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Thought-piece on the effectiveness of Contemporary Project Management and its top performing enablers

Mary Dempsey, Attracta Brennan, Viktoria Kaub, and John McAvoy.

***Keywords/Index Terms* — enablers, success factors, contemporary project management.**

***Abstract*— One of the most important factors for project success is effective contemporary project management. The aim of this study is to provide project manager practitioners with access to the successful contemporary project management enablers using evidence-based research.**

A systematic scoping literature review using qualitative and quantitative design was performed on the ScienceDirect database using studies and articles, published in English between 2010 and 2019. This search included factors regarding successful contemporary project management and citation tracking. All studies and articles were peer reviewed. Charted data was narratively reported by clustering the results according to the identified success criteria. The review process resulted in one conceptual framework, one literature review, one survey, and one article about research on another topic which is related to project management success factors.

This study shows that to enhance evidence-based practice, it is recommended that in a contemporary project approach, every project establishes a complementary team-related project with gates as checks to ensure transparency, clarity and comprehension. Its purpose would include the definition, development and implementation of clear communication strategy and a mentoring and training programme to support retention, build loyalty in organizations and enhance co-operation between the stakeholders and the project team.

A limitation of this study includes the consideration of contemporary project management success factors only but not those success factors influencing contemporary project management success. A second limitation is the use of a single database and the exclusion of journal quality.

I. Introduction

Almost all activities undertaken by organizations are organised in projects with their management being critically important. Projects of varying size, complexity and economic and/or strategic importance should be managed differently [1]. In general, a project is defined by a beginning and an end, with the end reached when either the project's objectives have been realised or the project is terminated because its objectives will not likely or cannot be met [2, 3]. Furthermore, a project is characterised by its uniqueness, although some repetitions may occur throughout the project process [4]. In order to consider a project to be successful, it should be delivered on time and on budget [5]. Increasingly, organizations are implementing sustainability principles in their corporate governance through project management [6].

To gain competitive advantages, organizations have to constantly improve their processes and be aware of what makes them successful [7]. A project´s success can be measured by quality, timeliness, budget compliance, and degree of customer satisfaction [7].

While contemporary project management has evolved from the application of knowledge, skills, tools, and techniques to project activities to meet project requirements performed through processes, there is currently no clear definition [8, 9]. The process of managing projects can be divided into five stages; initiation, planning, execution, monitoring and controlling, and closing [10, 11]. The management of these stages and processes is the main objective of project management. Ten subject groups are also managed in the course of the project throughout its different stages. They include [12];

- Integration
- Stakeholder
- Scope
- Resource
- Time
- Cost
- Risk
- Quality
- Procurement
- Communication

Project management is challenging as each subject group typically contains processes relevant to each project phase or project. These processes are typically specified in terms of purpose, description and primary inputs and outputs, each of

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which is interdependent. Meanwhile, the subject groups are independent of application area and/or industry focus [13].

Project management has a coordinating function whose aim is to verify that the scope of deliverables complies with the defined requirements and at the same time meets the organiszation's objectives. It performs leadership tasks and ensures that there is a plan for executing strategic goals [14, 15]. As successful project management is critically important to project success, this study focusses on identifying literature related to factors enabling successful contemporary project management success.

II. Methods

A scoping review was conducted for the purpose of identifying enablers for the success of contemporary project management. As a methodological framework, the model of [16] extended by [17] was applied. This provides for a staged approach comprising: formulating the research question, identifying relevant articles, selecting articles, charting the data and collating, summarizing and reporting the results.

A. Formulating the Research Question

Based on the criteria regarding a clear definition of scope [16, 17], the research question is "What are the most significant enablers of contemporary project management described in research?"

B. Identifying Relevant Articles & Studies

All articles and studies from the ScienceDirect database, concerning project management success and project success; published in English between 2010 and 2019 were of interest for this review. The review used January 1st 2010 as a starting point in order to prevent the results from being outdated. The search was limited to the ScienceDirect Database. Search terms included "Successful Project Management", "Project Management Success Factors", "Enabling Successful Project Management" and "Enabling Factors Successful Project Management". Attention had to be paid to distinguish between articles relating to successful projects and successful project management, although the factors enabling the success for both do overlap.

C. Selecting Articles

Titles and abstracts were screened for inclusion in the first step. After eliminating those papers which did not meet the eligibility criteria, the full texts of the remaining articles were screened. This resulted in a further filtering of articles, resulting in 4 articles to assess (published between 2013 and 2019). In the case of articles where the search created uncertainties, these articles were placed on a separate list, which was reviewed after initial processing.

D. Charting the Data

To get an overview of the selected articles, characteristics such as year, numbers of citations, authors, countries, institutions, journals, type of articles were extracted into an excel sheet which was also used to evaluate findings afterwards. All articles, which were included after the title and abstract screening, were listed. These articles were assessed and the findings from each listed. This ensured that the most frequently named success factors were identified, as well as filtering those additional factors that could be described as extensions to the three most significant enablers of contemporary project management described in research.

