

Implementation of an Industrial Maintenance Services Management Company in the City of Manaus - Amazonas - Brazil

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Abstract— The services segment in recent years has, in a certain way, driven and encouraged the creation and formalization of small and medium enterprises to provide services and products. In this sense, it is necessary for the entrepreneur to understand how to implement a company that provides industrial maintenance services. In order to do so, the main steps of the business planning for the implementation of a service company in the city of Manaus - AM will be presented. In order to implement a medium or large enterprise, it is necessary to take into account the basic premises of a business plan that serves as a guiding base for any entrepreneur. Admittedly, business success depends on the steps and degree of assertiveness of planning in the process of drawing up the business plan. Within the set of business plan assumptions, it is possible to indicate and approve the objectives, identify the internal and external risks and generate actions to reduce or even avoid them before the operation of the company. For the accomplishment of this study we used field research with an exploratory method, in a qualitative approach. As an instrument, visits were made to companies and observations of procedures for setting up a company. The result of this survey was contributed by the owner and the managing partners of the company. At the end of the research, it was evidenced that companies must establish and follow at least the basic guidelines of the business plan in order to obtain greater chances of success during its implementation.

Keywords— Business Plan, Entrepreneurship, Industrial Maintenance.

I. INTRODUCTION

The successful entrepreneur needs to be very sensitive to identify new business opportunities, be dynamic and know how to turn small ideas into big business. Have the courage and perseverance to start new business or restart an idea or project, taking risks and responsibilities of the business. The term entrepreneur was first used in 1725 when economist Richard Cantillon designated the word for risk taker [1]. Over the years the process of undertaking has been the object of many studies and a number of authors have made several contributions, but to be sure, all emphasize as the key to entrepreneurship the individual with the feeling of taking risks in the business world.

In Brazil, the flexibilization of Brazilian legislation and the support of the federal government to small and micro enterprises boosted the entrepreneurial activity and encouraged the development of entities and programs to support new entrepreneurs. According to the SEBRAE report [2], between 2014 and 2017 more than one million new businesses were implemented in the form of micro

and small enterprises, the ME and EPP's. For economists at Serasa Experian there was an increase in business start-ups for the service delivery sector driven as an alternative to income generation and mainly by the slowdown of the economy in the period between 2015 and 2017.

The segment for service companies in the state of Amazonas was promising, the services sector had an increase of 8.4% according to the Brazilian Institute of Geography and Statistics (IBGE) in the same period. The volume of growth in the state was the third best in Brazil, behind only the state of Paraná (7%) and Mato Grosso (20.3%). But, not everything is wonders, it is also indicated by SEBRAE in [2] that in the first two years of life the mortality rate reaches about 70% of micro and small Brazilian companies. This corporate bankruptcy is already the object of study and discussion by business entities and universities throughout Brazil. This mortality rate of Brazilian companies is not very different from the reality pointed out by small US businesses, one of the largest supporters of microenterprises in the world, there, bankruptcy is around 50%, all this management

insufficiency is related to failures in the planning or lack of managerial experience.

In the context of business, it is noticed that the variables and degree of uncertainty of the various actions in the current world have increased and it is up to the entrepreneur to keep in tune and present differential and competitive strategies in the internal and external environment so as to maintain the expected results for design the organization in a positive way. In this study, we presented the basic premises of planning the business plan for the implementation of an industrial maintenance service company in the city of Manaus-AM. Specifically, it is necessary to: highlight the importance and advantages of planning through the business plan, identify the main characteristics of the business, competitors, analyze strengths and weaknesses, best strategies and the market scenario to make feasible or not implementation of the project.

II. THEORETICAL FOUNDATION

The need for planning with the characteristics and main points for modeling a business plan will be studied and demonstrated to show how a plan can be put together and what its contributions and relevance are to a venture. The annual report released by the GEM - Global Entrepreneurship project that measures entrepreneurial activity around the world indicates that some entrepreneurs do not consider important information about the market, do not plan the basic items, and do not manage their businesses properly. For entrepreneurs who remain on the market, the most important factor for the survival of the company is good planning before the start of operations.

