that have been incurred or will be incurred, which must be consumed by manufacturing centers to obtain a finished product, in conditions to be delivered to the commercial sector.

The first concept expresses the technical factors of production and is called investment costs and the second manifests the possible economic consequences and is known as the replacement cost.

Cost elements.

The cost elements of a product or its components are direct materials, direct labor and indirect manufacturing costs, this classification provides the information necessary for measuring income and pricing the product. (Gomez, 2012)

1. Raw Materials

They are the elements that are subject to transformation and should be differentiated as follows;

1.1 Natural

They are the elements extracted from nature that is the source of supply of all the elements that are necessary to satisfy human needs or become the first element of cost for industrial enterprises. It can be cited as examples: iron in its natural state, cotton in the factory of thread or fabrics, callapos or bobbins for obtaining wood in sawmills, etc. That is, in the companies taken as an example the first cost element can be called "Raw Material". (Gonzalez, 2013).

Direct: They are all those that can be identified in the manufacture of a finished product, are easily associated with it and represent the main cost of materials in the elaboration of a product.

Indirect: They are those that are involved in the elaboration of a product, but have a relative relevance compared to the direct ones.

1.2 Processing

This is the name given to the elements that were subjected to one or more transformation processes by another company, which will be subjected to other transformation processes until they become a finished product suitable for satisfying human needs.(Vazquez, 2015)

This differentiation is made because there is confusion when using indiscriminately the name "Raw Material", therefore, it will be the cost of "Raw Material" for all companies that use the elements that have not yet been subjected to transformation processes, and for those that use as the main element of transformation the products subjected to manufacturing processes by another entity, shall be referred to as "Direct Material".

In general, "Material" includes all those articles in their natural or transformed state are the elements that serve for the manufacture or manufacture of a new article and that can be perfectly measurable and for this reason are loadable to an identified unit; therefore, it is the first element of the Cost of Production.(Vazquez, 2015)

2. Labor

To transform the raw material and / or direct material into a finished product it is necessary, in addition to machinery and equipment, tools, furniture and appliances, etc. that a certain number of people develop a mental and material effort, which is called Labor, all expenditures for this concept, are considered within this title. Therefore, we can say that: "Wages and Salaries" is the cost of the remuneration that workers or operators receive for their work in the transformation of materials in their natural state or processed by another entity, into a finished product. (Gomez, 2012) .

Direct: It is that directly involved in the manufacture of a finished product that can be associated with it easily and that has great cost in the elaboration.

Indirect: It is one that does not have a significant cost at the time of production of the product.

3. Indirect Manufacturing Expenses (Manufacturing Cargo)

Within the production process, there are costs that cannot be identified with specific production units or with a specific department or process, such as: depreciation of goods for use, electrical energy, fuels, lubricants, spare parts, accessories, etc.; so they are called: "Plant services", "Manufacturing indirect costs", "Production indirect costs", etc. That is, they are constituted by all the disbursements or applications necessary to carry out the production and which, by their nature, are not directly applicable to the cost of a particular product. (Gonzalez, 2013).

Need to pay.

One of the frequent problems that prevent management from making decisions, prompt and safe, is the determination of the costs of the goods it manufactures or sells, the services it generates or the production generated by each one in their economic area. Indeed, the lack of appropriate procedure that allows to accumulate in accounting accounts the investments made in pursuit of the production of the object of its activity, puts at risk business and could even lead to erroneous decisions or distract attention exaggeratedly when trying to establish cost based on mathematical techniques that misused, can lead to incorrect data. . (Gomez, 2012)

Classification and treatment of cost elements. (Gonzalez, 2013).

In Companies, whatever the activity they develop, there are three fundamental areas

The Production area

It includes the activities of production management (planning, scheduling and production control), quality control, maintenance, design and others that can be directed and controlled directly and specifically by a Manager or area director. (Gonzalez, 2013).

In commercial enterprises this area incorporates the purchasing activities of the products or services that are marketed.

The marketing area.

This area includes physical distribution activities. Storage of finished products, fulfillment of orders and others related to activities, which can be directed and controlled directly and specifically by a Manager or area director. (Gonzalez, 2013).

The support area.

The latter includes support activities for the development of production and marketing activities such as purchase of raw materials, hiring and administrative management of personnel, insurance, systematization, accounting, building administration, financial management, management management, and others related to activities, which can be directed and controlled directly and specifically by a Manager or area director. (Zapata, Cost Accounting, 2007)

In each of these areas, production, marketing and support, activities are carried out and resources are used, use that generates costs.

These costs for purposes of their analysis are essentially classified as shown below.

1) BY ITS SCOPE.

A) TOTALS: Investment made in raw materials, labor, other services and inputs to produce a lot, group of goods or provide a service.

B) UNITARY: It is obtained by dividing the total costs by the number of units manufactured

2) BY ITS IDENTIFICATION ON THE PRODUCT(Vazquez, 2015)

(A) DIRECT COSTS

They are the resources that can be identified, measured exactly in the product.

They correspond to costs such as:

The cost of the raw material that each product has (Production Area)

The cost of labor time used in specific production operations (Production Area)

The value of the commission paid to the seller for the sale he makes of a product. (Marketing Area)

The cost of transportation of each product that is taken from the Company's warehouse to the buyer's site (Marketing Area)

(B) INDIRECT COSTS

They are those of resources that are necessary to develop production, marketing or support activities, but that cannot be identified or measured exactly how much of them each product contains.

It corresponds to costs such as:

The cost of physical elements necessary for production, such as: Energy, Water, refrigerants, etc.,

The cost of production management payroll (Industrial Engineering Department, Design Department, Quality Control Department, Maintenance Department and the like)

The cost of sales administration payroll. (Billers, commission liquidators of winemakers).

The cost of generic inputs of very low cost in relation to the total cost of raw material necessary to manufacture the product, such as buttons and threads in the case of clothing, rivets in the case of metalworking, generic packaging and the like.

3) BY ITS RELATIONSHIP WITH THE VOLUME OF ACTIVITY(Vazquez, 2015)

(A) VARIABLE COSTS

They are those in which it is incurred, only if the activity is developed and, as a consequence of it, a good or a service unit is generated.

They correspond, very exactly, to those that are classified as DIRECT, as explained above.

For example, with regard to the sales commission to the seller, this direct, or variable, cost is incurred only if the sale is made. If it does not happen, then the corresponding cost is not generated.

It is very important not to be confused with the fact that the "variable cost" is "fixed" per unit, that is, it is the same for all various units. For example, the amount of fabric a garment has. It is the same for each of the garments of a certain reference. (Gonzalez, 2013).

Classification as "variable" refers to the total cost. This, as should be obvious, in relation to the units produced: The more units produced, the more total cost of raw material, so it is "variable", but the unit cost of raw material (Fabric) is the same for each product.

There are variable indirect costs, such as the amount of energy needed to manufacture a product. It is indirect when you cannot measure exactly the content of it in the product, although you can make an approximate calculation.

It is clear that generally, the greater the volume of activity production, the higher the cost of energy.

(B) FIXED COSTS

They are those that are generated, even if an activity is not developed, but that have the same value or magnitude, regardless of the number of units of goods or services produced, that is, without being linked to the volume of activity. (Gonzalez, 2013).

These costs include:

The Cost of the Production Supervisor (Production Area)

The cost of renting the warehouse of finished products (Marketing area)

The cost of the Administration payroll (Management, Accounting, Systematization, etc.)

There are fixed indirect costs such as the case of the labor cost of the production supervisor.

(C) MIXED COSTS.

They are those elements whose relationship you have with fixed and also variable costs, these can be such as: electricity, the fixed part is the basic pension and the variable part is given by the consumption of kilowatts / hour

4) FOR ITS DISTRIBUTION TO ACTIVITIES OR BUSINESS UNITS(Vazquez, 2015)

While direct/variable costs and variable indirect costs are easily assignable to activities, business units and/or products, the same is not true of fixed/indirect costs in the three functional areas: Production, Marketing and Support.

EASILY ASSIGNABLE FIXED COSTS (CFFA)

If a company manages, for example, two product lines, or has two business units, there are some fixed costs that only exist because those lines or business units exist and can be identified with them, that is, they are EASILY ASSIGNABLE.

This is the case of the lease of the facilities of each business unit, or the cost of the payroll dedicated exclusively to each of them.

It is also the case of the cost of advertising specific to each line or business unit.

It may also be the case of the financial cost of a loan that has been acquired specifically for the development and operation of a line or business unit.

manufacturing.

Cost systems

Definition and elements

Cost systems are the set of procedures, techniques, records and reports structured on the basis of double-entry theory and other technical principles, which aim at determining unit costs of production and controlling factory operations. ZAPATA Pedro, "Cost Accounting", Tool for decision making, 2007.

Main elements included in the definition of the cost system.

Procedures. Understanding procedures as a set of methods. These procedures can be technical, administrative and accounting.

Entity. The word entity in the definition is understood to mean the part of the company that can be the subject of study or accounting object. It can be, for example: production, processes, activities, to name a few.

Phases. They can be sectors, departments, activities, depending on what we are evaluating.

Accounting information. That is, inventory valuation, sales costs, etc.

Management control and basis for decision making. Set prices, know the marginal contribution and work with it: discontinue a line, outsource sectors or activities, etc.

We say that it is a cost system because it acts various elements that interrelate with each other to achieve a common goal. They are characterized by providing feedback to the system itself and by having a certain structure. The objective of a cost system is to serve as a tool for improving management and decision making, determining unit production costs and control of manufacturing operations.

The elements that are part of the cost system are: cost accounting, software and operating procedures.

Cost accounting. It is the part in charge of the registration and accumulation of costs, it also provides the key information that feeds back into the system.

The soft. On which the entire system is based (purchases, production, warehouses, personnel, goods, etc.)

