Importance of Soft Skills of Project Manager in successful completion of projects in the UK: Exploring the perception of stakeholders

Table of Contents

Chapter 1: Introduction
1.1 Research Background5
1.2 Research Aim and Objectives7
1.3 Research Question7
1.4 Research Problem7
1.5 Research Significance
1.6 Dissertation Structure
Chapter 2: Literature Review9
2.1 Introduction
2.2 Theoretical framework10
2.2.1 Systems theory
2.2.2 Utility theory
2.2.3 Modern portfolio theory12
2.3 Soft Skills of the Project Managers for Successful Initiatives
2.4 Technical, emotional, and behavioural competencies of project managers14
2.5 Soft skills in project success with the execution of technical abilities
2.6 Role of emotional intelligence in project success16
2.7 Challenges faced by Project Managers for Effective Stakeholder Management17
2.8 Recommendations to deal with Effective Project Management Initiatives
2.9 Conceptual framework
2.10 Literature gap
2.11 Summary

Chapter 3: Methodology	
3.1 Introduction	
3.2 Research method	
3.3 Research philosophy	Error! Bookmark not defined.
3.4 Research approach	Error! Bookmark not defined.
3.5 Research design	Error! Bookmark not defined.
3.6 Data collection method	Error! Bookmark not defined.
3.7 Sampling Technique	Error! Bookmark not defined.
3.8 Sample size	Error! Bookmark not defined.
3.9 Data Analysis Technique	Error! Bookmark not defined.
3.10. Reliability and Validity	Error! Bookmark not defined.
3.11 Ethical consideration	Error! Bookmark not defined.
3.12 Chapter Summary	Error! Bookmark not defined.
Chapter 4: Findings	
4.1 Hypotheses Validation	4
4.2 Discussion	
4.3 Comparative Analysis	
4.4 Summary	
Chapter 5: Conclusion	
5.1 Outcome of Research Questions	
5.2 Outcome from Hypotheses	
5.3 Overall Outcome from Literature and Primary Data	
5.4 Recommendations	

5.5 Practical Implications of the Study	
5.6 Limitations of the Study	29
5.7 Future Study	29
References	

Chapter 1: Introduction

1.1 Research Background

In the dynamic and ever-evolving landscape of project management, technical prowess alone is no longer sufficient to guarantee successful project delivery. The role of a project manager has evolved into a multifaceted one that demands a diverse set of skills, with soft skills emerging as paramount (Lundeby et al., 2023). This research background delves into the significance of soft skills for project managers in the context of the United Kingdom, shedding light on why these skills are crucial for ensuring the effective and efficient completion of projects. Same as in other parts of the world, the project management process in the UK has witnessed a profound transformation over the past few decades. In the past, project managers primarily focused on technical aspects such as budgeting, work breakdown structure (WBS), scheduling, and resource allocation (Kabeyi, 2019). However, as projects have become more complex and collaborative, the role of a project manager has shifted towards one that involves greater interaction with team members, stakeholders, and clients (Larsson and Larsson, 2020). Moreover, the gross value added of the construction industry dropped in 2020, below 20 billion British pounds, due to the Covid-19 pandemic (Statista, 2023). However, the industry got stable and improved its condition by rising by over 35 billion British pounds in the first quarter of 2023.



Figure 1: Successful project delivery from the construction industry in the UK.

(Source: Statista, 2023)

In order to become an efficient project manager, it is necessary to understand and reflect on soft skills. Soft skills are often referred to as interpersonal or people skills that tend to encompass a broad range of attributes that facilitate effective communication, collaboration and relationship building (Magano et al. 2020). These skills include but are not limited to leadership, negotiation, empathy, communication, conflict resolution, emotional intelligence adaptability as well as time management. These skills are known as soft skills, whereas these are not quantifiable as technical skills. The impact of these skills on the project's success is undeniable. Apart from these soft skills, communication and stakeholder engagement also stand out for project success (Iriarte and Bayona, 2020). Performing effective communication is referred to as one of the most critical soft skills for project managers.

