# FINANCIAL PLANNING AS A MANAGEMENT TOOL FOR IMPROVING PROFITABILITY IN INCOFECSA, IN RIOBAMBA, 2020-2023 

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#### Abstract

The main objective of the study is to develop a financial plan using a management tool to increase the profitability of the company Incofecsa located in the city of Riobamba, in the period 2020-2023, through the systematization of the theoretical and methodological foundations related to financial planning. Additionally, the current diagnosis of the financial situation was made through the Vertical and Horizontal Analysis, Financial Indicators, Dupont System, Economic Value Added (EVA) and Equilibrium Point, and finally, the financial planning, mission, vision, business objectives, organizational structure and operational plan were developed. With the implementation of the plan, the financial statements were projected, and an increase in profitability of $13.59 \%$ was obtained for the period 2023 , which shows that financial planning has a direct relationship with the company's profitability.


Keywords-financial statements, financial analysis, economic indicators, economic period, proforma statements, financial planning.

## I. INTRODUCTION

This paper shows the financial planning of Incofecsa, a company located in the city of Riobamba, for the period 2020-2023. The world economy has declined, and even more so in Ecuador where the economy is a matter of concern as a result of the health crisis generated by Covid-19. In January 2020, sales of economic activity in the country fell by $10 \%$ compared to the same month in 2019. The economy has managed to sustain itself thanks to exports, income from medical supplies, hygiene and cleaning, but the problem is not only the lack of sales; it is also due to the lack of collection in the customer account for December, January and February (ElComercio, 2020).

In this context, companies need to implement financial planning that allows them to achieve an increase in profitability effectively. The viability of this project is verified through a financial analysis of Net Present Value (NPV), Internal Rate of Return (IRR) and Investment Recovery Period (IRP).

## II. PROPOSED SYSTEM

The financial planning proposal is shown below:

## Mission

To achieve true customer satisfaction, with the design of quality garments, according to market trends, through the continuous training and motivation of the staff to promote the economic and social development of the country

Vision
To be the leading company in textile confections at national and international level.

## Organizational structure



## AREA OF MAINTENANCE TECHNICIAN

Fig. 1. Organizational structure

## Corporate Policies

| Items | Analysis | Policy |
| :---: | :--- | :--- |
| Sales | Revenues <br> decreased by <br> approximately <br> 23\% annually. | Sales growth is projected to average 5.9\%. <br> for periods with financial planning. |
| Recovery period | The customer <br> portfolio is <br> recovered in 114 <br> days. | The recovery period for the portfolio resulting from credit <br> sales is 30 days. |
| Inventory | Inventories <br> rotate in 92 days <br> average. | The average inventory turnover is 45 days. |
| yment period | Accounts <br> payable turnover <br> is 118 days. | ent to suppliers is made on a 60-day term. |
| Utilities | It is not <br> reinvested. | Profits are reinvested to increase <br> the equity of the company. |
| Indebtedness | Debt to assets is <br> $84 \%$. | 50\% of the contracted obligations are canceled to reduce |
| excessively |  |  |
| short-term indebtedness. |  |  |

Table. Corporate policies
Thanks to the analysis of national and world economic indicators and the projections of the International Monetary Fund. The following percentages of
projections were applied to the income and expenses for the first year forecast for 2020. It is estimated that sales will decrease by $27 \%$, and considering the market, it is established that during the following 3 years, an increase of $5.9 \%$ per year is forecast, as shown in Figure 1 and 2.

