



## ROI Analysis Service Stations In Mexico

### KEYWORDS

return on investment, financial strategies, breakeven.

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### ABSTRACT

*The aim of this work is the design of administrative financial strategies for excellent decision making, for the optimization of resources in the service stations, which contribute to increased profitability for a better return on your investment.*

*The methodology used was through techniques of quantitative and qualitative analysis to arrive at the results. Among the key findings, is the balance point of service stations with its own soil with 8500.00 liters daily sales, with a return original investment in 4.9 years.*

*Continuing the scale we need to 26000.00 liters daily selling a service station can achieve a return in 3.6 years. For service stations with lease of land it was found that the equilibrium point is swept to 13500.00 liters daily sales, while the 26000.00 liters a return on investment in 4.9 years is reached.*

### Introduction

According to Merton (2003), the resources are distributed over time and is very difficult to know the exact destination of these investments. This is where finance has its scope to study the distribution of resources invested in time. To Besley and Brigham (2000), in a free economy, resources are allocated through the price system. For a private company, in the case of external loans will be the interest rate the price to pay for the use of borrowed funds, while for the equity of the company returns to pay their partners or shareholders becomes the price to pay for the use of those funds.

There is a need for companies to make public its financial statements: the balance sheet, income statement, cash flow and statement of changes in investment, to give your users access to information and to know what what's going on inside (Berk and Demarzo, 2008). According to Stoner, Freeman and Gilbert (1996), the administration must be constant and conscious, able to give shape to organizations to achieve successful models.

According to Hill and Jones (2009), analysis of the external environment in which a company to analyze the strategies that will have to implement and break with the strengths of competition unfolds will be very important.

Now with the new reforms in the energy sector in Mexico a very important challenge service stations are expected, as companies come to our country world globe highly competitive in its costs.

Hence the importance of studying the financial problems of the stations, which overwhelm their economic stability and permanence, as they play a key activity for the Mexican economy. According to the regulator REFINIING PEMEX (2011), distribution systems have been very great

progress: the network of service stations has been subject since March 1992 a process of modernization of its facilities to ensure high safety and compliance with regulations on environmental issues. 2015 Currently there are more than 12,000 filling stations in operation throughout the republic according to data portal PEMEX REFINING (2015), which has led to more competition by increasing service vendors.

In Mexico, given the large number of vehicles out there, it's high gasoline consumption, mainly by individuals and companies that are given credit service. But his untimely payment service stations, hence these impacts in their own liquidity, forcing them to obtain bank loans to meet their inventories or liquidity problems and able to operate continuously.

### Goals

The main objectives proposed in this paper are: Designing strategies to make the best decisions for the stations in Mexico, optimize their financial resources for a better contribution of positive results, and also help meet the objectives for which they were created.

### Justification

Previously managers of service stations in Mexico, did not know the word competition, as there were few service stations in the domestic market, which caused that without lifting a finger in marketing, selling anyway. From 2000 and 2015, the number of service stations increased, which brought an important impact which had been operating since forced to change the way you manage for life to survive or maintain sales.

### Methodology

In this study the techniques of quantitative and qualitative analysis were used to arrive at the results. On the financial

side, it was where quantitative analysis through the financial ratios and ROI were used. Regarding the administrative information was merely qualitative analyzes.

In qualitative studies, analysis of data begins to be carried out under an overall plan, but its development is undergoing changes according to the results (Dey, 1993, cited by Hernández, Fernandez and Baptista, 2014). For example, it may happen that classify contents of interviews on issues and categories and in doing so elaborate a graph or a diagram, then we incorporate comments from our notes and realize that it is important to add the analysis of photographs and a video (Hernández, et al., 2014).

The technique used for the collection of information for this study was: "primary and secondary data" (collected by other researchers and other researchers). This aims to obtain information through the review of documents, public records, physical or electronic files for subsequent analysis and conclusion.

**Literature review**

Ramirez (2005), believes that investing in a project is to engage an amount of money in the hope of increasing their purchasing power in the future.

Berman, Knight and Case (2007), believe that this is an examination and get good results not only. Defined financial literacy as a range of options to get the result their profitability. With regard to credit granting companies, Ettinger and Golieb (1965) tells us that the loans do not end with the consumer, if that is not a process that accompanies every stage of the business or financial cycle.

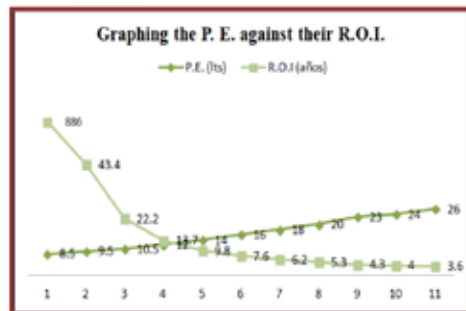
To Berk and Demarzo (2008), the most important financial statement accounts for cash flow statement, argued that other financial statements show the results but not the solvency of actual liquidity.

Finally by the financial statements is as service stations may meet one of the needs is to inform your internal environment and external environment. It is important that gas stations have long-term goals set.

As for the profitability of the projects, Rodriguez (2005), tells us that the survival, growth and profitability define the framework for the study of business strategy and senior management imperative: `survive today and grow tomorrow to survive in the future. Definitely service stations should seek their strategies for survival, but now with new energy reforms where competition from other companies such as Shell, Exxon Mobil, Chevron, which are world leaders in energy services are opening.