Operating procedures. They are part of the very structure of the cost system. Consumption by product, by processes, by activity. Processing times. Forms, among others.

Nature of a cost system (Zapata, Cost Accounting, 2007)

We will start by understanding that there is a specific nature for each of the different types of cost systems.

First of all, we will say that the main concept in the mentioned system is the word "cost". Understanding the "cost" as the value of the human, material, financial talent consumed or employed in the elaboration of a product or in the provision of a service. It constitutes a value of productive economic efficiency.

The concept of "cost" differs from expenses because the latter refers not only to consumption made in the process of manufacturing a product or provision of a service, but also includes all other values consumed in the enterprise, during an accounting period.

Having very clear the concept of "cost", we can talk about the different types of costs: production costs, unit costs, total costs, etc.

This is the origin of a set of procedures, methods and techniques that are born to analyze and determine the cost. This study is called a cost system.

Features of cost systems

Cost systems set the guidelines for cost allocation procedures.

Cost systems determine the criteria to be applied in the distribution and apportionment of expenditures.

Cost systems establish the form, date and timing in which costs should be calculated, the methods of calculation, the bases that can be used, the way in which certain costs have to be treated, the way in which total and unit costs are determined. In the same way, it establishes the methodology for budgeting costs and determining standards.

Classification of cost systems.

(A) ORDER SYSTEM

The order cost system is a system used to collect costs for each order or lot, which are clearly identifiable through the production centers of a company. In the order cost system, the costs involved are: equipment, repairs, applicable raw material, direct labor and indirect charges, which are accumulated in a work order. (Gonzalez, 2013).

In the system of costs by orders intervene two controls: the control of orders and that of worksheets. These controls are applied in each of the cases in which the orders are in the process of manufacture. For each production order, a record is opened that involves the main elements of the production process. (Zapata, Cost Accounting, 2007)

Characteristics ofthe order cost system

The most important features of the order costing system are as follows:

It gathers separately each of the costs involved in the production process, according to the requirements of the company.

The number of products to be worked on is planned in advance before starting the production process and a separate accounting document is prepared for each task.

Production is usually done based on customer requests.

Cost control in this system is more analytical.

Procedure to follow in a system of costs by orders.

To implement a system of costs by orders it is necessary to have at hand the types of costs with which you will work, the way with which they will

be recorded in accounting and the cost sheets and work orders that we will use.

When we talk about the elements of cost, we talk about raw materials, direct labor, indirect labor, indirect costs, whether actual or actual, and machine hours.

(B) ORDER-SPECIFIC COST SYSTEM

The system of costs by specific orders has its origin in those companies that have multiple products and, therefore, require a system that allows them to determine the costs for each unit of production they have.

The system of costs for specific orders originates in those companies where they work with very detailed specifications of the clients about the products they wish to acquire.

Type of companies in which the cost system for specific orders is used

The system of costs for specific orders is specially designed and works perfectly in companies such as: printing, construction, metalworking, furniture industry, aeronautics and some service companies.

The system of costs for specific orders applies to companies that, by their nature and characteristics, adjust and adapt their product to the indications of customers. (Zapata, Cost Accounting, 2007)

Elements of a Specific Order Cost System

There are three, the fundamental and essential elements of a system of costs by specific orders: direct materials, direct labor and indirect manufacturing costs. These are accumulated and interrelated, depending on the number of work orders assigned.

The unit cost of each order is obtained by dividing the total costs by the number of units produced. (Zapata, Cost Accounting, 2007)

Advantages of using the order-specific costing system

Here are some advantages of using the order-based costing system:

It allows to individually control each of the elements of the cost system.

It allows to know the profit or loss obtained in each work order.

It allows to know the production costs of each order.

C) ABC COST SYSTEMS

Also called Activity Based Costing. It is currently one of the cost systems most used by companies because they ensure modern management and a revolution with respect to the obsolete processes that were being used.

1. Main features of the ABC Cost System. (Zapata, Cost Accounting, 2007)

Below, we describe the main characteristics of cost systems:

It is a key tool for increasing competitiveness.

It provides information to the company that allows it to define whether or not it is convenient to participate in this market at a price that is given.

The ABC costing system is based on the principle that activity is the cost generator and that products consume activities.

Products generate activities and activities consume costs.

Additionally, it should be understood that we refer to activities, when we talk about those tasks that generate costs and that are necessary to meet the needs of internal and external customers.

2. Difference between the traditional cost system and the ABC cost system. (Zapata, Cost Accounting, 2007)

We will highlight five main differences between the traditional cost system and the ABC cost system.

The cost system uses traditional measures such as volume, labor, as an element to allocate costs to products. While the ABC cost system uses the hierarchy of activities as the basis for making the allocation, it uses cost generators that are or are not related to production.

The traditional cost system relies on the units produced to calculate the allocation of expenses. In contrast, the ABC cost system uses different bases depending on the activities related to indirect costs.

The traditional cost system only uses product costs. For its part, the ABC cost system concentrates on the activities that originate these resources.

In the traditional cost system, the allocation of indirect expenses is carried out in two stages: first it is assigned to the departments involved, and then to the products. In the ABC costing system, the allocation of costs is first taken to the activities and then to the products.

The traditional cost system uses overtime as units produced or machine hours. On the other hand, the ABC cost system takes into account the cause-effect relationship between the units and the cost generators to determine the allocation criterion.

3. Phases to follow to implement an ABC cost system in the company.

The most important thing to implement an ABC cost system in the company is to know the generation of costs to obtain the greatest benefit from them, minimizing all factors that do not add value.

In the studies carried out on the ABC cost system, the most common activities and processes that this system includes are mentioned.

Activities. - Among the most frequent activities are: homologate products, negotiate prices, classify suppliers, identify materials, plan production, issue orders, invoice, collect, design new products, to name a few.

Processes. - The most important processes within a company are: buying, selling, finance, personnel, planning, research and development, etc.

In this way, we have known the most important aspects of the ABC cost system.

(D) ESTIMATED COST SYSTEMS (Zapata, Cost Accounting, 2007)

Cost systems are a first attempt to plan the costs to be used in a given business operation. Being a cost planning, a forecast, anticipates what the real costs will be and may have modifications and rectifications as certain projects are executed within a company.

Estimated cost systems are determined "a priori", considering unit production costs, direct raw material, direct labor and other indirect costs that could intervene in a production process.

Characteristics of estimated cost systems

Next, we will mention some features that will help us understand the operation of estimated cost systems.

Estimated costs are obtained based on previous calculations, quotes and statistics. Extensive knowledge of the industry is required. The study is carried out before starting the manufacture of a product.

A good estimated cost system considers the volume of production that will be needed and based on this quantity, will determine the unit price. This calculation should match the actual costs.

The goal of estimated cost systems is to determine what a product may cost.

The main tool that this system uses is called: the estimated cost sheet.

Estimated cost systems are a very necessary technique, since it allows to know in advance the costs of a production process, and, therefore, will help to make more correct decisions within a company. In addition, they represent a huge advance in terms of internal control, administration in general.

However, it cannot always be applied due to the volatility of the prices of some products, because there are no data or statistics of a certain product, because the product or service to be implemented are new, and for many other reasons. (Zapata, Cost Accounting, 2007)

(E) STANDARD COST SYSTEM

The standard cost system is a reference system that tells us how much it should cost to develop a product or service. The determination of production costs is based on certain criteria such as the conditions presented, the procedures and standards established, and similar procedures that were previously applied.

The standard cost system determines in a professional and methodical manner, the cost of production. It carefully studies the systems and processes involved in a given production process to propose more efficient methods and models that increase the profitability of a company. Standard cost systems scientifically measure the unit costs of a product based on production volume.

However, faced with the enormous advantages of implementing a production cost system, we must take into account the difficulty of its implementation, it requires a deep knowledge of the tasks required, of the manufacturing standards, it also requires diagramming the processes and that the worker is qualified to assume this system. (Zapata, Cost Accounting, 2007)

Classification

According to (Zapata, Cost Accounting, 2007) standard cost systems are classified into two.

Standard circulating or ideal costs

These are rigid rules that in practice can never be achieved. One of the advantages of ideal standards is that they can be used for relatively long periods without having to change or adapt them. They represent goals to be achieved, under normal conditions of production, on the basis of efficiency, they represent what the cost should be in the important circumstances. It is considered as a real cost that must be carried into the books and financial statements.

Basic or fixed standard costs

They represent fixed measures that only serve as a comparison index and do not necessarily have to be changed, they are those that serve only as a reference and measurement point, with which the actual results can be compared. It serves as the basis for calculating a price index; The procedure to be used is to reduce the actual costs or relative percentages of the standard cost that is taken as a basis.

F) THE KAIZEN COST SYSTEM

Kaizen is a Japanese word meaning "continuous improvement". This means that, in any aspect of life, be it work, social or personal, we must focus our efforts on constantly improving. (Zapata, Cost Accounting, 2007)

In the business world, the term Kaizen has been used to establish a gradual process of progress. It's a low-risk approach because it ensures that if any proposal doesn't work, you can always go back to square one.

Definition of the Kaizen cost system

The Kaizen cost system is a technique that proposes various activities for process improvement and cost reduction. These changes are proposed to management through a proposal that includes the projection of cost reduction, this reduction must be achieved in a certain period of time.(Chaviano, 2009)

Objective of the Kaizen Cost System

The Kaizen cost system seeks to reduce costs through targeted improvements. The specific improvements that arise usually refer to certain practices, methods or processes. It does not change the whole structure in general, it only proposes small changes that, applied constantly and systematically, in the long term, produce significant reductions in the budget and in the costs used in production.

Activities that are performed when a Kaizen cost system is implemented

One of the most effective ways used in the company to reduce costs is the systematic and continuous detection and elimination of excessive use of resources. The Kaizen cost system states that, to reduce costs in a company, the following seven activities must be applied simultaneously:

Quality improvement.