| Contribution to social security (including reserve fund) | According to the law |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Expense Depreciation of property, plant and equipment |  | - |  |  |
| Promotion and advertising | (-30\%) | (0\%) | (0\%) | (0\%) |
| Transportation |  | - |  |  |
| Fuel and lubricants |  |  |  |  |
| Travel expenses | (-30\%) | (0\%) | (0\%) | (0\%) |
| Supplies and materials | (-30\%) | (5\%) | (5\%) | (5\%) |
| Maintenance and repairs | (-30\%) | (5\%) | (5\%) | (5\%) |
| Public Services |  |  |  |  |
| NON-OPERATING EXPENSES |  | - |  |  |
| Interests with IFIS | (-20\%) | (-20\%) | (-20\%) | (-20\%) |
| PROFIT BEFORE TAX | 3,55\% | 28,36\% | 37,99\% | 43,87\% |
| Workers' Participation |  |  |  |  |
| Deduction for payment to disabled workers |  |  |  |  |
| Non-deductible expenses |  | - |  |  |
| TAXABLE PROFIT |  | 0\% | 0\% | 0\% |
| INCOME TAX DUE |  |  |  |  |
| PROFIT FOR THE YEAR | 3,18\% | 24,8\% | 33,33\% | 38,45\% |



Figure 1. Revenue Projection


Figure 2. Projected Expenditures

## Projections: Income statement

Table 2 shows the projection percentages applied by the company's administrative
and accounting department at Table 2. Percentage of projections of income statement, 2020-2023

## Balance Sheet Projections

Regarding the projections of the Balance Sheet, the technique of percentages is used as detailed by Carrión (2017) in his study. Through this technique, the respective increase and decrease may be applied according to the nature of the account; the formula used is detailed below. Additionally, the policies established by the administrative and accounting department of the company are applied. Table 3 shows the percentages applied in the period 2020-2023.
Item * 100
Incofecsa to the income statement 2020-2023.
STATEMENT OF INCOME INCOFECSA TEXTILE
$\%$ Incremento o decremento $=$

BALANCE SHEETSales
PERIOD 2020-2023

| ACCOUNTS | 2019 | Description | Percen tage |
| :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |
| CURRENT ASSETS |  |  |  |
| Cash | $\begin{array}{r} 16.503, \\ 88 \end{array}$ | RCENTAGE OF SALES | 1,7\% |
| Accounts receivable | $\begin{array}{r} 255.26 \\ 6,96 \end{array}$ | CXC ROTATION | -30,0\% |
| Notes receivable | $\begin{array}{r} 59.990, \\ 50 \end{array}$ | DXC ROTATION | 30,0\% |
| VAT tax credit | $\begin{array}{r} 37.629, \\ 32 \end{array}$ | RCENTAGE OF SALES | 3,8\% |
| INCOME TAX CREDIT | $\begin{array}{r} 5.789,0 \\ 3 \end{array}$ | RCENTAGE OF SALES | 0,6\% |
| Material Inventory Premium | $\begin{array}{r} 117.89 \\ 8,37 \end{array}$ | STATE OF RESULTS |  |
| In-Process Inventory | $\begin{array}{r} 9.460,3 \\ 0 \end{array}$ | INCOME STATEMENT |  |
| Finished Goods Inventory | $\begin{array}{r} 68.824, \\ 10 \end{array}$ | INCOME STATEMENT |  |


| Inventory of supplies and materials | $\begin{array}{r} 6.782,1 \\ 5 S \end{array}$ | INCOME STATEMENT |  |
| :---: | :---: | :---: | :---: |
| Accumulated impairment of inventories | $\begin{array}{r} 1.378,9 R \\ 3 S \end{array}$ | RCENTAGE OF SALES | 0,1\% |
| Prepaid insurance | $\begin{array}{r} 3.498,9 \\ 3 \end{array}$ | CANCELLED |  |
| Others | $\begin{array}{r} 2.077,3 \\ 2 \end{array}$ |  |  |
| TOTAL CURRENT ASSETS | $\begin{array}{r} 582.34 \\ 1,93 \end{array}$ |  |  |
| ASSETS NOT CURRENTS |  |  |  |

