

# Sustainable Assessment for Stakeholders

Abdulaziz M. Ashi

Project Engineer

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**Abstract:** Many strategies and methods, which are mostly not static but rather dynamic, in project management are set to evaluate the behavior of stakeholders. Stakeholders can be better assessed and controlled once decision makers define stakeholders by their long-term interests and attributes. A new approach has been developed to analyze attributes of stakeholders in the domain of time considering a multidimensional view of attributes of stakeholders, and the relationship of sustainable development of investments to attributes of stakeholders.

**Keywords:** Sustainable, Assessment, Development, Multidimension, Dynamic, Stakeholder Complexity.

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## 1. INTRODUCTION

Managing stakeholders in an investment is a very essential factor that contributes to a successful outcome for the investment regardless of the size of projects under this investment. The majority of existing tools and publications associated with managing stakeholders for projects tend to focus more into the static and short-term perspective of stakeholders in relation to projects rather than the relationship of stakeholders to projects executed under a long-term investment. Improving these methodologies for stakeholder management will assist the sponsor and project management team with projects to enhance their grasp for better management of stakeholders. A project sponsor and project management team will have a better understanding about the complexity of attributes of stakeholders.

This paper provides an improved concept for managing stakeholders by integrating both principles of sustainable development (SD) and multidimensional assessment of stakeholders by looking into the long-term interests of stakeholders. This paper capitalizes on the difference between both ideologies for management of stakeholders and management for stakeholders. This new approach assists decision makers with making better decisions that affect projects and their stakeholders at which such pivotal decisions should lead to organizational gain. This new approach provides a better understanding of the magnitude of impact on stakeholders by committing changes in project related policies or baseline plans.

It is worth mentioning that it is necessary for planning for stakeholder processes to begin as early as the business case development, allowing time for the research team to establish a comprehensive database and collect a variety of essential information about the stakeholders. Such information will provide a better view to the project management team for how positions of stakeholders are shaped and their potential for influencing the project.

## 2. THEORETICAL BACKGROUND

The theme of stakeholder management was initially introduced in literature by Freeman (1984) who promoted the idea of managing stakeholders within his literature for business management. Cleland (1986) thought of conveying these concepts for stakeholders into the paradigm of project management. And since then, the process of managing stakeholders has become a main process in project management defined as “the process of adapting the specifications, plans, and approaches to the different concerns and expectations of the various stakeholders” (Project Management Institute, 2008). Since the time of Cleland (1986), there have been many theories and literature for stakeholder management. Foremost is the literature related to managing stakeholders in the field of project management, and literature focused on the assessment and categorizations of stakeholders based on their involvement and relationships to the investment in the short-term to project

duration. Similarly, a number of noteworthy quotations are captured below to demonstrate the changes in the global views on the theories and literature in the subject of stakeholder management.

Stakeholder theory has been widely used to enable project management teams to understand aspects of stakeholders to manage stakeholders from the strategic point of view with reference to relationship of stakeholder to project. This is achieved through ensuring support stakeholders and maintenance of relationships with stakeholders (Savage, Nix, Whitehead, and Blair, 1991; Aaltonen, Kujala, and Oijalain, 2008; Eskerod and Vaagaasar, 2014).

Cleland (1986); McElroy and Mills (2000); Olander (2007); and Chinyio & Akintoye (2008) adopted a narrower view in their definition for stakeholder management by highlighting the nature of the interest or stake that a particular stakeholder has with regard to a project. Turner (1999), Kolltveit & Gronhaug (2004), Fraser & Zhu (2008), the Project Management Institute (2008), Ward & Chapman (2008), and Beringer, Jonas, and Gemünden (2012) brought in a broader definition by emphasizing the fact that project stakeholders either affect a project or are affected by the project.