According to [3], the business plan "is a document used to describe an enterprise and the business model that sustains the enterprise". The business plan is an important tool that guides and guides the entrepreneur in a simple and safe way, reducing the chances of managerial errors. In the planning phase of the plan, it is possible to identify undesirable failures, and allows the manager to create a plan of action to mitigate possible deviations in a timely manner, thus avoiding that the business can be severely affected. In addition, the study of the sections for its development contributes to the identification of the variables that can lead the business to success and to point out the possible hidden pitfalls that can be inferred in the implantation or not of the business.

In his work [4], "In the current environment, planning has become essential, because neither the waiting time nor the deficiencies of the trial and error method are acceptable" [5] defines that, The planning process is the

tool that the people and organizations use to manage their relationships with the future. It is a specific application of the decision making process. Decisions that seek in some way, influence the future, or that will be put into practice in the future, are planning decisions.

Planning in a way should provide secure avenues to maximize results and reduce the chances of errors before even the business is definitely deployed. It is necessary to choose the structure that makes up the business plan correctly, there is no standard and rigid structure for writing a business plan. Each business has its peculiarities and similarities, and it is impossible to define a standard and universal model that can be applied to any company [3]. The author also argues that the business plan must have a minimum number of sections that allow the complete understanding of the business.

III. RESEARCH METHOD

This article is characterized as a case study and has a qualitative approach of an explanatory nature, since it sought to investigate through observations, interviews and occurrences with the purpose of offering the expected results for the implementation of a service delivery company.

This type of research is concerned with identifying the factors that determine or contribute to the occurrence of phenomena. In this approach the researcher can present the reason of things through the offered results and still give continuity in studies of other researches taking into account the level of detail that is necessary.

3.1 Elements of the Business Plan

The elements of the business plan will be addressed are presented: executive summary, description of the company, product and services offered, market action, marketing and sales strategy, and financial plan.

3.1.1 Executive Summary

In his work [3], he explains that the best business plans are the most objective and his executive summary must follow this same rule, contemplating the essence of the plan, written in a clear and concise manner, so that the reader is interested in the plan. The executive summary is where you should contain, through a brief summary, the origin of the business, or the idea of the business, the services and products that will be offered, and the set of information and characteristics such as, strategies and planning for its installation, what customers must be met, the industry demand and its needs, resource estimates that will be invested, the profit margin and the time of return of the investment to the business. It represents one of the most important parts of any business plan and its planning, since it must still be developed with a simple

and objective language, but, that is able to convince the reader in the idea to be developed.

According to [1], in the executive summary the most relevant information that should be considered refers to the nature of the business and the most important aspects of the enterprise, the demands that the company will meet, the business segment, a brief report about the experience of partners of the venture and the financial resources allocated to start operations.

3.1.2 Company Description

Every business has its own characteristics and information that are part of this section, such as: legal description of the company, name, type, legal form, fiscal framework, location, sector, mission, vision, values, among others. According to [6], the company description should describe the purpose, nature of the services or products and structure. However, the most important of the description is to deal with the people who will be part of the team, and above all, the competence of the managers who will be in charge of the enterprise, since they will determine the direction of the business and therefore the focus of the investors when analyzing the proposal of business.

3.1.3 Product and services

The products and services that will be provided by the company, information on how they are produced, what resources are used for their production, how long the product or service lives, can be added the main stages of development, such as design and technologies involved in the process. In addition, customers' satisfaction and perception about the organization's products or services can be demonstrated. [7], points out that customer feedback is very important because it usually provides not only an overview of the perceived quality level in the products and services but also guides the company's future investments in new developments and processes. " In this way, the entrepreneur will have an environment with an expected horizon that will or may not launch investments and even partnerships with institutions and entities for the purpose of expanding or increasing the sales capacity of services and products.

3.1.4 Market

Market analysis can be considered the most difficult step in planning for the business plan. In order to better define the strategy to be adopted, the entrepreneur must also describe the fundamental characteristics about the environment that the company intends to operate and its executives must demonstrate through this market research, who know very well the profile of their clients and other information of the company. your product or service, how it is targeted, the market growth rate,

customer characteristics, requirements and location, whether the region or product has seasonality and how to handle such situations if you have one. The strategy to be taken can be idealized through data collection and tabulation, generating graphs and analysis of profiles of potential customers, competitors and companies established in the region of operation, and it is necessary to understand the risks that these represent for the business and highlight what measures to stand out from competitors.