EXTILE COMPANY INCOFECSA
PERIODS 2019

| ACCOUNTS | 2020 | 2021 | 2022 | 2023 |
| :---: | :---: | :---: | :---: | :---: |
| SALES | -27\% | 5.9\% | 5.9\% | 5.9\% |
| COST OF SALES |  |  |  |  |
| Initial investment in supplies and materials | Income Statement |  |  |  |
| Net purchases of supplies and materials | -20\% | 2\% | 2\% | 2\% |
| Final Inv. supplies and materials | - | - | - | - |
| Initial Raw Material Inv. | Income Statement |  |  |  |
| Local net purchases of raw materials | -20\% | 2\% | 2\% | 2\% |
| Final Inventory of Raw Materials | - | - | - |  |
| Cost of raw materials used | - | - | - | - |
| Labor | According to the law |  |  |  |
| Wages and salaries and other remunerations | According to the law |  |  |  |
| Social benefits and indemnities | According to the law |  |  |  |
| Social Security Contribution (includes Reserve Fund) | According to the law |  |  |  |
| Indirect Manufacturing Costs | - | - | - | - |
| Initial Work in Process Inventory | Income Statement |  |  |  |
| Final Inventory of Products in Process | Income Statement |  |  |  |
| Initial Finished Goods Inventory | Income Statement |  |  |  |
| Ending Finished Goods Inventory | Income Statement |  |  |  |
| OPERATING EXPENSES | - | - | - | - |
| Wages and salaries and other remuneration | According to the law |  |  |  |
| Social benefits and indemnities | According to the law |  |  |  |


| Machinery | $\begin{array}{r} 120.191,0 \mathrm{~F} \\ 2 \mathrm{~F} \\ \mathrm{~F} \\ \mathrm{~F} \end{array}$ | TATEMENT OF <br> FINANCIAL POSITION <br> FINANCIAL <br> STATEMENT |  |
| :---: | :---: | :---: | :---: |
| Furniture and fixtures | 11.036,77\| | TATEMENT OF <br> FINANCIAL POSITION <br> FINANCIAL <br> STATEMENT |  |
| Computer equipment and software | $35.088,11$ | TATEMENT OF <br> FINANCIAL POSITION <br> FINANCIAL <br> STATEMENT |  |
| Vehicles | 68．155，01 | STATUS OF SIT． FINANCIAL |  |
| Accumulated depreciation property，plant and equipment |  | TATEMENT OF FINANCIAL POSITION FINANCIAL STATEMENT |  |
| Accounts receivable L／P | 10．613，93 | ROTATION CXC L／P | －30，0\％ |
| TOTAL NON－ CURRENT ASSETS | $\begin{array}{\|r\|} \hline 144.995, \\ 20 \end{array}$ |  |  |
| TOTAL ASSETS | $\begin{array}{r} 727.337 \\ 13 \end{array}$ |  |  |
| LIABILITIES |  |  |  |
| CURRENT LIABILITIES |  |  |  |
| Accounts payable | $\begin{array}{r} 121.409,2 \\ 0 \end{array}$ | CXP ROTATION | －20，0\％ |
| Obligations with IFIS | $\begin{array}{r} 257.052,5 \\ 0 \mid 1 \end{array}$ | ORDING TO INTEREST | －20\％ |
| Income tax payable | 3.615 .71 | INCOME STATEMENT |  |
| Participation Workers to be paid | $12.996 .42 S_{R}$ | STATE OF RESULTS |  |
| Obligations with IESS | 9．987，33R | RDING TO LAW | 1，0\％ |
| Employee benefit obligations | $30.638,76$ | RDING TO LAW |  |
| Customer advances | 50．301，06 | MPANY POLICIES | 10\％y 5\％ |
| TOTAL CURRENT LIABILITIES | $\begin{array}{\|r\|} \hline 486.000, \\ 98 \end{array}$ |  |  |
| LIABILITIES NO CURRENTS |  |  |  |
| Employer＇s Retirement Provisions | $\begin{array}{r} 100.396,31 \\ 6 \end{array}$ | MPANY POLICIES | 5，0\％ |
| Provisions for Eviction | 24．081，57 | MPANY POLICIES | 2，0\％ |
| TOTAL NON－ CURRENT LIABILITIES | $\begin{array}{\|r\|} \hline 124.477, \\ 93 \end{array}$ |  |  |


