Relationships with Stakeholders in International Research Projects in Poland

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The paper investigates the main areas of friction between managers and stakeholders of scientific projects. Five areas are defined and examples of problems are given. Not unlike similar research in other countries, the main factors influencing the overall efficiency of the management process are: communication, lack of institutional support, attitudes towards the project, financing system and lack of industry interest. The findings and limitations are laid out and the ways of developing the research into other research projects are pointed out.

Keywords: stakeholder analysis, scientific project, structured interviews, 7th Framework Programme.

Relacje z interesariuszami w międzynarodowych projektach badawczych w Polsce

Artykuł opisuje główne obszary tarcia pomiędzy kierownikami projektów badawczych i interesariuszami tych projektów. Na podstawie analizy wyodrębniono pięć obszarów problemowych oraz zilustrowano przykładami. Podobnie jak w projektach badawczych w innych krajach, główne obszary wpływające na skuteczność i efektywność procesów zarządzania to: komunikacja, brak wsparcia instytucjonalnego, postawy wobec projektu, system finansowania oraz brak zainteresowania ze strony przemysłu. W podsumowaniu zaprezentowano ograniczenia wyciągniętych wniosków i wskazano możliwe kierunki prowadzenia dalszych badań z omawianego zakresu.

Słowa kluczowe: analiza interesariuszy, projekty badawcze, wywiady ustrukturyzowane, 7. Program Ramowy.

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1. Introduction

The purpose of this paper is to identify and describe the main areas of friction between managers and stakeholders of scientific projects. Since the stakeholder analysis is part of strategic management research, this subject refers directly to the various types of strategic analysis. This article, however, is based on a qualitative study conducted among managers of scientific projects and covers this topic from their perspective. Hence the focus is shifted towards the perception of cooperation with stakeholders and not towards the analytical tools commonly used to describe this issue. Building on the theory and the presented findings, questions for this study are as follows: *What issues are the most challenging in relationships with stakeholders in Polish FP7[1] projects, what are the main obstacles in successful cooperation and project completion*?

Whilst the conclusions may seem limited in range, they reflect the experiences and perception of several dozens of project leaders. Supported by the selected quotes, the findings represent most commonly encountered problems and essential topics recurring within many if not most of the investigated projects. The project leaders themselves come from different backgrounds, operate in different fields and cooperate with various partners (companies, research centers, universities, public agencies, etc.) across Europe and yet the problems they describe have a lot in common. This is by no means a reason enough to draw strong and unequivocal conclusions but gives a solid starting point for further research.

The remainder of the article is structured as follows. First, we present the theoretical framework of the topic. Then, the methodology used and the sample description are addressed. Afterwards, the findings are presented and conclusions and implications for leaders of scientific projects are discussed.

2. Theoretical Framework

The origins of the concept of stakeholders lie in the political science; the concept was developed by the management theory into a systematic tool for scanning the internal and external organizational environment (Brugha & Varvasovszky, 2000a). The theory of stakeholders has been developed because managers, researchers and policy makers recognize the central role of individuals, groups and organizations that have an interest (stake) in the organization (Bryson, 2004). Clarkson (1995, p. 93) expands this definition by stating that stakeholders are: *"persons, groups and organizations that have ownership, rights and interest in the corporation or its activities, current, future or past"*. Banks and Vera (2007, p. 3), in turn, narrow the former explanation by outlining that *"stakeholders are*

any internal or external group or individual that can affect or be affected by the achievement of the firm's objectives". The last proposition is related to organizational goals. It is of particular relevance when the organization's core activity is based on projects.

According to Preston (1990), stakeholder theories can be traced back to the early 1930s in the Unites States, when General Electric Company recognized four major groups: customers, employees, general public and shareholders. The first three groups were labeled as primary stakeholders. Meeting the needs and expectations of primary stakeholders was believed to be the condition *sine qua non* for shareholders to benefit from the organization (Preston, 1990). Stakeholder analysis (SA) facilitates the understanding of complex relations between the organization and all the parties that influence and can be influenced by the organization. There are different approaches and methods of the SA depending on the purposes for which it is being used. The first step is to identify and categorize stakeholders from the perspective of the organization. It means assessment and estimation of their importance and their current and future impact on the organization. Varasovszky and Brugha (2000b, pp. 342–343) propose the following steps that encompass the principles of SA:

1. **Identifying and approaching stakeholders** – mapping the relationships between the organization (or the issue) and actors, as well as between actors themselves.
2. **Data collection** – primary sources such as: interviews, semi-structured interviews and questionnaires and secondary sources: published documents, policy statements, internal regulations of organizations.
3. **Using tools for quantifying stakeholders' positions or levels of support** or levels of opposition.
4. **Using the findings to identify the strategies for managing stakeholders**.

