Human success factors for Project Management in SMEs

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Abstract

In Germany, small and medium-sized enterprises make a particular contribution to generating the gross domestic product. The creation of commercial services is frequently realized through projects. This paper deals with the question of which essential success factors are necessary for successful project implementation to be possible. To address this, systematic literature research was carried out which examined publications from project management associations, groups, and individuals with the aim of identifying the most important influencing factors in recent years. The main focus is on the following target groups: executive management, project managers, and the stakeholders. The goal of this research work was not only to consider the personnel influencing factors but also their associated activity actions, which, if implemented correctly, can have a positive influence on the project. The knowledge gained can be used by SMEs to align or optimize their processes and actions, in order to significantly increase the likelihood of a positive outcome from project implementation.

Keywords: Project Management, Project Success, SME

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1. Introduction

Both small and medium-sized enterprises, together with micro-enterprises, make an exceptional contribution to generating Germany's gross domestic product. (WALLAU & HAUNSCHILD, 2007)In 2017, about 3.47 million enterprises were classified as SMEs. This corresponded to about 99.5% of all the companies that generated sales from goods and services and/or provided jobs subject to social insurance contributions (57.9%). They earned approximately 2.33 trillion Euros, which corresponds to 35.0% of the total turnover in Germany. Thus, SMEs contributed 57.8% to the total net value added for all companies in 2017. (cf. INSTITUT FÜR MITTELSTANDSFORSCHUNG, 2019)

There are two different approaches to classifying SMEs. In its recommendation 2003/361, effective 01.01.2005, the European Commission defines a small or medium-sized enterprise as an organization with a maximum of 249 employees and an annual turnover of, at most, 50 million Euro, or a 43 million Euro balance sheet total. (cf. EUROPEAN COMMISSION, 2019)

The Institut für Mittelstandsforschung, Bonn, has adapted the threshold values to the particularities of German SMEs, with the result that a company's annual turnover is no longer relevant. Decisive for the classification as an SME, is the number of employees; there may be a maximum of 499 employees; with an annual turnover of a maximum of 50 million Euro. In contrast to the EU Commission's definition, the IFM does not attach any importance to a company's balance sheet total. (cf. INSTITUT FÜR MITTELSTANDSFORSCHUNG, 2019)

Since this paper refers exclusively to SMEs within Germany, the IFM Bonn's definition is used for the classification of companies.

2. Material and Methods

2.1.   Data collection

This study is based on a systematic review of the current state of research published in relevant project management publications.

Two different groups served as sources: The first group includes publications by both national and international project management associations and interest groups. Within this group, the aim was to identify theoretical approaches that could be related to project success by analyzing various publications.

The second group consists of experienced project managers and individuals who are involved in project management in their professional environment. By an analysis within this stakeholder group, the intention is to produce verified results from projects that have already been implemented in a targeted manner, demonstrating that human resources are seen as an influential success factor. Some narrative interviews were also conducted in order to ask questions about the study's results or to increase the level of detail. Research within both interest groups ensures that the review offers a balance between theory and practice and provides a solid basis for future investigations. The data collection was focused on small and medium-sized enterprises in Germany.

2.2. Data analysis

The investigative process follows the approach proposed by Miles et al., in which explorative, descriptive, and explanatory methods are first used to process the data. (MILES, HUBERMAN, & SALDANA, 2014). In compliance with ethical standards, (ZYPHUR & PIERIDES, 2017) the research and study results were first analyzed (content analysis) and divided into three main categories, so that it was easy for the reader to comprehend the new knowledge and adopt it in the context of improvement approaches. The aim of the research was to identify the key success factors that can help small and medium-sized enterprises to increase the likelihood of successful project implementation, by taking human influences into account.

3. Project success depends on people

The following chapter highlights the essential success factors that have a particularly strong influence on the project and can, therefore, be considered decisive for its positive outcome.

