

The Importance of Interpersonal Skills for Project Manager: Systematic Literature Review

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Abstract. *Project management skills can significantly impact the outcomes of many business initiatives, particularly in project-oriented industries. While technical expertise is crucial, project managers also rely heavily on interpersonal skills to effectively lead teams and communicate with stakeholders. This study examines how project managers' interpersonal skills contribute to project success. Employing the Systematic Literature Review methodology, our focus was on identifying pertinent articles from Scopus. Our initial search using the 'Publish or Perish' software returned 42 articles. We then carefully evaluated each one, focusing on how well they contributed to our understanding of interpersonal skills in project management. This thorough review process allowed us to select the most relevant and insightful articles for our study. Keyword analysis revealed robust associations between 'interpersonal skills' and 'project managers', extending to key terms such as 'project management', 'emotional intelligence', 'project success', 'leadership', 'information technology', 'construction', 'implementation', 'evaluation', and 'qualitative'. Building on these keyword relationships, our findings underscore the need for balanced skill development in practice and highlight opportunities for future research on measuring and developing interpersonal skills across diverse project contexts, emerging methodologies, and virtual team dynamics, aiming to bridge the gap between academic research and practical application in project management.*

Keywords: *Interpersonal skill, project, project manager, project management, systematic literature review*

Abstrak. *Keterampilan manajemen proyek dapat berdampak signifikan terhadap hasil dari banyak inisiatif bisnis, khususnya dalam industri yang berorientasi pada proyek. Meskipun keahlian teknis sangat penting, manajer proyek juga sangat bergantung pada keterampilan interpersonal untuk memimpin tim dan berkomunikasi dengan para pemangku kepentingan secara efektif. Studi ini meneliti bagaimana keterampilan interpersonal manajer proyek berkontribusi terhadap keberhasilan proyek. Dengan menggunakan metodologi Tinjauan Literatur Sistematis, fokus kami adalah mengidentifikasi artikel-artikel terkait dari Scopus. Pencarian awal kami menggunakan perangkat lunak 'Publish or Perish' menghasilkan 42 artikel. Kami kemudian mengevaluasi masing-masing artikel dengan cermat, dengan fokus pada seberapa baik kontribusinya terhadap pemahaman kami tentang keterampilan interpersonal dalam manajemen proyek. Proses peninjauan menyeluruh ini memungkinkan kami untuk memilih artikel yang paling relevan dan berwawasan untuk studi kami. Analisis kata kunci mengungkapkan hubungan yang kuat antara 'keterampilan interpersonal' dan 'manajer proyek', yang meluas ke istilah-istilah utama seperti 'manajemen proyek', 'kecerdasan emosional', 'keberhasilan proyek', 'kepemimpinan', 'teknologi informasi', 'konstruksi', 'implementasi', 'evaluasi', dan 'kualitatif'. Berdasarkan hubungan kata kunci ini, temuan kami menggarisbawahi perlunya pengembangan keterampilan yang seimbang dalam praktik dan menyoroti peluang untuk penelitian di masa mendatang tentang pengukuran dan pengembangan keterampilan interpersonal di berbagai konteks proyek, metodologi yang muncul, dan dinamika tim virtual, yang bertujuan untuk menjembatani kesenjangan antara penelitian akademis dan aplikasi praktis dalam manajemen proyek.*

Kata kunci: *Keterampilan interpersonal, proyek, manajer proyek, manajemen proyek, tinjauan pustaka sistematis*

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Introduction

Projects are becoming increasingly important across many industries, often replacing traditional ways of organizing work (Ramazani & Jergeas, 2015). This shift highlights the need for effective project management. However, many organizations struggle to manage projects well, and project managers often don't perform as well as expected (Hashim dkk., 2020). For instance, the 2020 Chaos Report revealed that only 31% of initiatives succeeded, 50% faced challenges, and 19% failed (Portman, 2020).

The Project Management Institute (PMI) describes project management as a complex field that involves applying various skills and tools to meet project goals. In this discipline, project managers play a crucial role. They must take theoretical concepts and put them into practice, while also overseeing all project activities. (Millhollan, 2015).