| Final inventory of supplies and materials | 17．000，15 | 98．460，33 | 110．857，54 | 143．901，23 |
| :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Initial Material Inventory } \\ & \text { Premium } \end{aligned}$ | 117．898，37 | 183．000，37 | 190．898，23 | 267．257，52 |
| Local net purchases of Raw Materials | 248．250，29 | 253．215，29 | 258．279，60 | 263．445，19 |
| Final Material Inventory Premium | 183．000，37 | 190．898，23 | 267．257，52 | 326．054，18 |
| Cost of raw materials used | 221．087，54 | 212．977，65 | 219．625，90 | 222．709，70 |
| Labor | 228．206，73 | 228．206，73 | 239．617，06 | 239．617，06 |
| Wages and salaries and other remunerations | 161．435，82 | 161．435，82 | 169．507，61 | 169．507，61 |
| Social benefits and indemnities | 34．795，58 | 34．795，58 | 36．535，35 | 36．535，35 |
| Social Security Contribution （Includes Reserve Fund） | 31．975，34 | 31．975，34 | 33．574，10 | 33．574，10 |
| Indirect <br> Manufacturing <br> Costs | 57．325，96 | 72．061，71 | 72．716，65 | 73．404，34 |
| Depreciation of property，plant and equipment and equipment | 11．922，94 | 11．922，94 | 11．922，94 | 11．922，94 |
| Supplies and materials | 6．380，82 | 6．699，80 | 7．034，86 | 7．386，60 |
| Maintenance and repairs | 6．094，20 | 6．398，91 | 6．718，86 | 7．054，80 |
| Plant rental production | 32．928，00 | 47．040，00 | 47．040，00 | 47．040，00 |
| Initial Work in Process Inventory | 9．460，30 | 11．879，50 | 9．879，56 | 15．874，36 |
| Final Inventory of Products in Process | 11．879，56 | 9．879，56 | 15．874，36 | 12．873，00 |
| Initial Product Inventory Finished | 68．824，10 | 74．147，96 | 76．147，96 | 61．471，23 |
| Final Product Inventory Finished | 74．147，96 | 76．147，96 | 61．471，23 | 26．247，63 |
|  |  |  |  |  |
| OPERATING EXPENSES | 111．111，60 | 109．816，50 | 112．988，02 | 116．318，10 |
| Wages and salaries and other remuneration | 47．563，25 | 47．563，25 | 49．941，41 | 52．438，48 |
| Social benefits and indemnities | 7．312，39 | 7．312，39 | 7．678，01 | 8．061，91 |
| Contribution to social security（including reserve fund） | 2．957，58 | 2．957，58 | 3．105，45 | 3．260，73 |
| Property depreciation expense， plant and equipment | 20．158，03 | 18．596，35 | 18．596，35 | 18．596，35 |
| Promotion and advertising | 6．419，60 | 6．419，60 | 6．419，60 | 6．419，60 |
| Transportation | 5．020，2才 | 5．020，27 | 5．020，2才 | 5．020，27 |
| Fuel and lubricants | 8．002，2才 | $8.002,27$ | 8．002，2才 | $8.002,27$ |
| Travel expenses | 3．527，22 | 3．527，22 | 3．527，22 | 3．527，22 |
| Supplies and materials | 2．175，75 | 2．284，53 | 2．398，76 | 2．518，70 |
| Maintenance and repairs | 3．154，77 | 3．312，51 | 3．478，13 | 3．652，04 |
| Utilities | 4．820，54 | 4．820，54 | 4．820，54 | 4．820，54 |
| NON－OPERATING EXPENSES | 28．359，80 | 22．687，84 | 18．150，27 | 14．520，22 |
| Interests with IFIS | 28．359，80 | 22．687，84 | 18．150，27 | 14．520，22 |
| PROFIT BEFORE TAX | 89．830，65 | 125．391，35 | 144．859，32 | 160．026，47 |
| Workers＇Participation | 13．474，60 | 18．808，79 | 21．728，90 | 24．003，97 |
| Other deductions | 15．265，70 | 15．265，70 | 15．265，70 | 15．265，70 |
| Deduction for payment to disabled workers | 21．320，40 | 21．320，40 | 21．320，40 | 21．320，40 |
| Non－deductible expenses | 2．347，79 | 2．347，79 | 2．347，79 | $2.347,79$ |
| TAXABLE PROFIT | 42．117，74 | 72．344，34 | 88．892，11 | 101．784，19 |
| INCOME TAX DUE | 4．021，81 | 10．382，33 | 14．637，83 | 18．505，45 |


