

Stakeholder Analysis in Romanian Construction Projects

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Abstract: *During their life cycle, construction projects involve many stakeholders who can influence their realization. Stakeholders may have different needs and expectations regarding the implementation of a construction project and often the interests of stakeholders in a project may be divergent. In this study we analyze the main categories of stakeholders and the tools used by project managers and organizations in the construction industry to quantify the impact of stakeholders on the projects.*

Keywords: *stakeholder; project; construction; analysis.*

I. Introduction

In a construction project, the stakeholders are represented by all individuals or organizations that influence the achievement of the objectives of that project. The influence of the stakeholders can be direct, on a contractual basis or indirect, without a direct contractual relationship between the stakeholders and the project.

In Romania, the first category includes all people inside or outside the organization who can influence the construction project on the basis of a contractual relationship: clients, suppliers, manager and project team, technical experts, project verifiers, design firms, Consultants involved in the control of the execution of construction works, banks financing the projects. Also in this first category are other persons or organizations that do not have a direct contractual relationship with the project but a contract with the organizations involved in the project.

In the second category, in Romania, can be found any persons or organizations that have an interest in the development of the project or can influence its development without having a contractual basis for it.

In this category, for the construction projects in Romania, the organizations involved in the elaboration of technical norms and regulations, the State Inspectorate for Constructions, institutes and firms granting technical approvals, the mayors granting the building permits and the county councils, the ministries (for Public projects), environmental protection organizations, consumer and human rights organizations, trade unions, professional associations of designers and engineers, construction employers, local communities.

During the life cycle of a project, the involvement of different stakeholder categories is not the same. Stakeholders are more involved at the start of the life cycle of a construction project such as design organizations or city halls through issued building permits and others are more involved in the exploitation period (such as end-users or project customers).

There are many examples of construction projects in Romania, funded from public or private sources, whose implementation has been delayed or even stopped due to the intervention, action or situation of a stakeholder.

One good example is the five of the largest residential complexes with works that have been suspended for many years in Bucharest: Planorama (only 280 of the 1,100 units were completed), Lujer's (1,000 apartments), Laguna Residence (500 Units), Cortina Residence (270 units) and the Pipera project, consisting of 228 apartments. The five projects account for roughly 2,800 abandoned dwellings at various stages of construction, and some developers have already ruled in court for insolvency or bankruptcy because of the inability to repay loans to financing banks.

The same is true of public projects. Modernization works of one of the great Bucharest thoroughfares, Pantelimon Road, already delayed by two years, stagnated for three months in the summer of 2016, the site was stopped due to the dispute between the City Hall (project client) and consultant. Since the Romanian law provides that in the absence of the consultant works can not be done the yard has been closed.

The issues that stakeholders pose to construction projects in Romania have important consequences for their realization. For this reason, we aim to analyze how the stakeholders' problem is perceived by project managers and teams as well as in identifying and analyzing stakeholders at project or organization level.

II. Literature review

The analysis of the stakeholder issue in the literature was done on two levels: the documents developed by the main professional organizations in the field of project management and specialized publications. The first level is relevant for the international definition and acceptance of the notion of stakeholder, and the second one for the analysis of the research stage in this field.

The most important project management associations approach the project stakeholders' issues in their own documents. The best known and most used stakeholder definition is that of the Project Management Institute, according to which a stakeholder is "an individual, group, or organization who may affect, be affected by, or perceived itself to be affected by a decision, activity or outcome of a project. Stakeholders may be actively involved in the project or have interests that may be positively or negatively affected by the performance or completion of the project."¹

The International Project Management Association (IPMA) uses the term interested parties, which it considers equivalent to the stakeholder, meaning "people or groups who are interested in the performance and / or success of the project, or who are constrained by the Project."² ISO 21500: 2012 also attaches great importance to the problem of identifying and analyzing stakeholders and their impact on projects.

The issue of project stakeholders was addressed in several studies in the literature. The first research in this field³ focused on identifying and classifying the main stakeholder

¹ PMI, "A guide to the Project Management Body of Knowledge (PMBOK® Guide)," 5th edition, in *Project Management Journal* (Pennsylvania: Newtown Square, 2013), <http://dx.doi.org/10.1002/pmj.21345>.

