

## CRITICAL SUCCESS FACTORS FOR INFRASTRUCTURE EUROPEAN FUNDED PROJECTS

**Sebastian-Ion Ceptureanu**

Management Department, Faculty of Management, Bucharest University of Economic Studies, Bucharest, Romania  
sebastian.ceptureanu@man.ase.ro

**Abstract:** *Absorption of European funds is on top of Romania's public agenda for the last years although the first programming period has ended and the necessary lessons were learned so far. To have a high degree of absorption of funds provided by the EU must be of quality projects and their implementation to be successful. Through this work we aimed to investigate the success factors of infrastructure projects with European funding in Romania, Bulgaria, Moldova, Ukraine, Serbia and Kosovo, and identify critical success factors of these projects through a research surveying the teams of consultants and support personnel from the countries in an international consulting company. The research results are therefore constitute the empirical evidence of what constitutes critical success factors of infrastructure projects financed by the European Union and can be used as a starting point for scientific studies of the management of European projects or other actions that investigates measures that can be taken to improve the success rate of projects implemented in the area mentioned above. One of the contributions of this paper is to identify the critical success factors of success factors present in literature. With more so as they are critical success factors of infrastructure projects with European funding still required field studies and analysis performed in the present context. In addition, the critical factors were operationalized in a conceptual framework. Moreover, this framework includes leadership style of project manager as critical success factor has been identified in the research as the most important in the context in which it was conducted. As such, this paper demonstrates, with the necessary limitations, the importance of management style of project managers in the context of specific European funded infrastructure projects. And this is happening even though there are sophisticated project management tools available and relevant knowledge exists at both local and international consultants. We also hope the study results represent an impetus for both theorists who bring new evidence in this direction but also for practitioners to focus their efforts on these key areas.*

**Keywords:** management, project management, critical success factors, infrastructure projects

**JEL classification:** M10, O1, L2

### 1. Introduction

Literature on project management suggests that there are many factors that influence the success of the project and there is no general consensus on a particular set of critical success factors (Ceptureanu SI, 2015a). The term "critical success factor" was first used by John F. Rockart and MIT Sloan School of Management in 1979 as a way to help managers to define their information required for the management of their organizations (Rockart, 1979 p.85). Rockart

created the term based on the concept of "success factors" introduced by D. Ronald Daniel. Daniel has discussed the problem of inadequate information for management setting up targets, design strategies, make decisions and measure results. He argues that the information required for organizational planning should focus on "success factors" that were described as "factors that determine success ... key activities [which] must be performed extremely good for a company to be successful "( Daniel, 1961, p.54).

Successful implementation of a project usually include a wide variety of criteria. However, in the simplest terms, the success can be considered to incorporate four basic issues. A project is generally considered to be successfully implemented if:

1. It is finished within the planned period (time criterion);
2. The cost does not exceeds the planned budget (monetary criterion);
3. Reach all the goals initially set (efficacy criterion);
4. It is accepted and used by the customers for whom the project is intended (customer satisfaction).

As such, a first definition of what constitutes successful implementation of a project it includes a definite time frame for completion, a limited budget and a specified set of performance characteristics.

Concept of successful project has changed over the years (Ceptureanu EG, 2015a). Jugdev and Müller (2005) provides a thorough review of the literature on this. Looking at how the success of the project was measured in the last 40 years they conclude that there is an increase in the list of factors affecting the success of a project.

The 80s were marked by an emphasis on planning and control tools, as well as customer relations and team project (Morris, 1988 p.6; Pinto and Slevin, 1988 p.68). Performance evaluation criteria such as time, budget and functionality have dominated this period and turned gradually to more subjective factors such as customer satisfaction.

The 90s have shown an increasing interest in behavioral and interpersonal factors and increased awareness of how project management is about managing human resources to achieve results, not necessarily about managing work itself (Turner, 1999 p.107) . A subsequent study by Müller and Turner (2005) showed that variation in understanding the success of projects depends on the culture and complexity of the projects.

Nowadays, project's success is commonly presented in the literature (Morris and Hough, 1987 p.4; Wateridge, 1996 p.35; Turner, 1999 p.107) as a combination of:

- Critical success factors of a project, which are the elements of a project that can be influenced to increase the probability of success;
- Criteria for measuring the success of a project, what are those measures on which the success of the project is evaluated.