| TOTAL LIABILITIES | 610.478, <br> 91 |  |  |
| :--- | ---: | ---: | ---: |
| PATRIMONY |  |  |  |
| Capital | $12.000,00$ | SHARE CAPITAL |  |
| Legal Reserve | $7.820,00$ |  |  |
| Retained earnings <br> from prior years | $27.007,58$ | MPANY POLICIES | $100,0 \%$ |
| Net income | $70.030,74$ | INCOME STATEMENT |  |
| TOTAL EQUITY | 116.858, <br> 32 |  |  |
| TOTAL LIABILITIES | 727.337, <br> AND EQUITY |  |  |


| ACCOUNTS | 2020 | 2021 | 2022 | 2023 |
| :---: | :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |  |
| CURRENT ASSETS |  |  |  |  |
| Cash | 16.784,45 | 17.069,78 | 17.359,97 | 17.655,09 |
| Accounts receivable | 178.686,87 | 125.080,81 | 87.556,57 | 61.289,60 |
| Notes receivable | 77.987,65 | 77.987,65 | 54.591,36 | 54.591,30 |
| VAT tax credit | 36.199,41 | 34.823,83 | 33.500,52 | 32.227,50 |
| Tax credit RENTA | 5.441,69 | 5.115,19 | 4.808,28 | 4.519,78 |
| Material Inventory Premium | 183.000,37 | 190.898,23 | 267.257,52 | 326.054,18 |
| In-Process Inventory | 11.879,56 | 9.879,56 | 15.874,36 | 12.873,00 |
| Product Inventory Finished | 74.147,90 | 76.147,96 | 61.471,23 | 26.247,63 |
| Supply Inventory and materials | 17.000,15 | 98.460,33 | 110.857,54 | 143.901,23 |
| Accumulated impairment <br> for <br> Inventories | 1.392,72 | 1.406,65 | 1.420,71 | 1.434,92 |
| Insurance paid by in advance |  |  |  |  |
| Others | 164,68 | 3.908,48 | 6.333,44 | 9.065,93 |
| TOTAL CURRENT ASSETS | 599.900,06 | 637.965,17 | 658.190,07 | 686.990,37 |
| NON- <br> CURRENT <br> ASSETS |  |  |  |  |
| Machinery | 120.191,02 | 120.191,02 | 120.191,02 | 120.191,02 |
| Furniture and ensures | 11.036,77 | 11.036,77 | 11.036,77 | 11.036,7 |
| Computer equipment and software | 35.088,11 | 35.088,11 | 35.088,11 | 35.088,11 |
| Vehicles | 68.155,01 | 68.155,01 | 68.155,01 | 68.155,01 |
| Accumulated depreciation of property, plant and equipment team | 100.089,64 | 100.089,64 | 100.089,64 | 100.089,64 |
| Accounts receivable L/P | 7.429,75 | 7.429,75 | 7.429,75 | 7.429,75 |
| TOTAL NONCURRENT ASSETS | 141.811,02 | 141.811,02 | 141.811,02 | 141.811,02 |
| TOTAL ASSETS | 741.711,08 | 779.776,19 | 800.001,09 | 828.801,39 |
| LIABILITIES |  |  |  |  |
| $\begin{array}{\|l\|} \hline \text { CURRENT } \\ \text { LIABILITIES } \end{array}$ |  |  |  |  |