In the UK's diverse and multicultural work environment, the ability to communicate as well as adopt others' communication styles is necessary for different audiences (Zuofa and Ochieng, 2021). Moreover, the project managers need to excel in terms of stakeholder engagement to ensure that all parties involved in the project are clearly understanding the project goals as well as progress over time (Magassouba et al. 2019). The environment of stakeholders in the project progress can provide a transparency factor to build the trust of stakeholders. Besides this, the other soft skills that are efficiently necessary for project success are leadership and time management. Leadership skills are vital for inspiring and guiding project teams towards a common objective. The UK's project managers to possess the ability to motivate and delegate tasks faster in a collaborative environment. Effective leadership encourages team members to be more engaged and committed towards the project goals and success efficiently (Newman and Ford, 2021). Through this process, the team members are managed significantly by the project manager and lead to achieving project goals as well as project progress in a proper direction that leads to success.

Moreover, in any project, conflicts and challenges are inevitable. Project managers in the UK must be equipped with strong configuration skills and problem-solving skills to address the issues that negatively impact the project's progress. The ability to mediate disputes and find innovative solutions are invaluable in preventing project delays. Furthermore, emotional intelligence plays a crucial role in understanding as well as managing the emotions of both team members and stakeholders with empathy (Montenegro et al., 2021). The project managers

in the UK must be adaptable, especially in the recent fast past business environment. This will help the project managers to respond effectively in terms of unforeseen changes and challenges, making emotional intelligence, negotiation, and adaptability essential soft skills. Through this information, this can be stated that mentioned soft skills are highly essential for the project managers to deal with their team members as well as stakeholders and learn to project success.

1.2 Research Aim and Objectives

Aim

The aim of the research is to analyse the impact of PM's skills in the UK for enabling the successful completion of projects.

Objectives

- To identify the soft skills of the project managers that contribute to ensuring the successful completion of the projects.
- To elucidate the technical, emotional, and behavioural competencies of project managers in the UK.
- To identify how the emotional intelligence of the PMs supports effective management of the stakeholders for the success of the projects in the UK.

1.3 Research Question

RQ1: What soft skills of the project managers contribute to ensuring the successful completion of the projects for better coordination and collaboration with the different stakeholders?

RQ2: How do technical, emotional, and behavioural competencies of project managers in the UK help in managing projects successfully?

RQ3: In what ways does the emotional intelligence of the PMs support the effective management of the stakeholders to enable the success of the projects in the UK?

1.4 Research Problem

In the dynamic and highly competitive landscape of project management in the UK, the role of soft skills possessed by project managers has become increasingly essential in terms of ensuring the successful delivery of projects. While the importance of technical and domain-

specific expertise is well established, there exists a growing gap in the process of understanding the ways skills such as communication leadership, contract resolution and seeker management are efficiently influencing a project outcome in the UK market. This research efficiently aims to address this critical knowledge gap and explore the extent to switch soft skill impacts over project success rates in the UK. Despite anecdotal evidence suggesting the significance in terms of the lack of comprehensive empirical research that specifically examines the correlation between project manager software and project performance in the UK.

However, this research will efficiently investigate the specific soft skills that are mostly valued and relevant in the UK's project management landscape. The challenges faced by project managers in acquiring and applying the skills and the potential barriers hindering their effective utilisations are going to be addressed in this research. By delving into these issues, the study seeks to provide valuable insight that can inform as well as continuously improve project management practises, training programs and recruiting strategies in the UK, ultimately that will lead to contributing to more successful project deliveries over time.

1.5 Research Significance

The significance of studying the soft skills of project managers in the context of successful project delivery in the UK cannot be overstated. In a rapidly evolving business landscape, projects are becoming increasingly complex as well as interdisciplinary. The role of the project manager goes beyond technical expertise. Skills such as communication, leadership, empathy, negotiation, teamwork, adaptability and emotional intelligence are crucial in ensuring project success. The UK has a diverse workforce, and understanding the soft skills required for effective project management can enhance collaboration and productivity among individuals from various backgrounds.