Many researchers have highlighted how crucial project managers are for meeting project goals and expectations (Kerzner, 2013). One of the primary duties of a project manager is managing human resources, which the project team views as the most crucial component because it is the team's effort that ensures the success of the project (Afzal dkk., 2018). Additionally, managing human resources is particularly challenging (Hastak, 2015). Consequently, the project manager should put a lot of time and attention into choosing, leading, growing, and inspiring the project team (Institute, 2017). For example, the project manager must deal with the conflict that will certainly emerge between team members; therefore, efficient conflict management is crucial as it will result in a better working environment and ultimately boost the efficiency of project deliverables (Institute, 2017).

The terms "interpersonal skills" and "social skills," which are also frequently used interchangeably, are generally equivalent. Due

to its ubiquity, this phrase is used in many different contexts, and no established meaning exists (L.-N. Zhang, 2018, hlm. 2). Interpersonal skills refer to a person's behavior, way of communicating both verbal and non-verbal, as well as competence build relationships with other people (Febrianita & Hardjati, 2019). In addition, Hunt and Baruch noted in Bachman (2018) that the improvement of interpersonal skills in the perspective of human resource management on leadership, negotiation, and communication capabilities (Hunt & Baruch, 2003). Hayes (2002) defined interpersonal skills as goal-directed conduct performed in face-to-face interactions that are successful in achieving objectives. Interpersonal skills, according to Rungapadiachy (1999), are abilities required to interact successfully with a person or group of people (Hayes, 2002).

Project Management Institute (2017) acknowledges that project managers need certain interpersonal skills while managing projects. In order to define, evaluate, and build project management skills, the PMI's Project Management Competency Development (PMCD) framework is used. It has been chosen as a scholarly instrument that many scholars have looked at in order to comprehend and compare project manager capabilities (Institute, 2017).

There are a number of prominent credentials that show a project manager's technical expertise and hard skills, which are both recognized practical competencies (Millhollan, 2015). such as the PMP certification, but since anybody can obtain such certification and qualify as a project manager, there is a growing need to pay attention to and concentrate on the personality attributes of the project manager (Naseem & Abbas, 2022).

For example, project managers need to be able to handle communication difficulties (Motschnig & Güver, 2017). The first step toward project success and general pleasure is being familiar with the dynamics, attitudes,

techniques, and abilities that have been proven to enhance effective cross-cultural communication (Ozbilgin dkk., 2013). However, it appears that social and communication skills are frequently underrepresented in technical education or training for project managers. This may be due in part to the perception that these talents are less academic and explicit than technical, clearly defined methods and tools (Figl & Motschnig-Pitrik, 2008).

This background underlies the preparation of this systematic literature review. This systematic literature review tries to answer the question of the significance of putting the project manager's interpersonal skills into practice and how crucial they are to interacting successfully with the many project parts and subject areas.

Research Methodology

The method used in this study is a Systematic Literature Review (SLR) to identify, evaluate, and interpret research results that are relevant to certain research questions, topic areas, or phenomena of concern (Kitchenham, 2004). Meanwhile, a qualitative approach in a systematic review is used to summarize the results of research that is descriptive qualitative. The systematic literature review conducted in this study was based on the steps presented by Francis & Baldesari (Francis, S., Baldesari., 2006).

The first step is to identify and determine keywords that have relevance to the research topic. At this stage, the researcher determines the keywords to do this literature search, namely "interpersonal skill" and "project manager".

The second step is to do a literature search. The researcher uses several tools namely Publish or Perish, Mendeley, Zotero, and Microsoft Excel.

a. Publish or Perish: Software program that is used to analyze and retrieve academic citations from several sources such as

Google Scholar, Scopus, Microsoft Academic Search, etc (Gottlieb & Utesch, 2022). By entering the Scopus search engine API key, the selection of the search engine is intended to obtain scientific literature that has a reputation for being indexed by Scopus.

b. Mendeley and Zotero: These tools were utilized for efficient literature management, enabling the import of citations, organization of PDFs, management of metadata, categorization of articles, team collaboration, and citation generation for the paper.

c. Microsoft Excel: Microsoft Excel played a crucial role in data organization and analysis during the screening process. The software facilitated the creation of a screening log, development of a data extraction form, trend analysis using pivot tables, implementation of quality assessment scoring, and thematic analysis.

The literature search resulted in the discovery of 42 works of literature from 2015 to 2022.

