

IDENTIFYING THE FACTORS THAT INFLUENCE THE IMAGE OF COMPANIES AND PROJECTS

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Abstract: *The scientific approach initiated for research refers to perception of people within organizations and starts from the premise that in a civilized environment it is imperative to have a good collaboration between managers and employees.*

The way employees perceive the internal environment of the organization is very important for increasing productivity, but at the same time it is also very important how an organization is perceived in the external environment to increase competition. The perceived image is represented by the opinion of the environment about the Organization. Subjectively, the perception is completed by creating an image, the perceptive image that resembles but also differs from the sensory one. The resemblance to the sensory image is given by the feeling that it is a primary image that is realized in "this moment", under the conditions in which the stimuli act. The distinction is given in the light of the fact that the perceptual image is rich in content, has meaning and is in relation to a certain context in which it is created.

Keywords: *Fuzzy theory, organization, perception, image, factors, projects, culture, aspect.*

1. Introduction

The scientific approach initiated for research refers to the perception of people within organizations and starts from the premise that in a civilized environment it is imperative to have a good collaboration between managers and employees. The way employees perceive the internal environment of the organization is very important for increasing productivity, but at the same time it is also very important

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In order to cope with the developing organizational environment, I developed a questionnaire research to identify the factors that influence the image of an organization, after interpreting the results, using mathematical methods, I will propose solutions to improve employee perception.

Fuzzy relationships are used for research, which can be combined with the help of the composition operation. The researchers claim that the most used method is the one of composing, over the course of research making proposals of several ways of composition [2]

The results obtained from this paper are of interest to the managers of organizations where it is desired to change the perception of its image, both from within the organization and how it is perceived from the outside.

2. Information about the papers

The scientific research that I conducted in organizations with different fields of activity, from different backgrounds (urban and rural), was aimed identifying the optimal solutions for solving the problems we face. The research was carried out on a randomly selected sample at national level between October 2019 and March 2020. 152 respondents participated in this study.

During the research, when I designed the template of the questionnaire I took into account the features that define the fuzzy system, to complete the information with elements relevant to achieving this goal. The answers to the questions in this section of the questionnaire allow me to formulate a reasoned opinion on the importance of the factors that influence the perception of an organization's image.

Subsequently, the processing of the answers received from the study participants allowed me to make some connections that helped me apply the fuzzy theory.

The fuzzy system is a system that is based on linguistic knowledge [1]. The center of the system is the fuzzy IF – THEN rule. This rule is proof that some words are described by continuous functions of belonging.

Example: IF image is large, THEN the perception is good

IF the image is small, THEN the perception is deplorable. [5] and [3]