The purpose of the paper is to investigate the most challenging areas in cooperation with research project stakeholders drawing from the experience of project leaders. Therefore, the first two steps of Varvasowszky and Brugha's (2000b) proposition were applied. The main stakeholders of leaders of FP7 research projects are:

- European Commission
- National contact points
- Business partners
- Partners from the public sector
- International scientific societies
- Team members
- Research institutions
- Administration of the institution
- Project coordinator
- Other project teams

Managing relationships with stakeholders is one of the focal elements of running every organization. The awareness of the crucial role of stakeholders is not to be overestimated especially when referred to public organizations because the main goal of their existence is to fulfill the needs of their stakeholders (Rainey, 1997, as cited in Szymaniec-Mlicka, 2016). Therefore, identifying stakeholders and managing relationships with stakeholders is a strategic goal for every public organization. In the paper, we identify the stakeholders of international research projects of FP7 carried out in Poland and explore the challenging issues in cooperation in the course of completion of the project.

3. Problems in the Relationships with Stakeholders in International Research Projects – Theory and Research Evidence

Multinational projects are faced with the challenge of developing their operations in a complex and diversified environment. Coordinating a complex project in several countries is surrounded by issues that are bound to create obstacles. Moreover, projects assume the participation of other parties, such as: business partners and non-scientific public institutions. The complexities of the issues faced by project teams need to be addressed so that the negative impact is minimized.

Stead and Harrington (2000) expand several areas of potential difficulties in cooperation with stakeholders in international research projects. They divided the area of relationships with stakeholders into three categories. In every category, there are several issues crucial for cooperation with stakeholders in international research projects. The issues are listed below in Table 1.

Stead and Harrington (2000) developed several recommendations on managing international research projects putting great emphasis on the right selection of partners and well established relationships between partners before the project starts.

Also, Quresi at al. (2006) and Santos at al. (2012) argue that distributed project management requires matching right partners and a high level of cooperation between organizations. Moreover, goal setting and the research process should be clearly explained and documented during the initiation phase (Stead & Harrington, 2000, p. 93).

Similarly, the threats were enumerated. Power abuse is described as one of the most dangerous phenomena in research projects since it leads to conflicts and stops project development (Stead & Harrington, 2000, p. 93). Santos at al. (2012) highlight knowledge sharing that is fundamental for solving problems and making decisions.

Category	Issues (recommendations and threats)
Relationships	• *Strong relationship* – Researchers have to like, trust and respect the people who they are to work with; • *Cultural differences* – Social skills and intercultural sensitivity as well as the understanding of cultural nuances of initiating and maintaining the relationship in foreign countries are obligatory in international research projects; • *Power abuse* – Domination in the research process may occur if one partner begins to take control of the research process without consulting the partners extensively;
Potential for collaborative research	• *Weakness-strength match* – researchers should seek collaborators who can cover for their weaknesses in exchange for their strengths; • *Creating a competitor* – collaboration with a foreign partner may inadvertently lead to creating a competitor; • *Bureaucracy* – international projects demand intensive communication. Thus, travels and attending conferences are of high importance. Applying for grants, visas could be time-consuming and include dealing with government bureaucracy and administration;
Project	• *Clarification of goals* – Since many parties are involved in the research process, due diligence should be exercised regarding clarification of goals, the nature and process of research in detail; • *Benefits* – the project should be beneficial for all the contributing researchers as well as for the society; • *Intensive and constant communication* – it is obligatory to assure satisfying outcomes of the project.

Tab. 1. Difficulties in cooperation with stakeholders in international projects. Source: Stead and Harrington, 2000, pp. 90–97.

4. Research Evidence

In the following section, the study findings regarding the role of stakeholders in international research projects are presented. The impact of relationships with stakeholders on the performance of public and business organizations has been a subject of many studies (Clarkson, 1995; Pajunen, 2006; Choi & Wang, 2009; Boucher, Smyth, & Johnstone, 2004; Ratcheva, 2009). Boucher, Smyth and Johnstone (2004) argue that for numerous reasons there is a growing pressure for researchers working at the universities to become involved in multi-partner and industry-linked projects. It has been recognized that such collaboration is more likely to produce outcomes that are of immediate use for practitioners (Biegal, Johnsen & Shafran, 2001). However, conducting such research may be accompanied by some difficulties due to many stakeholders involved. The following issues have been empirically identified as significant for multi-partner research projects (Boucher at al., 2004): managing across university structures, maintaining

the collaborator's interest in the project, gaining approval from multiple authorities and managing expectations of various stakeholders.