Many of the theories and literature related to management of stakeholders discussed the idea of managing stakeholders from the narrow view of a project in the short-term form dividing stakeholders into internal and external stakeholders. Winchin (2004) and Beringer et al. (2012) defined internal stakeholders as those stakeholders who are formally members of the project management team and so usually provide full support to the project. Cova and Salle (2005) defined external stakeholders as those stakeholders who are not formal members of the project management team but still have a chance to either affect or be affected by the project.

Cova, Ghauri, and Salle (2002) brought in the notion that when categorizing stakeholders they should be further classified by their relationships and functional role in a project. Examples of those stakeholders in projects are project sponsors, clients, customers, end users, contractors, subcontractors, local community members, government agencies, media, and other lobbying government and nongovernment agencies.

Frooman (2010) defined stakeholders as those who have a stake in a risk, an opportunity, or an issue instead of a stake in a project. From the standpoint of assessment for risks, opportunities, or issues, the registers of risk, opportunities, or issues can lead to the ultimate goal sought by Frooman in this notion to define stakeholders with reference to grievances, resources, or opportunities.

### **Sustainable Development (SD) Principle**

It is very important for the reader to differentiate between both the terminologies for “management of stakeholders” and “management for stakeholders.” The sustainable development (SD) principle looks more into the long-term interests of stakeholders not limited to those ecological, social, or economic gains for stakeholders that result from the outcome of an investment and its projects. The SD principle looks at linking the interrelation between stakeholders and their long-term interests in an investment to further define the attributes of stakeholders. Many previous approaches for the management of stakeholders in project management have been repeatedly criticized for being prejudiced and unfair in managing stakeholders; especially for those stakeholders with limited influence on a project. These project management approaches tend to target established strategies to manipulate stakeholders and establish control over stakeholders for the benefits of projects.

Unlike the above-mentioned prejudiced view, management for stakeholders nowadays considers stakeholders as the owner with concrete rights in the investment. Similarly, the context of sustainable development focuses more on managing stakeholders in other terms; for example, understanding the needs of stakeholders for long-term shared benefits and value creation from investments (Eskerod and Huemann, 2013; Porter and Kramer, 2011).

Definitions for internal and external stakeholders are identified by Winchin (2004) and Cova and Salle (2005). The interests of internal stakeholders for projects tend to focus more on the short-term benefits of an investment mainly occurring within the project timeline, while external stakeholders have a broader view for value creation, and long-term benefits from an investment. The SD principle takes into consideration the following aspects in identifying stakeholders:

- Identifying a comprehensive list of stakeholders for both their short-term and long-term interests in an investment. In the same context, identifying current and future stakeholders will enhance the project sponsor view of value creation and sustainable development in return of investment.

- Applying systematic approach to capturing the context and complexities of a project. This approach will capture the level of complexity for stakeholders providing better visibility to the project management team and project sponsor. The project management team uses the outcome from this evaluation to determine the complexity of investment and required resources to map internal and external stakeholders of a project.
- Applying a systematic approach for optimizing project management organization with the objective of integrating project organization with the stakeholders' organization.
- The SD principle evaluates investments in terms of their long-term shared benefits and the sustainability of value creation for current and future stakeholders. It also evaluates the impact of investment on stakeholders beyond project timelines for both present and future stakeholders. It derives a project at the front-end loading and planning stage to yield better economic, ecological, and social values that converge to expectations of stakeholders without impacting the objectives of a project.
- With the above-mentioned points, the long-term shared benefits and value creation of an investment is not limited by the timeframe of a project but rather by the long-term shared benefits generated by investment in a wider frame of space and time. This is translated into the view of gains and losses from investments in past, present, future, local, regional, and global domains.

### **Multidimensional Assessment**

As illustrated in the above-mentioned theories and literatures for management of stakeholders, many tools were used to manage stakeholders to facilitate alignment of project management teams with their respective stakeholders; aiming to lead the project toward success and completion through its life cycle, and minimizing interruptions to the project. Project management has always looked at the relationships with stakeholders from the angle of temporary alliance agreements; usually pragmatic and opportunistic to strive for the best interest of projects. Stakeholder management plans are usually set to function in the act of temporary and time-bounded strategies bonding to the life cycle of a project. In contrast, the interests of stakeholders for the long-term have always been looked at as nonmandatory requirements and outside the scope of projects.