## **2. Critical project success factors**

Success means different things to different people and in the case of projects, the situation is no different (Ceptureanu SI et al, 2015a). One common hypothesis is if a project is completed on time, within budget and agreed quality, then the project is considered successful. The existing evidence suggests that this is far from the truth.

Since the late, project management researchers have tried to discover what factors lead to project success (Baker et al, 1974:25, 1988:15;. Pinto and Slevin, 1988

p.68; Lechler, 1998 p.61). Most of the initial studies have focused more on the reasons leading to project failure than its success (Balachandra, 1984 p.17; Hall, 1980 p.5).

According to Pinto & Slevin (1998) full completion within budget and with a satisfied customer are common elements that measure the success of a project. However, they suggest that there are few topics in project management, which are discussed so often and yet so rarely agreed that the concept of successful project (Pinto & Slevin, 1998 p.67).

Most project objectives, however, include multiple criteria, including time, cost, quality and safety. Project management usually must compromise between these criteria. If compromises are agreed by the project manager and client, the project could still be accepted as a success, even if some of the objectives have not been fully met.

In identifying the factors commonly associated with successful projects, Nicolas (1989) suggests that, to the extent that these practices are present in a project, likelihood of success, while not guaranteed, however, is improved.

A more recent study by Shenhar, Tishker, Dvir, Lipovetsky, Lechler (2002) analyzed 127 different projects, arguing that the critical success factors are not common to all projects, for various reasons. A seemingly obvious reason is that not all projects are alike. Each project is different and every project operates in its own environment. As an example, they suggest that projects of considerable uncertainty must be managed differently from projects with a lower degree of uncertainty.

A first systematic classification of critical success factors in project management is performed by Schultz, Slevin and Pinto (1987). These authors identify two groups of factors - strategic and tactical - influencing the performance of the project in different phases of the project life cycle. For example, the strategic factors includes support from top management and good planning of the project. Tactical factors includes customer consulting, selection and training of human resources. Moreover, Pinto and Slevin (1988) increased the range of success factors by considering the specifics of the various stages of the project life cycle.

Research has shown that impact success factors can vary in different phases of the project life cycle and in terms of success measures identified by analysts.

Alexandrova and Ivanova (Alexandrova, Ivanova, 2012) and presents a list of critical success factors relevant for projects with European financing, factors that were identified by literature review and from a pilot study performed in Bulgaria in 2012. The resulting critical success factors are as follows:

1. Jurisdiction of Project Manager;
2. Support from the contracting authority;
3. Clarity of project objectives;
4. Support of top management;
5. Team members competence;
6. Level of motivation for project's team members;
7. Effective communication between project stakeholders;
8. Quality of subcontractors;
9. Accuracy in documenting and archiving project information;
10. Effective coordination of project activities;
11. Compliance with the rules and procedures established by the contracting authority;
12. Systematic control of project implementation;

13. Access to organizational resources;
14. SMART planning;
15. Competence and adequate support from external consultants.

This paper uses this list as a starting point to assess critical factors to which we have added a number of 6 factors considering literature and our own expertise.

They are as follows:

1. The purpose of the project is well defined;
2. Objectives are clear and accepted;
3. Support from management;
4. Parties involved in the project have the required expertise for project implementation;
5. The risks are identified and managed;
6. Management style of project manager is essential for project success.

### **3. Research Methodology**

#### ***Setting up research objectives***

- 1) Identifying the most important success factors that impact public interest projects with national and European financing in selected geographic area and a list of critical success factors.
- 2) Building a conceptual model of "successful project" implemented by company's teams in chosen geographical area and the construction of a definition (Ceptureanu SI, 2015b).
- 3) Determining the current situation regarding project management capacity both in terms of consultants and project beneficiaries.
- 4) Identify those aspects that have improved the management capacity of the public infrastructure projects in selected geographical area to increase the chances of win a successful project in the chosen geographical area.

#### ***Research hypotheses***

First we wish to investigate whether "successful project management" is considered the same as "successful project" in the target area chosen since literature covering these two concepts are distinct. Hence hypothesis A states that *in the chosen area there is the difference between "successful project management" and "successful project"*.

Hypothesis B states that *most subjects are able to determine the impact of a factor on the success of a project and thus produces a list of critical success factors*.

The third hypothesis was chosen considering why we want to know the impact of various factors on the success of a project of public interest with European funding, namely improving the management capacity of projects and as such hypothesis C says that *most subjects are capable to identify those aspects that lead to improved project management capacity*.