² IPMA, I.P.M.A, *ICB - IPMA Competence Baseline, Version 3.0*, Internacional Project Management Association, 2006.

³ Crawford, L., "Senior management perceptions of project management competence," *Int. J. Proj. Manag.* 23 (2005): 7–16; Cummings, J.L., Doh, J., "Identifying who matters: mapping key players in multiple environments," *Calif. Manag. Rev.* 42 (2000): 83–104. Mitchell, R.K., Agle, B.R., Wood, D.J.,

groups involved in building construction projects. Although these early studies were important, other authors⁴ considered that they should be continued and improved as they do not provide methods and techniques for identifying and analyzing project stakeholders, applications that are useful to project managers. These authors considered that addressing stakeholder research should lead to the development of specific methods and techniques that can be used by managers in their projects.

Bourne and Walker⁵ consider that the ability of project managers to understand how often the power and influence of stakeholders affect project development is one of their core skills. Beringer et al.⁶ showed that both research and project implementation demonstrated that stakeholders play an important role in their success.

Several studies⁷ have shown that the failure of some projects is not the consequence of project management itself but of social interactions between different stakeholders involved in their realization. Relationships between stakeholders can affect ongoing projects although the other elements of a project management have been approached correctly. These studies underscore once again how important the issue of a stakeholder approach to a project is.

In the PMI⁸ approach, Project Stakeholder Management includes the processes required to identify stakeholders, analyze stakeholder expectations and their impact on the project, and develop strategies for effectively engaging stakeholders in project decisions and execution. As can be seen in the following table, other authors who have approached Project Stakeholder Management have considered the same processes as those described in the PMI approach and some additional ones.

Table 1. Approaches of Project Stakeholder Management

Project Stakeholder Management approach	Project Stakeholder Management processes
Cleland (1999) Olander (2006)	<ol style="list-style-type: none"> 1. Identification of stakeholders; 2. Gathering information on stakeholders; 3. Identifying stakeholder mission; 4. Determining stakeholder strengths and weaknesses; 5. Identifying stakeholder strategy; 6. Predicting stakeholder behavior; 7. Implementing stakeholder management strategy.
Karlsen (2002)	<ol style="list-style-type: none"> 1. Identification of stakeholders; 2. Analysing the characteristics of stakeholders; 3. Communicating and sharing information with stakeholders; 4. Developing strategies;

“Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts,” *Acad. Manag. Rev.* (1997): 853–886.

⁴ Pouloudi, A., Whitley, E.A., “Stakeholder identification in interorganizational systems: gaining insights for drug use management systems,” *Eur. J. Inf. Syst.* 6 (1997): 1–14.

⁵ Bourne, L.M., Walker, D.H.T., “Visualising and mapping stakeholder influence,” *Manag. Decis.* 43 (2005): 649–660. <http://dx.doi.org/10.1108/00251740510597680>.

⁶ Beringer, C., Jonas, D., Kock, A., “Behavior of internal stakeholders in project portfolio management and its impact on success,” *Int. J. wProj. Manag.* 31 (2013): 830–846. <http://dx.doi.org/10.1016/j.jiproman.2012.11.006>.

⁷ Achterkamp, M.C., Vos, J.F.J., “Investigating the use of the stakeholder notion in project management literature, a meta-analysis,” *Int. J. Proj. Manag.* 26 (2008): 749–757. Brown, A.D., Jones, M.R., “Doomed to failure: narratives of inevitability and conspiracy in a failed IS project,” *Organ. Stud.* 19 (1998): 73–88.

⁸ PMI, 2013.

	5. Following up.
Walker et al. (2008)	1. Identifying stakeholder; 2. Prioritizing stakeholders; 3. Visualizing stakeholders; 4. Engaging stakeholders; 5. Monitoring effectiveness of communication.
Jepsen and Eskerod (2009)	1. Identification of the (important) stakeholders; 2. Characterization of the stakeholders 3. Decision about which strategy to use
PMI (2013)	1. Identify stakeholders, 2. Analyze stakeholders' expectations and their impact on the project 3. Develop strategies for effectively engaging stakeholders.