Empirical studies on complex projects not limited only to research ones concluded that the core of a successfully executed multi-partner project is communication and social interactions. Through these means, it is possible to establish mutual understanding and trust. This, in turn, enhances motivation, commitment and free exchange of ideas (Santos at al., 2012). Following this path, Goh and Hooper (2009) presented several barriers to effective management of complex projects drawing from the work of other researchers: insufficient information and knowledge exchange (knowledge as an asset that requires security) (Hexmoore at al., 2006), lack of initiative and strategy, inadequate information systems and lack of time and resources (Stoddart, 2001).

Szucs (2018) conducted comprehensive analyses of university-industry partnerships in a projects of the Seventh Framework Programme. His findings suggest that however beneficial such cooperation might be, there are certain perils limiting the outcomes. First of all, research projects often yield unexpected results, the knowledge generated may be of little value to the business partner. Additionally, factors such as a time lag from research to a marketable product discourages firms from participation or is a source of conflicts in an on-going project. Moreover, business partners often have different attitudes towards the generated knowledge than the research institution. Whilst universities are eager to make the results public, firms often struggle to prevent others from economically exploiting the generated knowledge. In a similar vein, Maietta (2015) observed negative impact of academic quality on innovation in the Italian agri-food sector. In other words, the findings show that the higher the academic quality of the research institution, the less beneficial the cooperation in the project in terms of marketable innovations obtained by the business partner. It might reflect on the trade-off between academic and applied research.

Švarc, Perkovic and Lažnjak (2011) investigated the bottlenecks and obstacles in scientific technological projects in the TEST programme in Croatia. Their findings exposed institutional deficits as one of the main sources of unexpected and failed results of the projects. It was revealed that the institutional framework suffered from: *"systemic problems (…) that determine behavior and interaction of the main stakeholders of the programme"* (2011, p. 88). The researchers identified three main institutional deficits (Švarc, Perkovic, & Lažnjak, 2011, pp. 88–91):

1. *Administrative deficits* – procedures of the TEST programme discourage participation of business partners. However, cooperation with business is obligatory in the programme;
2. *Lack of social capital* – the findings unfold a low level of individual initiative, unwillingness to cooperate and a negative attitude towards taking risk and networking;

3. *Deficiency of the broader socio-economic environment* – the research sector is not perceived as an object of beneficial cooperation for business. There is a lack of business demand for cooperation with the research sector.

Mataković and Novak (2013) conducted a comprehensive analysis aimed at assessing the challenges and problematic issues of FP7 projects participated in and coordinated by Croatia. The study unfolds several factors that led to unsuccessful completion of the projects. As far as relationships with stakeholders are concerned, the following issues were emphasized (2013, pp. 138–140):

1. *National legislation* – "extremely incomplete and slow" (Mataković & Novak, 2013, p. 138) responses from legal authorities that were supposed to ensure legal certainty and provide guidance for project implementation.

2. *Administrative support* – there were not enough funds, especially in smaller scientific institutions, to hire project managers. Hence researchers were forced to perform the administration work and the scientific part of the projects themselves. Since researchers found it very time consuming, it prevented them from future participation in FP projects.

3. *Advancement in scientific career* – participation in international projects such as FP7 is not recognized by the legislator as an important factor in advancing scientific careers. Moreover, participation in FP7 is often not accompanied by a reduction in the teaching load. Thus, researchers hesitate to engage in FP7, even though it facilitates the internationalization of Croatian science.

4. *Rewarding applicants* – in most European countries, FP7 participants receive some kind of financial support from their governments. Since March 2010, such a financial reward system for the FP7 applicants in Croatia has been abolished. In consequence, if the proposal is not accepted to be financed in FP7, the work consumed in the preparation phase is not rewarded at all.

Although these insights are based on the experience of other countries, they are highly relevant for the relationships with stakeholders in FP7 projects in Poland. Similar to Croatia, Poland began participation in Framework Programmes in 1999 in the EU's 5th Framework Programme for Research, Technological Development and Demonstration (FP5). Both Poland and Croatia are among less developed European countries with relatively less developed economies and smaller technological backgrounds.

Building on the theory and the presented findings, the questions for this study are as follows: *What issues are the most challenging in relationships with stakeholders in Polish FP7 projects, what are the main obstacles in successful cooperation and project completion*?

This paper provides insight into project practices through the aggregated and detailed experience of project leaders. The aim of the study is to identify the sources of potential limitations on the basis of hands-on experience of

the leaders. The results are also to be interpreted in terms of the future. The purpose of the paper is to learn a lesson from the past experience and offer recommendations on what can be done to improve the successfulness of Polish projects.