| Accounts payable | 97.127,36 | 77.701,89 | 62.161,51 | 49.729,21 |
| Obligations with IFIS | 205.642,00 | 152.586,36 | 113.219,08 | 84.008,56 |
| Income tax payable | 4.021,81 | 10.382,33 | 14.637,83 | 18.505,45 |
| Participation Workers to be paid | 13.474,60 | 18.808,70 | 21.728,90 | 24.003,97 |
| Obligations with IESS | 9.987,33 | 9.887,46 | 9.788,58 | 9.690,70 |
| Obligations for employee benefits | 35.234,57 | 36.291,61 | 37.380,36 | 38.501,77 |
| Customer advances | 55.331,17 | 58.097,72 | 61.002,61 | 64.052,74 |
| TOTAL CURRENT LIABILITIES | 420.818,84 | 363.756,08 | 319.918,87 | 288.492,40 |
| NON-CURRENT LIABILITIES |  |  |  |  |
| Employer's <br> Retirement <br> Provisions | 105.416,18 | 110.686,99 | 116.221,34 | 122.032,40 |
| Provisions for Eviction | 24.563,20 | 25.054,47 | 25.555,55 | 26.066,6 |
| TOTAL NONCURRENT LIABILITIES | 129.979,38 | 135.741,45 | 141.776,89 | 148.099,07 |
| TOTAL LIABILITIES | 550.798,22 | 499.497,53 | $\begin{array}{r} 461.695,76 \\ \hline \end{array}$ | $\begin{aligned} & 436.591,46 \\ & \hline \end{aligned}$ |
| PATRIMONY |  |  |  |  |
| Capital | 12.000,00 | 12.000,00 | 12.000,00 | 12.000,00 |
| Legal Reserve | 9.540,40 | 17.172,72 | 30.910,90 | 55.639,61 |
| Retained earnings from |  |  |  |  |

Table 3. Percentage of projections in Balance Sheet

Table 4 shows the final projected values of each of the income statement accounts for 2020-2023.

## STATEMENT OF INCOME INCOFECSA TEXTILE COMPANY PERIOD 2020-2023

| ACCOUNTS | 2020 | 2021 | 2022 | 2023 |
| :--- | ---: | ---: | ---: | :---: |
| SALES | $\mathbf{7 2 8 . 1 7 9 , 2 1}$ | $\mathbf{7 7 1 . 1 4 1 , 7 9}$ | $\mathbf{8 1 6 . 6 3 9 , 1 5}$ | $\mathbf{8 6 4 . 8 2 0 , 8 6}$ |
| COST OF SALES | $\mathbf{4 9 8 . 8 7 7 , 1 1}$ | $\mathbf{5 1 3 . 2 4 6 , 0 9}$ | $\mathbf{5 4 0 . 6 4 1 , 5 4}$ | $\mathbf{5 7 3 . 9 5 6 , 0 7}$ |
| Initial inventory of supplies and <br> materials | $6.782,15$ | $17.000,15$ | $98.460,33$ | $110.857,54$ |
| Net purchases of supplies <br> and materials | $48.157,25$ | $49.120,39$ | $50.102,80$ | $51.104,86$ |

Table. 4. Projected Income Statement 2020-2023

Table 5 shows the final projected values of each of the accounts in the Balance Sheet for 2020-2023.