In a similar view the principles of sustainable development and multidimensional assessment provide an evaluation of attributes of stakeholders in the function of space, time, and opinion. This function provides information to the project management team and project sponsors to capture better information to enhance development of project policies and baseline plans. This function provides a prediction of expected responses from internal and external stakeholders. It also gives a projection about the feasibility for revising project policies and baseline plans.

Multidimensional assessment evaluates different traits for stakeholders where it can reveal focus points, interest, and influence for groups of stakeholders. The reader is encouraged to start multidimensional assessment of stakeholders as early as business case development. Starting this assessment as early as the business case development of an investment will provide to research teams from the Project Management Office (PMO) the necessary time to complete data collection and analysis of stakeholders with quantitative and qualitative approaches that will lead to establishing a database for stakeholders.

### **Integration of Philosophies for Stakeholders Management**

Sustainable development is a process that steers values to support sustainability of investment. It implies the notion of providing unlimited contribution toward developing a sustainable outcome of an investment with the aim of reaching the ultimate level of sustainability from an investment. The term multidimensional assessment of stakeholders is a process that evaluates the position of stakeholders in the space, time, and opinion domains. It provides an understanding about the interests of stakeholders, their power of influence and standing position, and the level of impact of and issue on stakeholder. This method provides accurate prediction for responses from internal and external stakeholders, and it projects better feasibility for revising project policies and baseline plans, which can be further defined with the multidimensional assessment process for stakeholders as soon as it is integrated to be sustainably developed.

PMO involvement in the initial stages of business case development to assess stakeholders is essential to help in developing baseline plans for management of stakeholders regardless of its size. PMO support is essential since the organization is equipped with the required tools for research and databases with historical data to support development of baseline stakeholder management plans. These plans will sustainably integrate project objectives with long-term shared benefits and value creation for stakeholders.

Developing a baseline plan for stakeholder management has become more essential, especially for investments that interduce disadvantages and generally have records of negative impacts on stakeholders in terms of economy, environments, and local or regional communities. Transparency with stakeholders about both positive and negative return on investment leads to a clear understanding by stakeholders about efficiency and risks associated with an investment. Many stakeholders interested in the investment may take an extra step to buy-in support of other stakeholders to endorse the investment especially for those investments that are significantly providing positive impact to the values of stakeholders; for example, the projects presented in a referenced paper for a wind turbine farm project in Brazil, and an opposite example being the nuclear waste repository projects in Onkalo in Finland and Yucca Mountain in Nevada, United States of America.

In an initial view, a basic representation of stakeholders is given in Figure-1 (Initial Representation of Stakeholders) for which shapes, colors, and numbers represent stakeholders and their current attributes in a three-dimensional view. This nonorganized view is mainly due the lack of knowledge in project databases about the interests, attitude, and power of influence for stakeholders. This view is also due to a lack of knowledge about the inter-relations for a stakeholder to other stakeholders and attributes of stakeholders. This nonorganized view represented in Figure-1 (Initial Representation of Stakeholders) will be further improved later in this paper once the attributes, interest, and expectations of internal and external stakeholders become apparent.