Moreover, the success of projects is directly connected to and impacts the UK's economic growth and global competitiveness. By continuously improving soft skills among project managers, the country can enhance its project delivery capabilities, attract more investments and foster innovations in the near future. Furthermore, this research can benefit organisations by providing insights into the types of soft skills that are most valuable in the UK-specific business environment. Ultimately the study can contribute to continuous improvement to project management practices, better resource education and higher project success rates benefiting both individual careers and the nation's economy.

1.6 Dissertation Structure

This dissertation will be completed in six different chapters underpinning Introduction, Literature Review, Methodology, Findings, Discussion, and Conclusion. The first chapter will provide insights to the background, research aims and objective, research questions, and research scope. Followed by that, the second will review the information of study area from the existing literature, the third chapter will discuss the methods and methodology used in this research and the information gathered will be recorded in the fourth chapter. The fifth chapter of discussion will relate the findings of the research with the reviewed literature and gap identified. Lastly, the conclusion chapter will align the findings with research objectives followed by limitations and recommendations.



Figure 2: Dissertation structure

(Source: Created by the Learner)

Chapter 2: Literature Review

2.1 Introduction

The following iteration of the literature review section offers many angles on the subject to help attain the specified aims. To help show the soft skills of project managers that help to ensure the achievement of the efforts, examples were given in this setting. Additionally, studies have shown that project managers possess the necessary technical, emotional, and behavioural skills. The section also will also discuss the difficulties project supervisors encounter while trying to assist in successful oversight.

2.2 Theoretical framework

2.2.1 Systems theory

The project leadership unit is composed of several related pieces, as per to the systems notion of assignment. Each aspect of the whole item talks with as well as depends on the other pieces to function effectively, as opposed to employing precautionary measures. The task of responsibilities in advance helps with the leadership of highly complicated, multi-stakeholder corporations. It helps the business delegate accountability for achieving group targets and takes within the criteria among a number of executive segments (Ajzen and Kruglanski, 2019). It prioritises interpersonal connections, modification, and adaptation over choice, distinctive behaviours, and tight proximity.

The "systems" idea asserts the notion to deal with frequent problems and risks in project initiative administration strategies. The effects of vulnerabilities can be handled within the systems of project management, which by essence involve a variety of separate materials that make up portions of the larger structure. Project management could be observed as a component of systems theory (Phochanikorn and Tan, 2019). The basic framework's functionality is influenced by both the manner in which the supporting segments function overall and how successfully each component's communication with the bigger complex as a whole.



Figure 3: Systems in project management

Project risk mitigation categories that follow the concepts of systems usually employ the Project Planning Approach, which involves choosing campaigns, establishing assignment attempts and objectives, and developing a plan which is going to guarantee these intended results have been accomplished (Coulson et al. 2019). During initiative timetables, the objectives and tactics for successfully wrapping up a mission are outlined. Considering all the leadership capabilities accessible, the project plan specifies if monetary support will be given for the task.

2.2.2 Utility theory

The utility theory is a developed notion in project management which serves as a framework for the choices taken when the threat is frequent. The idea proposes which option sensible individuals could select in challenging circumstances depending on their susceptibility endurance and preferences (Younus et al. 2021). A decision creator considers predicted value characteristics before choosing any of the multiple risky options, based towards the expected theory of utility.

⁽Source: Ajzen and Kruglanski, 2019)



Figure 4: Utility theory

(Source: Rueda-Benavides et al. 2022)

Project management requires the use of utility theory-based risk assessment (Rueda-Benavides et al. 2022). The main objective of this approach is to quantify the possibility of threat consequences using an economic determination generated by an analogous responsibility, where the probability of obtaining the gravest possible danger lead is determined by the quantity of funding equivalent to the risk consequences.