Improved productivity.

Inventory reduction.

Shortening of production lines.

Reduction of idle time of machines and equipment.

Reduction of the space used.

Reduction of total cycle time.

Waste improvement.

Process Costing Systems

"The process cost system" is established when products are similar and mass-produced continuously and uninterruptedly through a series of production stages called processes. Production costs are accumulated for a specific period by departments, processes, or cost centers. The allocation of costs in a production department is only an intermediate step, since the ultimate goal is to determine the total unit cost of production." (GARCIA, 2010)

This costing system is ideal for companies such as assembly departments. Even in the financial institution where I worked, the process costing system was also used as a method of calculating and allocating costs.

Operating cycle of a company with a process costing system

Take for example, a company that manufactures heavy machinery. The operating cycle of a company based on the process cost system will be defined by the following stages:

Cost elements: raw materials, labor, and manufacturing expenses. These elements are interrelated and intervene in each of the following departments:

Department A: Welding, in-process production materials, in-process labor, and in-process fixed expenses.

Department B: Mechanics, production and processes own mechanical department, with its own workforce, with its own materials and its own fixed expenses.

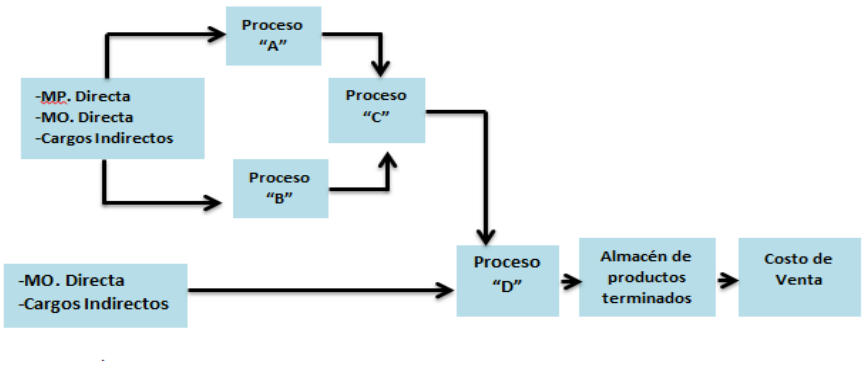
Department C: Assembly, also has its own cost elements.

Department D: Electricity

Characteristics of a Process Costing System

The process costing system deals with the flow of products through various operations or processes. Unit cost increases as items flow through production cost centers. The unit costs of each production cost center are based on the ratio of the costs incurred in a cost period to the completed and in-process units of the same period. (Zapata, Cost Accounting, 2007)

Figure 1: Process Costing System



Prepared by: The Authors

Characteristics of a process costing system:

Using the bibliography of (GARCÍA, 2010). The process costing system is very different from other cost systems, it has its own peculiarities. Some of them are:

Production of homogeneous articles in large volumes.

The production current is continuous.

The transformation of articles is carried out through two or more processes.

Costs are recorded and accrued in the Production in Process account, directing them to each production cost center.

Each production cost center has its coding. Therefore, all its incurred costs are directed (charged) to it and credited with the costs of the finished units, transferred to another production cost center or to the finished goods warehouse.

Equivalent units are used to determine the final inventory of production in process, in terms of fully completed units at the end of a cost period.

Unit costs are determined by production cost center, in each cost period.

Unit cost increases as items flow through production cost centers. The moment the items leave the last productive cost center of the process and are sent to the finished goods warehouse, we can know the total unit cost of the finished items.

The total and unit costs of each production cost center are periodically aggregated, analyzed and calculated through the use of production reports.

Basic concepts of a process costing system (Zapata, General Accounting, 2011)

The basic concepts of a process costing system are as follows:

Cost period. It is the period between the formulation of the financial statements, prepared on a monthly, quarterly or annual basis, according to the information needs of each company.

Process. It is a stage of the transformation of the products in which they undergo modifications in their physical and/or chemical characteristics.

Costs incurred. They are the costs of raw material, labor and indirect charges applicable to the cost period.

Production finished in each process. It is represented by the physical volume of production in good condition, which passes from one process to another, during a period of costs.

Processed or actual production. It is the production that has actually been transforming during a period of costs, regardless of whether or not

it is completed in its entirety. It should be noted that finished production can coincide with processed production when there are no initial or final inventories of in-process production, a theoretical situation that rarely arises in the practice of any industry.

Equivalent units. It is the production that is in the process of manufacturing at the end of a cost period, expressed in terms of fully finished units.

Chart of Accounts.

The Chart of Accounts also called Accounting Manual, represents the structure of the accounting system, a relationship that includes all the accounts that have to be used when developing the accounting of a company and be able to reflect its operations, indicating the reasons for charge and credit, the meaning of its balance and the coordination established between them. It is therefore a catalogue that is the framework and instrument of accounting standardization used by a State, or sometimes a group of States, which serves as a reference to record the transactions carried out by an entity, which orders the accounts by affinities in groups that allow an easy verification of the situation of a company. Contains the number and name of each account used, placed in the order of the five basic classifications of financial statement items (Rosa Ortega, 2010)

Table 1 Account Plan Level

Number of Digits	Denomination
One digit	Class
Of the Digits	Group
Three digits	Sub Group
Four digits	Account
Five Digits o mas	Sub Accounts

Prepared by: The Authors

Table 2 Nature of the Chart of Accounts

Class	Nature
Active	Debtor
Passive	Creditor
Heritage	Creditor
Revenue	Debtor
Expenses	Creditor

Prepared by: The Authors

THE ACCOUNTS THAT ARE USED IN THE TRADE REGISTER OF AN INDUSTRIAL COMPANY

When the company reaches a certain degree of development, it is absolutely essential to form a list of the accounts to be used, thus avoiding application errors, and assign to each account a figure that identifies it.(Rosa Ortega, 2010)

Asset accounts

Box

Banks

Merchandise

Clients

Documents receivable

Miscellaneous debtors

Land

Buildings

Office furniture or equipment

Delivery or delivery team

Machinery

Security deposit installation costs

Stationery and utensils

Propaganda

Insurance premiums

Rents paid in advance

Interest paid in advance

Liability accounts

Suppliers

Documents payable

Miscellaneous creditors

Mortgage creditors or mortgages payable

Interest charged in advance

Rents collected in advance

Main accounts of capital or profit and loss

Sales

General goods

Selling expenses

Administrative expenses

Financial expenses and products

Other expenses and products

Profit and loss

COST OF PRODUCTION AND SALES STATEMENT

It is the state that shows in detail all the elements that form the cost of what is produced. As well as that of what was sold during a certain period.

This study has similar reasons since in the end it appears within the income statement like this one within the Statement of Financial Position, it is easy to understand that it is of great interest to know in a detailed way how the cost is determined, either the one that reflects the production or the one that is related to sales; which allows us to obtain a sale price with a gross profit margin sufficient to absorb the cost of distribution and reach the desired final result.(Rosa Ortega, 2010)

COST OF PRODUCTION. It represents all the operations carried out from the acquisition of the raw material to its transformation into consumer or service items. In this concept, three elements or factors stand out that are mentioned below:

Raw material: It is the element that becomes an article of consumption or service.

Labor: It is the human effort necessary for the transformation of the raw material.

Indirect production costs: These are the necessary and accessory elements for the transformation of the raw material, and which include salaries and expenditures necessary for this purpose.

UNIT COST OF PRODUCTION. It is known as unit cost, the value of a particular item. The objectives of unit cost determination are as follows:

Value inventories of finished and in-process products

Know the cost of production of items sold

Have a basis of calculation in the setting of sales prices, and thus be able to determine the probable profit margin.

Below is the format for the Cost of Production and Sales Statement:

Graph 2: Statement of Cost of Production and Sales

INDUSTRY "ABC"				
Cost of Goods Sold Statement				
Del_____ to the 200X _____de				
Direct materials(used)				xxxx
	(=) Direct materials (II)		xxxx	
	Direct material purchases	xxxx		
	(-) Return Direct Purchases	(xxxx)		
	(=) Direct Material Purchases (net)		xxxx	
	Direct subject available		xxxx	
	(-) Direct Materials (IF)		(xxxx)	
But	Direct Labor Used			xxxx
Equal	Prime Shopping			xxxx
But	Indirect manufacturing costs applied			xxxx
Equal	Manufacturing cost for the period			xxxx
But	Products in process			xxxx
Equal	Production cost in available process			xxxx
Less	Products in process (IF)			(xxxx)
Equal	Cost Production finished items			xxxx
But	Finished products(II)			xxxx
Equal	Available in finished articles			xxxx
Less	Finished products(IF)			(xxxx)
Equal	Cost of Goods Sold			xxxx
Manager		Contador		

Prepared by: The Authors

INCOME STATEMENT AND FINANCIAL REPORTING STANDARDS INCOME STATEMENT

The income statement or statement of profit and loss is an accounting document that shows in detail and orderly the profit or loss of the period.

Part One

It consists of analyzing all the elements that enter into the purchase and sale of merchandise to determine the profit or loss of the year in sales. This means the difference between the cost and selling price of the goods sold.

To determine the profit or loss in sales, it is necessary to know the following results

NET SALES

TOTAL OR GROSS PURCHASES

NET PURCHASES

COST OF WHAT IS SOLD

Net sales: It is determined by subtracting from total sales the value of returns and sales rebates.

Total sales – Returns and/or rebates on sales = Net sales

Total or gross purchases: They are determined by increasing the value of purchase expenses to purchases.

Purchase + purchase spend = total purchases

Net purchases: It is obtained by subtracting from total purchases the value of returns and rebates on purchases

Total purchases – Rebates and/or returns on purchases = net purchases

Cost of what is sold: It is obtained by adding the initial inventory the value of the net purchases and subtracting from the total sum obtained the value of the final inventory.