5. Research Method

The study is based on the research conducted primarily during the year 2017 among the academics who participated or are still participating in scientific projects as their leaders/coordinators. The basic method of acquiring the data were structured in-depth interviews conducted in-person that on average took around 70 minutes each. The projects taken into consideration were funded exclusively within the 7th Framework Programme. Since the number of 7th Framework Programme (FP7) projects run in Mazovian Voivodship alone exceeded 300, the sample covered a range of projects from various institutions. It is by no means representative of the whole population but the range of projects covered by the study reflects the basic characteristics of most of them in respect of: the number of participants, the form of participation of the Polish partner, budget size and scientific discipline. In most cases, Poland was a member of consortium – only in seven cases (out of 300) the Polish university was serving as a Project Leader.

Additionally, some quantitative data with the basic characteristics of these projects were acquired from the EU statistics and from other Polish databases. These statistics served primarily to ascertain whether the projects represented as many characteristics as possible.

The interview procedure was straightforward. First, the sample was chosen based on the abovementioned criteria. Next, the Polish project leader/coordinator was contacted and asked to participate in the study. Out of fifty two approached project managers, forty-five in total agreed to participate in the interviews. Two of them were unreachable due to time constraints within the timeframe in which the interviews were conducted. Forty-three were subjects in the interviews. 22 interviews were selected to serve as a sample of the presented study (N = 22) as the rest have not yet been fully analyzed. Nevertheless, the structure of the sample (with regard to the variables describing the whole sample) corresponds to the characteristics of the rest of the projects and the whole sample (42 interviews) was homogenous in terms of interview outcomes and results. Hence the conclusions could be modified after the completion of the whole analysis but since the analysis is not of a quantitative type and no universal conclusions will be drawn, the content of this article constitutes a solid basis for further research regarding the analysis of stakeholders of scientific projects.

To complete the study, structured interviews with subjects from 22 different projects were conducted. This process lasted 12 months, from

April 2017 until March 2018. One researcher conducted the interviews. The project scope ranged from mechanical engineering, information systems, astronomy, physics to mathematics. The open-ended question pool was based on the literature review (the full questionnaire forms the attachment to the paper). Before the interviews, there was a short conversation conducted with every participant explaining the content, concept and objectives. Interviews were recorded and transcribed. The interpretation was made using a coding scheme developed according to the literature review. At the final stage of the analysis, the results obtained by the researchers were compared and then selected according to the following criterion: if both researchers made the same interpretation independently, the finding is presented in the study. Answers with mixed interpretations were excluded.

Category	Stakeholders involved	Examples
Communication	• Team members • Research partners from other EU countries • Project partners – public institution	• Inefficient information circulation – e-mail overload • Inefficient teleconferences • Differences in organizational cultures between science and public partners
Lack of support and insufficient technological background	• Research institutions • Government • Business partners	• Researchers feel overwhelmed with administrative work in the projects • Government does not provide obligatory tools to carry out research (i.e. database access) • Business partners are not interested in projects that would be beneficial in 15 years • Time-consuming formal procedures that inhibit the progress in projects • Lack of administration staff skilled in managing research projects
Behaviors and attitudes towards the project	• Project team members • Coordinators	• "fear of committing errors" in Polish teams • Lack of networking skills in Polish teams • Distrustful attitude of foreign coordinator towards the Polish team
Financial rewarding	• Research institutions • Government • Team members	• Poor financial rewarding of Polish teams by comparison with researchers from other EU countries.
Lack of interest from the industry	• Business partners	• Different approach towards research aims • Differences in terms of long- and short-term orientation

Tab. 2. Main issues in stakeholder cooperation. Source: Own elaboration.

The interviewees not only came from different disciplines: biology, astronomy, chemistry, physics, mathematics and economics but they also had different backgrounds and experience: from 'first-timers' to researchers having more than a dozen of projects under their belt.

And yet in spite of these different characteristics, they shared many concerns and were (or still are) facing similar challenges in their line of work. From financial problems, through communicational, to administrative ones – these were all recurring themes during the interviews regardless of the project type, its scope, discipline or team composition. This in turn may indicate that stakeholders of scientific projects are subject to similar processes regardless of the project specifics. And that leads to another important observation – if these processes are in fact similar to such a high extent, the source of this common denominator may lie somewhere else than just in the content of the project but rather in its organizational or financial aspects. Therefore, using this assumption, the study may be extended to include the way in which different financing models influence the operational management of a scientific project. Further research could follow a broader approach which can be an assessment of different international programs.

6. Results

We found five central categories of difficulties in relationships with stakeholders. First, findings show problems in communication that appear within the team as well as within the broader circle of stakeholders. Second, there is a prevailing opinion among the interviewed project leaders that researchers do not receive necessary support, neither from their research institutions nor from the government. Moreover, when the institution is willing to provide administrative support, it is not of a satisfactory quality. The third category concerns attitudes toward projects that deteriorate the overall performance. Forth, the findings revealed that Polish participants of FP7 projects often find their financial rewards unjustly low by comparison with the colleagues from the rest of the EU. Finally, the findings suggest difficulties in gauging the interest of industry partners due to too long-term goals. The five categories are discussed in the relation with each stakeholder involved and illustrated with the quotes in the following section.