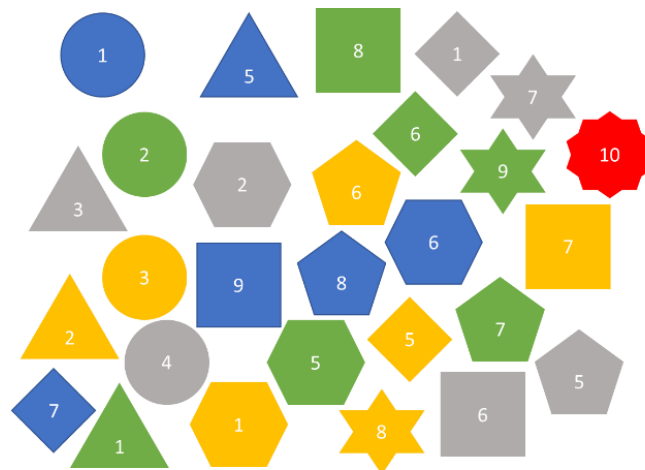


Figure 1 –Initial Representation of Stakeholders

In the essence of economic orientation of a project, the SD principle encourages management of projects at the upmost economically conservative method. Economic orientation is also evaluated in the essence that investments also contribute to economic growth of local and global markets, in addition to the growth of investors' profile. On the ecological orientation, the sustainable development principle stimulates the regeneration, conservation, and stability of resources. It opposes permanent damage or depletion of existing resources. Environmental impact assessment and sustainable utilization of resources can be used as inputs to database to further improve the method of execution of an investment in terms of ecological impact of an investment on stakeholders.

The SD principle also considers the social-orientation and impacts of an investment on societies in this essence that it measures how an investment would positively promote social values such as humanity, education, social equity, and justice while it measures how this investment would negatively promote suppressing social rights, injustice, and poverty.

In view of time and space perspectives, investors mostly favor short-term, local, and instantaneous investment portfolios that will, in return, provide a significant amount of profit without looking into the foundation of long-term and global success of investment that leads to a lasting profit from investment; for example, investors prefer to view projects as temporary phase-embedded with the wider context of an investment. For this reason, the sustainable development principle is implemented to evaluate attributes, interest, and expectations of internal and external stakeholders, and the impacts of investments over the time domain. Researchers of sustainable development in the context of project management looked at the time domain from a short-term, midterm, and long-term orientation for managing projects (Gareis et al., 2013; Silvius et al., 2012).

In a similar view, assessment of stakeholders in multidimensions provides an evaluation of various characteristics and positions of stakeholders. As shown in Table-1, this evaluation reveals the focus, interest, and influence of a group of stakeholders, which can be further detailed as required. In integration of the multidimension principle, this assessment is further defined here by a sub-dimension of stakeholders’ interests in the sustainability of investments as shown in Table-2 (Analysis for Stakeholders’ Interest in Sustainability). This sample analysis was completed during business case development as stipulated in the headings of both Tables-1 and Table-2, which are the recommended phase to start collecting data to determine the past, present, and future standing of stakeholders.

Stakeholder	Stakeholders’ Present Characteristics for an Investment (Evaluation Period: Business Case Development)							
	Involvement	Target	Interest	Influence / Power	Impact on stakeholder	Position	Dynamics (General)	Sustainability
Red	Sponsor and Project Management Team	Project Initiation	High	Medium -Low	High (Positive)	Supportive	Low	Low
Green	Local Communities	Economic Growth	Low -Medium	Medium -High	High-Medium (Negative)	Oppose	Medium	High
Yellow	Contractors	Short-term Investment in Return of Profits (Project & Service)	Medium	Low	Medium	Supportive	High -Medium	Medium -Low
Gray	Manufacturers	Long-term Investment In Return of Profits (Service)	High -Medium	Low	Low-Medium (Positive)	Supportive	High -Medium	Medium -Low
Blue	Government Authorities	Ecological, Economical, and Social Sustainability	Low -Medium	High	High-Medium (Negative)	Neutral	High	High

Table 1 – Stakeholders’ Characteristics Analysis for an Investment

Stakeholder	Stakeholders’ Interests in Sustainability (Evaluation Period: Business Case Development) High = 3; Medium =2; Low = 1; None = 0							
	Involvement	Total	Economic	Ecological	Social	Spatial (Local)	Spatial (Regional)	Spatial (Global)
Red	Sponsor and Project Management Team	6	1	1	1	2	1	0
Green	Local Communities	14	3	3	3	3	2	1
Yellow	Contractors	9	3	1	2	2	1	0
Gray	Manufacturers	9	3	1	2	2	1	0
Blue	Government Authorities	18	3	3	3	3	3	3