Initial inventory + net purchases = total goods – ending inventory = cost sold.

Profit on sales: It is determined by subtracting from net sales the value of the cost of what was sold

Net sales – cost of sales = profit on sales

Part Two

The second part consists of analyzing in detail, the operating expenses, as well as the expenses and products that do not correspond to the main activity of the business.

To determine the net profit or loss for the year it is necessary to know the following results

Operating expenses

Operating profit

Net worth over other expenses and products

Operating expenses: These are the expenditures that support the implanted organization of the company and that allows to carry out the various activities and daily operations. Operating expenses are the total sum of selling expenses, administrative expenses and financial expenses.

Selling expenses + administrative expenses + financial expenses = operating expenses.

Operating profit: It is obtained by subtracting operating expenses from gross profit

Gross profit = operating expenses = operating income

Net value between other expenses and other products: The other expenses should be classified first, if their value is greater than that of the other products, but the other products should be classified first, if their value is greater than that of the other expenses.

Where the amount of other expenditure is higher than that of other products, the formula shall be as follows:

Other products – other expenses = net loss among other expenses and products.

Where the value of the other products is greater than that of the other expenditure, the formula shall be as follows:

Other products – other expenses = net income among other products and expenses.

Net profit for the year: The value of the net loss between other expenses and products must be subtracted from the operating profit and its formula is as follows:

Operating income – net loss = net profit for the year Example of an income statement format.

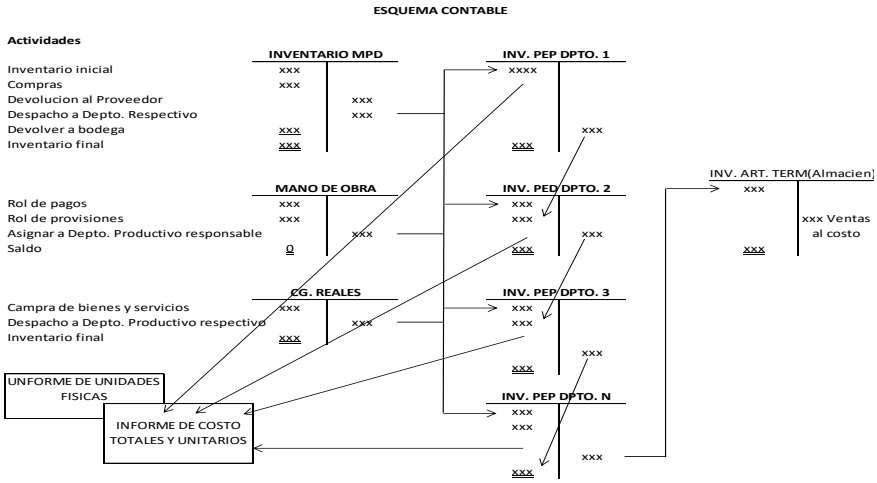
Figure 3: Profit and Loss Statement

INDUSTRY "ABC" Profit and loss statement Del_____ to 200x _____de			
Accounts		**Partial**	**Total**
Sales of finished items			Xxxx
Less	Production and sales costs		(xxxx)
Equal	Gross profit on sales		Xxxx
Less	Operational Expenses		(xxxx)
	Salaries	xxxx	
	Seller Commissions	xxxx	

	Basic Services	xxxx	
	Depreciation	xxxx	
	Taxation	xxxx	
	Advertising and Promotions	xxxx	
	Other	xxxx	
	Operational utility		Xxxx
But	Non-operating income		Xxxx
	Leases earned	xxxx	
	Sale of waste	xxxx	
Less	Operational expenses		Xxxx
	Economic aid	xxxx	
	Profit before extraordinary losses		Xxxx
	Extraordinary income and expenses		Xxxx
	Insurance indemnity	xxxx	
	Fortuitous Lost	(xxxx)	
Equal	Accounting profit for the year		xxxx
	Worker participation		(xxxx)
	Income Tax Caused		xxxx
Equal	Usefulness of the exercise		xxxx
	Manager	Contador	

Prepared by: The Authors

Chart 4: Accounting Scheme



Prepared by: The Authors

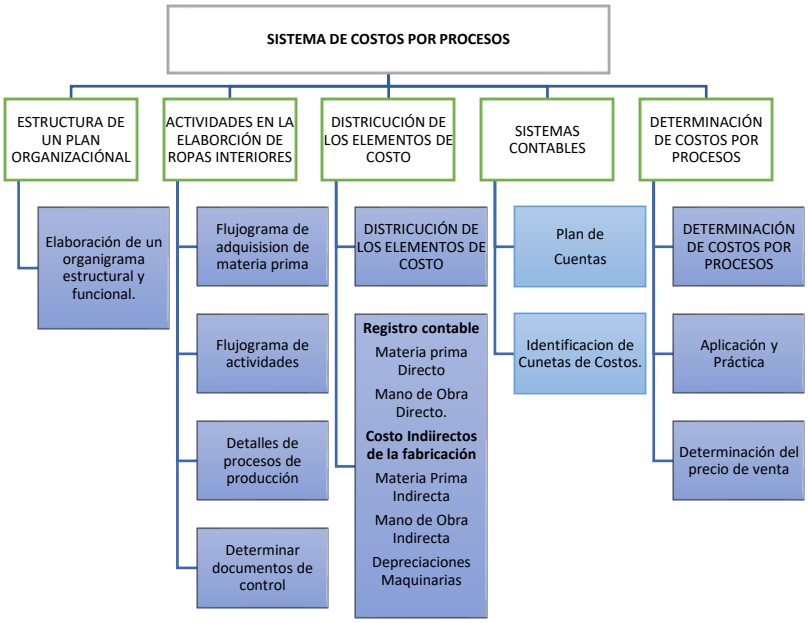
3. Results

For the development of the proposal it is essential to carry out an adequate business diagnosis.

A system of costs by production processes and their respective formats, will help the company to establish real costs allowing to orient itself to the fulfillment of its goals and objectives for which it was created.

The system processes to be created are as follows:

Figure 5: Process Costing System



Prepared by: The Authors

Proposed Plan of Account.

The following chart of accounts is presented as a proposal, with necessary and basic accounts for small and medium production enterprises, and is detailed as follows:

Graph 1: ACCOUNT CATALOG

CODE	NUMBER	DENOM	GUY	NATURE
1.	**ACTIVE**	CL	And	D
1.1.	**CURRENT ASSET**	GPO	And	D
1.1.01.	**CASH AND CASH EQUIVALENTS**	S GPO	And	D
1.1.01.01.	Box	CTA	M	D
1.1.01.01.01	General Cash	S CTA	M	D
1.1.01.01	Petty cash	S CTA	M	D

.02				
1.1.01.02.	Banks	CTA	M	D
1.1.01.03.	Temporary investments with a term not exceeding 90 days	CTA	M	D
1.1.02.	**INVESTMENTS IN SHORT-TERM MARKETABLE SECURITIES**	S GPO	And	D
1.1.02.01	Bonds and Temporary Shares	CTA	M	D
1.1.02.02	Stock Exchange Operations	CTA	M	D
1.1.02.03	Other negotiable securities	CTA	M	D
1.1.03.	**ACCOUNTS AND DOCUMENTS RECEIVABLE**	S GPO	And	D
1.1.03.01	Commercial Documents Receivable	CTA	M	D
1.1.03.02	Accounts Receivable	CTA	M	D
1.1.03.03	Clients	CTA	M	D
1.1.03.04	Officers and Employees	CTA	M	D
1.1.04.	**PROVISION FOR UNCOLLECTIBLE ACCOUNTS**	S GPO	And	D
1.1.04.01	Commercial Documents Receivable	CTA	M	D
1.1.04.02	Accounts Receivable	CTA	M	D
1.1.04.03	Clients	CTA	M	D
1.1.04.04	Officers and Employees	CTA	M	D
1.1.05.	**INVENTORIES**	S GPO	And	D
1.1.05.01	Inventory for Sale Finished Products	CTA	M	D
1.1.05.02	Raw Material Inventory	CTA	M	D
1.1.05.03	Inventory of Inputs	CTA	M	D
1.1.05.04	Inventory of Products in Process	CTA	M	D
1.1.06.	**ACCUMULATED IMPAIRMENT OF INVENTORY VALUE**	S GPO	And	D
1.1.07.	**ESTIMATION FOR OBSOLESCENCE AND INVENTORY FAILURES**	S GPO	And	D
1.1.07.01	Inventory for Sale Finished Products	CTA	M	D
1.1.07.02	Raw Material Inventory	CTA	M	D
1.1.07.03	Inventory of Inputs	CTA	M	D
1.1.07.04	Inventory of Products in Process	CTA	M	D
1.1.08.	**VAT TAX CREDIT**	S GPO	And	D
1.1.08.01	VAT on Local Purchases	CTA	M	D