It can be noticed that all the approaches presented have as the first process the one regarding the identification of project stakeholders. The second common process is stakeholder analysis even if some approaches do not call it that. Karlsen,⁹ Jepsen and Eskerod¹⁰ and the PMI¹¹ approach include stakeholder analysis in project stakeholder management. The other approaches¹² analyze this process in several subprocesses. The third joint process¹³ is the achievement of a stakeholders' approach strategy. In some of the studies studied,¹⁴ this process is the end of Project Stakeholder Management, and in others it is followed by other processes.¹⁵ In our opinion, the most correct approaches are those of Cleland,¹⁶ Karlsen,¹⁷ Vos and Achterkamp,¹⁸ since the development of the stakeholder approach strategy must be followed by its implementation and monitoring of its feed-back.

We also believe that the use of the term strategy in the final process of stakeholder approach is inappropriate, making it more correct to use the tactical term by which we designate the set of actions required to be adopted by the project team so that the stakeholders have a favorable attitude towards the project.

Other studies have taken into consideration, based on the observations made by Pouloudi and Whitley,¹⁹ and Yang et al.,²⁰ proposing methods and techniques for identifying and analyzing stakeholders. Bourne and Weaver²¹ consider that there are three methods that

⁹ Karlsen, J.T., "Project stakeholder management," *Engineering Management Journal* 14 (2002): 19–24.

¹⁰ Jepsen, A.L., Eskerod, P., "Stakeholder analysis in projects: challenges in using current guidelines in the real world," *International Journal of Project Management* 27 (2009): 335–343.

¹¹ PMI, 2013.

¹² Cleland, D.I., *Project Management Strategic Design and Implementation* (New York: McGraw-Hill, 1999). Walker, D.H.T., Bourne, L.M., Rowlinson, S., "Stakeholder and the supply chain," in *Procurement Systems: A Cross-industry Project Management Perspective*, ed. Walker, D.H.T., Rowlinson, S. (London: Taylor & Francis, 2008), 70–100.

¹³ Except: Walker et al., "Stakeholder and the supply chain."

¹⁴ PMI, 2013. Jepsen, A.L., Eskerod, P., "Stakeholder analysis in projects". Cleland, D.I., *Project Management Strategic Design and Implementation*, 1999.

¹⁵ Karlsen, J.T., "Project stakeholder management."

¹⁶ Cleland, D.I., *Project Management Strategic Design and Implementation*.

¹⁷ Karlsen, J.T., "Project stakeholder management."

¹⁸ Vos, J.F.J., Achterkamp, M.C., "Stakeholder identification in innovation projects: Going beyond classification," *European Journal of Innovation Management* 9 (2006): 161–178.

¹⁹ Pouloudi, A., Whitley, E.A., *Stakeholder identification in interorganizational systems*.

²⁰ Yang, J., Shen, G.Q., Ho, M., Drew, D.S., Chan, A.P.C., "Exploring critical success factors for stakeholder management in construction projects," *J. Civ. Eng. Manag.* 15 (2009): 337–348.

²¹ Bourne, L., Weaver, P., "Mapping stakeholders," in *Construction Stakeholder Management*, ed. Chinyio, E.A., Olomolaiye, P. (Malaysia: Wiley-Blackwell, 2010).

can be used to identify and analyze stakeholders: customer relationship management (CRM), techniques for listing and mapping stakeholders and their influence, and social networks. The same authors have developed a methodology called the Stakeholder Circle to be used to manage the relationships between the various stakeholders involved in the project. Subsequently, Yang²² considered this model incomplete and proposed that a deeper analysis of the stakeholder relations be achieved through the use of Social Network Analysis (SNA).

Mitchell et al.²³ proposed the use of power / interest matrices that include the following elements: power, support, interests, influence and attitude. In their realization they started from the assumption that managers prioritize stakeholders according to the following elements: the power to influence the organization, the legitimacy of the organization and the urgency of the requests. Bourne and Walker²⁴ proposed a quantitative analysis in the form of a vested interest-impact index (ViII) that assesses the impact of each stakeholder on the project. Olander proposed a Stakeholder Impact Index (SII) as a function of stakeholder classes, the position value and the vested interest-impact index.

Aragones-Beltran, Garcia-Melon and Montesinos-Valera²⁵ proposed an analysis of the stakeholders' influence from the point of view of the project manager based on ANP (Analytic Network Process). They have applied this new methodology to a Spanish railway maintenance project. The results showed that two stakeholders (the main contractor and signaling systems provider) had a great influence on the project (almost 40% of the total influence). This method allows the project manager to carry out a quantitative analysis of the influence that different stakeholders have on the construction projects.

