

ORGANIZATION DIAGNOSIS METHODOLOGY FOR FUTURE INVESTMENT DECISIONS PROCESSES PREPARATION

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Abstract:

The investment concept is defined as the allocation of resources of different types, in order to develop a certain system, process, service or product. In addition, investment process is associated with a change of actual gratification and secure foregone in return for an uncertain future, but with hope that through this process there could be obtained an increased profit rate by the exploitation of the new created assets. It has been generally recognized that the investment's decision making process is associated with a lot of uncertainties. Therefore, it is important that before an investment process took place, an organization diagnosis to be developed in order to describe the context and specificity of the future decisions and then actions to be developed. The aim of this paper is to present a proposed methodology for the organization diagnosis where an investment process will be implemented. Based on the organization's functions descriptions and the quantitative SWOT analysis applied, there will be represented the SWOT profile that will create a global image on the organization. The proposed methodology of the organization diagnosis was tested and validated in the case of many organizations. For the purpose of this article, there should be demonstrate the effectiveness and efficiency of the proposed methodology in the case of an organization that deliver medical services. Finally, some conclusions will be made in order to underline the usefulness of the proposed approach.

Keywords: management, decision, SWOT analysis, investment process

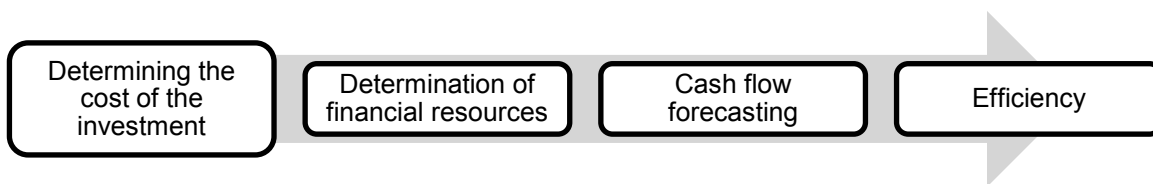
1. INTRODUCTION

Lately, organizations are providing particular interests for implementing new projects, especially those related to investments. This type of projects involve great efforts of all categories. The company can be sure on its forces and consider well prepared for the investment process, after some years of experience in the same market, with a support of a consistent observation of its dynamics. Forecasting could be useful tool in order to estimate future scenarios and/or state of the business dynamics (Hubbard, 1997; (Reilly & Brown, 2011).

Responsibility and risk, uncertainties are only few of the negative aspects which organization have to pass over when implementing an investment process. All negative features fade away when facing investment success. Innovation within an organization depends heavily on the ability of intellectual capital present in a particular organization to take decisions (Vargas-Hernández & Noruzi, 2010). Creativity within companies should be supported and stimulated primarily from the managerial level of the organization. In the current competition is very important the presence of companies willing to assimilate new concepts and open to change. These companies are those that stimulate initiatives of employees and very often put their ideas into practice (Menor et al., 2007; Hansen, et al., 1999; Avasilcai, 2001).

The complexity of the decision making process requires a very well documented preliminary, stage and a strategy for getting as much information as possible (Draghici & Dobrea, 2012). It should be plan all the actions (documenting, calculations, and estimations) and follow some well-defined (and pre-defined) steps (methodological approach). In addition, there have to be considered (estimated) all possible risks arising from investment and finally, to define some clear project evaluation methods (Shen et al., 2015). Picture 1 present some important aspects related to the decision making process for an investment implementation (associated with a project).

Picture 1: Main issues related to investment efficiency



Source: Authors own development

The evaluation result in case of an investment project depends on three variables: time (project duration, implementation), liquidity (the availability of financial resources and cash-flow), and risk mitigation aspects. The risk assessment associated with a project investment is necessary because and it can support the project continuity (as it was planned), avoid delays and losses of all categories.

The project should have the ability to generate profit therefore should allow overall return of investment. Characteristics of the investment project will fit into the following categories:

- Strategic Investments - is the company's strategy and refers to creating a new product / service or various alliances between companies;
- Investment expansion refers to organization's management option on growing or expanding the production capacity or through mergers and acquisition investments;
- Investment through the modernization of the existing organization capacity or processes refers to investments developed in order to up-date the means of production, in order to increase their productivity, working time;
- Investments in human capital development are associated with the highest risk and uncertainties rates, and usually refers to employees' competencies and skills development through specialized training programs.