3.1. Executive Management

Previous research has shown that there is no direct link between strategic planning and a company's success. (cf. LETMATHE, EIGLER, WELTER, KATHAN, & HEUPEL, 2007, pp. 164-167) However, the research results indicated that synergy effects could occur between companies. Therefore, it should be management's task to build partnerships that help to realize a project successfully.

Several essential preconditions must be fulfilled for responsible decisions to be made in the continually changing environment of a project management office (cf. BREDILLET, TYWONIAK, & TOOTOONCHY, 2018).

In addition to suitable framework conditions, these include financial, material, and personnel resources. (cf. HECKER, 2012, pp. 137-139) As a rule, it is the executive management's responsibility to provide the required resources or to release them for tender. Furthermore, management should also be responsible for evaluating and deciding whether a project fits the company at all, the extent to which the cooperation with the client is accompanied by threats and difficulties and whether the probability of risks occurring and their effects, justifies project implementation. (cf. KEERS & VAN FENEMA, 2018) The executive management decides on the continuation or termination of a project throughout its duration. An EMPS (Early-warning performance monitoring system) can be used for decision making, whereby the project performance can be evaluated based on quantitative characteristics. (cf. KIM, et al., 2018) Also, solid resource planning must ensure that existing employees have the necessary time to carry out their tasks. In this context, management is responsible for setting and changing priorities, and, within the framework of possibilities, creating optimal framework conditions. (cf. BRAEHMER, 2009, p. 16) Necessary activities also include designing the organizational structure in such a way that work routines can be developed that can be adapted flexibly, enabling a quick reaction to current events. (cf. PELZ & MAHLMANN,

2015, pp. 75-76)

3.2.   Project Manager

During the project period, the project manager is considered to be the person primarily responsible and the contact person. (PROJECT MANAGEMENT INSTITUTE, 2017) Depending on the project management structure in the company, he performs a wide variety of tasks in order to promote his project team's performance and ensure it in the long term. (cf. BURKE, 2004, p. 15) One of his core tasks is to delegate work packages to specialized departments, with the exception of a few non-delegable sub-areas. (cf. HINTERHUBER, 2015, p. 225)

In this context, the economists Boersch & Elschen have defined effective leadership in the following equation:

$$\text{Effective Leadership} = \text{Properties} \bullet \text{Results} \qquad \textbf{(1)}$$

While the equation states that a manager must have the necessary ability, it is not imperative that he already possesses all the qualities of a leader, but rather, that he is able to build a bridge between qualities and results (cf. BOERSCH & ELSCHEN, 2007, p. 171), enabling him to steer his project team in the right direction, arousing passion and individual commitment as part of motivating his team members. The manager should also be able to network effectively in the course of inter-organizational projects. Depending on the situation, the goal should be to build and maintain one of the three ideal network types (market-based, dyad-based, and integrated core networks). (cf. AHOLA, 2018)

Since, by definition, a project realization depends on uniqueness or a fixed start and end date (cf. PROJECT MANAGEMENT INSTITUT, 2017, p. 4 ff.); to generate success quickly, the manager must succeed in awakening his team's enthusiasm for the project in a timely manner, establish its work performance and keep it as consistently high as possible. (cf. WASTIAN, BRAUMANDL, & WEISWEILER, 2015, pp. 6-7)

Recent research has shown that the demands placed on project managers never remain constant but change continually, depending on the time and type of project. According to the studies, the main changes are in the areas of project perspective, meaning-making, practical wisdom, power and resistance, and project success. (cf. FLORIS & CUGANESAN, 2019)

The number of certified project managers has increased significantly during the last ten years, in line with the current development of increasing the quality requirements for a project (cf. BLOMQUIST, FARASHAH, & THOMAS, 2018), however, a certification alone cannot guarantee professional project work. (cf. FARASHAH, THOMAS, & BLOMQUIST, 2019)