III. Research methodology

As we have seen before, there is relatively little study in the literature on the impact of different stakeholder categories on construction projects, and none of these studies is about construction projects in Romania. Also, there are no studies to reveal the methods and techniques used for stakeholder analysis in the construction projects in Romania. Taking into consideration the approaches of the stakeholder issue in the literature we set the following research objectives:

- identifying the main categories of stakeholders influencing the construction projects in Romania;
- analyzing the importance of perception of different stakeholder categories;
- analyzing existing correlations between various variables that may affect stakeholder identification and analysis.

To achieve the objectives, research has been structured into the following stages:

1. *Study of the main researches carried out so far on the issues of stakeholders in projects* and stakeholder specific to construction projects;
2. *Formulation of the research hypotheses* regarding the identification and analysis of the stakeholders in the construction projects in Romania;

²² Yang, R.J., "An investigation of stakeholder analysis in urban development projects: empirical or rationalistic perspectives." *Int. J. Proj. Manag.* 32 (2014): 838–849.

²³ Mitchell, R.K., et al, "Toward a theory of stakeholder identification and salience."

²⁴ Bourne, L.M., Walker, D.H.T., "Visualising and mapping stakeholder influence," *Manag. Decis.* 43 (2005): 649–660. <http://dx.doi.org/10.1108/00251740510597680>.

²⁵ Aragones –Beltran, P., García-Melón M., Montesinos-Valera J, "How to assess stakeholders' influence in project management? A proposal based on the Analytic Network Process," *International Journal of Project Management* 35 (2017): 451–462.

3. Making the questionnaire regarding the identification and analysis of the stakeholders in the construction projects in Romania - which included the following sections:

- a section on the project organization with 4 questions about the organization's age; the revenue level over the last three years; Number of employees; The main activity object (NACE code);
- a section on the respondent with six questions about age; Seniority in the organization; professional experience; Experience in project management; Studies in project management; Project management certifications.
- a five-question section on identifying the main stakeholder categories: identifying key stakeholders in the project; Identifying the secondary stakeholders in the project, specifying the importance of the stakeholders; Knowledge of stakeholder identification methods; Applying stakeholder identification methods;
- four questions regarding stakeholder analysis at the level of construction projects: analysis of key stakeholders in the project, analysis of secondary stakeholders in the project; knowledge of stakeholder analysis methods; applying stakeholder analysis methods.

4. Determination of the type and sample of construction projects whose project managers must respond to the questionnaires - was based on two elements:

- data from the statistical yearbook with the evolution of the construction activity, which allowed the identification of the main types of construction projects carried out in Romania and their weight in the total value of the construction works carried out in the last three years;
- Trade Registry information on nationally-funded construction companies over the past two years, grouped by NACE code.

Construction companies were selected to carry out projects with the following NACE codes:

- F41.2 - Construction of residential and non-residential buildings;
- F42.1.1 - Construction of roads and motorways;
- F42.1.2 - Construction of railways and underground railways;
- F42.1.3 - Construction of bridges and tunnels;
- F42.2 - Construction of utility projects;
- F42.9.1 - Construction of water projects;
- F43.1 - Demolition and site preparation;
- F43.2 - Electrical, plumbing and other construction installation activities;
- F43.3 - Building completion and finishing.

5. Contacting respondents and sending questionnaires - Initially, 100 companies were identified and 234 managers of ongoing construction projects were contacted. Of these, only 126 responded and only 114 responded to the questionnaire out of the 126. Due to the low number of responses received, they asked the project managers who provided complete answers to submit the questionnaire and the members of the project teams they lead. More than 134 responses were received from the project teams, of which 110 were complete.