In this context, an investor has to fundament the decision making processes on scientific basis in order to make the best decision choices for a related organization where the investment process took place. In this case, in order to diminish (or avoid) the uncertainties associated with the decision making process, there is mandatory to have a preliminary diagnosis of the organization, considering the state

of all functions (internal environment) that should be understood in relation with the external environment specificity and dynamics. The initial diagnosis of the organization should be developed by the top management team in order to generate a global, real and pertinent imagine on the whole system.

In the following chapter there will be described the proposed methodology and its practical usefulness through a case study.

2. PREPARATION OF THE INVESTMENT PROCESS IN THE CASE OF A PRIVATE MEDICAL CLINIC

2.1. Description of the proposed methodology

The proposed methodology combines classical methods and tools in order to finally have a well scientific fundament for the investments of the future (Table 1 and Picture 2).

Table 1: Short description of the proposed methodology stages

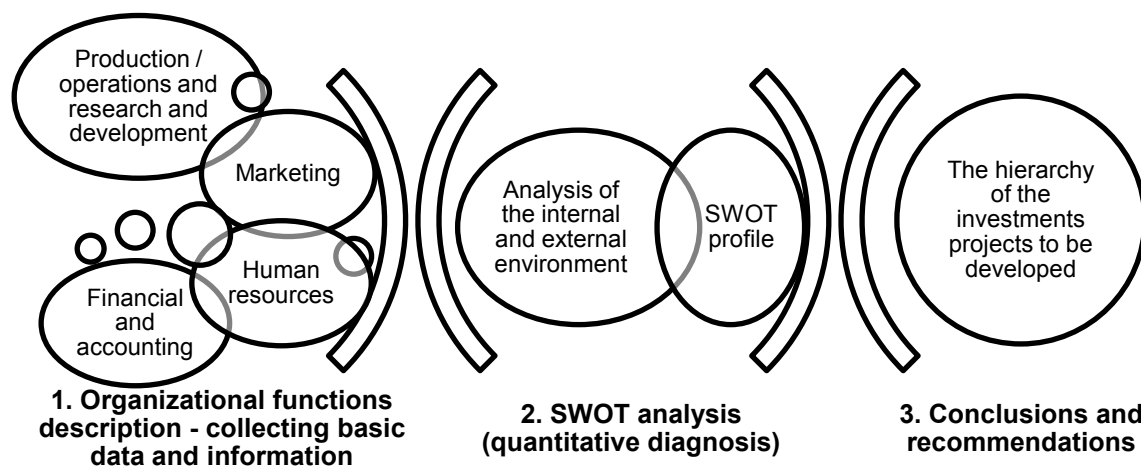
Stages	Sub-objectives followed	Methods	Tools
1. Organizational functions description	<ul style="list-style-type: none"> - Collect primary data and information related to each organizational function; 	<ul style="list-style-type: none"> - Observations of indoor processes and activities; - Economic, financial and accounting analysis trough the related indicators; 	<ul style="list-style-type: none"> - Check lists and observations sheets definition for all the organizational functions; - Excel files for systematic data collection and processing; - Graphs for data representations; - Forecasts for the dynamic analysis (forecasts for the economic, financial and accounting indicators should be made on short, medium and long terms); - Creative team work, based on observations, for the determination of potential needed investments related to each organizational function;
2. SWOT analysis (quantitative diagnosis)	<ul style="list-style-type: none"> - Comparative analysis of the internal and external environment dimensions; - Calculate a global score for estimating the organization potential for investments; 	<ul style="list-style-type: none"> - SWOT analysis method developed with the support of the management team work; - Factors comparison method based on a 3 point scale; 	<ul style="list-style-type: none"> - Excel sheets of calculations and graphical representation of the result
3. Conclusions and recommendations	<ul style="list-style-type: none"> - Determine the hierarchy of potential investments; - Determine the urgent investment projects. 	<ul style="list-style-type: none"> - Score based method for hierarchy establishment. 	<ul style="list-style-type: none"> - The development of the inventory of potential investments projects; - The establishment of the hierarchy of the potential investments projects.