In summary, it can be stated that the ideal, essential features of a project manager are the ability to promote collaborative work in which the team supports each other, both inside and outside the company. The manager is not influenced by competitive thinking, does not allow himself to be deceived by competitive patterns (LITKE, KUNOW, & SCHULZ-WIMMER, 2015, p. 14) and acts in accordance with ethical principles. (cf. BREDILLET, TYWONIAK, & DWIVEDULA, 2015)

„'Ein schlechter Chef wird von seinen Mitarbeitern verachtet. Ein guter Chef wird von seinen Mitarbeitern verehrt. Ein optimaler Chef aber ist der, dessen Mitarbeiter sagen: Wir haben es selbst geschafft!' Entsprechend gilt: Ein Projektleiter ist dann Spitze, wenn das Projektteam so perfekt arbeitet, dass er überflüssig zu sein scheint".
(BRAEHMER, 2009, p. 54)

3.3.   Internal and external Stakeholder

The term *stakeholder*, which is now also established in German-speaking countries, refers to individuals or groups who have a strong interest in a project and exert an influence on its course. They may also participate in the decision-making process or in increasing the project's value. (cf. DERAKHSHAN, TURNER, & MANCINI, 2019) Stakeholders have been divided and later subdivided, into the categories *indirect and direct influencers* and *inside and outside the organization*, according to the project's requirements and expectations. (cf. KRIPS, 2017, pp. 1-2)

Although stakeholder management is, in most cases, unstructured in SMEs, and pursued less strongly than in large corporations, most companies are convinced of its importance and welcome the benefits that can result from stakeholders' active participation. (cf. ALTENBURGER & MESICEK, 2016, pp. 24-25) Due to the strong influence of large company segments (cf. DE OLIVEIRA & RABECHINI JR, 2019), it is necessary to align the project's objectives with the stakeholders' requirements and to analyze their basic attitude towards it.

The project team members are significantly involved in its success, as one of the internal stakeholders. They work through the work packages assigned to them and interact with other team members across departments, thus forming a network of specialists. New studies have shown that a team's work is most effective when members enjoy their work, have the necessary freedom to make decisions and feel that they are an important part of it. (cf. STERRER, 2014) This results in a low labor turnover rate, which helps to retain expertise within the company; a basic precondition for SMEs to compete with their competitors.

A stakeholder strategy should subsequently be developed, to ensure that the project objectives are achieved, depending on the project status and stakeholder attitude. However, recent studies have shown that there are no universal strategies, instead all stakeholder activities need to be varied and combined, in order to remain effective. (cf. NGUYEN, CHILESHE, RAMEEZDEEN, & WOOD, 2019) Once an atmosphere of trust has been created with the stakeholders, it forms the basis for trust in the project environment. (cf. DE OLIVEIRA & RABECHINI JR., 2019) The most important goal of all management actions must the generation of stakeholder satisfaction, in order to mitigate or prevent the possibility of negative influences. (cf. KRIPS, 2017, pp. 6-30)

3.4.   Make the right decisions

The success of a project and, thus, ultimately, that of the company, depends on the right decisions being made. A study of 559 German managers was carried out which showed that 18% of managers answered the question "Is it easy for you to make decisions?", with "no", despite the fact that 65% of the respondents felt that their decision-making

authority was appropriate and sufficient. Interestingly, regardless of company size, there are no significant differences in the fact that 80% of decision-makers are overconfident about their skills, which creates one of the most significant decision blockers. (cf. AKADEMIE FÜR FÜHRUNGSKRÄFTE DER WIRTSCHAFT, 2005, pp. 5-14)

In a study that examined the nature and extent of wrong decisions in detail, Martin was able to identify more than 250 decision errors which were mainly due to the decision-maker's thinking and perception. Within the scope of the study, it could be proven that the objective factual situation was often ignored, so that a decision was taken which was contrary to the factual situation and therefore, had to be evaluated as a wrong decision from the outset. According to the study, the reasons for this are persistent decision-making tendencies that developed in the decision-maker's childhood. As a result, they may shy away from deviating from their childhood imagination and exchanging alleged securities for uncertainties. (cf. MARTIN, 2012, pp. 14-136)

A particular danger also arises from the phenomenon of self-deception, in which the decision-maker is not prepared to accept the obvious facts and instead interprets them according to his subjective perception, aligning his actions accordingly. (cf. Burkhardt, 2017, p. 109)

Although the emotional contagion, for which people are generally receptive, can cause positive emotions to drive the group dynamics and the individual's willingness to cooperate to high performances, it also carries the risk that one person's depressive mood is passed to the entire group, which will influence the future decision.