INCOFECSA TEXTILE COMPANY BALANCE SHEET PERIODS 2020-2023

|  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Net income | 72.334, | 96.200, | 108.492 | 117.517 |
|  | 24 | 32 | , 59 | , 05 |
|  |  |  |  |  |
| TOTAL | 190.91 | 280.27 | 338.30 | 392.20 |
| EQUITY | 2,87 | 8,66 | 5,33 | 9,92 |
|  |  |  |  |  |
| TOTAL |  |  |  |  |
| LIABILITIES | 741.71 | 779.77 | 800.00 | 828.80 |
| AND EQUITY | 1,08 | 6,19 | 1,09 | 1,39 |

Table. Projected Balance Sheet 2020-2023

## Main projected indicators

## Projected current liquidity

## Current Passive



Figure 3. Current liquidity 2017-2023
Current liquidity grows in each period; through financial planning, greater liquidity is achieved so that the company can cover its current obligations without needing to dispose of its fixed assets. Thus, from 2020 to 2023, the years in which the projection was made, each year it has been increasing by 0.30 , reaching $2.38 \%$ in the last projected period.

## Projected Asset Indebtedness

Total Passive

Total Active


Figure 4. Assets Indebtedness 2017-2023.

Excessive indebtedness with creditors was one of the main problems that the company had. It was decapitalizing so that in 2019 the company's total assets were financed $84 \%$ by total liabilities; through the projection, it was achieved that the company is financed with its resources and has financial autonomy. By 2023, only $53 \%$ of the total assets is financed by the company's total liabilities, and the rest is financed through the company's equity.

## Projected average portfolio period



## Total active

Figure 5. Projected average portfolio period 2017-2023.

As can be seen in the figure, by the year 2023, the average recovery period of the portfolio is 26 days; through financial planning, the company is managing to make its credit sales effective quickly; in other words, each year, it can minimize the collection period by adjusting to the policies established.

## Projected average payment period

Figure 8. Net return on assets 2017-2023
This result measures the benefit generated by the company's assets so that by 2023 the profitability is projected at $14.18 \%$, which means that the company is using its assets efficiently.

## Projected Net Profit Margin



Figure 6. Projected average payment period 2017-2023.

The average number of days to pay in 2020 remains the same as in the previous year; as of 2021, it is gradually reduced; thus, by 2023, there is a margin of 57 days to pay suppliers. In this way, credibility with third parties is recovered, and it will also be possible to establish commercial agreements with new suppliers.

## Projected finished goods inventory period

360

Initial turnover of finished products


Figure 7. Period of finished product inventories 2017-2023

The period of finished product inventories was one of the indicators to be
improved; thus, during the following years, it is planned that the finished product inventory will remain in the warehouse for as little time as possible; through planning, inventory will rotate more frequently each year. By 2023, the inventory will rotate every 32 days, which means that the inventory is becoming effective more quickly.

Sales 9. Projected Net Profit Margin 2017-2023

This indicator determines how much the company generates after deducting all the expenses necessary to manufacture the product, administrative and sales expenses, other expenses and income tax. By means of the proposed projection, the company will gradually increase its net profitability so that by 2023, for every dollar of sales made, it will obtain a net profitability of 0.14 cents.

## Sensitivity analysis

The Net Present Value (NPV), Internal Rate of Return (IRR) and Return on Investment Period (ROI) are calculated with the projected income and expenditure values; the following table shows the calculated values.

| Data | Initial <br> investmen <br> t | 150000, <br> 00 |
| :---: | :---: | ---: |
|  | Rate | $10 \%$ |


| Perio <br> d |  | Revenues <br> es |  | Present <br> value |
| :---: | :---: | :---: | ---: | ---: |
| 0 |  |  | - | - |
|  |  |  | 150.000 <br> , 00 | $150.000,0$ |
|  |  | 0 |  |  |
| 1 | $728.179,21$ | 655.844 | 72.334, | 65758,40 |
|  |  | , 97 | 24 |  |
| 2 | $771.141,79674.941$ | 96.200, | 79504,40 |  |
|  |  | , 46 | 32 |  |
| 3 | $816.639,15708.146$ | 108.492 | 81512,09 |  |
|  |  | , 56 | , 59 |  |
| 4 | $864.820,86708.146$ | 156.674 | 107010,66 |  |
|  |  | , 56 | , 30 |  |


| Present value (NPV) | $\$ 183.785,54$ |
| :---: | ---: |
| Internal rate of return (IRR) | $52 \%$ |
| Profitability index | 2,23 |
| PRI | 2,19 |