2.2.3 Modern portfolio theory

According to the soft skill components, today's concepts relevant to project managing risks are identified by modern portfolio theory, which then expresses the concepts into a theoretical framework. By Marais et al. (2022), this procedure defines the core components of project risk management. Risk-averse investors can use this concept as a method within project risk management elements to create a variety of assets that optimise the returns while limiting unacceptable levels of threat. The present notion of arrays may be advantageous to project administrators that desire to construct efficient and varied ventures using common income ventures.



Figure 5: Modern portfolio theory

(Source: Marais et al. 2022)

2.3 Soft Skills of the Project Managers for Successful Initiatives

The *soft skills* of the project directors are just as important to the achievement of the initiatives as their technical understanding. As per the views of Willumsen et al. (2021), the soft skills that project supervisors require to have been interpersonal interaction, collaboration, and management; however, it is essential to identify the particular abilities that project administrators in the UK employ to help their projects get done successfully. The inadequacy of the project directors' scientific expertise and abilities shows that cognitive competence and social abilities, which form an essential component of their interpersonal abilities, are equally crucial. The complicated, sentimental, and cognitive abilities and qualities of the project supervisors are going to be identified, and this information will be linked to the stakeholder handling strategies.

The ability to collaborate between both internal and outside parties is made possible by the project supervisor's *interpersonal skills*, which are crucial for the project's achievement. The basis of project leadership is interaction, so project managers need to have the necessary interpersonal abilities to comprehend, convey customer demands and then effectively convey those demands to the entire project group. According to Gupta et al. (2022), to enable the task's implementation as intended by the venture's customer, the project supervisor must also successfully convey the venture's restrictions of timetable, WBS, funds, and scale.

In order to motivate the undertaking group to cooperate and produce the outcomes of the endeavour, *leadership abilities* are equally crucial for handling the project. In the words of Bibri (2022), the leadership abilities of project supervisors were placed initially among the most wanted skills, followed by interpersonal abilities, showing the significance of managerial abilities as an attribute for project directors, according to the desired abilities for project supervisors in information technology companies. Moreover, project supervisors in the information technology industry listed leadership as a critical asset because solid managerial abilities aid in handling employees from various cultural backgrounds.

On the contrary, project managers interact with customers through soft skills like developing connections and interaction. These abilities could assist them in meeting the demands of their consumers and establishing an enjoyable relationship. Project managers may motivate their employees for achievement whenever they have excellent managerial qualities. In the words of Amankwah-Amoah et al. (2021), soft skills additionally become crucial for organising the project since they help in gathering feedback from multiple parties and resolving disagreements so that a mission statement and estimated costs can be developed while considering into account the concerns of every party involved. Thus, the fundamental abilities are executed in the course of the task with the help of the soft abilities, and this ultimately adds to the overall accomplishment.

2.4 Technical, emotional, and behavioural competencies of project managers

Leading an endeavour requires successful oversight of both one's feelings and those of other people. Various types of technical, emotional, and behavioural competencies may be identified among the contemporary viewpoints as a requirement to effectively manage projects in a continuously changing global environment. According to the views of Hartono et al. (2019), project management uses technical, emotional, and behavioural skills to influence people to put aside self-interest in support of the group's goals by modifying their dispositions, ideas, and beliefs. The UK project management industry employs about 2.13 million technical experts, and the gross value of the industry is £156.5 billion annually (Association for Project Management, 2022). The technical competencies within the project management experts have the responsibility to entice teams to do remarkable things while developing their leadership capacities.

It could be more important than in other industries to collaborate as a cohesive unit to complete an assignment successfully. In businesses, it might be difficult to create a team while maintaining technical, emotional, and behavioural abilities. As asserted that Jin and Tan (2020), it is difficult to co-locate, and it does not happen frequently. A group working on a project tends to be made composed of assets that have been recruited from other organisational departments. Providers and vendors are regularly included to enhance their behavioural competencies (Henkel et al. 2019). fostering a culture within the group wherein members recognise the need of having specific demands for their behaviour, emotions, and skill sets is essential to the achievement of any endeavour.