Martin also notes that decision-makers always have the sunk costs in mind, (MARTIN, 2012) i.e. those costs that have already been spent and cannot be recovered. Consequently, the course is set for a wrong decision based on psychological past effects.

The economic psychologist Sauerland, and the personnel consultant Gewehr, have a slightly different emphasis. They encourage decision-makers to make a decision with courage and consistency, and point out that most decisions can be revised. This knowledge helps decision-makers to break away from the irrational manifestations of consistency, to accept uncertainties and, if necessary, to correct or compensate for mistaken decision in a targeted manner. Making the right decision is a learning process, with every wrong decision providing the basis for reflecting proactively on one's own decision and acting differently the next time (cf. SAUERLAND & GEWEHR, 2017, p. 165) For this reason, it is crucial that the project team is sensitized to potential risk situations (cf. MARCELINO-SÁDABA, PÉREZ-EZCURDIA, LAZCANO, & VILLANUEVA, 2014) and that a consensual definition of risks has been formulated. (cf. MOSSALAM, 2018)

4. Results

The results reveal that it is hardly possible to complete a project successfully without the cooperation of specialized experts. The focus is on managers at management level, who ideally should have created the framework conditions within the organization as the first step, before accepting the project, in order to, in theory, be able to fully guarantee the project goals. It is also their responsibility to provide the human and financial resources, so that the project manager they appoint can start to initiate all the activities necessary for the project's successful implementation. The project manager is responsible, in turn, for all the measures that make it possible for the project team's full

commitment to develop quickly and to be maintained until the end of the project. The project manager's main tasks are also to create a basis of trust within the team, to delegate core tasks to specialists and to provide support. With regard to external stakeholders, he is responsible that concerns getting addressed to the right places and exerting influence in such a way that the success of the project is not endangered, if possible.

All decision-making processes have proven to be influential criteria for project success. Special care is needed, since decisions and their implementation steer the project's direction. The more significant the decision's impact, the more carefully the decision-making process should be prepared and carried out. This also includes discussing possible alternatives and weighing them against each other.

The project is therefore most likely to be successful if the company's framework conditions make it possible to create clear structures within it. The chance of a successful conclusion is significantly higher if there is also a trusting relationship between all the project participants and if the prerequisites for open communication and transparent decision-making paths among all project participants, have been created.

5. Discussion and Conclusions

Small and medium-sized companies that have decided to implement projects are dependent on their success. Although the project processes in SMEs usually differ significantly from those in large companies, the success factors are surprisingly similar. Thus, it is mainly people who influence a project's outcome through their actions. From the perspective of the commissioned company, this is compounded by the fact that a team's success cannot be measured directly in monetary terms based on key figures. This means that the effects of project participants' inadequate management only become apparent when the first adverse side effects appear. Therefore, senior management should take all necessary steps in the run-up to project implementation, and the framework conditions which contribute to a smooth project flow, should be established.

References

AHOLA, T. (2018). So alike yet so different: A typology of interorganisational projects. *ScienceDirect; International Journal of Project Management 36*, pp. 1007-1018.

AKADEMIE FÜR FÜHRUNGSKRÄFTE DER WIRTSCHAFT. (2005). *Either - or: How decisive are German managers? [in German: Entweder - oder: Wie entscheidungsfreudig sind deutsche Manager?].* Überlingen: Akademie für Führungskräfte der Wirtschaft.