Source: adopted and extended from (Draghici &Dobrea, 2012)

The main objective is to obtain a hierarchy of the potential investments processes that have to be implemented in the organization in order to increase profit, market prestige and finally, competitiveness.

Each stage of the proposed methodology is characterized by a realistic observation and knowing of the organizational processes and activities. That is why, the implementation of the methodology has to be supported by a creative common work developed by a working team that consists of the functional managers, the top managers and other low managers and responsible of main organizational processes. Despite this way systematic way of working, there are needed to be involved in the diagnosis some external consultants in order to avoid subjective analysis (avoid the risks associated with omissions or extra appreciation of the organization's actual state).

Picture 2:The proposed methodology for the organization's diagnoses for future investment decisions processes preparation



Source: adapted from (Draghici & Dobrea, 2012).

2.2. The case study

Analysis of the company's functions

The analysis was developed following the activities and processes in the company. A brief description of the analysis (mainly focus on methodological aspects) is presented in Table 2).

Table 2:Brief description of the company's functions

Functions	Description
1. Services providing	It is the main functions of a company and is essential for the profit generation. The main medical services are: occupational health and safety examinations, general medical services, imagistic services (echography and computer tomography)
2. Research & Development	A special department is included in the organization's structure. Managers (technical, administrative and medical), together with the departments' managers have the task of services continuous improvement (implementing new methods and tools).
3. Financial and Accounting function	The company fulfils this function through the finance department, dealing with: financial activity (keeping the medical services rendered, billing and revenue management) and accounting activity. The analysis underlines positive values of the economic indicators ¹ .
4. Human	There is no s specificdepartment. The recruiting interviews and employees

¹Because we were not allowed to use the company's name (keep it anonym), we were not able to deliver a deep analysis of the financial and accounting function.

Resource Management	contracts are manage by the responsible personnel in the department (3 persons). The number of direct employees is 63, and the administrative staff number is 70. Employee's working regime is scheduling 8 hours. They medical staff have only appointments in certain days at certain times. Their program depends on the number of patients.
5. The commercial function (marketing)	The organization structure consists a marketing department. The personnel is concerned with all marketing activities: offer definition (product and price, advertising), marketing research, keeping the relationship with customers, solving complaints etc. The placing (related to services distribution) activity is developed in the medical clinics spaces (cabinets, investigations room and laboratories).

Diagnosis of internal and external environment of the organization

In this methodology phase the SWOT analysis is applied. SWOT analysis is a method to determine and characterized the strengths and weaknesses of the organization, and also, the opportunities and threats provided by the external environment. The quantitative approach to SWOT analysis consists of the following steps:

1. Listing the main internal factors (S and W);
2. Calculations of the internal factors importance assessment by using the comparison method based on a 3 point scale: (1,0) the first factor is more important than the one which is compared with, (0.5, 0.5) factors compares have equal importance and (0, 1) the second factor is more important than the one which is compared with (K_{ij});
3. Provision of associate scores for each factors. The score correspond to a scale that has zero as the midpoint. Scores with (-) means that the internal factor is a weakness, and those scores with (+) are associated with strengths for the organization (p_j);
4. Calculation of the total score as the sum of the scores given (according to the mathematical relations 1 and 2). The result consists of the SW axis coordination;

$$p_j = \frac{\sum_{i=1}^n K_{ij}}{\sum_{j=1}^m (\sum_{i=1}^n K_{ij})} \quad \text{and} \quad x = \sum_{j=1}^m p_j \times n_j \quad (1, 2)$$

5. Listing the main external factors (O and T);
6. Calculations of the external factors importance assessment by using the comparison method based on a 3 point scale: (1,0) the first factor is more important than the one which is compared with, (0.5, 0.5) factors compares have equal importance and (0, 1) the second factor is more important than the one which is compared with (K_{ij});
7. Provision of associate scores for each factors. The score correspond to a scale that has zero as the midpoint. Scores with (-) means that the internal factor is a weakness, and those scores with (+) are associated with strengths for the organization (p_j);
8. Calculation of the total score as the sum of the scores given (according to the mathematical relations 1 and 3). The result consists of the OT axis coordination;

$$y = \sum_{j=1}^m p_j \times n_j \quad (3)$$

The two-digit results, through the calculations done in step 4 and 8 of the proposed applied method, are finally, graphical represented in a Cartesian space with 2 axis (SW and OT) and four quadrants, that suggest the strategical options to be followed by the organization's management.