Table 2 – Analysis for Stakeholders’ Interest in Sustainability

In explanation of Table-2, this sample shows the project management team and project sponsor had the least interest in sustainability of investment. In contrast, government authorities as a stakeholder have the highest interest in the sustainability of outcome from investment. The expectations of government authorities in this model are very high targeting capture the maximum levels of economic and social growth, and conservation of environment; both locally and globally, from this investment. In explanation of level in Table-1, the project sponsor and project management team, as internal stakeholders of the investment, have the highest level of interest to award projects under this investment model justified by their need to start new projects from this investment since projects are sources of revenue and jobs for project management.

In the above discussion, Table-1 and Table-2 did capture the change of attributes for stakeholders over the time domain. With the attributes of stakeholders being very dynamic, it is very likely for a stakeholder to change its position over time. Opinions, level of influence, and change in power for stakeholders may be result from economic factors for example changes in the tax system, economical depression, or changes in regulations and laws enforced by governments. It is also possible for stakeholders to become biased by other higher in rank stakeholders having the power of influence to capture the votes of other stakeholders lower in rank. In addition, the loss of influence by some stakeholders gives the opportunity to other stakeholders, past, present, or future, to expand their level of influence in an investment.

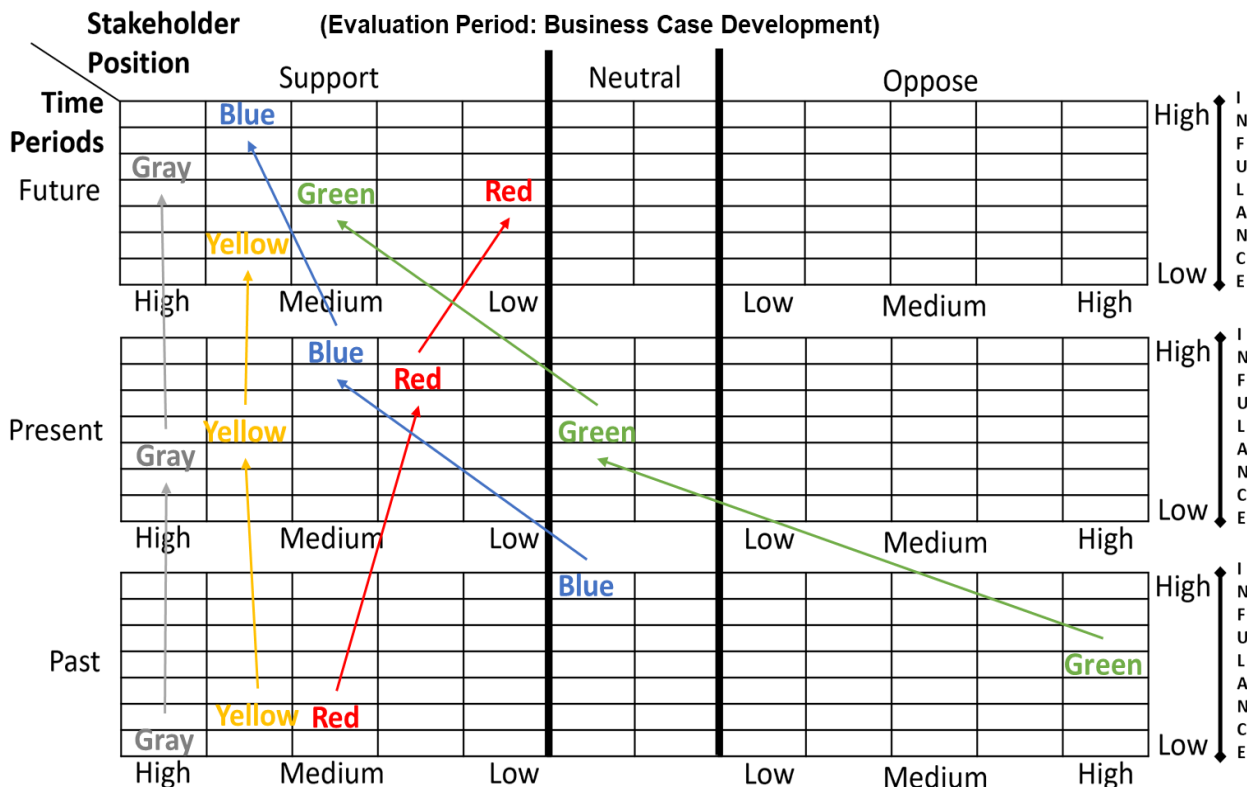


Figure 2 – Forcefield Matrix for Analysis of the Dynamics in Stakeholders’ Position

In Figure-2 (Forcefield Matrix for Analysis of the Dynamics in Stakeholders’ Position), a three-dimensional presentation is illustrated for the change in attributes of stakeholders over time. This presentation can be further fine-tuned with the addition of a fourth or fifth dimension to evaluate additional attributes of stakeholder over time; for example, economic growth, or ecological sustainability. In explanation of the model in Figure-2, project sponsor and project management team are represented in the red color. This model shows the project sponsor and project management team are always in a position to support this investment. The influence as a function of time; for the project sponsor and project management team are expected to increase over time as this investment starts to turn into projects. In contrast, their influence is expected to decrease toward the end of projects. For Government authorities represented in this model by blue color, it is expected for Government authorities to change their past position from a neutral to a supportive position as soon as their