1.1.08.02	VAT on Import Purchases	CTA	M	D
1.1.08.03	Balance in favor VAT	CTA	M	D
1.1.08.04	Advance payment for VAT withholding	CTA	M	D
1.1.08.05	CRED. VAT ON ACQUISITIONS	CTA	M	D
1.1.08.06	CRED. VAT FOR WITHHOLDINGS	CTA	M	D
1.1.08.07	INCOME TAX CREDIT	CTA	M	D
1.1.08.08	Income Tax Advance	CTA	M	D
1.1.08.09	Balance in Favor of the Taxpayer Imp. Income	CTA	M	D
1.1.08.10	Advance for withholding INCOME	CTA	M	D
1.1.09.	**TEMPORARY INVESTMENTS**	S GPO	And	D
1.1.09.01	Actions	CTA	M	D
1.1.09.02	Time Deposits	CTA	M	D
1.1.09.03	Bonuses	CTA	M	D
1.1.10.	**ADVANCE PAYMENTS**	S GPO	And	D
1.1.10.01	Suppliers	CTA	M	D
1.1.10.02	Insurance	CTA	M	D
1.1.10.03	Dividends	CTA	M	D
1.2.	**NON-CURRENT ASSETS**	GPO	And	D
1.2.01.	**PROPERTY, PLANT AND EQUIPMENT**	S GPO	M	D
1.2.01.01	GREAT GOODS	CTA	M	D
1.2.01.01.01	Land	S CTA	M	D
1.2.01.01.02	Buildings	S CTA	M	D
1.2.01.02	MOVABLE	CTA	M	D
1.2.01.02.01	Furniture and Furnishings	S CTA	M	D
1.2.01.02.02	Office Equipment	S CTA	M	D
1.2.01.02.03	Computer Equipment	S CTA	M	D
1.2.01.02.04	Vehicles	S CTA	M	D
1.2.01.02.05	Machinery	S CTA	M	D
1.2.02.	**ACCUMULATED DEPRECIATION PROPERTY PLANT AND EQUIPMENT**	S GPO	And	D
1.2.02.01	GREAT GOODS	CTA	M	D
1.2.02.01.01	Buildings	S CTA	M	D
1.2.02.02	MOVABLE	CTA	M	D

1.2.02.02.01	Furniture and Furnishings	S CTA	M	D
1.2.02.02.02	Office Equipment	S CTA	M	D
1.2.02.02.03	Computer Equipment	S CTA	M	D
1.2.02.02.04	Vehicles	S CTA	M	D
1.2.02.02.05	Machinery	S CTA	M	D
1.2.03.	**IMPAIRMENT OF PROPERTY PLANT AND EQUIPMENT**	S GPO	And	D
1.2.04.	**INTANGIBLE ASSETS**	S GPO	And	D
1.2.04.01	Trademarks and Patents, Computer Programs.	CTA	M	D
1.2.05.	**ASSETS UNDER FINANCIAL LEASE**	CTA	And	D
1.2.05.01	Leasing of Buildings and Premises	CTA	M	D
1.2.05.02	Leasing of Machinery and Equipment	CTA	M	D
1.2.05.03	Enterprise Internet Leasing	CTA	M	D
1.2.06.	**ACCUMULATED DEPRECIATION OF ASSETS IN ARREN. FINANCIAL**	S GPO	And	D
1.2.06.01	Leasing of Buildings and Premises	CTA	M	D
1.2.06.02	Leasing of Machinery and Equipment	CTA	M	D
1.2.06.03	Enterprise Internet Leasing	CTA	M	D
1.2.07.	**IMPAIRMENT OF VALUE ACU. OF GOODS IN ARREN. FINANCIER**	S GPO	And	D
1.2.08.	**PERMANENT INVESTMENTS**	S GPO	And	D
1.2.08.01	Shares in other companies	CTA	M	D
2.	**PASSIVE**	CL	And	A
2.1.	**CURRENT LIABILITIES**	GPO	And	A
2.1.01.	**SHORT-TERM ACCOUNTS AND DOCUMENTS PAYABLE**	S GPO	And	A
2.1.01.01	Bank Loans	CTA	M	A
2.1.01.02	Local suppliers	CTA	M	A
2.1.01.03	Foreign suppliers	CTA	M	A
2.1.01.04	Accounts Payable	CTA	M	A
2.1.01.05	Documents payable	CTA	M	A

2.1.02.	**DIVIDENDS PAYABLE**	S GPO	And	A
2.1.02.01	Dividends payable	CTA	M	A
2.1.03.	**VAT payable**	S GPO	And	A
2.1.03.01	IR Withholding Payable	CTA	M	A
2.1.03.02	VAT withholding payable	CTA	M	A
2.1.03.03	VAT sales	CTA	M	A
2.1.03.04	VAT Payable	CTA	M	A
2.1.03.05	Employee Income Tax	CTA	M	A
2.1.03.06	Income Tax Payable Company	CTA	M	A
2.1.03.07	Advance on Rent Payable	CTA	M	A
2.1.04	**IESS CREDITORS**	S GPO	And	A
2.1.04.01	Personal Contribution IESS 9.35%	CTA	M	A
2.1.04.02	Employer Contribution 12.15%	CTA	M	A
2.1.04.03	Reserve Payable Fund	CTA	M	A
2.1.04.04	IESS Loans Payable	CTA	M	A
2.1.05.	**LABOR CREDITORS**	S GPO	And	A
2.1.05.01	Wages Payable	CTA	M	A
2.1.05.02	Social Benefits Payable	CTA	M	A
2.1.05.03	15% Workers Payable Participation	CTA	M	A
2.1.06.	**SHORT-TERM LEASING OBLIGATIONS**	S GPO	And	A
2.1.06.01	Leasing	CTA	M	A
2.2.	**NON-CURRENT LIABILITIES**	GPO	And	A
2.2.01.	**LONG-TERM ACCOUNTS AND DOCUMENTS PAYABLE**	S GPO	And	A
2.2.01.01	Bank Loans	CTA	M	A
2.2.01.02	Documents Payable	CTA	M	A
2.2.02.	**PROVISION FOR EMPLOYMENT OBLIGATIONS**	S GPO	And	A
2.2.02.01	Long-term employee benefits	CTA	M	A
2.2.02.02	Indemnities	CTA	M	A
2.2.03.	**DEFERRED TAX LIABILITY**	S GPO	And	A
2.2.03.01	Taxable temporary differences	CTA	M	A
2.2.03.02	Taxable income tax	CTA	M	A

3.	**EQUITY**	CL	And	A
3.1	**STOCKHOLDERS' EQUITY**	GPO	And	A
3.1.01.	**CAPITAL SOCIAL**	S GPO	And	A
3.1.01.01	Paid-in share capital	CTA	M	A
3.1.01.02	Unpaid share capital	CTA	M	A
3.1.02.	**LEGAL RESERVE**	S GPO	And	A
3.1.02.01	Legal Reserve	CTA	M	A
3.1.03.	**CUMULATIVE RESULTS**	S GPO	And	A
3.1.03.01	Profits from previous years	CTA	M	A
3.1.03.02	Losses from previous years	CTA	M	A
3.1.04.	**RESULTS OF THE YEAR**	S GPO	And	A
3.1.01.01	Usefulness of the exercise	CTA	M	A
3.1.01.02	Loss of exercise	CTA	M	A
4.	**REVENUE**	CL	And	A
4.1.	**OPERATING INCOME**	GPO	And	A
4.1.01.	**SALES**	S GPO	And	A
4.1.02.	**OTHER SALES CHARGES**	S GPO	And	A
4.1.02.01	Freight in Sales	CTA	And	A
4.1.02.02	Other Sales Charges	CTA	M	A
4.1.03.	**RETURNS, SALES AND DISCOUNTS ON SALE**	S GPO	And	D
4.1.03.01	Discount on Sales	CTA	M	D
4.1.03.02	Return on Sales	CTA	M	D
4.2.	**COST**	GPO	And	D
4.2.01.	**COST OF SALES**	S GPO	And	D
4.2.01.01	VAT Charged to Cost	CTA	M	D
4.2.02.	**SURCHARGES ON PURCHASES**	S GPO	And	D
4.2.02.01	Freight in Purchases	CTA	M	D
4.2.02.02	Other Charges on Purchases	CTA	M	D
4.2.03.	**DISCOUNTS AND RETURNS ON PURCHASES**	S GPO	And	A

4.2.03.01	Discount on Purchases	CTA	M	A
4.2.03.02	Returns on Purchases	CTA	M	A
4.3.	**PRODUCTION COSTS**	GPO	And	A
4.3.01.	**PRODUCTION COST**	S GPO	And	A
4.3.01.01	Labor	CTA	M	A
4.3.01.02	Raw material	CTA	M	A
4.3.01.03	Indirect Costs	CTA	M	A
4.3.01.03.01	Labor	CTA	M	A
4.3.01.03.02	Raw material	S CTA	M	A
4.3.01.03.03	Depreciation	S CTA	M	A
4.3.01.03.04	Basic Services	S CTA	M	A
4.4.	**NON-OPERATING INCOME**	GPO	And	A
4.4.01.	**FINANCIAL INCOME**	S GPO	And	A
4.4.01.01	Financial Returns	CTA	M	A
4.4.01.02	Interest Earned	CTA	M	A
4.4.02.	**OTHER NON-OPERATING INCOME**	S GPO	And	A
4.4.02.01	Profit on Sale of Fixed Assets	CTA	M	A
4.4.02.02	Other non-operating income	CTA	M	A
5.	**EXPENSE**	CL	And	D
5.1.	**ADMINISTRATIVE EXPENDITURE**	GPO	And	D
5.1.01.	**GENERAL ADMINISTRATIVE EXPENDITURE**	S GPO	And	D
5.1.01.01	Expense Professional Fees and Allowances	CTA	M	D
5.1.01.02	Maintenance and Repairs Expense	CTA	M	D
5.1.01.03	Fuel Expenditure	CTA	M	D
5.1.01.04	Promotional and Advertising Expenditure	CTA	M	D
5.1.01.05	Expenditure on Supplies and Materials	CTA	M	D
5.1.01.06	Management Fee	CTA	M	D
5.1.01.07	Electric Light Expenditure	CTA	M	D
5.1.01.08	Drinking Water Expenditure	CTA	M	D
5.1.01.09	Telephony and Telecommunications Expenditure	CTA	M	D
5.1.01.10	Insurance and Reinsurance Expenditure	CTA	M	D
5.1.01.11	Printing Expenditure	CTA	M	D
5.1.01.12	Expenditure Surveillance	CTA	M	D