In the following tables there will be presented the calculations results for the SWOT analysis (the proposed approach) in the case of the private medical clinic.

Table 3:The SW analysis – factor choose and their comparison

S	W
1. The company has tradition as being the first occupational medicine center in Timis County; 2. The company operates through its five clinics:	9. Workload, which leads to errors in the performance of the services; 10. The reception and administrative

occupational medicine, curative medicine, curative medicine for children, curative medicine exclusive, pathological laboratory; 3. It is a profitable company, managing over 50% of the market in terms of occupational medicine; 4. Quality human resources - doctors working are nationally recognized; 5. Many marketing activities; 6. Many material resources like buildings and cars; 7. Investments in courses provide services for employees; 8. Management and leadership courses for heads of departments;	staff have no education in the field in which they work; 11. Lack of advanced technology; 12. Lack of advertising media; 13. Lack of IT equipment and specialized maintenance teams; 14. Administrative staff working in a crowd space; 15. Generating hazardous waste.
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Source: Authors own development

Table 4: Preliminary analysis of the importance of each K factor – regarding SW analysis

K	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
$\sum_{i=1}^{15} K_{ij}$	6	9.5	9	7	4.5	7	6	7.5	7.5	8.5	8	5.5	4.5	6	7.5

Source: Authors own development

$$p_j = \frac{\sum_{i=1}^{15} K_i}{6+9.5+9+7+4.5+7+6+7.5+7.5+8.5+8+5.5+4.5+6+7.5} = \frac{\sum_{i=1}^{15} K_i}{92.5} \quad (4)$$

Table 5: Calculating p_j for each n_j statement – regarding SW analysis

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
p_j	0.065	0.103	0.098	0.076	0.049	0.076	0.065	0.081	0.081	0.092	0.086	0.059	0.049	0.065	0.081
n_j	5	10	9	7	4	7	5	8	-8	-10	-9	-6	-4	-5	-8

Source: Authors own development

$$x = \sum_{j=1}^{15} p_j \times n_j = 0.065 \times 5 \times 2 + 0.103 \times 10 + 0.096 \times 9 + 0.076 \times 7 \times 2 + 0.049 \times 4 + 0.081 \times 8 - 0.081 \times 8 \times 2 - 0.092 \times 10 - 0.086 \times 9 - 0.059 \times 6 - 0.049 \times 4 - 0.065 \times 5 = 0.583 \quad (5)$$

In the following tables there will be shown the calculations results of the OT analysis.

Table 6: External environment -factor analysis

O	T
1. Development of investment projects; 2. Training and motivational models for all employees; 3. Investment in technology; 4. Partnerships development with other medical centers; 5. Contracting firms dealing with hazardous waste pickup; 6. Support for the marketing team in the development of campaigns; 7. Branches opening in other places in Romania; 8. International expansion.	9. Negative effects regarding the process of performance; 10. Aggressive marketing campaigns made by the competitors; 11. Sudden changes in legislation regarding medical field; 12. Failure to be in trend with technological development; 13. Difficulty in choice of other new services.

