

### UNIVERSIDAD TÉCNICA DEL NORTE

## FACULTY OF ENGINEERING IN APPLIED SCIENCE INDUSTRIAL ENGINEERING CAREERS

# GRADE WORK PRIOR TO OBTAINING THE TITLE OF INDUSTRIAL ENGINEERING

#### THEME:

"BUSINESS MANAGEMENT MODEL TO IMPROVE PRODUCTIVITY OF THE COMPANY CAROLO."

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# BUSINESS MODEL TO IMPROVE MANAGEMENT IN THE COMPANY CAROLO PRODUCTIVIDA

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**Summary.** This work focuses on designing a model of exclusive business management for apparel company CAROLO, research performs an initial evaluation for administrative and production problems developed with this matrix that reflects the internal strengths and weaknesses of the company and opportunities and threats from the market; using management indicators could set goals to achieve in the proposed solution to the problems identified, these indicators basically analyzed the current productivity of the company and estimated a desired once implemented the recommendations situation.

#### Keywords

Model Management, Productivity, Distribution Plant Indicators Management, Financial Analysis.

#### 1. Introduction

Currently CAROLO is a micro family business located in the parish of San Antonio, in the canton Ibarra, province of Imbabura, provides services of design, manufacture and marketing of clothing aimed at a youthful target, with cutting-edge technology and a highly trained human resources, has young leaders who have as their main objective, satisfying the needs of its customers, ensuring high quality products, fashion and fair prices for consumers.

The allocation of resources (human, physical, technological, financial, etc.) resources and organizational structure in the company CAROLO is inefficient for the production process takes place, as is the design, manufacture and marketing of clothing, which directly influences the production capacity, product quality, failure to meet orders and increased costs (direct and indirect).

This makes it necessary to implement a business management system for the activities and processes taking place in the company CAROLO proper development, structuring a model that will guide, set goals, develop strategies and action plans that minimize the risks inherent in a business, manage the company achieving an effective and efficient

#### 2. Materials and Methods

#### 2.1 LIFTING PROCESS.

For the study the GSP method Systemic Process Management, taken from (Bravo, 2008) utilize, the method consists of three phases, the first phase elaborates the process map, the second design the flow chart of information and the third describes the process.



This instrument is achieved by defining the following variables:

- Objectives of the matrix
- Inputs and outputs (suppliers and customers)
- Relations with other processes
- Responsible for the process
- Information Flow Chart
- Description of activities
- Main Contingencies
- operating rules
- Input and Output Interfaces
- Supporting Documents
- Critical points

## 2.1 INDICATORS OF BUSINESS MANAGEMENT

There are many indicators of business management, these depend on the area of the company to be evaluated, however, management indicators should be used considering strategic planning that designed the general administration (mission, vision, objectives and long-term strategies) and the annual operational program drawn up by each department and contributes to achieving the objectives proposed long term.

The purpose of this paper is to propose a model of business management to improve productivity CAROLO Company, this involves analyzing its financial and production management.

## 2.2 METHODOLOGY SLP (DISTRIBUTION PLANT)

CAROLO distribution plant was made based on the methodology SLP Planning Systematics Distribution Plant (Systematic Layout Planning) Muther.

The SLP methodology is most often used for troubleshooting distribution plant, was developed by Richard Muther in 1961, this methodology is applicable to new distributions or distributions of existing plants for which this methodology was adapted to the CAROLO plant.

The SLP methodology has 4 phases which are:

• Phase I: Location

• Phase II: General Distribution of the set

• Phase III: detailed distribution plan

• Phase IV: Installation

(Contreras, 2012)

As a first step the correlation diagram in which are the ares of the company CAROLO is done, the code of proximity and code reasons considered in line with the needs of the plant and the relationship they have different areas placed each.

As a second step a diagram of threads is constructed from code proximity this must match the correlation diagram in relation to the proximity of the departments and the importance with which the different areas are related, to thereby minimize different company resources CAROLO.

It is concluded that the proposed distribution is optimal when the vicinity match both diagrams.

#### 3. Results

INDICADORES		3	2	1	0	-1	-2	-3	Total
Aumento de la productividad general de la empresa	3								3
Mejoramiento del rendimiento de calidad		2							2
Mejora de la productividad del capital		2							2
Total									7

$$Economic\ impact = \frac{\sum impact}{N^{\circ}\ the\ impact}$$

**Economic impact** =7/3 = 2,33

• Increase overall productivity of the company:

The overall productivity of the company increases significantly in relation to the previous situation, the proposal is to increase from 80% to 90% the ratio of the

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volume produced vs. Considering the planned work best in ergonomics, electrical installations, among others.

#### • Improved quality performance:

Currently 30% of the production does not exceed the quality control, the proposal allows reduce that percentage by half, the factors that would affect the improvement of this index are improving the electrical system and increasing the distance between machines and staff so that they can work more efficiently.

#### • Improved productivity of capital:

The situation prior to the implementation of the project shows that for a volume of assets of \$ 31.400 productivity this 53 98% was obtained, and the projected situation will improve the situation by 13, 6% to a productivity of 56, 09 %; all this is the result of an increased volume of production approved; the analysis does not consider the proposed operating leverage that is not considered to increase or improve the machinery.

Results should express the results of the experiments described in the Materials and Methods and present evidence supporting such results, whether in the form of figures, tables or in the text.

The results must be able to be seen and understood quickly and clearly. That is why so the construction of this section must begin preparing tables and figures, and only pos¬teriormente draft the relevant text based on them. The first paragraph of this text should be used to summarize in a concise, cla¬ra and direct sentence, the main finding of the study. This section should be written using verbs in the past.

Although much passive or impersonal ("found that ...") as used pre¬fieren some publishers. The text should cite all tables and figures, should be taken from other studies shall include references. All tables and figures should te¬ner their respective legend.

Regarding the format, this section can orga¬nizar in subtitles, and each of these can not be subdivided again. For example referir¬se the annexes.

#### 4. Conclusions

The company Carolo, dedicated to the design, manufacture and marketing of clothing, before his speech, presented a series of business management problems that limit their productivity, not the law was respected in relation to occupational safety and health, mandatory for all organizations, both public and private, this obligation arises from the Constitution of the country itself as well as international agreements signed by the State, its theoretical installed capacity was much higher than the actual production capacity, this implies that the cost General works

was very high and therefore, the company lost market competitiveness.

Management models mimic the reality of companies to seek solutions hence the importance of specifically designing them, the CAROLO Company never designed a model of this type was administered empirically so that the use of the resources available were inefficiently employees and this made it difficult to achieve the objectives that the administration was drawn.

The financial analysis of the proposal it possible to evaluate the feasibility of the project, the results of this concluded that the projected investment good indicators mostly obtained in relation to the net present value of cash flows compared to the initial investment, moreover, internal rate of return obtained shows that there is sufficient safety margin between the projected data rate (cost of capital) and possible deviations from projected, one of the most influential factors in the projection data is the high rate of country risk, which for the low price of the current oil makes the refresh rate of the flow is too high, however, it is difficult to think that this situation may persist for a very long period so that the calculated financial indicators can improve markedly in the short term.

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