The third step involves applying exclusion and inclusion criteria for screening. During this stage, both Scopus-indexed and non-indexed journals are evaluated using CiteScore as the metric for journal assessment. Of the 42 journals obtained, for Q1 there are 16 journals and for Q2 there are 10 journals. Q3 is 8, Q4 is 1 and those who are not indexed are 7. Apart from the Scopus index, the researcher decided to do further screening in order to get references that match the research topic and found 14 articles that were used for descriptive analysis.

The fourth step, the researcher uses the help of VOSViewer tools to find out the keyword relationships between the analyzed papers and then reads and takes points from each selected journal abstract for compiling the contents of the research topic. The researcher also takes research data from various secondary data from books, journals, and other articles or websites that contain information related to interpersonal skills for project managers.

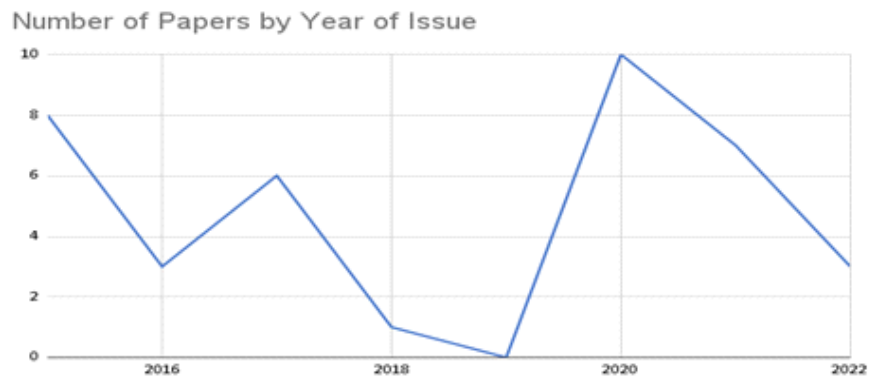


Figure 1.
Number of papers by year of issue

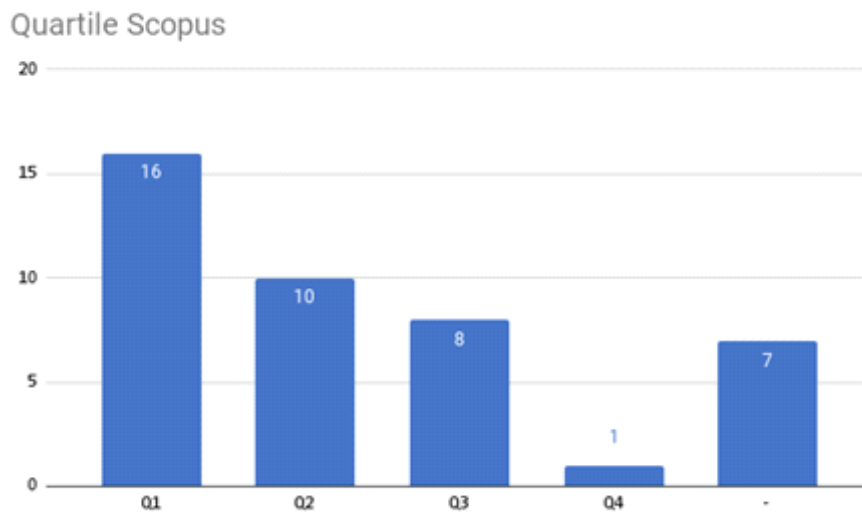


Figure 2.
Quartile Scopus screening



Figure 3.
Relationship between keyword

Results and Discussion

Based on the results of the analysis of the relationship between the keys in the paper selected for a systematic literature review using the VOSViewer tools, the relationship between the keyword 'interpersonal skills' and 'project managers' results in linkages with keyword 'project management', 'emotional intelligence', 'project success', 'leadership', 'information technology', 'construction', 'implementation', 'evaluation and qualitative'.

From the results of the synthesis of the paper, researchers seek to find out the importance of interpersonal skills for project managers by classified the discussion into three parts, namely, the roles and competencies of project managers, the practice of interpersonal skills for project managers in various subject areas, and the influence of interpersonal skills to the success of the project.