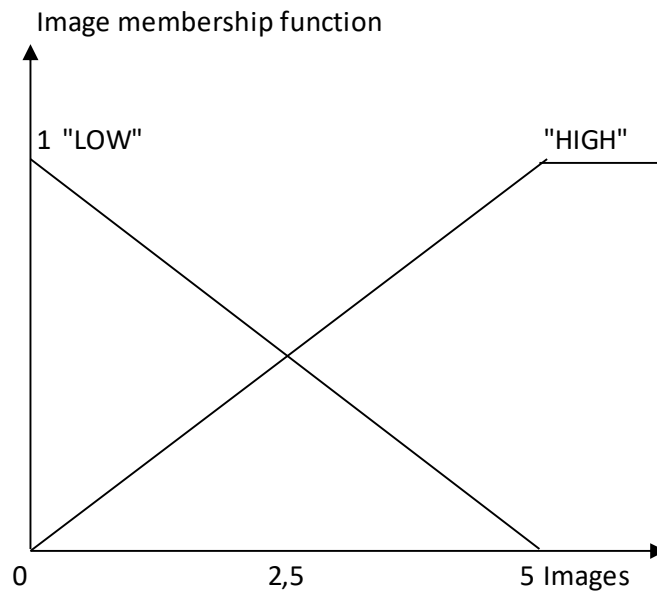


Figure.1. Image membership function

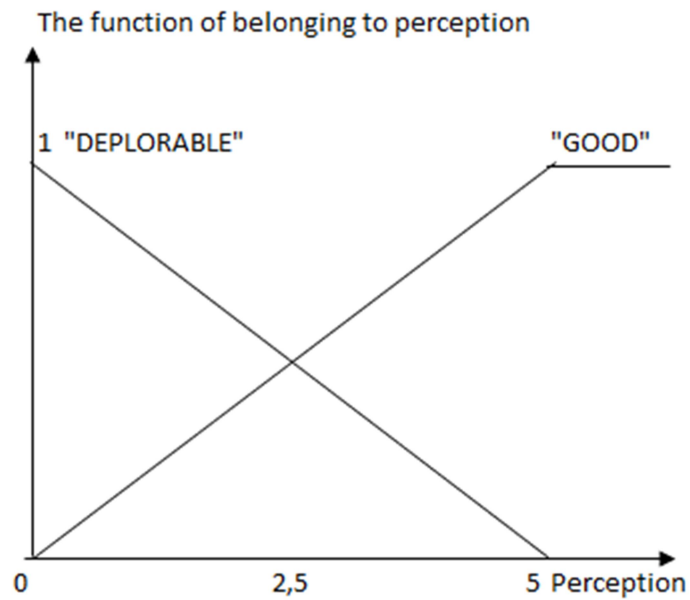


Figure.2. Perception membership function

To build the starting point and get the collection of fuzzy rules requires a very well developed IF - THEN system. In theory there are three types of fuzzy systems often used: [1]

- **Fuzzy pure systems;**
- **Fuzzy Takagi-Sugebo-Kang (TSK);**
- **Fuzzy systems with fuzifier and defuzifier.**

The example of the three systems is described / summarized below. A fuzzy system is presented in Figure 3.

The basis of the rules is based on the collection of data and its transposition into the fuzzy system according to the IF – THEN rule.

The inference engine combines fuzzy rules in a mapping from the fuzzy set to the $U \subset R^n$ input spatial set to fuzzy sets in the $V \subset R$ spatial output based on the principles of fuzzy logic.

Figure 3 shows a fuzzy system and if the dotted line exists, at that point the system becomes a fuzzy dynamic system (*Fuzzy Dynamic Systems - FDS*).

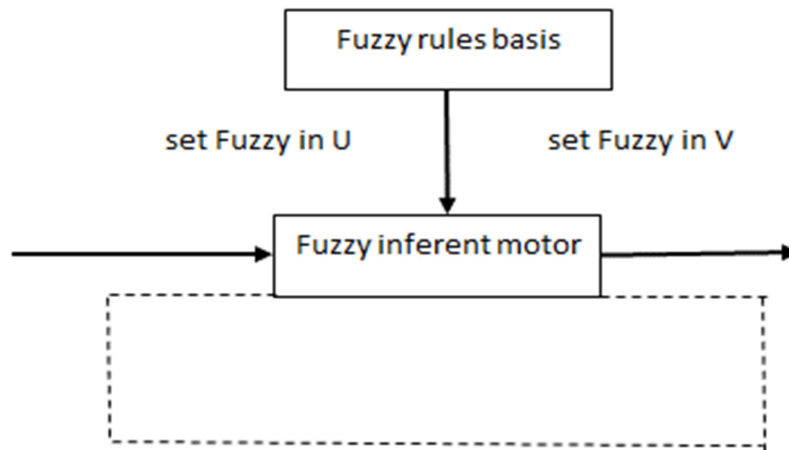


Figure. 3. Basic configuration of pure fuzzy systems

To build a database as appropriate as possible and, at the same time, to identify relevant factors that can change the image of an organization, I used the answer summary variant. Following the content analysis that I carried out at this stage of the research I had the opportunity to highlight that fuzzy theory can only be applied to culture and aspect factors, results obtained for factors vocation, social responsibility and performance the results are very clear:

- **Vocation** – degree of **great** influence;

- **Social responsibility** – degree of **average** influence;
- **Performance** – degree of **medium** influence.

Fuzzy theory cannot be applied if the results are clear, as is the case with the 3 factors. The analysis undertaken according to the criterion of identifying the factors that influence the image of an organization, confirms that the results obtained from the study conducted using a questionnaire are as follows:

2.1. Fuzzy theory applicated after the CULTURE factor

The culture factor I identified as being of medium influence, this result I obtained from the processing of data using the fuzzy system that allowed me to identify it.

The analysis of the data was also done with the help of the Matlab program, which can be used after establishing the basis of rules, as the fuzzy theory says.

IF values is x and stories is x and symbols is x and manifestations is x THEN Culture is y