Customers and markets can be studied quantitatively. To do this, you need to compile information about what and how many customers, what types and volumes of business they have with the organization, and what markets they are in. In the case of a company, this means determining the customers' participation in the billing [8]. The organization, when analyzing its strategic situation, needs to know the turnover it has with each of its clients from each of its markets [9]. The trends and fluctuations of these numbers may indicate threats or opportunities in the environment as well as weaknesses and potentialities of the organization [10].

3.1.5 Marketing and Sales

The disclosure of the product and services need to be defined in a document called a marketing plan that will contain all the objectives and actions to be developed in order to reach a particular sector for the purpose of promoting sales. Marketing strategies are the means and methods that the company should use to achieve its objectives [11].

To act in the market with a strong position, in addition to the marketing plan, it is necessary to perform a strategic analysis in such a way that the decisions provide a satisfactory result in front of its competitors. Some of the practices developed for guidance and grounding in designing the best strategies usually refer to the marketing compound, or the 4Ps: product / service, price, square, and promotion / communication.

3.1.6 Financial plan

The financial section is about presenting estimates of revenues, overhead, fixed and variable costs, marketing expenses, personnel, and projected future revenue and investment needs. In order to verify the viability of the business, in addition to collecting these data, it is necessary to identify and design indicators consistent with measurable objectives and targets that are part of the financial plan and are accounted for using the main accounting analysis methods, which are statement of income, cash and balance sheet.

IV. IMPLEMENTATION OF THE BUSINESS PLAN

The operationalization of the business plan was the fundamental basis to support the idea and promote the installation of the company providing services in the city of Manaus AM. The survey took into account the observed data referring to the market of interest where the company wished to establish itself. Therefore, a survey was made of the external scenario, the market, potential customers, competitors, strategies and other aspects that could interfere in the success of the business.

The essential topics for the elaboration of the business plan were highlighted and because it is a company oriented towards the provision of industrial maintenance services, it was decided to set up a structure with the sections, I - executive summary; II - Description of the company; III - Product and services; IV - Market; V - Marketing and sales; VI - Financial Plan.

4.1 Executive Summary

The company specializes in providing inspection services for welding, maintenance and industrial assembly. It emerged in 2018 through the experience of its managers acquired after several years of work in the area of industrial maintenance engineering and with the main purpose of meeting the demands of small, medium and large companies located in the industrial center of Manaus / AM.

The performance will be consolidated by very solid strategies, such as the high number of companies established in the industrial pole region of Manaus / AM that has to keep its equipment in good operational condition, either by periodic maintenance or by the need to increase its capacity productive. And, to meet the demand, a framework with specialized labor will be provided as a market differential, with potential for delivery of the entire scope of industrial equipment maintenance, always with a strong presence of quality in the execution, fulfillment of the deadline and cost x benefit.

4.2 Company Description

The company is a service provider of the industrial maintenance area in which it has as differential quality and immediate response in the execution of the services, trained personnel with specialized technical professionals, deadline of delivery and guarantee in the services provided. The company's mission is to integrate its employees with the company's guidelines to ensure the productivity, quality, safety and satisfaction of its customers. The vision proposed by management addresses the group's potential to become a reference in providing technical services in the industrial maintenance

segment in the city of Manaus-AM. The company's value policy seeks to maintain the best relationship among its clients and to improve service excellence, as well as to consciously use natural resources.

The organizational structure was defined considering the growth horizon predicted by the company and describes the basic sectors of the management system, below follows the functional organization chart in Figure 1 below.

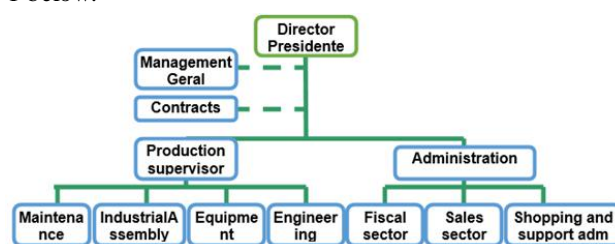


Fig. 1: Functional Organogram

The organization chart shows the proposed structure of the company with each horizontal and vertical level.