6. Collecting and processing questionnaire responses so that there is an informational basis for verifying hypotheses.

7. Check hypothesis and formulate conclusions.

IV. Research hypotheses

Following the study of the literature and the results obtained in the area of stakeholder analysis, the researches carried out started from the following hypotheses:

- H1. *Among project managers and project team members there are differences of perception of the importance of the main and secondary stakeholders.* This hypothesis was formulated given that previous research had some results indicating a correlation between the intensity of contacts with the stakeholders and the perception of the importance of the stakeholders in building construction projects.
- H2. *There is a positive and strong correlation between the size of the organization and the knowledge / application of stakeholder identification and analysis methods.* The study of this hypothesis is necessary because in previous international studies it was not fully addressed or confirmed.
- H3. *There is a strong correlation between stakeholder identification / analysis and project management studies.*

V. Analysis of research results

Following the submission of the questionnaires, a number of 224 correct answers were received, the breakdown of which by type of project and respondent is presented in the following table.

Table 2. Structure of responses received by project types and respondents

Project type (by NACE code)	Responses received from Project Managers		Responses received from project team members	
	Absolute value	Relative Value	Absolute value	Relative Value
F41.2 – Construction of residential and non- residential buildings	42	36.84%	38	34.55%
F42.1.1 – Construction of roads and motorways	15	13.16%	11	10.00%
F42.1.2 – Construction of railways and underground railways	4	3.51%	5	4.55%
F42.1.3 – Construction of bridges and tunnels	6	5.26%	5	4.55%
F42.2 – Construction of utility projects	12	10.53%	17	15.45%
F42.9.1 – Construction of water projects	8	7.02%	7	6.36%
F43.1 – Demolition and site preparation	6	5.26%	8	7.27%
F43.2 – Electrical, plumbing and other construction installation activities	12	10.53%	12	10.91%
F43.3 – Building completion and finishing	9	7.89%	7	6.36%
TOTAL	114	100.00%	110	100.00%

The first issue addressed in the research was the comparative analysis of the importance of the perception of the main stakeholders by the project manager and the members of the construction project teams. The results obtained are shown in Figure 1.

Although it gives the most important role in project implementation, the project managers and project team members can see the perceived differences in perception of the perceived importance of different stakeholder categories:

- suppliers are the most important stakeholders in the vision of project team members compared to other stakeholder categories (clients, shareholders and even company management) being close to the same level as the project manager and team;
- in the perception of the project manager, the managers of the organization and the clients have equal importance in the realization of the project, but higher compared to the suppliers, shareholders and other employees of the organization. Project managers also attach equal importance to other employees and shareholders, a situation that is explicable by the hierarchical level at which they are located and which does not provide them with frequent contact with shareholders;
- other employees in the organization are perceived by project team members to be more important as key stakeholders compared to shareholders because the frequency of contacts with other employees is greater and their role is more clearly stated in the relations with the project team.

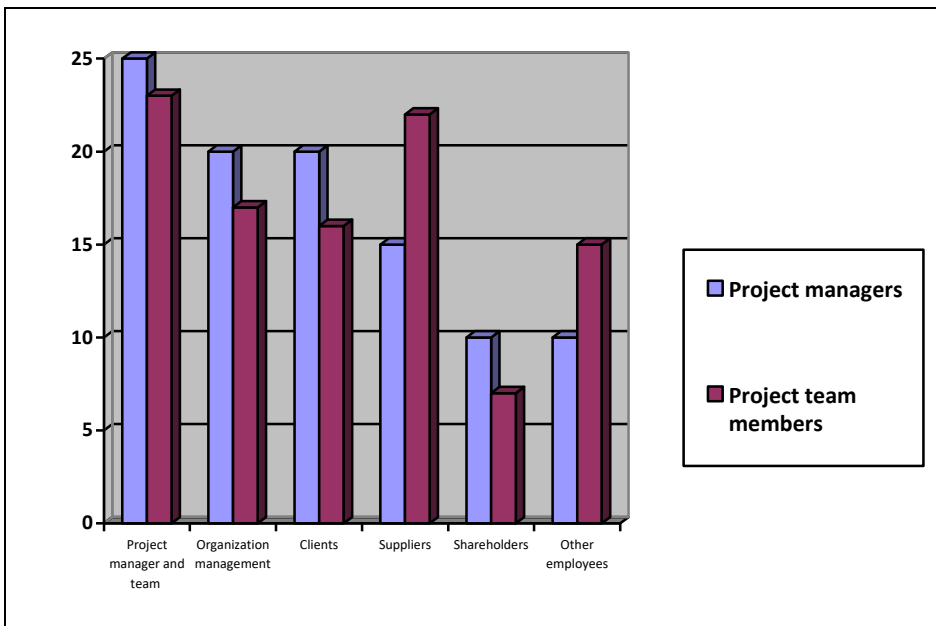


Fig. 1. Comparative analysis of the importance of the perception of the main stakeholders by the project manager and the members of the construction projects teams

Differences in perception are also confirmed with regard to secondary stakeholders. In the perception of project managers, the most important secondary stakeholders are concurrences while, in the perception of project team members, the most important secondary stakeholders are environmental organizations.