ALTENBURGER, R., & MESICEK, R. H. (2016). *CSR and Stakeholdermanagement - strategic challenges and opportunities of stakeholder engagement [in German: CSR und Stakeholdermanagement - strategische Herausforderungen und Chancen der Stakeholdereinbindung].* Heidelberg: Springer Gabler.

BLOMQUIST, T., FARASHAH, A. D., & THOMAS, J. (2018). Feeling good, being good and looking good: Motivations for, and benefit from, project management

certification. *ScienceDirect; International Journal of Project Management 36*, pp. 498-511.

BOERSCH, C., & ELSCHEN, R. (2007). *Summa Summarum of Management [in German: Das Summa Summarum des Management].* Wiesbaden: GWV Fachverlage GmbH.

BRAEHMER, U. (2009). *Project Management for small and medium-sized Enterprises [in German: Projektmanagement für kleine und mittlere Unternehmen]* (2. Auflage ed.). München: Carl Hanser Verlag.

BREDILLET, C., TYWONIAK, S., & DWIVEDULA, R. (2015). What is a good project manager? An Aristotelian perspective. *ScienceDirect; International Journal of Project Management 33*, pp. 254-266.

BREDILLET, C., TYWONIAK, S., & TOOTOONCHY, M. (2018). Why and how do project management offices change? A structural analysis approach. *ScienceDirect; International Journal of Project Management 36*, pp. 744-761.

BURKE, R. (2004). *Projekt Management - Planungs- und Kontrolltechniken.* Bonn: mitp.

BURKHARDT, & CHRISTOPH. (2017). *Error in reasoning of innovations - Why wrong decisions are often the reason for progress [in German: Denkfehler Innovation - Warum Fehlentscheidungen oft der Grund für Fortschritt sind].* Wiesbaden: Springer Gabler.

DE OLIVEIRA, G. F., & RABECHINI JR, R. (2019). Stakeholder management influence on trust in a project: A quantitative study. *ScienceDirect; International Journal of Project Management 37*, pp. 131-144.

DE OLIVEIRA, G. F., & RABECHINI JR., R. (2019). Stakeholder management influence on trust in a project: A quantitative study. *ScienceDirect; International Journal of Project Management 37*, pp. 131-144.

DERAKHSHAN, R., TURNER, R., & MANCINI, M. (2019). Project governance and stakeholders: a literature review. *ScienceDirect; International Journal of Project Management 37*, pp. 98-116.

EUROPEAN COMMISSION. (2019, 09 27). Retrieved from https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition/

FARASHAH, A. D., THOMAS, J., & BLOMQUIST, T. (2019). Exploring the value of project management certification in selection and recruiting. *ScienceDirect; International Journal of Project Management 37*, pp. 14-26.

FLORIS, M., & CUGANESAN, S. (2019). Project leaders in transition: Manifestations of cognitive and emotional capacity. *ScienceDirect; International Journal of Project Management 37*, pp. 517-532.

HECKER, F. (2012). *Management-Philosophy - Corporate Governance Strategies [in German: Management-Philosophie - Strategien für die Unternehmensführung].* Wiesbaden: Gabler Verlag.

HINTERHUBER, H. H. (2015). *Strategische Unternehmensführung - Das Gesamtmodell für nachhaltige Wertsteigerung; 9. Auflage.* Berlin: Erich Schmidt Verlag.

INSTITUT FÜR MITTELSTANDSFORSCHUNG. (2019, 09 07). Retrieved from www.ifm-bonn.org/statistiken/mittelstand-im-ueberblick/#accordion=0&tab=0

INSTITUT FÜR MITTELSTANDSFORSCHUNG. (2019, 09 27). Retrieved from https://www.ifm-bonn.org/definitionen/kmu-definition-des-ifm-bonn/

KEERS, B. B., & VAN FENEMA, P. C. (2018). Managing risks in public-private partnership formation projects. *ScienceDirect; International Journal of Project Management 36*, pp. 861-875.

KIM, C.-W., YOO, W. S., LIM, H., YU, I., CHO, H., & KANG, K.-I. (2018). Early-warning performance monitoring system (EPMS) using the business information of a project. *ScienceDirect; International Journal of Project Management 36*, pp. 730-743.