#### ***Sample size and structure***

To determine the sample size consisting of employees with the role of consultant or support staff involved in infrastructure projects of public interest with European funding the following formula applies (Cătoi, 2009):

$$n = \frac{z^2 * p * q}{e^2}, \text{ where:}$$

n = sample size required;

z = confidence level default; z = 0.95

p = proportion of people engaged in projects (estimation); p = 0.80

q = complement of p, ie the percentage of cases that do not possess the attribute (ie, those not engaged in projects) and is determined by the relation 1 - p; q = 0.20

e = maximal perceived error, e = 0.05

After applying the formula we consider that the investigated sample will include 58 respondents ie 57.7.

The sampling method used was random sampling (probabilistic) method because all people are part of the research unit have equal opportunities to be selected and placed in the sample research. Once picked one respondent, it is no longer considered for selection following sample components.

### ***Design and testing of questionnaire***

The research was done using an individual, highly structured and disimulated questionnaire (Cătoi, 2009). The questionnaire includes questions about the success of a project (questions Q1, Q2\_1, Q2\_2, Q2\_3, Q2\_4, Q2\_5 and Q2\_6, Q3 and Q4), questions about the factors that impact the success of a project (Q5 - Q23) question on the number of years of experience in implementing European financed projects (Q24), open questions about perception opposite the capacity to manage projects with European financing consultants and beneficiaries and issues that have contributed to improving the management capacity of projects (Q25 and Q26) and questions the classification of respondents (Q27-Q33). The questionnaire consists of closed questions (Q1-Q24 and Q27-Q33) and open (Q25 and Q26). Scale types used in the performance of questions in the questionnaire is Likert scale questions except Q24 - Q33.

The questionnaire was tested for the formulation of the complexity and time required for completing the three people chosen randomly from the list of employees involved in projects resulting from sampling (Ceptureanu EG, 2015b).

The persons selected to be in the sample were contacted either directly by e-mail (Romania) or indirectly through a company representative in the target country in question, namely Serbia, Kosovo, Bulgaria, Moldova and Ukraine. This solution was chosen to provide a speedy data collection. Questionnaires were filled in electronic format provided and returned via e-mail. Proof of completion survey respondents are names, their addresses and e-mail attachments transmitted. Once the data were collected, they were analyzed using SPSS 17.0 statistical program.

### ***Data analysis***

We performed Reliability Analysis, which involves identifying the degree of precision that measures a characteristic scale. This step was carried out using Cronbach's coefficient alpha internal consistency, which indicates the inter-item consistency of the scale is based on the average analyzed and the correlations between the items of the scale.

According to the internal consistency index value (0.694) shown in fig. 1, the variables analyzed show a very good correlation, which means that the items were accurately perceived (correctly) and have left no room for interpretation by all

respondents.

| Reliability Statistics |  |            |
|------------------------|--|------------|
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .663                   | .694   | 17         |

**Fig. 1. Measuring Cronbach alpha coefficient of internal consistency (summary results obtained through SPSS)**

#### 4. Results

The first and one of the most interesting conclusions of the research is that more than half of respondents (53% overall) believe that successful project management is the same as "successful project". As such, for most of those involved in the implementation of projects either posture manager, consultant or support staff to successfully manage a project is equivalent to having a successful project. This result contradicts the hypothesis which says that the chosen area is the difference between "Successful Project Management" and "successful project", these two aspects are not considered the same thing.

Another interesting aspect is that of those who did not agree with the statement (32% total) only 15% are project managers (team leader, project manager or project responsible) or a position with management responsibilities (Deputy team leader). We find sufficient evidence gathered from studies and scientific or empirical research performed over the years because between "Successful Project Management" and "Project Success" to be a clear distinction. For a project to be considered "successful" have met many more conditions than to secure a quality project management.

In terms of the concept successful project confirmed the issues identified by the bibliographical study which defines this concept (see question Q2 and all its sub-points Q2\_1 - Q2\_6). All aspects record high percentage (over 70% of respondents), of which nearly matches the achievement of project objectives unanimity (91%) of those questioned in. While that is important, although not a significant difference, a project to satisfy all stakeholders (77%) than only customer for that project is executed (75%). Furthermore, the results achieved to question Q3 which respondents were asked to confirm or deny the claim such that a project can be considered successful if conducted over a period of time, with a budget exceeding the initial estimate but achieve all objectives initially established and accepted and used by the beneficiary for the project is intended to show that 60% of them are "agree" and "strongly agree" while 23% still have not formed an opinion (disagree nor disagree with the statement). By correlating these results with those recorded question Q4 which sought to determine the frequency of similar cases to the one shown in Question Q3 in project management in the target area at the time of the research, which shows that 52% of those surveyed believe that this happens



"often" or "very often" and 38% believe that the only times you encounter a similar case although projects exceeding the period and estimated budget chances are that they be considered "successful projects" if they met their objectives and are accepted by the recipient.