On the contrary, the capacity to comprehend and influence worker conduct is referred to as behavioural abilities in the setting of administration. As per the views of Dmitriev et al. (2019), employing behavioural abilities helps administrators increase efficiency, encourage staff, and resolve issues. They require the capacity to comprehend and shape other people's behaviour to bring about what they want. Disputes within the group have to be handled to prevent them from escalating into possibly damaging difficulties, requiring cognitive proficiency (Jelonek and Nitkiewicz, 2020). The capacity to prepare for prospective disputes and react to them strengthens the task supervisor's knowledge and capability to foresee these domains, while the capacity to alleviate those instances when disagreement has already arisen preserves a positive project atmosphere.

2.5 Soft skills in project success with the execution of technical abilities

The project supervisor's soft abilities aid in the application of the technical abilities needed to complete the initiatives, which ultimately adds to the effective fulfilment of the assignments. According to the findings of Silvius (2021), the handling of stakeholders is crucial for allowing profitable initiatives because good investor connection, leadership and interaction between parties result in client fulfilment as well as favourable project fulfilment. These soft skills contribute in the enhanced technical competencies of the project managers to deal with project planning, WBS, budgeting, project timeline, and other aspects.

Soft skills are additionally crucial for preparing a project since they help in gathering feedback from multiple parties and resolving disagreements so that a mission statement and estimated expenditures can be developed while considering into account the concerns of every party involved (Doost Mohammadian and Rezaie, 2019). Thus, the fundamental abilities are executed in the course of the task with the help of soft abilities, which ultimately add to the venture's accomplishment.

The project manager must recognise, evaluate, and oversee the dangers related to the programme's execution with the help of the exchange of data among the parties involved in the project risk management. In the words of Goel et al. (2020), this is another important technological part of the project initiatives. Since risk handling is linked to recognising and dealing with dangers using prior experience, interpersonal and managerial abilities help to enable efficient sharing of information between colleagues (da Silva, 2023). This in turn supports dangerous oversight of initiatives. While supporting the difficult abilities in project management, soft abilities additionally influence the efficacy and productivity of risk administration in explaining various shifts in project achievement.

2.6 Role of emotional intelligence in project success

Feelings of optimism ultimately end up in higher productivity in the workplace, hence the mental agility of the task's managers is crucial for the undertaker's efficient execution. As per the findings of Vrchota et al. (2020), the project management's emotional intelligence significantly impacts the achievement of the undertaking since strong emotional intelligence fosters a favourable work atmosphere among other staff members with empathy, which ultimately results in accomplished initiatives. The project supervisor's mental agility has a favourable relationship with work fulfilment and coworker confidence, each of which serves an intermediary part in the endeavour's performance (Wen, 2023). Project management's emotional awareness is not enough to enable effective conclusion, however, the other needed project supervisor qualities, coupled with revolutionary management, assure increased achievement of project objectives.

The connection with stakeholders from every angle, and also the project management's emotional intelligence, all have a role in the likelihood of initiatives being completed effectively. As asserted by Lent and Pinkowska (2012), the research makes it clear that emotional intelligence can have a beneficial effect and promote the achievement of objectives. Venture supervisors' emotional talents facilitate interaction among both internal and outside parties, and their emotional intelligence abilities are crucial for the achievement of goals and negotiation. It is vital for project management to possess the appropriate capacity for emotional intelligence to comprehend the demands of the undertaking's consumer (Ribeiro et al. 2021). The emotional intelligence and efficacy of the team's achievement create a basis for project leadership.

2.7 Challenges faced by Project Managers for Effective Stakeholder Management

A project is effective when it is completed on schedule, satisfies all agreed-upon demands, and stays under expenditure. According to the opinions of Ghorbani (2023), a group working on an endeavour will probably run into some obstacles that could prevent them from attaining such desired outcomes. Beginning, organising, carrying out, closing, and tracking are just a few of the various aspects that make up the complex procedure of handling a project. Discovering answers to these issues constitutes a few of the project supervisor's main responsibilities because difficulties might occur at every phase of the procedure.