5.1.01.13	Expenditure Provision of Services	CTA	M	D
5.1.01.14	Expenditure Mobilization	CTA	M	D
5.1.01.15	Taxes and Contributions	CTA	M	D
5.1.01.16	Spending Fines and Penalties	CTA	M	D
5.1.02.	**PERSONNEL EXPENDITURE**	S GPO	And	D
5.1.02.01	Expenditure Salaries	CTA	M	D
5.1.02.02	Overtime Spending	CTA	M	D
5.1.02.03	Commission expenditure	CTA	M	D
5.1.02.04	Uniform Spending	CTA	M	D
5.1.02.05	Spending Bonuses	CTA	M	D
5.1.02.06	Thirteenth Salary Expense	CTA	M	D
5.1.02.07	Expenditure Fourteenth Salary	CTA	M	D
5.1.02.08	Vacation Spending	CTA	M	D
5.1.02.09	Food Expenditure	CTA	M	D
5.1.02.10	Reserve Fund Expenditure	CTA	M	D
5.1.02.11	Employer's contribution expenditure	CTA	M	D
5.1.02.12	Expenditure Provision for Employer Retirement	CTA	M	D
5.1.02.13	Expenditure Provision Eviction	CTA	M	D
5.1.02.14	Employee Entertainment Expense	CTA	M	D
5.1.02.15	Health care	CTA	M	D
5.1.03.	**LOCAL EXPENDITURE AND ADMINISTRATIVE FACILITIES**	S GPO	And	D
5.1.03.01	Depreciation Expense Buildings	CTA	M	D
5.1.03.02	Depreciation Expense Furniture and Furnishings	CTA	M	D
5.1.03.03	Depreciation Expense Office Equipment	CTA	M	D
5.1.03.04	Depreciation Expense Computer Equipment	CTA	M	D
5.1.03.05	Vehicle depreciation expense	CTA	M	D
5.1.03.06	Maintenance and Repair Expenses	CTA	M	D
5.2.	**SELLING EXPENSES**	GPO	And	D
5.2.01.	**SELLING EXPENSES**	S GPO	And	D
5.2.01.01	Expenditure Seller Commissions	CTA	M	D
5.2.01.02	Transportation Expenses Sales	CTA	M	D
5.2.01.03	Vehicle Maintenance and Repair Expenses	CTA	M	D
5.3.	**PRODUCTION EXPENSE**	GPO	And	D
5.3.01	**PRODUCTION EXPENSE**	S GPO	And	D
5.3.01.01	Maquila Spending	CTA	M	D

5.3.01.02	Supply Expenditure	CTA	M	D
5.3.01.03	Maintenance Expense	CTA	M	D
5.3.01.04	Transportation Expenses Purchases	CTA	M	D
5.4.	**NON-OPERATIONAL EXPENDITURE**	GPO	And	D
5.4.01.	**FINANCIAL EXPENSES**	S GPO	And	D
5.4.01.01	Bank Interest Expense LOCAL	CTA	M	D
5.4.01.02	Interest Expense Bank ABROAD	CTA	M	D
5.4.01.03	Expenditure for Banking Services	CTA	M	D
5.4.02.	**OTHER NON-OPERATIONAL COSTS**	S GPO	And	D
5.4.02.01	Loss on Sale of Related Assets	CTA	M	D
5.4.02.02	Loss on Sale of Unrelated Assets	CTA	M	D
5.4.02.03	Non-Deductible Expenses	CTA	M	D
5.4.02.04	Other Losses	CTA	M	D
6.	**INCOME AND LOSS SETTLEMENT ACCOUNTS**	CL	And	A
6.1.	**SETTLEMENT ACCOUNT**	GPO	And	A
6.1.01.	**PROFIT AND LOSS**	S GPO	And	A
6.1.01.01	Profit and loss	CTA	M	A
6.1.02.	**TAX EXPENSES**	S GPO	And	A
6.1.02.01	Tax expense	CTA	M	A

Symbols					
CL	Class	And	Stable	D	Debtor
GPO	Group	M	Movement	A	Creditor
S GPO	Sub Group				
CTA	Account				
S CTA	Sub Account				

Prepared by: The Authors

For the elaboration of products it is necessary to determine the elements that intervened in each production process that will help determine the costs, which are: Raw Material, Labor andIndirect Manufacturing Costs.

After the analysis and study proposed in this research, a company producing underwear, pajamas, shirts in the SME sector was taken as a reference.

FINANCIAL STATEMENTS OF THE PRODUCTION COMPANY

BALANCE GENERAL

PERIOD YEAR 1 - YEAR 2

ACTIVE	**YEAR 1**	**YEAR 2**
CURRENT ASSET		
CASH AND CASH EQUIVALENTS		
Box		
General Cash	$ 309.623,09	$ 390.153,21
Petty cash	$ 247,18	$ 126,00
Total Box	$ 309.870,27	$ 390.279,21
Banks		
Banco del Austro Cta. Cte.	$ 40.017,23	$ 64.041,29
Bank of the Austrian cta. Savings	$ 28,50	$ 151,95
Programmed Savings Bco. Austro	$ -	$ 2.000,00
Pichincha Bank Cta Cte	$ 139.278,58	$ 46.548,88
Banco del Pichincha Cta Savings	$ 1.968,41	$ 12.747,46
Banco del Pichincha cta Savings 2	$ -	$ 720,00
Programmed savings Bco Pichincha	$ 360,00	$ 200,00
International Bank Cta Cte	$ 3.548,51	$ 331,09
CAC Crediambato	$ -	$ 33,87
Temporary investments with a term not exceeding 90 days	$ -	$ -
Total Banks	$ 185.201,23	$ 126.774,54
TOTAL CASH AND CASH EQUIVALENTS	$ 495.071,50	$ 517.053,75
ACCOUNTS AND DOCUMENTS RECEIVABLE		
Commercial Documents Receivable	$ 142.909,49	$ 381.938,27
Accounts Receivable	$ 162.856,29	$ 117.926,16
Clients	$ 975.340,94	$ 1.072.719,28
Officers and Employees	$ 131.929,85	$ 139.341,62
TOTAL ACCOUNTS RECEIVABLE	$ 1.413.036,57	$ 1.711.925,33
INVENTORIES		
Inventory for Sale Finished Products		
Men's Underwear	$ 46.640,99	$ 93.305,30
Children's Underwear	$ 46.640,99	$ 88.640,04
Women's Underwear	$ 69.961,48	$ 144.623,22
Underwear Girl	$ 69.961,48	$ 139.957,95
Shirts	$ 62.187,99	$ 124.407,07
Pajamas	$ 15.547,00	$ 31.101,77

Total Inventory For Sale Finished Products	$	310.939,93	$	622.035,35
Raw Material Inventory				
Screen	$	235.922,76	$	436.247,05
Elastic	$	73.102,39	$	354.768,05
Total Raw Material Inventory	$	309.025,15	$	791.015,10
Inventory of Inputs				
Inputs	$	48.734,93	$	236.512,04
Supplies	$	-	$	-
Total Inventory of Inputs	$	48.734,93	$	236.512,04
Inventory of Products in Process				
Inventory in Cut	$	225.667,66	$	73.962,43
Inventory in Stamping	$	282.084,57	$	92.453,03
Maquilado Inventory	$	564.169,15	$	184.906,08
Packaging Inventory	$	56.416,91	$	18.490,61
Total Inventory of Products in Process	$	1.128.338,29	$	369.812,15
TOTAL INVENTORIES	$	1.797.038,30	$	2.019.374,65
VAT TAX CREDIT				
Advance payment for VAT withholding	$	57.437,14	$	3.657,50
Income Tax Advance	$	-	$	57.437,14
Balance in Favor of the Taxpayer Imp. Income	$	15.158,03	$	15.158,03
Advance for withholding INCOME	$	29.593,81	$	84.845,86
TOTAL TAX CREDIT	$	102.188,98	$	161.098,53
ADVANCE PAYMENTS				
Suppliers	$	-	$	19.206,26
Insurance	$	4.228,05	$	18.075,08
Dividends	$	-	$	-
TOTAL ADVANCE PAYMENTS	$	4.228,05	$	37.281,34
TOTAL CURRENT ASSETS	**$**	**3.811.563,40**	**$**	**4.446.733,60**
NON-CURRENT ASSETS				
PROPERTY, PLANT AND EQUIPMENT				
GREAT GOODS				
Land	$	180.000,00	$	500.476,70

Buildings	$ 176.946,94	$ 457.205,80
TOTAL REAL ESTATE	$ 356.946,94	$ 957.682,50
MOVABLE		
Furniture and Furnishings	$ 42.437,59	$ 58.490,19
Office Equipment	$ 7.092,39	$ 10.238,18
Computer Equipment	$ 20.316,27	$ 25.577,41
Vehicles	$ 200.414,37	$ 272.391,12
Machinery	$ 35.035,72	$ 104.631,52
TOTAL MOVABLE PROPERTY	$ 305.296,34	$ 471.328,42
TOTAL PROPERTIES PLANTS AND EQUIPMENT	$ 662.243,28	$ 1.429.010,92
ACCUMULATED DEPRECIATION PROPERTY PLANT AND EQUIPMENT		
GREAT GOODS		
Buildings	$ (43.836,71)	$ (65.553,99)
MOVABLE		
Furniture and Furnishings		$ (5.264,12)
Office Equipment		$ (921,44)
Computer Equipment		$ (5.655,17)
Vehicles		$ (43.582,58)
Machinery		$ (9.416,84)
TOTAL ACCUMULATED DEPRECIATION	$ (43.836,71)	$ (130.394,14)
TOTAL NON-CURRENT ASSETS	**$ 618.406,57**	**$ 1.298.616,78**
TOTAL ASSETS	***$ 4.429.969,97***	***$ 5.745.350,38***
PASSIVE		
CURRENT LIABILITIES		
SHORT-TERM ACCOUNTS AND DOCUMENTS PAYABLE		
Bank Loans	$ (50.384,94)	$ (289.067,83)
Local suppliers	$ (704.061,28)	$ (428.171,92)
Foreign suppliers	$ (148.887,40)	$ (217.412,55)
Accounts Payable	$ (118.415,49)	$ (315.249,03)
Documents payable	$ (602.466,95)	$ (633.760,13)
TOTAL ACCOUNTS AND DOCUMENTS PAYABLE	$ (1.624.216,06)	$ (1.883.661,46)
DIVIDENDS PAYABLE		
Dividends payable		