7. Communication

The problems in communication can be categorized into three subgroups concerning different stakeholders. First, project leaders reported problems in efficient communications within the team and with foreign research partners.

The findings revealed that mail circulation within international research teams was inefficient if it was not managed in a proper way. A judgment had to made about who should be informed about issues and who should

be involved in decisions. The overload of irrelevant information impedes the project ('*There was an issue of information circulation. Not everything should be sent to everyone. Everyone should have access to information but one cannot be flooded with e-mails. There has to be some kind of hierarchy*') [case 6].

Similarly, communication complexity was one of the reasons that led some leaders to conclude that '*cooperation with twenty something partners is fundamentally inefficient*' [case 10].

Another facet of communication difficulties referred to differences in organizational cultures. It has been revealed that in some instances public partners had different prioritizing and regular working hours were of the highest importance for them. Therefore, communication was inhibited and the pace of operations was slowed down. '*They did not understand how science works, we already work like business,..on time, deadlines... Sometimes like firemen. Something has to be done for the next day. And they don't work that way, no matter what, at 3 p.m. they close the office and do not care about anything*' [case 1].

Finally, it was challenging to meet all the partners since they represented many countries and fields. Participants organized 'virtual' meetings but it proved not to be satisfactory. '*Videoconferences are overrated. The idea is very good but it never works. Problems with access, incompatibility of the hardware. Sudden losses of signal in the least expected moment. I just don't believe in them*' [case 3].

8. Lack of Support and Insufficient Technological Background

The problem of the lack of support from research institutions remains one of the most urgent for many project leaders. It is possible to distinguish two major issues concerning the perceived lack of support. First, our interlocutors claimed to be overloaded with administrative work. A huge amount of paperwork amplifies the effort necessary in managing the project and makes it impossible to fully engage in the research part. What is more, the participants complain about excessive bureaucracy, emphasizing that researchers from other countries are provided with more support from their institutions. '*There is a huge problem with all those non-scientific elements. Our European partners organize it much better than we do. That is why, we have to put much more effort in managing the project...and we are less paid and the institution does not offer us the necessary infrastructure. I heard it from many of my colleagues. We are researchers. We are skilled in dealing with the meritorious part of the project not with the bureaucracy. No one will sacrifice the meritorious part to become a corporation leader and struggle with the legal and financial issues*' [case 6].

Project leaders enumerated examples of the progress of project being stopped by needless bureaucracy procedures: '*Out of the blue, it was decided that the final report should be published right know. And we could not do it.*

We are a public institution, we are limited, we have to follow formal procedures. Stuttgart had to do it, they managed somehow' [case 4].

'*When I sent my employee to Poznań, I had to sign eight different documents'* [case 6].

The second issue refers to the lack of necessary infrastructure and research tools. One of the researchers claimed that it took him nine months while following the procedures in order to buy necessary equipment for the project. His partner from Germany did the same in six weeks. Researchers indicate the differences in the equipment in Polish and European research institutions. Participants explain that such shortages put them in an awkward position toward their research partners. It was considered embarrassing to explain that due to the lack of necessary research tools Polish participants could not meet the expectations.

Researchers argue that since they do not have economic, political and technological support like the one provided in other countries, the results of the Polish contribution to FP7 projects are unsatisfactory and mediocre. Although the skills and scientific achievements of Polish participants in the projects are of a high quality, the lack of technological background prevents the achievement of the desired level of contribution. '*We were overawed observing how they do it at their place. It is sad to admit but sometimes we had a feeling that they did real science and we are just pretenders...'* [case 10].

'*These projects could have been conducted without Poland's participation. Without technological background, we are of minimum importance for the projects'* [case 10].

The findings suggest that in many instances academics felt unsupported by their institution as well as the government. One of the most vivid examples of the problems in cooperation with the government as a provider of necessary research tools is quoted below:

'*There is a database in OECD gathering experiments from many, many years. Please imagine that for four years we and a few other institutions have been fighting with the Ministry of Economy to get access to this database. It is 10.000 euro annual fee. Whoever we talked to in the west (..) they asked us: why do not you use it? And we had to explain: you know, we do not have access because our government made some savings. We felt stupid on many occasions...'* [case 8].

The obtained results shed light on the causes of low participation of Polish academics in international research projects: '*I learned my lesson. Recently, I was proposed to join Maria Curie Training Network and I refused. Now, I am aware that we receive in Poland definitely not enough administration support. I could not take responsibility for such a task in front of my international colleagues'* [case 6].

The best summary of the whole issue could be the following quote: '*I would not agree to coordinate such a project again, not in Polish circumstances'* [case 9].