Table.6. Calculation of NPV, IRR, PRI
A sensitivity analysis is performed when income decreases by $1 \%$ and $5 \%$, and also when the outflow is increased by $1 \%$ and $5 \%$, the results are shown in Table 7.

|  | Normal | $1 \%-$ <br> Income | $5 \%-2 \%$ <br> Income | +Expen <br> se | $5 \%$ <br> +Exit |
| :---: | ---: | ---: | ---: | ---: | ---: |
| VA | $\$ 183.7$ | $\$ 158.75$ | $\$ 58.609$ | $\$ 162.08$ | $\$ 75.298$ |
| N | 85,54 | 0,28 | , 26 | 8,14 | , 53 |
| IRR | $52 \%$ | $46 \%$ | $24 \%$ | $47 \%$ | $28 \%$ |
| PRI | 2,19 | $\$ 2,30$ | 2,90 | 2,29 | 2,79 |

$\checkmark$ The study determined that Incofecsa did not have a financial analysis that would allow it to interpret the variations and ratios of each period; the lack of this diagnosis had repercussions on decision making.
$\checkmark$ The financial evaluation of the accounting figures has The structural and evolutionary position of INCOFECSA's main account groups was established in order to identify reference points for the accounts that require greater attention, which in the case of the study has been the decrease in sales, overdue portfolio over several periods and excessive indebtedness.

Table 7. Calculation of NPV, IRR, IRR with income and expenses $1 \%$ and $5 \%$.

## Net Present Value (NPV) analysis

The investment is highly sensitive to a decrease in income. However, investing is convenient when there is a decrease in income of $1 \%$ and $5 \%$ and an increase in expenses of $1 \%$ and $5 \%$.

## Analysis of the internal rate of return (IRR)

The IRR is affected by income; the IRR is more sensitive to a decrease in income than to an increase in expenses; the investment should be accepted when income decreases by $1 \%$ and $5 \%$ and expenses increase by $1 \%$ and $5 \%$.

## Recovery Period Analysis (PRI)

The payback period for the investment tends to be greater than two years in any scenario; the investment can be accepted if the income decreases by $1 \%$ and $5 \%$, and the expenses increase by $1 \%$ and $5 \%$ due to the sensitivity analysis performed with the indicators. It is advisable to invest.

## III. ANALYSIS OF RESULTS



Table 8. Spearman's calculation
The normality of the two variables VI: Financial Planning, VD: Profitability, as one of the variables does not meet the normality, Spearman's method is used, taking the value of Sig. from Table 8, which is equal to 0.758 and comparing it with the significance level of 0.05 .

As the P value is greater, Hi
Hi: Financial planning will increase the profitability of the textile company Incofecsa.

## Decision:

There is a direct relationship between financial planning and profitability, i.e., the greater the financial planning, the greater the profitability.
$\checkmark$ It is concluded that the financial planning model specifies operational and financial actions to establish the projected statements to maximize the company's profitability.

## V. RECOMMENDATIONS

$\checkmark$ Perform a periodic financial diagnosis of the company, based on evaluation techniques and tools in order to efficiently use resources and take corrective measures.
$\checkmark$ Execute the financial planning proposed in the Incofecsa company to control its level of indebtedness and increase sales and control operational and administrative expenses.
$\checkmark$ To constantly monitor the financial planning process in order to control management and implement improvements if necessary to achieve the company's goals.

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