TAX CREDITORS		
IR Withholding Payable	$ (7.964,98)	$ (4.307,73)
VAT withholding payable	$ (25.951,26)	$ (9.011,95)
VAT Payable	$ (19.347,75)	$ (11.636,78)
Employee Income Tax	$ (621,56)	$ (140,97)
Advance on Rent Payable	$ (34.305,62)	$ (11.566,40)
TOTAL TAX CREDITORS	$ (88.191,17)	$ (36.663,83)
IESS CREDITORS		
IESS to be paid	$ (3.889,32)	$ (4.776,01)
Reserve Payable Fund	$ (41,65)	$ (41,65)
IESS Loans Payable	$ (31,19)	$ -
TOTAL ACREEDORE IESS	$ (3.962,16)	$ (4.817,66)
LABOR CREDITORS		
Wages Payable	$ (8.233,71)	$ (11.877,81)
Social Benefits Payable	$ (7.155,14)	$ (13.804,21)
15% Workers Payable Participation	$ -	$ -
TOTAL LABOR CREDITORS	$ (15.388,85)	$ (25.682,02)
TOTAL LIABILITIES	**$ (1.731.758,24)**	**$ (1.950.824,97)**
EQUITY		
STOCKHOLDERS' EQUITY		
CAPITAL SOCIAL		
Paid-in share capital	$ (1.205.990,01)	$ (1.193.990,01)
TOTAL CAPITAL SOCIAL	$ (1.205.990,01)	$ (1.193.990,01)
CUMULATIVE RESULTS		
Profits from previous years	$ -	$ (1.071.064,15)
Losses from previous years	$ 15.515,58	
CUMULATIVE TOTAL REPORTED	$ 15.515,58	$ (1.071.064,15)
RESULTS OF THE YEAR		
Usefulness of the exercise	$ (1.507.737,30)	$ (1.529.471,25)
Loss of exercise	$ -	$ -
TOTAL PROFIT FOR THE YEAR	$ (1.507.737,30)	$ (1.529.471,25)
TOTAL EQUITY	**$ (2.698.211,73)**	**$ (3.794.525,41)**

TOTAL LIABILITIES + EQUITY	***$ (4.429.969,97)***	***$ (5.745.350,38)***

PRODUCTION COMPANY

INCOME STATEMENTS

PERIOD YEAR 1 - YEAR 2

REVENUE	**YEAR 1**	**YEAR 2**
OPERATING INCOME		
SALES		
Underwear Sales	$ (3.914.044,36)	$ (4.559.322,30)
Pajama Sales	$ (1.043.745,16)	$ (1.215.819,28)
Shirt Sales	$ (260.936,29)	$ (303.954,82)
TOTAL GROSS SALES	$ (5.218.725,81)	$ (6.079.096,40)
OTHER SALES CHARGES		
Freight in Sales	$ -	$ -
Other Sales Charges	$ (7.130,12)	$ (1.289,70)
TOTAL OTHER SALES CHARGES	$ (7.130,12)	$ (1.289,70)
RETURNS, SALES AND DISCOUNTS ON SALE		
Discount on Sales	$ -	$ 63.870,52
Return on Sales	$ -	$ 116.004,14
TOTAL RETURNS AND SALES DISCOUNTS	$ -	$ 179.874,66
= TOTAL NET SALES	$ (5.225.855,93)	$ (5.900.511,44)
COST		
COST OF SALES		
Cost of Sale of Underwear	$ 2.429.013,42	$ 2.834.247,97
Cost of Sale of Pajamas	$ 647.736,91	$ 755.799,46
Cost of Shirt Sales	$ 161.934,23	$ 188.949,86
VAT Charged to Cost	$ -	$ -
TOTAL SALES COSTS	$ 3.238.684,56	$ 3.778.997,29
= SALES PROFIT	$ (1.987.171,37)	$ (2.121.514,15)
NON-OPERATING INCOME		
FINANCIAL INCOME		
Financial Returns		

Interest Earned	$ (333,58)	$ (2.858,45)
TOTAL REVENUE	**$ (1.987.504,95)**	**$ (2.124.372,60)**
EXPENSE		
ADMINISTRATIVE EXPENDITURE		
GENERAL ADMINISTRATIVE EXPENDITURE		
Expense Professional Fees and Allowances	$ 5.685,54	$ 4.848,12
Maintenance and Repairs Expense	$ 254,99	
Fuel Expenditure	$ 1.016,20	$ 1.646,35
Promotional and Advertising Expenditure	$ 9.318,43	$ 20.084,14
Expenditure on Supplies and Materials	$ 6.777,77	$ 8.612,40
Management Fee	$ 1.233,95	$ 1.320,15
Electric Light Expenditure	$ 3.117,36	$ 5.876,98
Drinking Water Expenditure	$ 1.007,77	$ 1.606,66
Telephony and Telecommunications Expenditure	$ 2.477,53	$ 3.428,25
Insurance and Reinsurance Expenditure	$ 10.789,43	$ 10.425,04
Printing Expenditure	$ 696,00	$ 1.161,00
Expenditure Surveillance	$ 282,32	$ 307,32
Expenditure Provision of Services	$ 11.727,29	$ 23.007,99
Expenditure Mobilization	$ 441,01	$ 1.536,28
Taxes and Contributions	$ 15.316,87	$ 31.481,92
Spending Fines and Penalties	$ -	$ -
% PROPORTIONALITY	$ 22.581,93	$ 873,49
Donations	$ 525,79	$ 2.454,87
TOTAL GENERAL ADMINISTRATIVE EXPENSES	$ 93.250,18	$ 118.670,97
PERSONNEL EXPENDITURE		
Expenditure Salaries	$ 117.766,54	$ 93.817,85
Commission expenditure	$ 34.641,45	$ 89.242,58
Uniform Spending	$ 2.423,76	$ 2.108,70
Spending Bonuses	$ 300,00	$ 2.210,27
Thirteenth Salary Expense	$ 12.700,68	$ 16.221,67
Expenditure Fourteenth Salary	$ 6.332,67	$ 6.118,29
Vacation Spending	$ 6.350,33	$ 8.110,82
Food Expenditure	$ 5.753,22	$ 3.462,58
Reserve Fund Expenditure	$ 6.031,55	$ 8.712,12
Employer's contribution expenditure	$ 18.478,41	$ 28.084,12
Employee Entertainment Expense	$ 3.578,40	$ 7.525,97
TOTAL EXPENDITURE ON PERSONNEL	$ 214.357,01	$ 265.614,97

LOCAL EXPENDITURE AND ADMINISTRATIVE FACILITIES		
Depreciation Expense Buildings	$ 43.836,71	$ 5.264,12
Depreciation Expense Furniture and Furnishings	$ -	$ 921,44
Depreciation Expense Office Equipment	$ -	$ 5.655,17
Depreciation Expense Computer Equipment	$ -	$ 43.582,58
Vehicle depreciation expense	$ -	$ 9.416,84
Maintenance and Repair Expenses	$ 523,32	$ 7.825,43
TOTAL LOCAL EXPENDITURE AND ADMINISTRATIVE INSTALLATION	$ 44.360,03	$ 72.665,56
SELLING EXPENSES		
SELLING EXPENSES		
Expenditure Seller Commissions	$ 74.349,66	$ 81.584,59
Transportation Expenses Sales	$ 3.858,58	$ 10.218,08
Vehicle Maintenance and Repair Expenses	$ 7.244,46	$ 5.842,87
TOTAL SALES SPEND	$ 85.452,70	$ 97.645,54
PRODUCTION EXPENSE		
PRODUCTION EXPENSE		
Maquila Spending	$ -	$ -
Supply Expenditure	$ 5.879,79	
Maintenance Expense	$ 14.873,15	$ 10.499,13
Transportation Expenses Purchases	$ -	$ 1.097,50
TOTAL EXPENDITURE ON PRODUCTION	$ 20.752,94	$ 11.596,63
TOTAL OPERATING EXPENSES	$ 458.172,86	$ 566.193,67
NON-OPERATIONAL EXPENDITURE		
FINANCIAL EXPENSES		
Bank Interest Expense LOCAL	$ 19.498,04	$ 26.612,97
Expenditure for Banking Services	$ 1.953,15	$ 1.880,29
TOTAL FINANCIAL EXPENSES	$ 21.451,19	$ 28.493,26
OTHER NON-OPERATIONAL COSTS		
Loss on Sale of Related Assets	$ -	$ -
Loss on Sale of Unrelated Assets	$ -	$ -
Non-Deductible Expenses	$ -	$ 214,42
Other Losses	$ 143,60	$ -
TOTAL OTHER EXPENDITURE	$ 143,60	$ 214,42
TOTAL NON-OPERATIONAL EXPENSES	$ 21.594,79	$ 28.707,68