Analysing the responses received in relation to the factors that have the greatest impact on the success of a project respondents have the following ranking based on percentages recorded for each of the items in terms of maximum impact on the success of a project (marked as "very important (a) "questionnaire):

**Table 1. Ranking of success factors from research**

| No. | Success factor  | Question | Total score % |
|-----|---|----------|---------------|
| 1   | Leadership style of the manager (leadership)  | Q22      | 86.7          |
| 2   | Project team composition  | Q17      | 78.3          |
| 3   | Fulfill the purpose and objectives of the project   | Q6       | 76.7          |
| 4   | Quality of contractor   | Q12      | 76.7          |
| 5   | Control of execution  | Q13      | 76.7          |
| 6   | Project manager competence  | Q16      | 75            |
| 7   | Effective communication between project stakeholders  | Q23      | 71.7          |
| 8   | All parties involved (contracting authority, consultant, building contractors, sub-contractors, etc.) must have the required expertise for project implementation | Q14      | 70            |
| 9   | Effective coordination of project activities  | Q19      | 68.3          |
| 10  | Identifying and managing risks  | Q15      | 63.3          |
| 11  | Support from top management company   | Q7       | 60            |
| 12  | Support from the contracting authority  | Q9       | 56.7          |
| 13  | Quality of service provided by sub-contractors  | Q11      | 56.7          |
| 14  | Motivating the project team   | Q18      | 51.7          |
| 15  | Rules and procedures established by the contracting authority   | Q10      | 41.7          |
| 16  | Access to organizational resources  | Q8       | 36.7          |
| 17  | Accuracy in documenting and archiving   | Q21      | 36.7          |
| 18  | Flexibility in planning project activities  | Q20      | 31.7          |

Comparing these results with those acquired by Alexandrovna and Ivanova, these are:

1. Project Manager Competence => 81.8%
  2. Compliance with the rules and procedures => 78.0%
  3. **Team members' competence => 66.7%**
  4. Quality of services provided by sub-contractors => 66.7
  5. Support from the top management => 64%
- (Results from initial study)

1. The management style of the manager (leadership) => 86.7%
2. **Project team competence => 78.3%**

3. Fulfill the purpose and objectives of the project => 76.7%

4. Quality of sub-contractors => 76.7%

5. Control of execution => 76.7%

(Current study results)

Only "project team competence" appears in two studies among the most important factors that impact the success of the project.

That the current study "the quality of sub-contractors" and "control of execution" appear in the top five factors is normal and to be expected given that type of project is about infrastructure, no matter where it was built, namely transport, environment - water and waste water, waste, energy, buildings, etc.

The most important result of the study is that the first are "management style of project manager (leadership)" which differs from "competence" (factor ranked no. 6 in the rankings shown above), which means technical knowledge (Ceptureanu SI et al, 2015a).

This result is part of the trend outlined by studies in recent years that the project manager identifies leadership as a very important critical success factor. Kerzner (Atencio, 2013) argues that "project managers are often selected or not depending on their management style (leadership)". Also, after bibliographical study the link between project success and ability and leadership style of the manager was identified and demonstrated in a study led by Muller and Turner in 2007. It is mentioning previous studies leadership as a critical success factor but we believe that the work in 2007 two more well founded in this case. Besides the two authors conducted several studies on the subject over several years between 2005 and 2007 at which publishes mentioned above. In the 2005 study two authors said that, surprisingly, the success factors of the projects mentioned in project management literature to date does not include driving style project manager as a success factor. Atenció mentions that although his driving style is considered a success factor at the organizational level for a long time, however, this concept has been adopted relatively recently in project management. This assertion is supported by other authors identify the bibliographic study also cited by Atenció in his work, namely Dvir (2005), Turner and Muller (2005 and 2006), Ceptureanu EG et al, (2014) or a more recent works such as that of Jiang (2014).