9. Attitudes and Behaviors of Academic Partners

The researchers not only had to develop relationships with key stakeholders in partner organizations but they also had to maintain them. We found several issues influencing relationships with academic stakeholders. First, there is a need to strengthen networking skills. Polish academics do not benefit enough from international meetings because on occasions they are reluctant to make new acquaintances.

'*Being able to go out, initiate a new acquaintance. I have learned how important it is. (...) I observed Poles during our international meetings and they like to gather in one group. They do not talk with others. But we don't go abroad to talk to ourselves, do we? We will not benefit from the acquaintances we already have, we have to make new ones*' [case 7].

Second, even if an academic is aware of the importance of networking, he or she might not be given an opportunity to perform it. Initiating and maintaining informal contacts with potential partners is costly and time-consuming. Research institutions often do not recognize this need as a crucial factor for conducting research and are not willing to offer funds.

'*Informal contacts with potential partners are very important. It is time-consuming and expensive but this is the only way to be in the business*' [case 10].

Third, the lack of strong ties between academic partners established before a project starts can have negative impact on the project. When there is no track of mutual experiences between partners, the perceived cooperation can be driven by stereotypes and prejudice. Project leaders reported than is some cases, when they had to cooperate with a new international partner, they were met with distrust and dislike. Apparently, it was caused by the prejudice regarding Eastern Europe and affected communication to a high extent.

'*My employees and myself did not like the way the coordinator was addressing us. In a, I would say, not elegant way. Something like "you from Eastern Europe". With the assumption that we will not make it anyway. Without trust. (...) but if we did not submit something very early, he was expecting we would be late. We were never late, though. I knew the schedule, so I was relaxed. He was very nervous and acted in a nervous way*' [case 4].

Finally, there is an interesting finding concerning the general attitude of Polish participants in FP7. It has been revealed that there was a noticeable difference between participants from Poland and from the other countries. It has been indicated that Polish academics and university staff are more afraid of committing errors. Thus, everything done by Polish participants has to be well prepared and rechecked several times. That attitude does not necessarily serve good to the projects, since it is time-consuming and can cause some delays. Projects frequently demand confidence in taking responsibility, an active attitude and rapid actions '*(…) in Poland everyone is afraid of committing an error. It would be much better without this anxiety*' [case 5].

10. Inadequate and Unequal Financial Reward

One of the major findings is how leaders perceive the rewarding system in projects. The obtained results demonstrated that there was a prevailing opinion of inadequate and unfair rewarding. Polish participants considered the rewards too little by comparison with the time and effort that the project took. Moreover, the wages of EU partners were much higher for the same amount of work. Therefore, the financial rewards were demotivating and frustrating.

'We joined the project when it was all prepared. We were just handed in a work package. Then, what was demanded from us was even more than it was written. It made us upset. What is more, we were upset that we are so overloaded for such little money. It did not motivate us (…). Belgians' wages were 4 or 5 times higher. My employee worked there and saw how much they earned. She was really pissed off. I had to moderate the situation. I was trying somehow to explain it to her, but it was demotivating' [case 4].

'Reporting was the biggest problem. I had to read every bill in person... I would expect much more support from the administration (…) Our administration support was too weak. Managing such research projects demands high skills and salaries are relatively low' [case 6].

11. Lack of Interest From Business Partners

Managing relationships with the industry partners is often an important issue in FP7, especially in technological projects. First, academics have to gauge industry interest in being involved in the project. The findings suggest that business and academics may differ in terms of project goals and this prevents business from joining the projects. Industry partners tend to have short-term orientation, thereby expecting quick results. A research project frequently cannot offer benefits in the time horizon preferred by business partners. The study revealed that it was an issue that discouraged industry and in turn stopped the project development.

'Launching a nuclear facility demands several years. Businesses do not operate in such a long-term orientation.(…) Especially that we talk about new technology, that makes everything more complicated. They are interested in 2–3 years, not in 15. The time issue is a killing factor. It is a vicious circle. If we had the technology, it would be easier to attract the industry's attention. However, without their participation we cannot get funds for the technology development ... and the circle is closed' [case 10].

12. General Discussion

With a focus on project leaders, we found five significant issues in the relationships with different stakeholders that were particularly challenging during the course of the projects.

First, the study demonstrated several phenomena in regard to communication. The prevailing communication channel in multi-partner geographically dispersed projects is the virtual environment. Ochieng and Price (2010) argue that the absence of face-to-face communication can lead to misunderstandings and technology based on the Internet usually aggravates these misunderstandings. The results of our study are in line with these findings. Badly managed mail circulation, frequent technical problems in videoconferences and differences in organizational culture had negative impact on communication in projects. The first two issues mentioned above are specific for multi-partner projects, whereas differences in the organizational culture can be of a problem in every research project. Interestingly, Stead and Harrington (2002) emphasize the difficulties that may occur due to different national cultures, and some of the interviewed participants addressed this problem. Also, difficulties arose in the relation between academics and public institution. It has been found that some of the public partners did not cope well with the intensive work that on occasions had to be performed during the projects. However, it has to be taken into consideration that at least a part of communication and cooperation issues reported by the participants is caused by the absence of face-to-face communication. This is in line with the findings of Reed and Knight (2010) and Santos et al. (2012) where the absence of informal and face-to-face exchange of information is reported as a main obstacle in complex projects.

