

QUANTITATIVE AND QUALITATIVE METHODS AS A BASIS FOR DECISION-MAKING

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Abstract: For decades, researchers have been trying to identify the factors that significantly influence the conflicting results in the organizational environment. This search has become more stringent through recently published scientific evidence demonstrating strategic changes. Using multi-factorial analysis, this study mixes qualitative and quantitative methods by which we can examine the pro-organizational performance on a university-type population. The qualitative results indicate that the analyzed organization develops corporate-strategic schemes that are being used to attribute the advantage meant to guide the competitive behavior.

Keywords: strategic, directions, multi-factorial, methods, decision-making

1. Introduction

The university sphere is the most exposed to the connections with the labor market, because various factors act strongly on the education system. Opening the borders allows abroad orientation, obtaining and introducing foreign programs.[1]

Land Forces Academy (LFA) operates under the aegis of ministerial regulations, but also the laws of market competition, consumer protection, copyright or other laws of societal interest, like reducing pollution, conserving resources and increasing the quality of life.[2]

The educational offer includes programs for which budgetary funds are required, but also normative guideline by including the existing subsystems.

The provision of services is influenced by the cost of some raw materials, energy or expenses for reducing pollution. This idea conveys the importance of optimal resource

management. Low consumption is encouraged in the institution, with personnel whose duties include checking all sectors for this purpose.

Also, the military environment has a multiple hierarchical steps, and the regulations prescribe exactly the attributions, the relations of subordination, of authority, cooperation and control. In view of the volume of activities, the academy staff must cope with the fast pace, under pressure and have a rapid reaction combined with the cold thinking ability.

2. Land Forces Academy decisional mainframe

This method of analysis involves the attainment of specific points such as:

- Critical notice of the main procurement results
- Evaluation of the way the architecture and sources are constituted

- Evaluation of the use of resources
- Assessment of the exploitation risk.

We will acknowledge the management processes depend on decision-making, organizational and informational elements. The management system also includes the subsystem of methods and techniques. These consist of mainly combining the data used for diagnosis, delegation, managing projects and the scoreboard. In practice, the methodological subsystem provides the

logistical support, develops the human potential and determines the managers' professionalization.

For decision-making, the tool is the decision, being in direct relation with each managerial function and with the leadership elements. In this case, it is a course of action for achieving a goal with direct implications on other people's actions.

There are three types of decision-making situations in LFA, as shown in Figure 1.

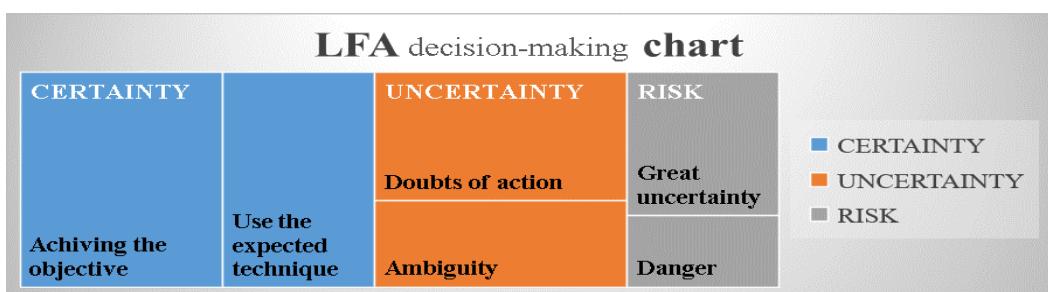


Figure 1: Decision-making situations

One can notice that top decisions have strategic implications. An example could be the decisions integrated in the long and medium term, such as investments.

Semi-annual plans integrate tactical decisions, characterized by having an impact up to two years. One example could be current decisions with monthly extension regarding the task accomplishment.

For these reasons, to simplify the decision-making process, managers apply tools for optimizing the situation under conditions of certainty, including:

- The ELECTRE method
- The global utility method
- The additive method,
- The Deutch-Martin's algorithm
- The decision table
- The decision simulation.

Managers can overcome uncertainty by taking decisions using the optimistic technique, the (Wald) pessimistic technique, the technique of optimality, the technique of proportionality (Bayes-Laplace), the technique of minimizing regrets (L. Savage).

As for the risk situations, decisions imply

the use of the decision tree or the mathematical hope method.

It emerges the idea that all analysed decisions require individuals who operate with consciously manifested presumptions and meanings. Therefore, the qualitatively or quantitatively tools measure the parameters of a situation.

2.1. Flexible management methods

Next, we will detail some flexible management tools. Goal requires imposing resources in the process, according to applicability, difficulty of change implementation and training level.

In order to avoid unforeseen situations, managers perform under the same conditions as in civil universities, the structures and functions being equivalent.

At the same time, the information system allows a great accessibility. We note an issue, namely reducing the process duration by using appropriate means of information flow or streamlining the circulation between the hierarchical steps.

Identifying problems has been facilitated by avoiding deviations, which can be easily understood as there are sufficient internally management methods. For example, the

profit obtained from the students' enrollments can be determined by the costs regarding the spaces reconditioning.

Another element with a strong impact is the establishment of representatives. It consists of members directly involved in the change. For example, if we try to introduce productivity changes, representatives will be members of the faculty council, managers and human resources department. Thus, we present some specific methods. The quantitative instruments capture the employees' perceptions regarding the values and the situation existing at a certain moment. This outline easily identifiable elements most of the time.