A. Role and Competencies of Project Manager
Lientz and Rea (2001) assert that the project manager has three distinct managerial duties: resource manager, control manager, and coordinator (Lientz & Rea, 2001). With all three managerial tasks that are critical to the project, it is undeniable that the role of the project manager largely determines the success of the project being carried out. As a resource manager, the project manager has a role to be able to organize and divide the roles of members as human resources in the project. In addition, the project manager must also supervise and monitor the resources of raw materials or tools used in the work on the project. When viewed from the point of view of the control manager, one of the main roles of the project manager is monitoring and controlling the project, where the entire process must be supervised in order to achieve agreed and determined success. Meanwhile, if said to be a coordinator, the project manager plays a role in commanding the entire course of the project from beginning to end and communicating with project stakeholders. According to Kerzner (1998), the project

manager is also in charge of ensuring the accomplishment of the group and organizational goals and targets. To do this, the project manager has to possess a solid understanding of standards, procedures, and policies as well as the ability to act in a supervisory manner and maintain good interpersonal relationships (Mazzetto, 2019). Quick comprehension of their stakeholders' views is essential for project managers. Because of their position, they must develop relationships at work more quickly (Ewin dkk., 2021).

According to the PMCD Framework, project management competence has three dimensions: knowledge, performance, and personal competencies. While performance and personal capacity place more importance on technical and human performance capabilities as well as effective actions and behaviors in executing and managing projects, knowledge competence places more emphasis on project management credentials (Dumrak dkk., 2020). By giving proof that they satisfy the PMCDF performance standards, a project manager may establish their personal competence. Based on PMCD Framework, the Project Manager's personal competencies are communicating, leading, managing, cognitive ability, effectiveness, and professionalism (Cartwright, 2008). All of these competencies involve interpersonal skills that project managers need in order to define, evaluate, and build project management skills. These competencies are a must-have for project managers because their duties and roles in the success and sustainability of a project are very important. Without these interpersonal skills, they will find it difficult to connect communication between stakeholders and their members. It is feared that this will make the project hampered or even fail. If a project manager is able to balance all these competencies proportionally, then the success of a project can be well predicted and the project can run successfully according to the plan that has been drawn up.

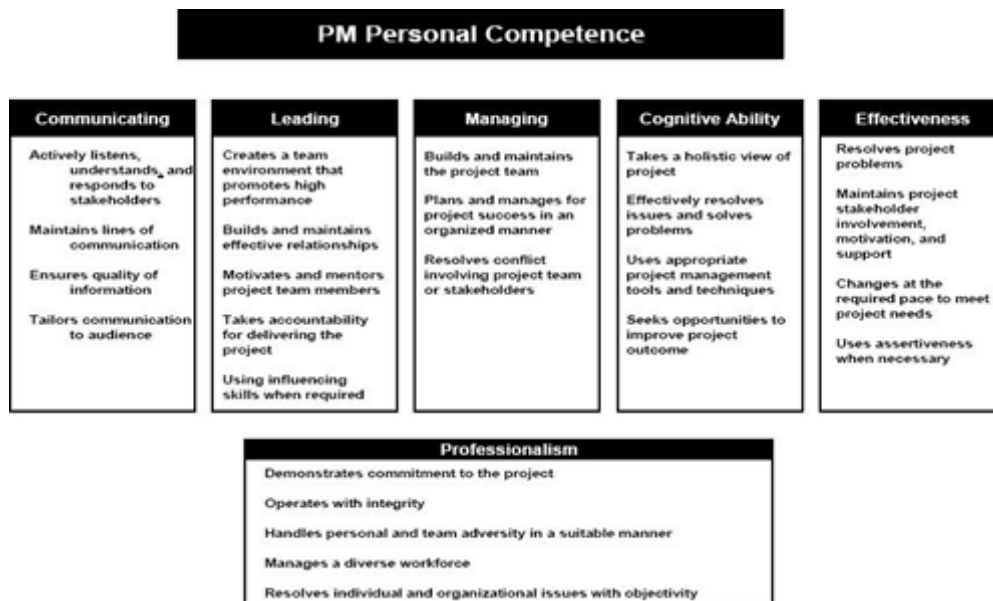


Figure 4. Project Manager Personal Competence (Project Management Institute, 2017).

In line with that, according to study by Aldosari (2017) shows that communication, teamwork, conflict resolution, understanding of the industry as well as proposed solutions, and time management are the five key competencies that any project manager should possess (Aldosari, 2017).