Weak conversation

Effective project completion is largely dependent on efficient interaction. A skilled project leader may issue orders, acquire data, and educate participants thanks to robust technical and vocal interpersonal abilities (Ribeiro et al. 2021). However, their crew can go lost, which would cause inconvenience.

Poor financing

For project managers to make the best application of money, effective budgeting and adept handling of expenses are crucial. Improper financial management, on the other hand, could lead to adverse consequences (Tahir, 2019). Lacking a firm grasp regarding monetary matters, staff members could discover that the group is dealing with excess expenditures that are going to annoy all parties involved and keep the task from being completed.

The absence of Transparency

Competence is a single of the essential tenets of effectiveness. The success of a task's goals depends on all members of the undertaking's executive committee. The commitment administration must therefore create a level of accountability for each member of the assignment force (Hefley and Bottion, 2021). Inconceivably, the dearth of accountability can jeopardise the process at every phase.

Asset and material allocation

The globe of project administration has crucial hazards in offering materials precisely. A lot of task supervisors are constrained to perform with the assets that are provided because several corporations have difficulty distributing budgets or obtaining enough assets (Campana, 2010).

However, this entails giving jobs to people in the construction group, freelancers, organisations, or suppliers who might not possess the necessary expertise for carrying out a specific assignment or guaranteeing excellent results.

2.8 Recommendations to deal with Effective Project Management Initiatives

Project supervisors have a lot of jobs set out for individuals because of continual project limitations like duration, spending limits, excellence, and scale in addition to ongoing demands from the project group and interested parties (Magano et al. 2020). Project leadership could be made simpler while still playing the pleasurable and rewarding function it currently can.

Implementing communication strategy

A communication plan might help businesses manage problems with interaction. As per Aleman (2023), this communication plan effectively acts as a structure of oversight for the project groups and specifies the channels that will be utilised for conveying particular topics or goals throughout the project's duration, including electronic mail, conferences, telephone calls, memoranda, and so forth. For instance, a project leader could turn to the messaging strategy to determine how to most effectively distribute this kind of interaction when they must communicate an alteration management notification to all of the project participants following a modification to the mandate (Lyu and Liu, 2021).

Establishing financial planning

A manager may prevent many of the prevalent issues an endeavour might encounter and work towards superior outcomes more quickly by managing costs effectively. As asserted by Toader et al. (2023), to prevent over-inflated costs, it is imperative to use a suitable project planning technology, follow an appropriate budgetary process, and use conservative estimates. On the other hand, a project with limited funds may be in danger of failing altogether. The extent of the project can only be planned while considering the available money.

Handling risk management

It is the job of every supervisor to prepare contingency plans that the whole group could implement if events begin spiralling beyond control. According to Chaibate et al. (2020), an undertaking mitigation framework can help identify and reduce these kinds of threats. It is crucial to establish an emergency strategy for managing hazards. Any possible hazards and the actions that needed to be taken to cope with them can be listed in this approach.

2.9 Conceptual framework



Figure 6: Conceptual Framework

(Source: Created by the Learner)

Hypotheses:

H1: The project managers' soft skills help to ensure the project's successful closure.

H2: Emotional intelligence directly impacts project success by managing stakeholders effectively

H3: Technical abilities are significant towards project risk management functions

The hypotheses presented three aspects of contemporary project management - soft skills, emotional intelligence, and technical abilities. In an era where projects are becoming increasingly complex and stakeholder-centric, the role of project managers has exceeded beyond mere technical oversight to encompass broader relational and emotional dimensions.

H1 emphasizes the soft skills of project managers, which are important in fostering effective communication, teamwork, and problem resolution, all of which are essential for running projects towards successful closure. As projects often involve cross-functional teams, communicating clearly and fostering a collaborative environment is pivotal.