Regarding the SWOT analysis, according to Zambrano (2006), he says that is another tool or technique like the tree of skills, critical success factors and key skills and abilities.

**Graph 1**



**Results**

According to technical information on the percentage of profit per liter of fuel, which was obtained from refining and Pemex portal stations, taking into consideration their fixed and variable costs, considered in this analysis do not handle lease expense of land it was obtained table 1, which shows the equilibrium points and the original ROI for the service station.

**Table 1**

vventas promedio diarias (lts) (en miles)	Utilidad sin impuestos	Utilidad con impuestos	R. O. I. (Años)
8.5	12,535	11,282	886.3
9.5	256,191	230,572	43.4
10.5	499,847	449,862	22.2
12	865,331	729,198	13.7
14	1,352,642	1,021,585	9.8
16	1,839,954	1,313,972	7.6
18	2,327,266	1,606,359	6.2
20	2,814,577	1,898,746	5.3
23	3,545,545	2,337,327	4.3
24	3,789,200	2,483,520	4
26	4,276,512	2,775,907	3.6

Source : own.

The courage to break even for stations in Mexico is 8500 liters on average daily sales at this point would not be losing or winning, and your return on investment would take 886 years to be study recovered.

In Figure 1 an illustration of the contents of Table 1 in order to observe more closely the behavior suffering break-even with increasing the number of liters sold daily, seeing reflected in the recovery of the original investment is made.

As daily liters selling accelerates ROI in that proportion, of 8500 liters to 12.000 liters is a super accelerated ROI will accelerate, because 886 years is reduced to 13 years for the 12,000 liters. Continuing the analysis shows that after 12.000 liters ROI recovery is already under uniform daily sales increase.

A service station that sells 24.000 liters daily may be quiet because in four years will recover its investment. Although it is noteworthy that the national average of all stations is 17,000 liters per day by PEMEX information published on its website, in Tecoman Colima, Mexico average is 20,000 liters.

**ROI behavior of service stations with lease of land**

According to technical information on the percentage of profit per liter of fuel, which was obtained from refining

and Pemex portal stations Tecoman, Colima México taking into consideration their fixed and variable costs, considered in this analysis management lease expenses field table 2 was obtained, which shows the equilibrium points and the original ROI for the service station.

For service stations with land lease break even rises to 13.5 thousand liters daily sales, showing a recovery of their original investment back 360 years. By making a comparison with Table 1 it shows that 5000 liters increase break-even to reach its midpoint.

In figure 2 a representation of Table 2, where you can observe the behavior of the equilibrium points and its original ROI is. Illustrating as increasing sales of liters also in that proportion the original return on investment for service stations Tecoman, Colima Mexico accelerates.

Graph 2

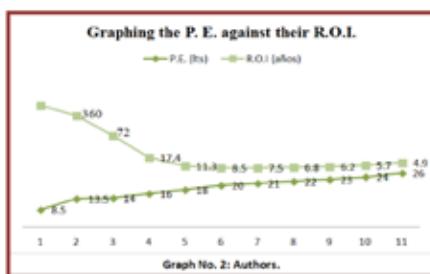


Table 2

**Table 2: Calculation of R.O.I. in each of the expected equilibrium points . With an average investment of 7.5 million and lease of land.**

ventas promedio diarias (lts) (en miles)	Utilidad sin impuestos	Utilidad con impuestos	R. O. I. (Años)
8.5	-1,187,465	-1,187,465	0
13.5	30,814	27,733	360.6
14	152,642	137,378	72.8
16	639,954	575,959	17.4
18	1,127,266	886,359	11.3
20	1,614,577	1,178,746	8.5
21	1,858,233	1,324,940	7.5
22	2,101,889	1,471,133	6.8
23	2,345,545	1,617,327	6.2
24	2,589,200	1,763,520	5.7
26	3,076,512	2,055,907	4.9

Source : own.

From 13,500 liters to 18,000 liters it shows that the acceleration of the original return on investment is very fast, since 360 years have reached 11 years in the 18,000 liters.

From the 18,000 liters to 26,000 liters it was observed that the original ROI is more moderate and keeping uniformity between each jump makes the scale. In this case a station having a sale of 24,000 liters will recover 5.7 years and if reaches 26,000 liters would have a ROI of 4.9 years.

While a station that reaches reach 20,000 liters daily, is practically in the middle of Tecoman and above the 17,000 liters of the national average, with a recovery to 8.5 years.

**Conclusions**

Once you interpreted the results are released if the objectives of this study and the study questions were met.

Overall objective: to design the financial and administrative strategies that enable better decision-making to help get better performance contributing to a return on investment. Indeed the study does reflect a number of strategies that employers should consider to achieve the objectives, which also enable you to provide quality service to its customers.

It also makes mention of the proper induction of staff with the company, who will be responsible for the pretty face and excellent service to customers, even considering every avenue that will future competition with the opening of other bidders, which have high services quality.

Based on the table of investment returns, the investor may set goals that are necessary depending on how long you want to recover their investment, and while it can not control their competition, there are a number of strategies in the study that will guide you as satisfy their customers happy.

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