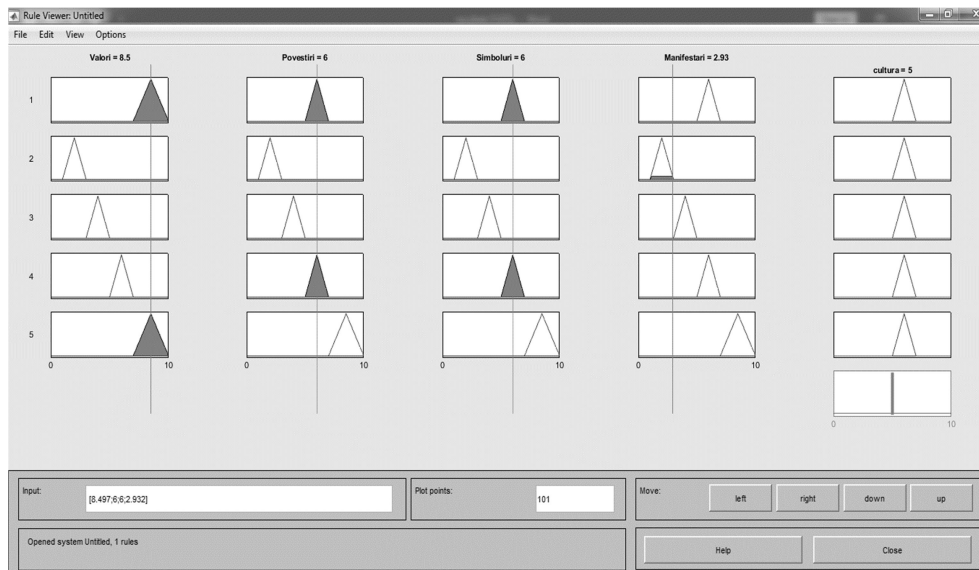


Figure.4. Representation of the results obtained

2.2. Fuzzy theory applicated after the ASPECT factor

The aspect factor I identified as being of great influence, this result I obtained from the processing of data using the fuzzy system that allowed me to identify it.

IF the appearance of the products is x and the appearance of the employees is x and the appearance of the infrastructure (buildings) is x and the brand is x THEN the appearance is y

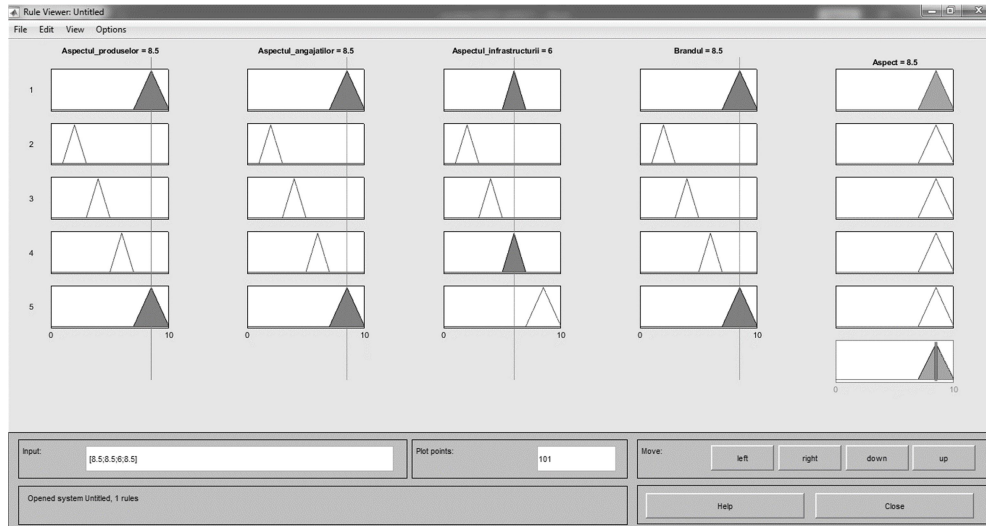


Figure 5. Representation of the results obtained

The presentation of this section of the paper on which I applied the fuzzy theory following the results obtained in the research led me to the following results:

- The degree of influence of the **vocation** is **high**;
- The degree of influence of **culture** is **average**;
- The degree of influence of **social responsibility** is **average**;
- The degree of influence of the **appearance** is **high**;
- The degree of influence of **performance** is **average**;

From the data obtained in this research, I can say that the image of an organization after the application of fuzzy theory is influenced mostly by vocation and appearance.

3. Analysis of research results after application of mathematical methods

The paradox of reality in which we live, born of the desire to have more or less necessary comfort, urges us to ask ourselves the question what is most important in an organization? Accompanied by another, essential, even defining in an organization, what do employees focus on?.

A possible response to these questions could be accompanied by careful observation of the results of the studies carried out. To complete the answers, I can add that an important part is obtained using the mathematical methods used:

1. Numeric method;
2. Percentage method;
3. Fuzzy theory method.

Referring to the results obtained and presented in the previous chapters, I cannot help but notice the similarities between them. I'm making a return to the final results obtained in the study:

- ❖ With the help of the numerical method the most important source factor is **the appearance**, and that the structural factor is the **brand**
- ❖ With the help of the percentage method the most important source factor is **the vocation**, and that the structure factor is **knowledge**
- ❖ With the use of the fuzzy theory method the most important factors are **vocation and appearance**.

For organisations wishing to perform and contribute to the achievement of the objectives achieved, a multitude of changes:

- Related to strategy;
- Management;
- Operational;
- Human resources;
- Redefining the relationships between financial performance and business;
- At the organizational culture level.