E. Collating, Summarizing and Reporting Results

Following the search and selection process, the results were compiled, summarized and reported. The mapping process involved the use of narrative clustering according to the different characteristics of project management and its impact [16].

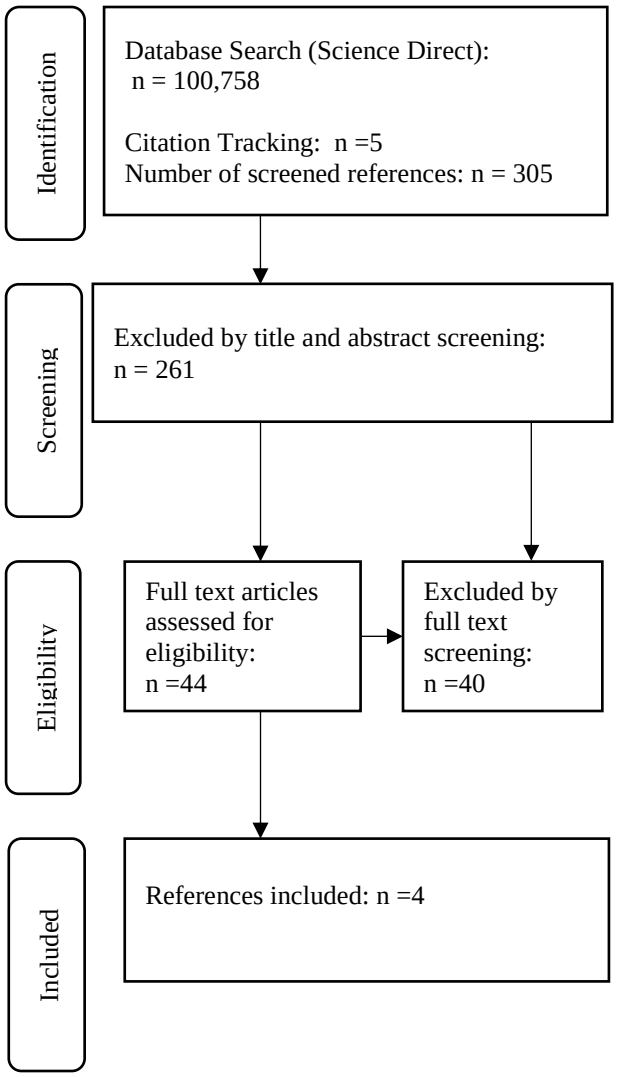


Fig. 1. Search and Selection Process

III. Results

A. Search and Selection Process

The database search as well as citation tracking yielded

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100,758 references. After screening the references by title and abstract, 44 full texts were assessed for eligibility of which 40 were excluded. The main reason for their exclusion was the omission of enabling factors. Overall, the review process yielded 4 publications for inclusion.

B. Characteristics of the References

After the scoping process [17], the selection consisted of 4 articles; a conceptual framework [18], a literature review [19], a survey [20], and an article about research on another topic that is then related to project management success factors [21].

To identify the factors enabling successful project management, the review [19] and the survey [20] were analysed and all factors regarding successful project management were filtered.

The survey was conducted in the period March – August 2012 questioning 132 project managers and members of project teams [20]. The participants worked for municipalities, central public administration, educational institutions, business organizations, and non-governmental organizations. About half of the participants worked for organizations with more than 200 employees. In preparation for the study, the researchers developed a questionnaire with 15 success criteria. These 15 criteria were evaluated by a 5-rank Likert scale with "not important" as lowest and "extremely important" as highest ranked valuation. The five highest ranked success criteria were identified as critical success factors for project success. As there was no differentiation between project success and project management success, some factors influencing project success were identified as critical success factors. However, they do not influence contemporary project management success and therefore have been excluded.

The literature research by Radujković and Sjekavica was conducted in 2017, using information gathered from 14 sources [19]. Through examination, the factors are related to three categories, but there is no empirical explanation for this relationship.

Additional to these information sources, further sources were used to support the identified factors enabling successful project management. An empirical analysis on success factors for supply chain management projects [21] was one of these sources. Information was gathered by identifying ten potential success factors for successful supply chain management projects. Based on a questionnaire including the ten potential success factors, ten supply chain management professionals were interviewed. It was their task to assign the potential success factors a value between one 'low' and three 'high' indicating their opinion on the importance of the factors. This 3-point Likert scale was applied in identifying and ranking the most important success factors. As every participant could rate a category with a maximum score of three points, the total maximum was 30 points. Meyer and Torres stated that factors with a rating higher than 24 points were considered highly important. All highly important success factors identified by Meyer and Torres are included apart from exceptions where the factor was supply chain management specific [21].

The conceptual framework concerned a planned survey about critical project management success factors [18]. In this framework, eleven factors identified in previous literature were suggested, but as this survey was not conducted, there are no results [17].

C. Enabling Factors to Successful Contemporary Project Management

Based on this study's review, top management support enables successful project management (Table 1). Furthermore, flexible and appropriate access to organizational resources are considered a key prerequisite for the effective implementation of project activities. Implementation is unlikely to be successfully achieved without a definitive and timely response and support from the top management of the project-executing organization. Skilled project managers and the effective use of project management tools, such as monitoring and updating plans also enable successful contemporary project management.