H2 reflects emotional intelligence, which is vital in managing stakeholders effectively. Understanding, interpreting and responding to stakeholders' emotions and concerns is crucial in a complex project landscape. Emotional intelligence facilitates better stakeholder engagement, conflict resolution, and project success.

H3 highlights the continuing importance of technical abilities, especially in managing project risks. An understanding of the technical aspects helps identify, analyze, and mitigate risks efficiently, ensuring that the project stays on course regarding scope, time, and budget.

These hypotheses collectively encapsulate a holistic approach to project management, underscoring the need to balance technical, emotional, and interpersonal competencies in navigating the modern project environment towards successful outcomes.

2.10 Literature gap

Due to the lack of academic publications with thorough investigation and context on the topic of this paper, many significant details were omitted from the earlier portion of the volume. Significant subjects that might have helped spectators and potential scholars get a complete picture of the study are lacking (Garcia et al. 2020). Additionally, there was a vacuum in the study because the evaluation section omitted exact statistics collected from the UK project management industry. Further objective and pertinent presumptions might be needed by future researchers when planning new research projects.

2.11 Summary

The competencies of the project managers have been summarised in the literature review volume, which is crucial in guaranteeing the assignments are finished by the grantee's eliciting objectives while taking into account the demands of all involved parties. Furthermore, the amount has shown how important interpersonal skills are for project outcomes. This chapter has also shown the relevance of modern portfolio theory, utility theory, and systems theory in this setting.

Chapter 3: Methodology

3.1 Introduction

The relevance of research methodologies as critical framework carrying out a systematic organised investigation was highlighted in this chapter. Research methodologies offer the framework required to guarantee the reliability and validity of research findings. Research methods ensure a thorough and well-organized approach to study by providing structure and direction in accordance with the research onion's framework (Roy and Kumar, 2022). By laying out the process for gathering, analysing, and interpreting data, this systematic methodology makes it easier to conduct an in-depth and reliable study. To successfully navigate the method of study and provide insightful findings about the link regarding soft skills particularly project performance, it was imperative to use research methods.



Figure 7: Saunder's Research Onion

(Source: Melnikovas, 2018)

3.2 Research method

The groundwork for conducting investigations is provided by research methods by guaranteeing in a systematic and organised manner that the results are legitimate and dependable. Two main paradigms of study stand out while examining based on the topic including quantitative and qualitative methodologies. Qualitative research focuses on the fundamental significance and motivations, while quantitative research reveals the numerical trends and statistical linkages (Dzogovic and Bajrami, 2023). Nonetheless, the ability of the quantitative method to permit systematic data collecting and thorough analysis was considered to be its main advantage. With the help of systematic polls, questionnaires, or numerical measures, this method quantifies data to obtain precise and measurably accurate information. Given the scope of the research question, quantifiable data was essential to establishing clear trends, patterns, and statistical connections when evaluating the consequences of the soft skills overall project performance. However, the approach is good at identifying statistical correlations and numerical patterns, it might not give a complete knowledge of the underlying causes of these interactions (Nayak and Narayan, 2019). On the other hand, by emphasised on numerical statistics may obscure qualitative insights that explore the subtleties of soft skills like communication, leadership, and teamwork. This trade-off between statistical accuracy and knowledge depth highlights how crucial it is to choose a method that is in line with the objectives of the study.

3.3 Research philosophy

The set of beliefs, presumptions, and principles that direct a researcher's method of perceiving and interpreting the world is referred to as research philosophy. The three main philosophies of research are positivism, interpretivism, along with realism (Botha, 2021). The principle of positivism was selected because it holds that understanding can be obtained through independent measurement, observation, and verification. According to Park Konge, and Artino, (2020), it placed a strong emphasis on quantitative data, empirical evidence, and the investigation of causal linkages. Positive psychology's emphasis on quantifying and evaluating the association between interpersonal talents and project performance makes it an ideal fit for the topic at hand. However, Positivism does have its drawbacks, though. The intricacy of soft skills, which are essentially qualitative and context-dependent, could be oversimplified. The whole spectrum of a project leader's experiences and opinions may not be fully represented by the concentration on numerical statistics. The investigation of underlying significance and motivations could be constrained by the rigid adherence to empirical data. On the other hand, Positivism offers a structured method to measure which is advantageous in the context of the research that was chosen with quantitative methods. Moreover, the emphasis on objectivity in positivism also lessens the possibility of prejudice in the understanding of results.