All of these competencies are the basis and foundation of interpersonal skills that must be possessed by the project manager so that there are no small mistakes that will have a fatal impact on the project. Communication and teamwork are basic skills because the project manager is the person in charge of the project who must communicate and cooperate with stakeholders and members. In addition, project managers are also required to have good problem solving because, over time, there is a possibility that friction will arise, either due to changes in requests from stakeholders or friction between members that a project manager must resolve. An understanding of the project manager regarding the industry and similar projects is also important because a project manager must be able to communicate to members and stakeholders the purpose and impact of procuring the project. Thus, the

project manager will gain trust and be judged worthy to lead the project. And another key competency is time management because being a project manager is not only required to be capable but must be present at all times when members need advice and input or are asked to make decisions at urgent times.

According to the interviews with Ramazani & Jergeas (2015), technical knowledge and soft skills make up the two areas of skills and competencies, including planning, project creation, and analysis, and so forth. The second group, which is the dominant one, comprises leadership abilities like communication and project motivation teams, managing connections, inspiring participants of the project to be passionate and dedicated; team working abilities, and understanding a project's environment (Ramazani & Jergeas, 2015).

Self-monitoring, political savviness, and emotional intelligence were three significant personality qualities that were mentioned in relational constructs as political skills. Political skill is one of the most important competencies for individuals in today's

complex organization setting, and it intersects with these three personality qualities to some extent according to a study by Zhang & Hou (2015) on the impact of interpersonal conflict on construction project performance (L. Zhang & Huo, 2015).

In a study by Sunindijo (2015), 16 skill elements were put to the test to see how they affected project performance in terms of time, cost, and quality. The results demonstrate that interpersonal influence has a positive effect on project time performance, that apparent sincerity, emotional intelligence, interpersonal skill, and budgeting have an impact on project cost performance, and that visioning, emotional intelligence, interpersonal skill, transformational leadership, interpersonal influence, apparent sincerity, quality management, and document and contract administration have an impact on project quality performance. (Sunindijo, 2015). Therefore, in order to be better able to achieve project goals, project managers should concentrate on developing these competencies.

Interpersonal skills will influence the project manager in making decisions that will have an impact on the continuity of the project. As a project manager, competencies related to intellectual and emotional intelligence are very important because there will be many unexpected things beyond the expectations that are likely to happen in a project. The project manager will be required to always be calm and able to control the problem and even predict the worst risks that will occur to the project. Without good interpersonal skills and management, a project manager can damage or even destroy the project without him realizing it.

A. Interpersonal Skills Practice of Project Manager

The importance of putting the project manager's interpersonal skills into practice is demonstrated in the study by Mazzeto (2019). According to a study by Mazzeto (2019) on the practical approach of multidisciplinary

collaboration in project management education states that the ability to lead and collaborate are two of the most crucial skills of good project managers; team members must identify and foster these traits in order to help them efficiently coordinate their operations and serve as the communication channel between management and the labor force. Early on in a student's university education, professionalism is instilled. The attitudes and behaviors of students in collaborative work, as well as how they act and perform as future professional managers, may be influenced by mentors within each field from the earliest stages of training (Mazzetto, 2019).

One of the exercises of being a project manager at the university level can be done by a student if they are a leader in a group or join organizations and play a role as a chair in a work program. This exercise will foster a good spirit of leadership and project management for students because here they can develop and train the interpersonal skills needed by a project manager, such as communication, emotion management, time management, teamwork, and intelligence in the field they lead the project. These interpersonal skills will be trained early and start in a small scope where if they succeed through this, then they have successfully had the foundation of interpersonal skills as a project manager. So, they only need to develop it in the future and immediately enter the world of more complex industries.

Based on research by Cristini & Walter (2019) on implementing project management principles in geoscience shows that interpersonal skills, particularly those pertaining to communication, are one of the many difficulties associated with research project management and of the possibility for scientists to exchange information and learn from their community. Although it looks easy, in reality, communication skills must always be trained and only some have good communication skills in their daily lives. The importance of learning communication skills for project managers is to avoid

misunderstandings that may occur between members or even at the stakeholder level that will adversely affect the final outcome of the project.

The necessity of acknowledging and embracing cultural variations in how science is received and interpreted is something Schneider and Heinecke strongly support. They investigate ways to improve science management and communication in order to successfully involve local communities and non-scientific audiences (Cristini & Walter, 2019).