Both categories of respondents attach great importance to the local community as secondary stakeholders, although this result can be influenced by the degree of involvement of the local community in different categories of construction projects. In some project categories (by NACE code), the local community may be less involved.

Project manager's appreciation of the importance of secondary stakeholders tends to be more focused on competition and the local community, while the appreciation of project team members also attaches importance to other stakeholder categories.

The first hypothesis is confirmed as several differences of perception between managers and team members are observed regarding the categories of stakeholders analyzed, with the point that in some cases these differences in perception are more pronounced than in others.

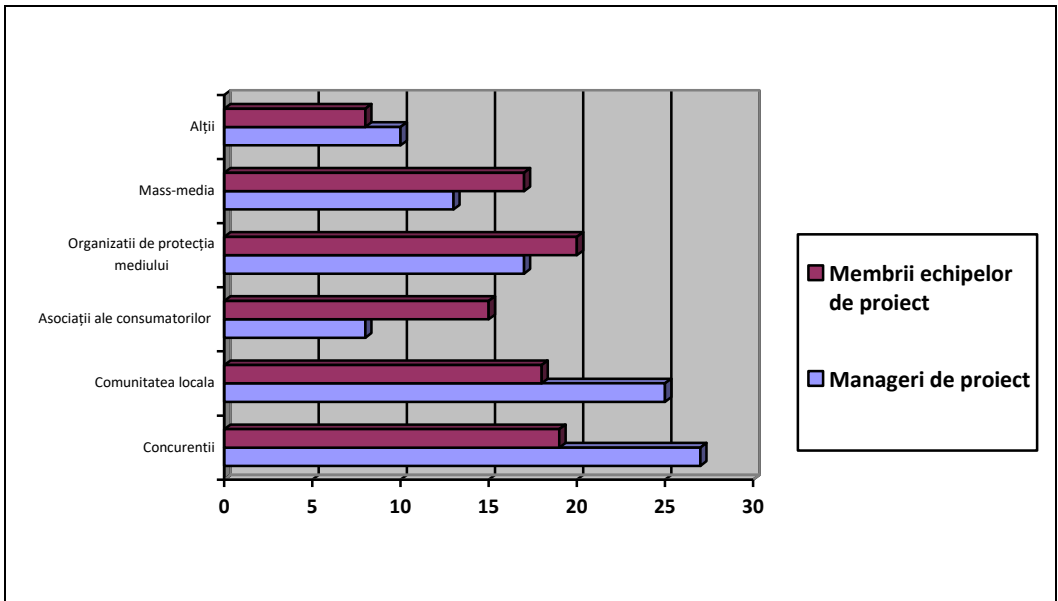


Fig. 2. Comparative analysis of the importance of the perception of secondary stakeholders by the project manager and the members of the construction projects teams

The analysis of the correlation between the characteristics of the organizations and the identification and analysis of the stakeholders is presented in the following table.

Table 3. The analysis of the correlation between the characteristics of the organizations and the identification and analysis of the stakeholders

Identification and stakeholder analysis / organization characteristics	Age of the organization	The revenue level of the organization over the past three years	Number of employees in the organization
Identification of key stakeholders	0,05	0,78	0,75
Identification of secondary stakeholders in the project	0,21	0,70	0,71

Identification and stakeholder analysis / organization characteristics	Age of the organization	The revenue level of the organization over the past three years	Number of employees in the organization
Knowing the methods of identifying stakeholders	0,23	0,72	0,73
Applying stakeholder identification methods	0,14	0,66	0,68
Analysis of key stakeholders in the project	0,17	0,16	0,14
Analysis of secondary stakeholders in the project	0,06	0,04	0,16
Knowledge of stakeholder analysis methods	0,08	0,18	0,26
Application of the stakeholder analysis methods	0,05	0,11	0,08

Following the analysis of the correlation between the characteristics of the organizations and the identification and analysis of the stakeholders hypothesis H.2. is only partially confirmed. There is a positive and strong correlation between the size of the organization (expressed by the level of income and the number of employees) and the knowledge ($r = 0.72$; $r = 0.73$) and the identification of main and secondary stakeholders ($r = 0.66$; $r = 0.68$). The H2 hypothesis is not confirmed as regards the correlation between the size of the organization and the knowledge / application of stakeholder analysis methods. An explanation is the very small number of respondents who know and / or apply stakeholder analysis methods.