vision about this investment becomes clear. It is forecasted that Government authorities will be always supportive in this investment model from the current phase; the business case development stage and onward. This is due to the fact that this investment model is expected to lead to economic growth and social developments in the local, regional, and global spatial boundaries. It is expected for Government authorities to use their influence across the time domain to enforce Government regulations and laws, for example social and environmental laws.

In comparison between both representations in Figure-1 and Figure-3, Figure-3 (Improved Representation of Stakeholders) has correlated the linkages between internal and external stakeholders, and their expectations, for sustainable development in an investment. In a synthetic fusion, multidimensional analysis with consideration of dynamic characteristics of stakeholders provided more information to the project database about stakeholders. With this data in hand, project sponsors and project management team gained a better view of stakeholders. This approach can be used in the decision-making process, developing of project policies, and approaches for revising baseline plans of a project. This fusion gives a prediction for the expected reaction of internal and external stakeholders. The interrelations between stakeholders represented under Figure-3 by categorizing stakeholders into groups for example internal stakeholders are grouped in red representation while external stakeholders are represented with respect to their interests in different focus groups. All above can be correlated for the better development of the register for stakeholders.

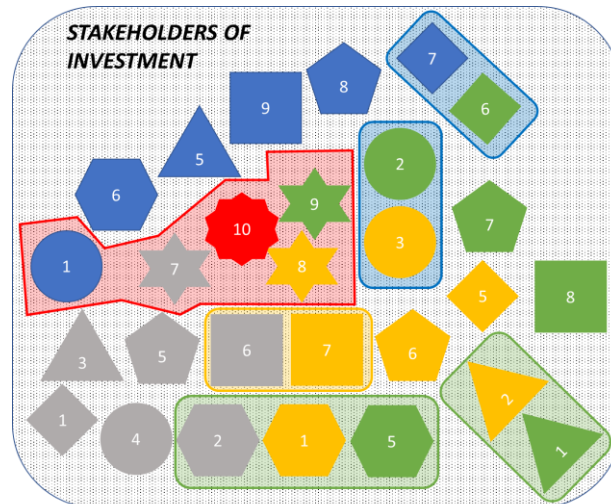


Figure 3 – Improved Representation of Stakeholders

### 3. CONCLUSION

The synthetic fusion provided under this paper for sustainable development and multi-dimension assessment of stakeholders presented a method that evaluates the complexity of stakeholder. In the same context, the results can be used to further define the complexity of an investment and its relevant projects leading investors and project management team to have a better grasp over an investment and its projects. The SD principle steers values to support the sustainability of investments by providing a contribution toward enhancing the outcome of the investment with an aim to reach the ultimate level of sustainability from an investment. The SD principle looks to the investments from the view of long-term shared benefits and sustainability of values creation for currently apparent and future stakeholders. Stakeholder thinking, salience, and position are not static but most likely dynamic. Their characteristics and positions are a function of time. It is expected to change as this investment starts to turn into projects. Stakeholders should be managed for both their short-term and long-term interests in an investment.