Source: Authors own development

Table 7: Preliminary analysis of the importance of each K factor – regarding OT analysis

K	1	2	3	4	5	6	7	8	9	10	11	12	13
$\sum_{i=1}^{13} K_{ij}$	5.5	6.5	8	6	5	6	4.5	6	6	5	7	6	6

Source: Authors own development

$$P_j = \frac{\sum_{i=1}^{13} K_i}{5.5 + 6.5 + 8 + 6 + 5 + 6 + 4.5 + 6 + 6 + 5 + 7 + 6 + 6} = \frac{\sum_{i=1}^{13} K_i}{77.5} \quad (6)$$

Table 8: Calculating Pj for each nj statement – regarding OT analysis

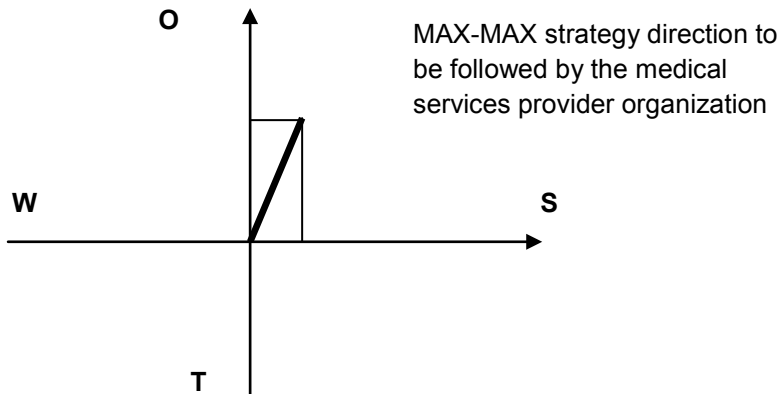
	1	2	3	4	5	6	7	8	9	10	11	12	13
P_j	0.071	0.084	0.103	0.077	0.065	0.077	0.058	0.077	0.077	0.065	0.090	0.077	0.077
n_j	8	9	10	7	5	7	4	7	-7	-5	-10	-7	-7

Source: Authors own development

$$y = \sum_{j=1}^8 p_j \times n_j = 0,071 \times 8 + 0,084 \times 9 + 0,103 \times 10 + 0,077 \times 7 \times 3 + 0,065 \times 5 + 0,058 \times 4 - 0,077 \times 7 \times 3 - 0,065 \times 5 - 0,091 \times 10 = 1,686 \quad (7)$$

Following SWOT analysis showed that in the organization is necessary to adopt a strategy of MAX-MAX type. These is supported by a good management of valorizing the existing organizational forces, simultaneously with the excellent valorization (take advantages of) of the opportunities offer by the external environment. Thus, innovative ideas must be supported by both the external opportunities and the internal strengths of the environment.

Picture 3: Graphical representation of the SWOTprofile



Source: Authors own development

The established hierarchy of the investments projects to be developed

Using the focus group method there have been developed the list of potential investments project. The working group consists of 8 persons: sixmembers ofthe board of directorsandtwoexternal consultants). The results of the focus group meeting is presented in Table 9.

Table 9:Investment proposals synchronized with likers scale values

Hierarchy	Investment proposed activities	Total Score
1	New building dedicated only for occupational health services	31

	(medical services, examinations for large groups of employees)	
2	Implementing a professional foreign patient assistance (a whole department managing only foreign patient's demands)	28
3	Develop a special training department (formed with specialists in employee training in medical services)	24
4	Investment in a brand new stomatology center (avoid working with third part collaborators anymore)	22
5	Modernization of all patient's traffic spaces (reconsideration of space design – including new furniture and customized design)	17

In the beginning of the focus group session the results gained from the functional analysis and the SWOT analysis applied in the case of the private medical center were presented. This has been created the premise of the investment projects definition. Once the investment list was created, each member had to rate each investment with points from 1 to 5 (1 – less important, 5 – urgent) according to a Likert scale with 5 points. These action has conduct to the definition of the hierarchy of the possible, mandatory investments projects that have to be implemented in the company (Table 9).

3. CONCLUSIONS

The main aim of this paper was to highlight the importance of the innovative management role in the case of investments processes. Another research result was the references analysis on aspects related to the investment decision associated with the related project. Usually, a decision is based on carefully analysis of all aspects about the context, variables involved and their dynamics. The main ideas provided in this article were on the designed methodology for supporting the decision making process for the implementation of investment projects. After a brief presentation of the main stages, the methods, tools used, there have been demonstrated the efficiency of the proposed approach for a practical case (a private organization that provide medical services). Finally, the hierarchy of the potential investment projects has been delivered and it can better support the management strategic decisions in the field.

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