Related to communication, according to research McKay et al (2013), change project uncertainty brought on by a lack of communication can be unpleasant (McKay dkk., 2013). Changes that occur in the middle of a project are a risk that must be predicted in advance by a project manager. But if the change is beyond the previously predicted estimates, the project manager's communication skills will determine the continuation of the project. Project managers must be able to adapt to changes that occur quickly by changing project timelines and schemes. And also, they must be able to give understanding to the parties who are seen as related to the changes that occur.

A study by Justesan et al (2017) on Implementing workplace health promotion stated that the job of middle managers includes "setting the scene," which includes promoting the WHP project directly as well as through the company's standard channels of communication (such as posters, departmental meetings, and the intranet) (Justesen dkk., 2017).

According to a study by Livesey (2020), An important role of the project director is to communicate a consistent vision of the project's goals and to keep that vision in mind during all meetings, phone calls, and emails. This role was ranked second in the relative importance index for this category with a result of 0.90 and 96% of the panel either agreed or

strongly agreed with the statement. (Livesey, 2020). Still related to the main competence of a project manager, namely communication, which is closely related to communicating the objectives and vision of the project to all parties involved, both stakeholders and members who will run the project. This role is held important by the project manager because they must be able to convince the parties to agree and agree with the goals he has made.

A moderated mediation study from China by Zhang & Hou (2015) stated that China's construction industry is growing significantly, especially when it comes to considerable expenditures and protracted construction times. One of the most crucial metrics for project success is the performance of the construction project. This study emphasizes how crucial interpersonal conflict is in construction project teams since it is inevitable and negatively affects project performance. A typical collectivist culture, China is the origin of Confucian ethics and places a strong emphasis on teamwork and interpersonal harmony. According to the study's findings, when there is interpersonal conflict, Chinese people have the propensity to compromise or avoid making any kind of forceful moves. Nevertheless, interpersonal conflicts are unavoidable as long as contact takes place in teams, despite expectations in China of avoidance or compromise. The Chinese use tactics for emotion management and connection building because they are driven by the need for harmony and compliance (L. Zhang & Huo, 2015).

Interpersonal conflicts that occur in the course of a project are a risk that must be accepted by the project manager. They must be able to help mediate the conflict that occurs and even help resolve the existing conflict so that the project can run generally without having to have obstacles in the internal scope of the project. This risk management ability must be possessed because the project will always run dynamically, there is no certainty in a project. Anything can happen in an unpredictable time, no matter how well the plan has been drawn up,

the project manager must always be prepared for any bad possibilities that will occur. That is the importance of risk management as one of the interpersonal skills that a project manager must have.

B. The Influence of Interpersonal Skills for Project Success

Tacit abilities, which are frequently described as intuitive and context-dependent, is crucial for project success and are connected to interpersonal skills (Zuo dkk., 2018). Based on the study by Mazzetto (2019), demonstrates the tight relationship between a project manager's competence, interpersonal skills, and willingness to accept responsibility. The leadership skills of a project have a significant impact on the project's success (Mazzetto, 2019). Good skill skills will make the project manager get sympathy and respect from members so that it will be easier for him to control and monitor the project. In line with the study by Ramazani & Jergeas (2015), project practitioners are more likely to be successful if they are able to manage complexity by utilizing both interpersonal and technical abilities while also keeping context in mind (Ramazani & Jergeas, 2015). This balance must be in place so that the actions and responses taken by the project manager can remain aligned with the ultimate goal of the project.

Motschnig & Giver (2017) in their study on improving communication in multicultural teams stated that the capacity to work in multicultural teams (MCTs), intercultural competency, and communication skills are crucial for project managers as well as team members in this age of globalization and internet communication. Successful intercultural management and collaboration need direct interpersonal relationships with individuals from many cultures as well as a great understanding of multicultural teams (Motschnig & Güver, 2017).

When thinking about stakeholder management in complicated projects, teamwork, persistence, agility, and

interpersonal interactions are examples of interpersonal skills. Teamwork and interpersonal relationship management go hand in hand, which demonstrates how important it is for project managers to establish, maintain, and grow good, balanced interpersonal connections (Alvarenga dkk., 2020). If internal relationships can be established properly, all risks and problems faced will be easier to communicate and solve. Interpersonal Skills are not only a must-have for the project manager, but project members must also be able to sympathize and have good Interpersonal skills, especially in terms of teamwork. This makes it easier for project managers to manage existing resources in the project.