On the other hand, qualitative methods focus on individual perceptions regarding processes and relationships, both formal and informal. So, it is necessary to individually collect data from employees and to aggregate them in an overview.[3]

2.1.1. Basic quantitative methods

Quantitative methods allow accurate assessment of the spread of an internal phenomena, combining marketing with statistics and mathematics. Thus, concrete data can be obtained related to indicators such as the average purchase frequency, the share of loyal customers, the expenditure margin on certain products.

The usefulness lies in the rigor of statistical representations, with the purpose of testing causal hypotheses, whose reporting is done in the form of tables, graphs, text, recommendations, presentations.

As in theory, decisions proceed on five steps, ending with preparing the report. In approaching the operative and analytical record of the stocks of goods, the concept of administrative management must be taken into account. Through the task of service, administration works as a whole of operations of receiving, keeping and releasing the material goods or the monetary values.[4]

Among these methods there are the three accounting methods.

The first one is the quantitative-value method that highlights the categories of materials in planning their distribution. This method is vital for LFA, as it can graphically represent the heritage network. For this reason, the method is of great notoriety in the military. Usually, analytical account sheets are used in accounting, and in the storage places the warehouse records. The primary accounting is based on the handout, the input and output documents. Monthly, the compliance of the repository and analytical account sheets is checked. Therefore, it requires a large volume of work and record.

Inventory management is performed to verify the accuracy and timeliness of the records, quantitatively and in value for each entry or exit from the stock. At the same time, centralizing situations can be drawn up, like the "Input stocks situation" and "Output stocks situation". This method has the advantage that it can at any time provide control of the stocks. However, the disadvantage is the high work volume because the registration is done at the storage places, as well as in the accounting. There is also a simplified tool of the quantitative-value method, which consists in combining the operational records with the analytical records from accounting. Thus, the "Analytical account sheet for material values" is drawn up, which represents the value method at the place of storage. The main advantage of this version is that it provides operational data on the situation of stocks while reducing work.

Going further, the way of determining the products value depends on the stocks unloading. These procedures can be:

- The First In - First Out method
- The Last In - First Out method
- The Weighted average cost method
- The Flashing Inventory.

The most recommended method is FIFO, which allows stocks to be unloaded in historical order, so to prioritize old costs. With the method, if the sale price is subject to change or negotiation, no price

change minutes will be required. Due to the individually tracking of each product, a profit margin is guaranteed and the method is applicable extensively.

In addition, it is no longer necessary to draw up a management report, as LFA uses:

- The Analytical balance of stocks form
- The Store sheet form
- The Account file for various operations form.[5]

For the academic society, these ensure economic efficiency at least through the actions of cost efficiency.

The corporative governance is especially felt through behaviors that involve: decisions sustainability, transparency, responsibility alongside partners and reports to stakeholders.[6]

2.1.2. Basic qualitative methods

Qualitative research aims to reach the informational depth regarding certain subjects. We can assume that this interpretation involves subjectivism in data analysis. In practice, it relies on the causal description of internal phenomena.

As a method, the focus group is used to analyze a specific and homogeneous audience. The valuable discussions between the moderator and each interviewee are free and non-constrained. Therefore, this method is constructive and facilitates the connection between participants.

The focus group is used in LFA within the PAA-post-action analysis, following a tactical situation or an event. For providing a socio-cognitive perspective, the method reflects the way in which those involved attribute the causes of certain decisions, actions or internal facts.

For practical use, it allows easy and transparency data collection. The subjects' statements are grouped into thematic categories and provide the main lines dominant concerns. Extremely beneficial also in auditing, unitary or in combination with other methods, this allows the investigation of both the primary, surface and secondary levels.

Under the PAA meeting, managers bring together common tasks with employees from a similar hierarchical level for agreeing the action. Most of the time, it concludes with the strengths and weaknesses identification, the causes that generate change and with corrective recommendations. LFA management uses the method to underpin the development programs, prevent dysfunctions, amplify the potential of the strengths and provide the needed informational basis.

Often, PAA is rather associated with a method of data analysis. It incorporates similarities and differences of causes for the action success of some programs (changing internal procedures, organizational remodeling, developing and applying strategies). [7]

The method does not require a high volume of resources, but it provides the commander with a rich material, with many important clues about the decision making and the impact on performance.

By extrapolating this method, we attempted an analogy between the individual identity and the identity of the institution. [8]

Focus group remains an effective qualitative method because it allows subjects to generate their own concepts, present the institutional reality as solely perceived. Subjects indicate greater confidence and sincerity, thus allowing a deeper analysis. This type of method has multiple benefits such as:

- Efficiency of results
- Duration and costs
- Organizational flexibility and the necessary resources
- The possibility of observing their motivations, beliefs and their intensity
- The high degree of accuracy of the information collected.

On the other hand, this method is subject to constraints, because it requires a very close relationship of dependence between the quality of the moderators and the results. This can lead to hasty generalizations and the impossibility of correctly representing

the researched population.

The success of the technique depends entirely on the qualities of the moderator. He must generate a carefully constructed discourse and a relaxed atmosphere, by swinging from the role of good cop to bad cop, in order to standardize views.

3. Conclusions

Land Forces Academy is effective in maintaining work and control practices at a high level, which can be reconfigured to increase the provided value.

The differences between the quantitative and qualitative process are presented as follows: the reality presented objectively, independence of the human value system, the use of a formal language, the nature of

the cause-effect relationship, the static design and the individual's fidelity evaluation.

Whatever the chosen technique, managers extract a wide range of information, regardless if it comes from transcripts, recordings, texts or images, according to the relevant criterion and topics.

Taking into account the current circumstances, we pinpoint an original approach of educational services, strongly promoted internationally by the use of methods and techniques applied. In conclusion, managers facilitates the construction of certain patterns that can attract the decision making flexibility.

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