TOTAL EXPENSES	**$ 479.767,65**	**$ 594.901,35**
PROFIT AND LOSS	**$ (1.507.737,30)**	**$ (1.529.471,25)**

PRODUCTION COMPANY

STATE OF PRODUCTIONN

TO DECEMBER 31 OFL YEAR 3

	Initial Inventory of Raw Material – TELA		235922,76
	Initial Raw Material Inventory - ELASTICO		73102,39
(+)	Net Purchases of Raw Material		2362346,43
	Gross Purchases of Raw Material	2581407,13	
(-)	Discount on Purchases	131893,24	
(-)	Return on purchases	87167,46	
(=)	**Raw material available to produce**		2671371,58
(-)	Final Inventory of Raw Material – FABRIC		436247,05
(-)	Final Raw Material Inventory – ELASTICO		354768,05
(=)	**Raw Material Used in Production**		1880356,48
(+)	Direct Labor		1148929,22
(=)	**First Cost**		3029285,70
(+)	Indirect Manufacturing Costs		302280,86
	Labor	40207,65	
	Raw material	260860,78	
	Factory Cargo	1212,43	
(=)	**Manufacturing Cost for the Period**		3331566,56
(+)	Initial Inventory of Products in Process		1128338,29
(=)	Production Cost In Process Available		4459904,85
(-)	Final Inventory of Products in Process		369812,15
(=)	Cost of Production of Finished Products		4090092,70
(+)	Initial Inventory of Finished Items		310939,93
(=)	Finished Items Available for Sale		4401032,63
(-)	Final Inventory of Finished Items		622035,34
(=)	**Cost of Production and Sale**		**3778997,29**

Cost of Sale of Underwear	**2834247,97**
Cost of Sale of Pajamas	**755799,46**
Cost of Shirt Sales	**188949,86**

4. Conclusions

After carrying out the respective research to the small and medium production companies in relationto the costs by processes, where the following conclusions are determined:

• It was observed that small and medium production companies use a very empirical production cost control, due to lack of implementation of methods and techniques for this purpose.

• The lack of organization in the distribution of materials and deliveries of work orders, has generated a delay in productions which has raised production costs.

• The instability of unloading or discharging materials, has caused inadequate information in inventories and kardex, causing delay in purchase orders of materials due to this inadequate adjustments have been made.

• The lack of a quality control manager has caused some of the finished products to have faults with faults.

Bibliography

ABC, D. (2016-11-11). Difinicion ABC. Retrieved on 06/11, 2016, from ABC: http://www.definicionabc.com/general/flujograma.php

Abraham, P. (n.d.). Fundamentals of Internal Control. Thomson.

Arias Garzón, E. M., & Vidal Yánez, F. C. (2015). Polytechnic High School of Chimborazo. Retrieved from http://dspace.espoch.edu.ec/bitstream/123456789/1381/1/82T00060.pdf

Bednar, & Reeves. (1994). xXx . TuRizMoO. xXx. Obtenido de xXx . TuRizMoO. xXx: http://xxxturismoxxx.blogspot.com/2010/03/conceptos-de-calidad-segun-diversos.html

Cabimas, F. (February 8, 2015). Slide Share. Retrieved December 28, 2016, from Slide Share: http://es.slideshare.net/fjcabimas/proceso-contable-44414550

CGE. (August 2011). Government Audit Manual. 17. Quito, Pichincha, Ecuador.

Chaviano, D. (13, 2009, 03). Cost Sites. Retrieved on 16/07/2016, from Gerencie: www.gerencie.com

Contreras, M. To. (n.d.). Retrieved from http://asset-6.soup.io/asset/6681/5578_6b8d.pdf

Cook , J. W., & Winkle, G. M. (1987). En J. W. Cook, & G. M. Winkle, Auditoria (pág. 5). mexico: McGRAW-HILL Interamericana de mexico S.A.

Cook, J., & Winkle, G. (1987). Audit. In J. Cook, & G. Winkle, Audit (Third ed., p. 5). Mexico: McGraw-Hill interamericana de Mexico, S.A.

De la Peña Gutierrez, A. (2009). Audit A practical approach (1 edition, 3 reprint, 2009 ed.). Madrid, Spain: Ediciones Paraninfo, S.A.

de la Peña Gutierrez, A. (2009). Audit A practical approach (1 edition, 3 reprint ed.). Madrid, Spain: ediciones Paraninfo,S.A.

De la Peña Gutierrez, A. (2009). Audit A practical approach (1 edition, 3 reprint ed.). Madrid, Spain: ediciones Paraninfo,S.A.

de la Peña, A. (2009). In A. de la Peña, Audit a practical approach (p. 5). Madrid: paraninfo, S.A.

Debitoor. (n.d.). Obtained from Debitoor: https://debitoor.es/glosario/activo-fijo

Debitoor. (n.d.). Retrieved March 15, 2015, https://debitoor.es/glosario/activo-fijo

Debitoor. (n.d.). Retrieved from https://debitoor.es/glosario/activo-fijo

Definition. (n.d.). Retrieved March 15, 2015, from Definition: http://www.definicion.org/manual

Fade, & Espoch. (September 2013). Financial Audit. 9,10. Riobamba, Chimborazo, Ecuador.

Fade, & Espoch. (May 2014). Auditing Practices. 10,11. Riobamba, Chimborazo, Ecuador: fade.

Ferrando Sánchez, M., & Granero Castro, J. (2005). Total Quality: EFQM Model of Excellence. Spain: FC Editorial.

Franklin, E. (2007). In E. Franklin, Administrative Audit, Strategic Change Management 2nd edition. Mexico: Pearson Education.

Stammerer. (1999). Eumed.net. Retrieved from http://www.eumed.net/tesis-doctorales/2012/lsg/concepto_modelo.html

Manage. (n.f.). Obtained from Management: http://www.gerencie.com/depreciacion.html

Management-Quality. (n.d.). Retrieved from http://www.gestion-calidad.com/archivos%20web/Modelo-EFQM.pdf

Management-Quality. (n.d.). Retrieved from http://www.gestion-calidad.com/modelo-efqm.html

Gonzales, P. R. (2006). In P. R. Gonzáles, Auditoria de Gestion (p. 5).

Gonzalez Colcerasa, L. H. (2010). Compendium of Audit in the environment of the ISA (3 era edicion ed.). Buenos Aires: edicon.

Gonzalez, L. (2013). In L. González, Compendium of Audit in the environment of the NIA.3a ed. (p. 23). Buenos Aires: EDICON.

Graig-Cooper, M. (1994). In M. Graig-Cooper, Management Audit (pp. 36-37). ENepoch: Folio .

Gryna, & Juran. (1993). xXx. TuRizMoO. xXx. Obtained from xXx . TuRizMoO. xXx: http://xxxturismoxxx.blogspot.com/2010/03/conceptos-de-calidad-segun-diversos.html

Mexican Institute of Public Accountants. (2002). Objectives and General Principles Governing an Audit of Financial Statements (First ed.). Mexico: Edi-AbacoCia. Ltd.

Koont, & O'Donnel. (n.d.). Economic Zone. Retrieved from http://www.zonaeconomica.com/control

Mantilla, S. (2009). In S. Mantilla, Auditoria (p. 22). Bogotá: Ecoe Ediciones.

MembranoMartínez, J. (2002). Innovation and Improvement according to the EFQM Model of Excellence. Madrid: Díaz de Santos.

MFE. (n.d.). Retrieved from http://www.pedrovicentemaldonado.gob.ec/Biblioteca/NORMASDECONTABILIDAD.pdf

Montaño Hormigo, F. J. (2014). Audit of the areas of the company. Bogota , Bogota: editions of the U.

NEC12. (n.d.). KVA. Retrieved from http://www.kva.com.ec/imagesFTP/8000.NEC12.pdf

NEC12. (n.d.). KVA. Retrieved from http://www.kva.com.ec/imagesFTP/8000.NEC12.pdf

O. R, W., & Kurt, P. (1999). Audit a comprehensive approach. McGrraw Hill.

Pallerola Comamala , J., & Monfort Aguilar, E. (2013). Audit Theoretical-Practical Approach (Editions of the U ed.). Bogota, Colombia: Ediciones de la U.

Rodriguez, J. (2010). In J. Rodriguez, Audit (p. 95). Mexico: Litografía Ingramex,S.A de C.V.

Rosa Ortega, A. P. (2010). Dynamics Accounting Registration and Case Studies. Lima: Ediciones Caballero Bustamante S.A.C.

Sanchez Tenesaca, X. A. (2015). Technical University of Ambato. Obtained from Technical University of Ambato: http://repo.uta.edu.ec/bitstream/123456789/1684/1/TA0028.pdf

Sotomayor, A. (2008). In A. A. Sotomayor, Auditoria Administrativo procesos y Aplicación (p. 35). mexico: McGRAW-HILL INTERAMERICANA EDITORES,S.A de C.V.

Sotomayor, A. A. (2008). Administrative Audit. Mexico: McGraw-Hill Interamericana.

SRI. (JANUARY 10, 2016). SRI. Retrieved on 12 of 1 of 17, http://www.sri.gob.ec/web/guest/depreciacion-acelarada-de-activos-fijos: http://www.sri.gob.ec/web/guest/depreciacion-acelarada-de-activos-fijos

Stodgdill. (n.d.). Retrieved from http://manuelgross.bligoo.com/20120504-el-liderazgo-del-lado-oscuro-ocho-tipos-de-lideres-incompetentes

Subiaga Quiroz, A. D. (June 1, 2015). Private Technical University of Loja. Retrieved from http://dspace.utpl.edu.ec/bitstream/123456789/6148/1/657X2046.pdf

Villagómez, C. (02, 2012). Accounting. Retrieved on 07/10, 2016, from https://es.wikipedia.org/wiki/Contabilidad?oldid=92079521: https://es.wikipedia.org/wiki/Contabilidad?oldid=92079521

Williams, L. P. (1991). Administrative Audit, Evaluation of Methods and Administrative Efficiency. Mexico: Ediciones Diana.

Zapata, P. (2007). Cost Accounting. In Z. Pedro, Cost Accounting (p. 6). Punta Santa Fe: Mc Graw-Hill.