In the aforementioned study, Jiang (2014) states that if we look at things from the perspective of the model developed by Yang (2011) project manager's leadership style influence project success through teamwork and the results of this study - "competence team project" ranked as the second most important critical success factor - which indicates the importance of team and teamwork (Ceptureanu SI, 2015b, Ceptureanu EG et al, 2012)

Another interesting aspect is that of the 14 factors that have registered more than 50% of the respondents eight of factors relates to human resources (Q22, Q17, Q16, Q23, Q14, Q7, Q9 and Q18) only three are related to project management (Q6, Q19 and Q15) and the remaining three relate to quality assurance (Q12, Q13 and Q11).

Further study results show unequivocally that the target area of the project management capacity of consultants and beneficiaries has not improved in recent years which should draw an alarm signal. However 60% of respondents did not think they had improved the ability of consultants to manage projects.



## 5. Conclusions

One of the contributions of this paper is to identify the critical success factors of success factors present in literature. With more so as they are critical success factors of infrastructure projects with European funding still required field studies and analysis performed in the present context. In addition, the critical factors were operationalized in a conceptual framework (Nicolescu et al., 2009; Ceptureanu SI, 2014).

Moreover, this framework includes leadership style of project manager as critical success factor has been identified in the research as the most important in the context in which it was conducted (Ceptureanu SI, 2015c). As such, this paper demonstrates, with the necessary limitations, the importance of management style of project managers in the context of specific European funded infrastructure projects. And this is happening even though there are sophisticated project management tools available (Ceptureanu EG, 2015c) and relevant knowledge (Ceptureanu SI et al, 2012) exists at both local and international consultants. We also hope the study results represent an impetus for both theorists who bring new evidence in this direction but also for practitioners to focus their efforts on these key areas.

## References

- Alexandrova, M., & Ivanova, L. (2012) "Critical success factors of project management: empirical evidence from projects supported by EU programmes". *The International ASECU Conference on Systematic Economics Crisis: Current Issues and Perspectives*. Skopje, Macedonia
- Andersoe, E. S., Birchall, D., Jessen, S. A., & Money, A. H. (2006). "Exploring project success", *Baltic Journal of Management*, 1(2), pp.127-147
- Atencio, M. (2013) "A critical success factors framework that includes leadership competencies for successful delivery of projects", PhD thesis, University of Salford
- Atkinson R, (1999). "Project Management: Cost, Time and Quality, Two Best Guesses and a Phenomenon, Its Time to Accept Other Success Criteria", *International Journal of Project Management*, 17(6), pp.337-342
- Baccarini, D. and Collins, A. (2004), "Project success- a survey", *Journal of Construction Research*, 5(2), pp.211-231
- Baker, BN, Fisher, D and Murphy, DC (1974) *Factors affecting project success National Technical Information Services*, N-74-30092
- Balachandra, R., and Raelin, J. A. (1984). "When to kill that R&D project". *Research Management*, 27, pp. 30-33
- Catoiu I. (2009) *Cercetari de marketing – tratat*, Editura Uranus
- Ceptureanu E.G. (2015a), "Survey regarding resistance to change in Romanian innovative SMEs from IT Sector", *Journal of Applied Quantitative Methods*, 10 (1), pp.105-116
- Ceptureanu E.G. (2015b), "Employee's reaction to change in Romanian SMEs", *Review of International Comparative Management*, 16(1), pp.77-87
- Ceptureanu E.G. (2015c), "Research Regarding change management tools on EU SMEs", *Business Excellence and Management Review*, 5(2), pp.28-32
- Ceptureanu E.G. and Ceptureanu S.I., (2014) "Change management survey on innovative ITC Romanian SMEs", *Quality- Access to success*, 16 (144), pp.62-65
- Ceptureanu EG and Ceptureanu SI (2012), "Practice in management and entrepreneurship: some facts from the Bucharest University of Economic Studies",