4.3 Company background

Constituted in May 2018 in the national registry of legal entities of federal revenue, with registration and business name granted for operation by the municipal government of Manaus AM. The management chose and registered its activities with legal framework in the form of individual limited liability entrepreneur - EIRELI in which establishes and regulates the operation of economic activities of a company formed by a single partner, organized to market products and services. Also as a fiscal strategy, the federal tax included the inclusion of the organization in the regime of taxation by Simples Nacional, which deals with the unification of taxes, providing benefits such as simplification of taxation, reduction of taxes, facilities for entry into new markets and differentiated conditions in banks and sources of investment.

4.4 Products and services

The services sector programs and executes the services as the main item of the scope of supply following the instructions according to standard and pre-approved procedures based on catalogs and technical norms in order to guarantee the conformity of the executed services, such as: fabrication of metallic structures, manufacture and installation of mezzanines, sheds, assembly of natural gas pipelines, compressed air and installation of industrial equipment (pressure vessels, cooling towers, heat exchangers, fuel storage tank, ASME welding technical inspection services, AWS D1.1, NBR;

Welding Visual Inspection - EVS; AWS D1.1

Ultrasonic Inspection, UT, ASME;

Magnetic Particle Inspection, PM, ASME;

Hydrostatic Testing Inspection, TH;

Inspection of Pressure Vessels and Boilers NR13

Inspection and Equipment Adequacy in accordance with NR12.

This service portfolio is made up of specific items that must be performed by specific manpower, such as mechanical engineers, equipment inspectors, ultrasonic inspectors, welding inspectors, penetrating liquid inspectors, among others, becoming a supply potential in the high value-added and low competition in the region.

4.5 Market

In a market dominated by large engineering services companies, the services sector in Brazil and specifically in the state of Amazonas has shown a slight increase in comparison with previous periods. Despite the slight growth rate, this segment is still the best option for small and medium-sized businessmen. Data from the Brazilian economy's survey report released by SEBRAE in 2018 indicate that among the most optimistic about the national economy scenario are the entrepreneurs from the northern region, small companies (EPPs), businessmen from the construction, non- opting for the simple national and SEBRAE clients.

Currently the number of companies that can be commercially exploited in the city of Manaus is very significant, a large number of customers need to contract services from third parties. And as part of the dissemination of services for this segment, managers conduct technical visits, present the portfolio of services, participate in bids and provide budgets without compromise. The main competing companies are on a horizon without much commercial strength in view of the potential of the proposed team, the quality of services and the cost-benefit offered.



Fig. 2: Location of the industrial hub of Manaus

The geographical location contributes positively, taking into account the positioning of the main industrial demand concentrated in the Manaus hub. Figure 2 indicates the location of the company's operating region.

4.6 Marketing and Sales Strategy

The marketing adopted as a reference was based on some of the characteristics of the 4Ps, shown in Figure 3, which consists of: product / service, price, market place and promotion / dissemination.



Fig. 1: 4Ps marketing compound, Source: adapted by author

Product: (of the service) To reach the objectives of the company and to meet the market demand was necessary to position the services in the target public in a way that guarantee the attendance to the requirements of the chosen segment. Establishing a positive concept with customers helped maintain a market differential and raise a level of advantage over competitors. This relationship of reference could be acquired through the diversified portfolio of services, high level of quality and better execution techniques.

Price: There is usually a variation of prices practiced by companies that operate in the industrial maintenance service segment. Therefore, the composition of prices was based on the local market cost table and the contribution margin practiced maintains a win-win trade relationship and, in a way, strengthens the expectations of its customers. The competitive price of services goes along with good quality indices and helped in market penetration.

Place: Sales and prospecting of customers are leveraged for the industries of different segments established in the industrial center of the city of Manaus, such as: components and electronic products industries, non-alcoholic drinks and their concentrates, chemical and pharmaceutical, civil construction, mechanical, naval and other plastic products.

Promotion: Being a service provider is carried out on digital platforms such as social networks, search sites, engineering events and trade fairs. The sales sector maintains the disclosure via presentation card, direct mail

type mail, visits to potential companies and presentation with portfolio of services performed.