The results presented after the application of mathematical methods attest that the methods used are correctly elaborated, as proven by the relationship between the numerical method and the percentage method with the fuzzy theory. At the level of fuzzy theory we identified as important factors vocation and appearance, while these factors were the result of the other mathematical methods applied one at a time on the research. This analysis confirms the correlations between mathematical methods used.

As can be seen, the emphasis is on vocation and appearance, principles that underlie the development of organisations through the perspective of employees. Given that vocation and appearance have a strong influence on the image of an organisation, I believe that a number of objectives should be set, such as:

1. Align organisations with the standards and best practices of organisational activity;
2. Conformity of their activities with current and regulatory requirements in the field in which they operate;

3. Involvement of employees in internal assurance of the quality of the activities carried out, their participation in various refresher courses within organisations as well as in the decision-making process in the organisation;
4. Adapting knowledge and skills in the labour market;
5. Promoting professional, ethical and moral models and values;
6. Transparency in the organisation to create a climate of trust by recognising the contributions of each employee involved;
7. Periodic evaluation of employees;
8. Setting a dress-code at least when there are open-circuit conferences in the organization;
9. Promoting the brand in relation to the quality of the services provided;
10. The working environment is attractive, the building where it operates gives a sense of security.

The connections established within the organisations must be very well established according to the field of activity. Traditional management is quantity-focused in terms of the efficiency of the organisation and is based on the formation of rigid structures, preferably as predictable as possible and with restraints in taking risks and accepting change.

4. Analysis of the correlation coefficient for the replies received

The analysis of the correlation coefficient shall be carried out only for the replies received and shall indicate the Pearson correlation coefficient between the Activity Sector and the replies received following the application of the questionnaire.

For the calculation of the Pearson correlation coefficient we used the SPSS program and obtained the following results.

The correlation coefficient is a strictly linear link between two variables, in the case of this research is the link between the Sector of activity and the responses received. The Pearson correlation coefficient must be between [-1,1] and the following rules apply:

Colton's Rules (as set out in 1974):

- The correlation coefficient between -0.25 and 0.25 is a very weak or null correlation;
- The correlation coefficient between -0.25 and 0.5 (or from 0.25 to -0.50) is a weak correlation (acceptable degree of association);
- The correlation coefficient between -0.5 and 0.75 (or from 0.5 to -0.75) represents a moderate to good correlation;
- The correlation coefficient greater than 0.75 (or less -0.75) represents a strong correlation (very good degree of association);

Applying Colton's rules to the results obtained from the research shows that between the Sector of activity and the responses received is a strong correlation, no coefficient is less than 0.75.

At the same time, the organisation becomes an important factor and in order to change the perception of the image, many aspects must be taken into account, as can be seen all are in correlation, in this way contribute to the development of the organisation as a whole. The circular mechanism of all factors, if observed, can lead both to a change in the perception of the image of the organization and to the achievement of unforeseen income. The effects of using the correlation coefficient are positively felt at the level of the organisation at no additional cost, by knowing and understanding the problems they face.

Conclusions

Given that so far no scientific research has been done on this subject, the results obtained are surprising. Implementing results is a necessity for future generations, promoting the development of organizations and changing the perception of the image by determining how any public or private organization should carry out its activity in relation to the company.

The results presented after the application of the Fuzzy theory attest that the factors of particular importance are vocation and appearance.

The speed of change on all levels leads organizations to an extensive development process characterized by flexibility and adaptability, characteristics necessary to withstand competition imposed on the market.

The responsibility for ensuring important characteristics at the level of each organization lies with the manager, but also with the employees. Decisions are made following an advisory process involving all employees, but the final decision belongs to the manager of the organization.

In reality, as is apparent from the research done, the need for control prevents or even limits the manifestations of personal initiatives, imposes limits and demotivates employees. In this approach the need for freedom is necessary, the emphasis being on knowledge, skills, appearance, brand and the role of the manager in harmonizing them is essential. Employees, once they are engaged in the flow of activities they carry out within the organization, place the achievements they achieve through their own work with satisfactions.

As a result, knowledge, skills, appearance and brand are really in close contact and can change the perception of an organization's image.

O. Lund and A. Haddadi present success as "result much better than expected or normally observed in terms of cost, schedule, quality, safety and participant satisfaction". [5]

The authors address additional definitions of project success as extracted from literature, as below:

- Project success with focus on requirements and resources: "having everything turned out as hoped, anticipation of all project requirements and have sufficient resources to meet needs in a timely manner"
- Project success with focus on both performance and satisfaction: "the project is considered an overall success if the project meets the technical performance specifications and/or mission to be performed and if there is a high level of satisfaction concerning the project outcome among: key people in the parent organization, key people in the project team and key users of the project effort".

Acknowledgement

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