Furthermore, attention should also be paid to adequate communication channels and communication, the clarity of project goals, the effective coordination of project activities, and stakeholder management and satisfaction.

TABLE I
ENABLING FACTORS FROM PREVIOUS LITERATURE

Enabler	Reference
Top management support	(Alexandrova and Ivanova-Stankova, 2013) (Alias *et al.*, 2014) (Meyer and Torres, 2019)
Skilled project managers	(Alexandrova and Ivanova-Stankova, 2013) (Alias *et al.*, 2014) (Radujković and Sjekavica, 2017)
Effective control, use of tools (such as monitoring and updating plans)	(Alexandrova and Ivanova-Stankova, 2013) (Alias *et al.*, 2014) (Radujković and Sjekavica, 2017)
Adequate communication channels and communication	(Alexandrova and Ivanova-Stankova, 2013) (Alias *et al.*, 2014)
Clarity of project goals	(Alexandrova and Ivanova-Stankova, 2013) (Meyer and Torres, 2019)
Effective coordination of project activities	(Alexandrova and Ivanova-Stankova, 2013) (Radujković and Sjekavica, 2017)
Stakeholder management/ satisfaction	(Alexandrova and Ivanova-Stankova, 2013) (Meyer and Torres, 2019)

IV. DISCUSSION

The aim of this review was to map from the ScienceDirect database, the research field of factors enabling successful contemporary project management. Seven key enablers were identified.

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The results show that project success is highly dependent on strong senior management support [22]. Furthermore, a project manager with an appropriate skillset and the relevant experience is also critical to realizing project goals and ensuring satisfied stakeholders. These key personnel supports are important for succession planning, training, mentoring, motivating and embedding value based organizational attitudes [23-24].

Other important aspects of successful project management identified by this research are; the successful co-ordination of project activities and the use of project management tools such as monitoring plans. It is critical to co-ordinate and mitigate potential resource and time related wastes that can be inherent in projects. Furthermore, the use of additional tools for collaboration and project visualization can support the project team and ultimately project success and stakeholder satisfaction.

Soft skills including support and communication have also been identified as important enabling factors [22]. This finding correlates with some of the biggest issues raised by practice, which include; lack of clear direction and ambiguous communication. Other issues comprise diverse employee integration. Organizations that truly embrace diversity can leverage this for competitive advantage, through increased productivity and attracting top talent. Furthermore, most projects tend to lack a communication strategy and related inclusivity supports, including checks and balances. Therefore, a clear communication strategy and a team support toolkit can support the achievement of project goals and inclusivity for project success. These are especially important, as organizations build towards more diverse working environments (i.e. gender, ethnicity, culture, language etc.) be they virtual or physical. To enable the translation of research into practice in order to achieve clarity of goals and clear communication, it is recommended that for every project, a parallel team-related project be established with gates as checks to ensure transparency, clarity and comprehension. The purpose of this team-related project is to define, develop and implement a clear communication strategy and a mentoring and training programme. This will support retention, build loyalty in organizations and enhance co-operation between the stakeholders and the project team.

Examining the 300 references and screening for successful project management criteria, four articles were identified. Interestingly in most articles, including all articles mentioned in this review, the terms project success and project management success were used synonymously. Since the authors of the identified articles do not differentiate between project management success and project success, there are always factors included which influence project success, but not contemporary project management success. One possible example is the quality of subcontractor services [6, 20, 23]. Although most articles start by defining project management and projects, the terms are mixed up in the course of their documentation. Additionally, the terms project success and project management success need to be clarified by the authors and afterwards used according to their definitions and not as synonyms. A methodological strength of this thought paper consists of a comprehensive literature search in the ScienceDirect database including additional components like citation tracking.

V. Conclusion

Several conclusions can be drawn from the current state of research. By means of this review, a research gap was identified since there seems to be limited research on factors enabling successful contemporary project management in the ScienceDirect database.

To conclude, the main enablers identified for contemporary project management success were; top management support, skilled project managers, effective control and use of tools (such as monitoring and updating plans), effective communication channels and communication, clarity of project goals, effective co-ordination of project activities and stakeholder management/satisfaction. Organizations should employ these seven identified enablers on a practical basis to pre-empt and address challenges in project management to create an effective contemporary project management environment.

Based on this review, we would particularly encourage organizations to take a multi-faceted approach to contemporary project management. This would include implementing a communications strategy and a team-building and inclusivity programme as formal steps in project planning. These steps should be considered in addition and complementary to the typical project management approach. Furthermore, it is important that organizations empower project management teams through training and mentoring.

As the global pandemic changed work patterns, project management is adapting with the increased use of virtual teams [24]. Identifying enablers for successful contemporary project management will become increasingly important as more employees work remotely. Likewise, as technology becomes more advanced and disruptive, and innovation projects become more common, knowledge of contemporary project management enablers may well become a more important weapon for competitiveness [25].

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