KRIPS, D. (2017). *Stakeholdermanagement - short guide book 5 [in German: Stakeholdermanagement Kurzanleitung Heft 5].* Berlin: Springer Vieweg.

LETMATHE, P., EIGLER, J., WELTER, F., KATHAN, D., & HEUPEL, T. (2007). *Management of small and medium-sized Enterprises [in German: Management kleiner und mittlerer Unternehmen).* Wiesbaden: Deutscher Universitäts-Verlag / GWV Fachverlage GmbH.

LITKE, H.-D., KUNOW, I., & SCHULZ-WIMMER, H. (2015). *Project Management [in German: Projektmanagement]* (3. Auflage ed.). Haufe.

MARCELINO-SÁDABA, S., PÉREZ-EZCURDIA, A., LAZCANO, A. M., & VILLANUEVA, P. (2014). Project risk management methodology for small firms. *ScienceDirect; International Journal of Project Management 32*, pp. 327-340.

MARTIN, A. (2012). *Wrong decisions - Why we do what we later regret [in German: Fehlentscheidungen - Warum wir tun, was wir später bereuen].* Darmstadt: Wissenschaftliche Buchgesellschaft WBG.

MILES, M. B., HUBERMAN, A. M., & SALDANA, J. (2014). *Qualitative Data Analysis, Edition 3.* Los Angeles: SAGE Publications Inc, .

MOSSALAM, A. (2018). Projects' issue management. *Housing and Building National Research Center; HBRC Journal 14*, pp. 400-407.

NGUYEN, T. H., CHILESHE, N., RAMEEZDEEN, R., & WOOD, A. (2019). External stakeholder strategic actions in projects: A multi-case study. *ScienceDirect; International Journal of Project Management 37*, pp. 176-191.

PELZ, B. F., & MAHLMANN, R. (2015). *Success Planning SME - Sovereign Company Management through systematic renewal, An Instrument for Practice [in German: Erfolgsplanung KMU - Souveräne Unternehmensführung durch systematische Erneuerung, Ein Instrument für die Praxis].* Wiesbaden: Springer Gabler.

PROJECT MANAGEMENT INSTITUT. (2017). *A guide to the Project Management Body of Knowledge (PMBOK Guide) 6. Edition.* Pennsylvania: Project Management Institute, Inc.

PROJECT MANAGEMENT INSTITUTE. (2017). *A guide to the Project Management Body of Knowledge (PMBOK Guide) 6. Edition.* Pennsylvania: Project Management Institute, Inc.

SAUERLAND, M., & GEWEHR, P. (2017). *Making decisions successfully - building decision-making competency and reducing the fear of making wrong decisions [in German: Entscheidungen erfolgreich treffen - Entscheidungskompetenzen aufbauen und die Angst vor Fehlentscheidungen abbauen].* Wiesbaden: Springer Gabler.

STERRER, C. (2014). *The secret of successful projects [in German: Das Geheimnis erfolgreicher Projekte].* Wiesbaden: Springer Fachmedien.

WALLAU, F., & HAUNSCHILD, L. (2007). the economic importance of family businesses [in German: die volkswirtschaftliche Bedeutung der Familienunternehmen]. *Institut für Mittelstandsforschung Bonn, IfM-Materialien Nr. 172*, p. 11 ff.

WASTIAN, M., BRAUMANDL, I., & WEISWEILER, S. (2015). *Leadership and micro-politics in projects - the psychological factor in project management [in German: Führung und Mikropolitik in Projekten - der psychologische Faktor im Projektmanagement].* Wiesbaden: Springer Gabler.

ZYPHUR, M. J., & PIERIDES, D. C. (2017). Is Quantitative Research Ethical? Tools for Ethically Practicing, Evaluating, and Using Quantitative Research. *Springer Science + Business; Journal of Business Ethics 143*, pp. 1-16.

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