It's interesting to notice that many of these described skills are directly tied to a manager's ability to influence people to do the necessary actions for the project to provide a thing, administration, or outcome on time, on target, and within budget. Since project managers typically lack official control over the broader public they are dealing with, the ability to influence and have an impact on people is very crucial for project success (Alshammari dkk., 2020). The scope for which a project manager is responsible includes the achievement of project objectives and the parties involved in the project.

A study by Lima & Quevedo-Silva (2020) aims to assess the relationship between emotional intelligence, project management interpersonal skills, and successful project management; more specifically, it examines the mediating impact that a manager's skills have on the direct relationship between emotional intelligence and project management success (Lima & Quevedo-Silva, 2020). A quantitative survey with 119 respondents was done in Brazil. Using structural equation modeling, data were analyzed. The findings indicate a strong and positive correlation between interpersonal skills and project management success as well as emotional intelligence in project managers.

The interpersonal skills of the project manager serve as a perfect mediator between emotional intelligence and the success of the project (Lima & Quevedo-Silva, 2020). Based on the research, it can be clearly concluded that the link between Interpersonal skills and project success for a project manager is very strong and important. A project manager who has good interpersonal skills will be able to manage the project to achieve the success you want to achieve. Project success can be satisfaction and happiness for the project manager, it can show his credibility to be a project manager who it will support their career and the level of trust of others in their abilities in the future.

In line with that, the findings of Mazur et al. (2014) were reached after conducting a survey with 373 managers of Australian projects which demonstrate the critical role that a project manager's interpersonal skills have in the project's successful completion (Mazur dkk., 2014). These findings support the study of Müller et al. (2012), which came to the conclusion that the success of a project is directly and favorably impacted by the interpersonal skills of the project managers (Müller dkk., 2012).

According to a study from Livasey (2020), 23 project managers with expertise in leading major projects—80% of which were mega projects—participated in the research approach known as a Delphi study. Over the course of six rounds of discussion, The participants came up with the same list of seven interpersonal skills that were essential to the project's success. As follows: 1) Being aware of the strengths and shortcomings of team 2) Presenting a unified vision of the project's objectives 3) The significance of maintaining project momentum at all times and understanding that making a decision—right or wrong—is preferable to doing nothing. 4) Upholding an atmosphere of individual accountability and the related 5) Upholding a culture of forgiveness 6) Understanding that team members' motivations and emotions go beyond merely their technical skills, and 7)

Understanding the necessity of using feelings rather than a reason to resolve conflicts. (Livesey, 2020).

Conclusion

This study examined the importance of interpersonal skills for project managers. Initially, with the systematic literature review method, we searched the relationship between the keyword 'interpersonal skills' and 'project manager' and found that keyword has a relationship with the keywords 'project management', 'emotional intelligence', 'project success', 'leadership', 'information technology', 'construction', 'implementation', 'evaluation' and 'qualitative'. We then provide an explanation of the importance of interpersonal skills for project managers from the roles and competencies of project managers, the practice of interpersonal skills for project managers in various subject areas, and the benefits of interpersonal skills to the success of the project. Project managers need certain interpersonal skills while managing projects because of their position, they must develop relationships at work more quickly.

Tacit abilities, which are frequently described as intuitive and context-dependent, are crucial for project success and are connected to interpersonal skills. Social and communication skills are frequently underrepresented in technical education or training for project managers. In contrast with the project manager's personal competencies which are communicating, leading, managing, cognitive ability, effectiveness, and professionalism. All of these competencies involve interpersonal skills that project managers need in order to define, evaluate, and build project management skills. Project practitioners are more likely to be successful if they are able to manage complexity by utilizing both interpersonal and technical abilities while also keeping context in mind.

For practitioners, this underscores the need for balanced skill development and recruitment strategies that equally value both skill sets. Academically, our study highlights the need for further research into the measurement and development of interpersonal skills in project management contexts, particularly across different industries and cultural settings. Future research should explore the interplay between interpersonal skills and emerging project management methodologies, as well as their impact on virtual team dynamics in an increasingly digital work environment. These insights aim to bridge the gap between academic research and practical application in project management.

Declarations

Author contribution

All authors contributed equally as the main contributors of this paper. All authors read and approved the final paper.

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Competing interest

The authors declare that they have no conflicts of interest to report regarding the present study

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