Second, our results show that insufficient support from universities and other research institutions was a crucial challenge to successful completion of the projects. The findings provide further support for the results of Stead and Harrington (2002), Mataković and Novak (2013) and Švarc, Perkovic and Lažnjak (2011), who also identified insufficient administration support and time-consuming paperwork as a factor of the main negative impact on the course of research projects. The presented study also revealed that the Polish contribution to FP7 projects suffered from the lack of necessary research tools and insufficient technological background.

Third, the study demonstrated a range of attitudes and behaviors of different stakeholders that had negative influence on the course of projects. Although all the project leaders generally assessed the attitudes of stakeholders as positive and cooperative, some minor difficulties occurred. Interesting findings refer to the attitudes and behaviors of Polish academics. Reluctance to make new acquaintances and unsatisfactory networking skills have been recognized as the factors that deteriorate the Polish contribution to international research projects. Similarly, Stead and Harrington (2002) and Švarc, Perkovic and Lažnjak (2011) identified a negative attitude towards networking as a major obstacle in facilitating international research in Croatia.

Boucher at al. (2004) indicated that the amount of time necessary to build and maintain the relationship with an industry partner is frequently underestimated. The presented findings are in line with this finding. Distrust expressed by some EU partners towards the Polish research team can be explained in terms of insufficient time and effort put in developing relationships before the project started. Initiating and maintaining relationships with various international researchers is necessary to build smooth cooperation in multinational research initiatives.

Forth, insufficient financial rewards have been found as a demotivating factor as regards participation in FP7 projects. Funding is an issue frequently mentioned as challenging in international research projects (Boucher at al., 2004; Mataković & Novak, 2013). This result is definitely to be taken into account in designing future research programs.

Finally, about business partners. This has important practical implications since facilitating cooperation with industry is one of the main challenges faced by the science sector in Poland. Although it is obligatory for many research projects to attract industry partners, there seems to be a discrepancy in goal setting. Business partners prefer quick results, therefore they are not willing to participate in very long-term and risky initiatives. This may lead to the conclusion that more effort should be put in adjusting research projects to the expectations of industry partners. Interpreting this finding in the light of the propositions advanced by Stead and Harrington (2000) leads to the conclusion that the project should be beneficial to every partner. Thus, dividing long-term research plans into shorter ones with appropriate outcomes at every stage could be more attractive to industry partners.

13. The Contribution to the Theory and Practice

This work contributes to our understanding of the specifics of international multi-partner research projects participated in by Polish academics, providing guidance for future projects. The results shed light on some of the reasons behind poor Polish academic involvement in FP7 programs. Insufficient administration support, a lack of necessary research tools and technological background were the most important challenges. This work empirically demonstrates previously unidentified mechanisms that may limit the Polish participation in EU's research programs, including fear of committing errors and a lack of training in networking. All the abovementioned findings need to be investigated further, with the application of alternative research methods. The quantitative approach could shed some light on the statistics behind the described processes and serve as a good starting point for policymakers to adjust and modify existing solutions in order to improve the overall effectiveness and success rate of scientific projects. Clear limitations to this study are the sample size and the source of funding – limited to only one agency. While the sample size is the

reason why this study serves as a starting point for a further quantitative analysis, the limitation to one source of funding only allowed the authors to use a relatively homogenous group of interviewees. Despite its limitations, our analysis, if used consciously, allows similar studies to be designed for different groups of beneficiaries.

Endnotes

1 FP7 refers to the 7th Framework Programme – a research scheme funded by the European Commission in years 2007–2013.

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Appendix 1. Interview Scenario

Welcome

Good morning/afternoon. Thank you for agreeing to take part in an interview about the skills of a research project manager. This interview is part of a study on research projects financed under the Seventh Framework Programme and implemented in the Mazowieckie Voivodship. The study also comprises a secondary data analysis and on-line surveys. All information obtained in the interview will be available solely in an anonymized and aggregated form, meaning that partial results can be viewed exclusively by the researchers. The final results are available to all those interested. Upon the completion of analyses, they can be sent/made available to any person expressing interest in the findings.