- Review of International Comparative Management*, 13(5), pp.703-716
- Ceptureanu S.I. (2014), "Knowledge based economy in Romania: comparative approach", *Journal of Applied Quantitative Methods*, 9 (4), pp.51-61
- Ceptureanu S.I. (2015a), "Knowledge management in Romanian young SMEs", *Review of International Comparative Management*, 16(1), pp.5-22
- Ceptureanu S.I. (2015b), "Competitiveness of SMEs", *Business Excellence and Management Review*, 5(2), pp.55-67
- Ceptureanu S.I. and Ceptureanu E.G., (2015a) "Knowledge management in Romanian companies", *Quality- Access to success*, 16 (145), pp.61-66
- Ceptureanu S.I. and Ceptureanu EG (2015b). "Challenges and Barriers of European Young Entrepreneurs", *Management Research and Practice*, Vol. 7 Issue 3 (2015) pp. 34-58
- Ceptureanu SI (2015c), Romanian Young SMEs Overview. Business Environment Situation, Proceedings of the 25th International Business Information Management Association (IBIMA), ISBN: 978-0-9860419-4-5, 7-8 May 2015, Amsterdam, Netherlands, pp.1555-1567.
- Ceptureanu SI, Ceptureanu EG, Tudorache A. and Zgubea F (2012), "Knowledge based economy assessment in Romania", *Economia, Seria Management*, 15(1), pp.70-87
- Daniel, D. Ronald, (1961) "Management Information Crisis," *Harvard Business Review*, pp.111-122
- Dvir D. (2005), "Transferring projects to their final users: The effect of planning and preparations for commissioning on project success". *International Journal of Project management*, 23(4), pp.257-265
- Hall P. (1980): *Great Planning Disasters*, Weidenfeld and Nicolson, London.
- Jiang J. (2014). „The Study of the Relationship between Leadership Style and Project Success", *American Journal of Trade and Policy*, 1(1), pp.51-55
- Judgev K, Muller R. (2005), "Success is a moving target: a retrospective look at project success and our evolving understanding of the concept". *Project Management Journal*, 36(4), pp. 19–31.
- Lechler, T. (1998). *When it comes to project management, it's the people that matter: an empirical analysis of project management in Germany*. In F. Hartman, G. Jergeas, J. Thomas, *The nature and role of projects in the next 20 years: research issues and problems*. Calgary University of Calgary. pp. 205-215
- Morris, P. (1988). *Managing project interfaces*, in Cleland, D. I. & King, W. R. (Eds.) *Project Management Handbook*, Second edition, New York: Van Nostrand Reinhold, pp. 902 – 909
- Morris P.W. and Hough G.H. (1987), *The Anatomy of Major Projects*, John Wiley and Sons, New York
- Muller, R., & Turner, J. (2007), „Matching the project manager's leadership style to project type", *International Journal of Project Management*, 25, pp. 21–32
- Müller, R., Jugdev, K. (2012). „Critical Success Factors in Projects: Pinto, Slevin, and Prescott - the elucidation of project success", *International Journal of Managing Projects in Business*, 5(4), pp. 757-775
- Nicolescu O, Nicolescu C, Popa I, Ceptureanu SI, Dobrin C, Ceptureanu EG (2009), "Innovation in Romanian SMEs and its impact on performance", *Computer Science and Information Technology-Spring Conference*, 2009. IACSITSC'09, 978-0-7695-3653-8, pp. 336-339
- Pinto, J. K., & Slevin, D. P. (1988). "Project Success: Definitions and Measurement

Techniques", *Project Management Journal*, 19(1), pp. 67–72.

Rockart, J.F. (1979). "Chief Executives Define Their Own Information Needs," *Harvard Business Review*, 57(2), pp. 81-93

Schultz, R. L., Slevin, D. P. and Pinto, J. K. (1987) "Strategy and Tactics in a Process Model of Project Implementation.", *Interfaces*, Vol. 17, pp.34-46

Shenhar, A. J., Tishler, A., Dvir, D., Lipovetsky, S., & Lechler, T. (2002), "Refining the search for project success factors: A multivariate, typological approach", *R&D Management*, 32(2), pp.111-126

Shenhar, A.J., Levy, O., & Dvir, D. (1997). "Mapping the dimensions of project success", *Project Management Journal*. 28 (2), pp. 5-13.

Turner JR, Muller R. (2005), "The project manager's leadership style as a success factor on projects: a literature review", *Project Manage Journal*, 2(36), pp. 49–61

Turner, J.R. and Muller, R. (2005), "The project manager's leadership style as a success factor on projects: A literature review", *Project Management Journal* 36(2), pp. 49–61.

Turner, J.R. and Müller, R. (2006) *Choosing Appropriate Project Managers: Matching their leadership style to the type of project*. Project Management Institute, Newton Square, PA, USA

Turner, R., Zolin R (2012), „Forecasting Success on Large Projects: Developing Reliable Scales to Predict Multiple Perspectives by Multiple Stakeholders Over Multiple Time Frames", *Project Management Journal*, 43(5), pp.87-99