4.7 Financial Plan

The financial plan presented herein was intended to demonstrate financial transactions and cash flow, since due to its legal nature, the service provider is not required to present the income statement. The cash movements were verified by recording the recorded billing of inflows, outflows, operating costs and other expenses as fixed and variable costs. The amount estimated through the organization's history, according to the tables below, indicates the result of the current period. Table 1 of fixed and variable costs is fundamental for the entrepreneur to understand which are the main expenses that are taken into account in the implementation of the business. Initially to get the company up and running it was necessary to divide costs into three groups. It composes group 1, all items related to fixed costs and in item 2 the variable costs, while in item three all investments with machines and equipment are part. These equipments are of high importance in the business considering that they are a direct part in the execution of the services. All values are expressed in currency units.

The result of the expenses for the three groups is indicated in the column as monthly average and with individualized values, whereas the average of expenses considering a year after its operation counted the total of \$ 48,18 thousand dollars and eighteen cents for recurrent expenses.

Table. 1: Fixed and variable costs

Fixed and variable costs	Value (US\$)	
	Monthly average	Yearly
1. Fixed Costs		
Direct labor salaries	1.432,58	17.190,96
Pró-labore	1.302,35	15.628,02
third-party services (accounting)	104,19	1.250,28
Electricity	104,19	1.250,28
Water	52,09	625,08
telephone and internet	62,51	750,12
gasoline / fuel	156,28	1.875,36
	US\$	38.570,01
2. Variable costs		
Office furniture, tables and cabinets	67,72	812,64
Chairs and stringers	31,26	375,02
Other Computer Utilities	208,38	2.500,56
	US\$	3.688,22
3. Machinery and Equipment / Pre-operational		
Welding machine / rental agreement	1.562,82	18.753,84
Rotary machines, sanders and grinding machines	312,56	3.750,72
Drills, hammers and accessories	468,85	5.626,20
Ultrasonic measuring devices	312,56	3.750,72
Ink-layer measuring instruments	208,38	2.500,56
		34.382,04
Total cost (1 + 2 + 3)	US\$	76.640,27

The analyzed Revenue was formed by a mix of services with five items. In the first month of opening, in order to gain market share and boost possible sales, the portfolio of services in the market was launched with the

desire to close the first service delivery contracts. It is considered the potential of each of these specialties to be able to remain in the market. Revenue during the first period as indicated in table 2 indicates an optimistic signal in which it was confirmed by the calculation of sales by composition by gross revenue.

Table. 2: Gross revenue composition

Products / Services	Unit	Quantities	
		Monthly average	Yearly
Tooling and Machining Services	Unit	1.510,73	18.128,76
Metal Fabrication Services	Unit	2.031,67	24.380,04
Welding Inspection Services and Equipment	Unit	1.172,12	14.065,44
Machine and Equipment Installation Services	Unit	2.865,17	34.382,04
Scheduled maintenance services	Unit	1.041,88	12.502,56
TOTAL		US\$	103.458,84

Utilizing sales for the first year of deployment and projecting for the next 2 years based on data from the cash flow recorded in table 3 for the 36-month period, compared there was an increase of about 33.56% in the first year, from the second to the third one it is noticed that the result has been maintained.

Table. 3: Cash Flow Projection

CASH FLOW	1 year	2 year	3 year
RECIPE	103.458,84	117.187,50	111.979,16
EXPENSES	76.640,27	76.822,91	71.614,58
RESULT	US\$ 26.818,57	US\$ 40.364,58	US\$ 40.364,57

The movement of the cash flow, as well as the projected horizon of revenue, makes it possible to infer that the business now implanted proved to be viable once it obtained positive results, without the need for financing such as investment banks and resources. However, if necessary, make a plan for the acquisition of machines and tools.

V. FINAL CONSIDERATIONS

Facing the difficulties, there are many challenges for companies and entrepreneurs, they need to be prepared to face this market, diversified and very competitive, that do not allow the success of anyone who does it anyway, without a pattern, without clear and defined criteria and mainly without planning and quality.

The decline of the entrepreneur is often related to the lack of effective planning and a realistic analysis of the market at all times, which would probably increase the chances of survival, since the planning of the main steps is essential and basic item for the organization, however small or large, remains competitive in the market.

Therefore, for existing or future enterprises, planning should be used in an objective way, as well as the business plan as a management tool to implement, maintain and increase the degree of success of the

business decisions, so that these are more assertive and also to detect possible threats of the business, thus avoiding problems and possible damages in the future, that could jeopardize the life of the business so desired.

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