Table 4. The analysis of the correlation between the characteristics of the respondents and the identification and analysis of the stakeholders

Identification & stakeholder analysis / organization characteristics	Age	Age in the organization	Professional experience	Experience in project management	Studies in project management	Project management certifications
Identification of key stakeholders	0,16	0,08	0,20	0,27	0,77	0,24
Identification of secondary stakeholders in the project	0,08	0,06	0,15	0,25	0,75	0,25
Knowing the methods of identifying stakeholders	0,07	0,02	0,08	0,29	0,63	0,12
Applying stakeholder identification methods	0,07	0,01	0,06	0,11	0,65	0,12

Identification & stakeholder analysis / organization characteristics	Age	Age in the organization	Professional experience	Experience in project management	Studies in project management	Project management certifications
Analysis of key stakeholders in the project	0,06	0,05	0,06	0,22	0,63	0,09
Analysis of secondary stakeholders in the project	0,04	0,04	0,03	0,17	0,61	0,05
Knowledge of stakeholder analysis methods	0,06	0,01	0,01	0,11	0,61	0,08
Application of the stakeholder analysis methods	0,03	0,01	0,01	0,05	0,60	0,04

The analysis of the correlation between respondents' characteristics and stakeholder identification and analysis shows that there is a positive and strong relationship between the level of studies in project management and stakeholder identification and analysis processes ($r = 0.77$ and $r = 0.75$ for identification and $r = 0.63$ and $r = 0.61$ for analysis), which confirms the hypothesis H3. There is no such correlation for certification in project management.

The situation of hypotheses confirmation following the researches carried out is presented in the following table.

Table 5. Confirmation of the hypotheses

No.	Hypotheses	Result
1.	H1. Among project managers and project team members there are differences of perception of the importance of the main and secondary stakeholders	Confirmed
2.	H2. There is a positive and strong correlation between the size of the organization and the knowledge / application of stakeholder identification and analysis methods	Partially confirmed
3.	H3. There is a strong correlation between stakeholder identification / analysis and project management studies	Confirmed

Two of the three hypotheses of the research (H1 and H3) were confirmed in full, and the H2 hypothesis is only partially confirmed for stakeholder identification and analysis methods.

VI. Conclusions

In this study were analyzed stakeholders involved in construction projects in Romania and the main variables influencing stakeholder identification and analysis. For this purpose, a

research based on a questionnaire was carried out, to which project managers and project team members responded.

The research has started from three hypotheses regarding: differences of perception of the importance of the main and secondary stakeholders between the managers and the members of the project teams; the strong link between variables such as organizational size and project management studies and the identification / analysis of project stakeholders. The results confirmed that there are large differences of perception between project managers and project team members in relation to key and secondary stakeholders, which confirms the first hypothesis of this study. Of these, the most significant are those regarding suppliers, shareholders and other employees (of the main stakeholders) and environmental organizations (among the secondary stakeholders).

The obtained results partially confirmed the hypothesis of a positive and strong correlation between the size of the organization and the knowledge/application of stakeholder identification methods. Also among all the variables concerning the respondents, only project management studies have a positive link with the stakeholder identification/analysis process, which confirms the third hypothesis of the study.

The researches carried out have a number of limits on the number of certain types of projects that were considered and received responses but also the lack of information of the project managers regarding the stakeholders' problem confirmed by the initial response rate, which determined an extension of the subjects involved in the initial approach to project managers only.

The study reveals a relatively low knowledge of the issues and methods of identifying and analyzing the stakeholders, which requires in the future the implementation of indoor or outdoor training programs in this field dedicated especially to the personnel involved in the construction projects in Romania.

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