### REFERENCES

- [1] Freeman, R. E. (1984). Strategic Management: A Stakeholder Approach. Boston, MA: Pitman.
- [2] Cleland, D. I. (1986). Project stakeholder management. Project Management Journal, 17 (4), 36–44.
- [3] Savage, G. T., Nix, T. W., Whitehead, C. J., & Blair, J. D. (1991). Strategies for assessing and managing organizational stakeholders. Academy of Management Executive, 5, 61 – 75.
- [4] Turner, J. R. (1999). The handbook of project-based management: Improving the processes for achieving strategic objectives (2nd ed.). London, England: McGraw-Hill.
- [5] McElroy, B., & Mills, C. (2000). Managing stakeholders. In R. J. Turner & S. J. Sinister (Eds.), Gower handbook of project management (3rd ed., pp. 757 – 775). Aldershot, England: Gower.
- [6] Varvasovszky, Zsuzsa & Brugha, Ruairi. (2000). Stakeholder analysis. Health policy and planning. 15. 338-45. 10.1093/heapol/15.3.338.
- [7] Cova, B., Ghauri, P., & Salle, R. (2002). Projecketint marg: Beyond competitive bidding. Chichester, England: Wiley.
- [8] Winch, G. M. (2004). Managing project stakeholders. In P. W. G. Morris & J. K. Pinto (Eds.), The Wiley guide to managing projects. Hoboken, NJ: Wiley.
- [9] Kolltveit, B. J., & Gronhaug, K. (2004). The importance of the early phase: The case of construction and building projects. International Journal of Project Management, 22 (7), 545 – 551.
- [10] Cova, B., & Salle, R. (2005). Six key points to merge project marketing into project management. International Journal of Project Management, 23 (5), 354 – 359.

- [11] **Olander, S. (2007).** Stakeholder impact analysis in construction project management. *Construction Management and Economics*, 25 (3), 277 – 287.
- [12] **Project Management Institute. (2008).** A guide to the project management body of knowledge (PMBOK® guide) (4th ed.). Newtown Square, PA: Author.
- [13] **Aaltonen, K., Kujala, J., & Oijala, T. (2008).** Stakeholder salience in global projects. *International Journal of Project Management*, 26 (5), 509 – 516.
- [14] **Chinyio, E. A., & Akintoye, A. (2008).** Practical approaches for engaging stakeholders: Findings from the UK. *Construction Management and Economics*, 26 (6), 591 – 599.
- [15] **Fraser, C., & Zhu, C. (2008).** Stakeholder perception of construction site managers' effectiveness. *Construction Management and Economics*, 26 (6), 579 – 590.
- [16] **Ward, S., & Chapman, C. (2008).** Stakeholders and uncertainty management in projects. *Construction Management and Economics*, 26 (6), 563 – 577.
- [17] **Weninger, C. & Huemann, Martina & Oliveira, J.C. & Filho, L.F.M.B. & Weitlaner, E.. (2013).** Experimenting with project stakeholder analysis: A case study. 380-393. 10.4018/978-1-4666-4177-8.ch023.
- [18] **Aaltonen, Kirsi & Kujala, Jaakko & Havela, Laura & Savage, Grant. (2015).** Stakeholder Dynamics During the Project Front-End: The Case of Nuclear Waste Repository Projects. *Project Management Journal*. 46. n/a-n/a. 10.1002/pmj.21549.