The Purpose of the Interview

The interview is aimed at collecting data on the relationship between soft skills of a research project manager and the effectiveness and efficiency of the project concerned. The analyzed variables encompasses a set of data directly concerning the characteristics of the project itself and the procedures for its implementation. The second set of variables includes the ways in which the manager runs the project and hard and soft skills that are helpful in achieving the established goals. The outcome of the study will be a monograph and a series of articles on situation- and personality-related determinants of the success of a research project.

The interview will focus solely on projects funded under the Seventh Framework Programme. Other research projects that you may have conducted are not the subject of the interview and will not be covered by the analysis. The entire interview concerns both completed and ongoing projects, although some questions will obviously be slightly different in each case.

Part A – Project Characteristics

1. What is/was the title of the project?
2. Project summary (most information is in the database; this part is only a supplement)
   - Funding (only PL)
   - Results and effects (summary of the most important ones according to the interviewee)
3. Number of researchers in the team (if it changed, the number of permanent researchers and the maximum number of people at one point in time)

4. How did the project start? Was the initiative on the Polish part or on the part of a foreign partner? (personal contacts, e-mails, conferences, etc.)

5. Is/was there periodic/systematic vertical communication in the project (i.e. between the Consortium participants and the Leader and between the Manager and the researchers)?

6. Where does the originality of the project lie (purpose, methods, process, tasks, team, etc.)?

7. What part of the project tasks is/was repetitive and what part is/was unique?

8. What were the most important unique activities?

9. Are most of your tasks as the manager performed also by the team (e.g. research tasks) or do you as the manager rather coordinate the work of other team members?

Part B – The Interviewer's Competences and Skills

10. Do you regard yourself more as an extrovert or an introvert?
11. Do you think that this rather helps or hinders project management?
12. Why?
13. What skills/competences do you think you have to help you manage the project?
    a. Good verbal communication
    b. Good written communication
    c. Social skills
    d. Resistance to stress
    e. *###*
14. Do you prefer written or verbal contact in research matters? Why?
15. What do you like about each of these types of communication?
16. How long have you been engaged with the subject matter of the project?
17. How many related texts have you published and where (country, language of publication, number of points, if any)?
18. What other (thematically) similar research did you do before or are you doing now?
19. How are your managerial (not research) tasks different from those performed in the discussed project?

Part C – The Interviewer's Behavior in the Project

20. Did the project include a kick-off meeting?
21. How often are project meetings held?
22. How long do they usually take?
23. How many people (how many team members) usually participate in them?

24. What type of tasks take most of your time in the project? (management, research, documentation, etc.)
25. Do you update the project schedule? If so, how often? Does anyone help you with this or do you do this task yourself?
26. How often do participants ask you for information about research tasks or project administration?
27. How often do they ask you to verify their work on its merits?
28. Was/is this the first or subsequent cooperation with these people? (possibly, how many first timers)
29. How did you cooperate? (face-to-face, by e-mail, at meetings)
30. Do you use any motivation techniques for the project team members? (commendation, bonuses, prizes, applications to the authorities for reward, public thanks, etc.)
31. When did you last commended a project participant for good performance of a task? For what exactly?
32. How often do you meet personally with the project participants?
33. Do you meet with all or only some of them?
34. How do you coordinate work between team members? (by e-mail, by phone, in person, etc.) Optionally – which of these techniques dominates?
35. Are the e-mails written in the project usually personalized or addressed to the whole/most of the team?
36. Do you know when your team members have birthdays and namedays?
37. Do you cooperate with them beyond the project in question?
38. In addition to publications, have you taken any actions to promote the results and outcomes of the project? For example, have you personally attended meetings aimed at promoting the project? If so, what meetings?
39. Where did you present the results of the project? (conference, seminar, etc.)
40. What did you learn about project management during/after the project?
41. Was it knowledge or rather skills? What knowledge/skills?

Part D – Behavior of Other Project Participants (if no major conflicts existed in the project, the questions should be asked as hypothetical situations)

42. How often do conflicts between project participants arise?
43. What do they concern?
44. Do the same or different people come into conflict?
45. How did you solve the last conflict in the team?
46. How do you prefer to solve conflicts in the team?
47. When did you last become irritated with a project participant about his/her work in the project? What did you do then?
48. How often do you discuss the relevance or usefulness while assigning tasks to team members?

Part E – Repetitive Project Practices

49. Are there any rituals in the project (e.g. upon stage completion)?
50. Was any milestone in the project celebrated? If so, how?
51. What actions did you take in the event of a delay in the project?
52. Were these various actions? What?
53. In the case of repetitive activities (periodic reports, milestones, signing research contracts), do you have to initiate procedures yourself or do team members know what to do and come forward?
54. What other thoughts do you have at the end of our interview?

Thank you for the conversation. The results of the study will be available in mid-2017. If you wish to receive the cumulative results, please let us know and we will send them to you as soon as they have been finally processed.