3.4 Research approach

The broad framework that directs a researcher's path while conducting inquiries is provided by research approaches. The inductive and deductive methods of thinking are the two main research strategies. A conceptual framework or hypothesis serves as the starting point for deductive reasoning, which then uses data analysis and empirical observation to try to validate or refute the theory (Alali et al. 2023). This strategy is especially appropriate for quantitative research since it enables the use of quantifiable data to evaluate particular hypotheses. The deductive technique helped to clearly define hypotheses regarding the relationship between specific soft skills and outcome indicators in the context of this study. On the other hand, the systematic form of the deductive approach, which makes hypothesis testing as well as empirical confirmation easier, is one of its benefits. The deductive strategy does, however, have some drawbacks. Moreover, it could restrict the investigation of unforeseen results or variables that weren't initially considered by the theoretical framework (Alam, Halder, and Pinto, 2021). The legitimacy of a study's findings was increased by this approach, which offers a solid and scientific basis for conclusions built around data analysis.

3.5 Research design

The term *"Research design"* describes the overarching framework or plan that specifies how an inquiry will be carried out, including the techniques and tactics utilised to gather, process, and interpret data (Sileyew, 2019). This study benefited greatly from the method of correlational research because it allowed for an examination of the relationships between various soft skills and the achievement of project delivery. This design allowed the researcher to measure the degree of connection between particular abilities and project success measures by using surveys to gather data on soft skills as well and project outcomes (Allan, 2020). It's crucial to understand a correlational design's limits, though. Although it can spot connections and trends, it cannot prove a cause-and-effect link. Correlations in this situation can show links between soft skills and overall project success, but do not establish a causal relationship. In future researches, in the similar study area, experimental research design can be implemented to explore the casual relationship between soft skills and project success; however, the correlational approach offered insightful information about possible links between interpersonal abilities and the success of the project. Although the exact cause could not be established, the design made it possible to identify patterns that might direct future study or guide the development of initiatives to continuously improving project management soft skills.

3.6 Data collection method

A variety of data collection approaches were available which include primary and secondary procedures and were taken into consideration for this study. However, the major primary data gathering sampling was used for findings since it directly related to and complemented the study's goals. As a result of being able to customise the questionnaires to the particulars of project management, primary data collecting was helpful. An open-ended survey was created using Google Forms to collect data. The survey included questions which could be rated on a Likert scale that ranged from "Strongly Disagree" and "Strongly Agree," depending on the answer. Participants' thorough responses to the open-ended questionnaire, which was designed to allow for more than just numerical evaluations, were made possible. Although the Likert Scale offered quantitative data, the open-ended questions enabled participants to share qualitative views, giving the quantitative findings depth and context (Weijters, Millet, and Cabooter, 2021). The participants' opinions, experiences, and difficulties with regard to soft skills in managing projects were more nuanced and understood due to this method (Kumatongo and Muzata, 2021). However, the data collection technique did have certain drawbacks, though. For the survey to reach the intended participants, meticulous planning and execution were necessary.

3.7 Sampling Technique

The sample selection describes the process of choosing a subset of people or things from a wider population so as to undertake a research study. Stratified sampling, convenience sampling, random sampling, and purposive sampling among further sampling methods. The purposive was chosen as judgemental or selective, which entails purposefully choosing participants who have particular traits or experiences that were consistent with the goals of the study (Mweshi, and Sakyi, 2020). Purposive sampling was used to guarantee that the survey's sample was representative. By emailing and interacting with potential participants on LinkedIn, the initial sample was formed (Mishra and Alok, 2022). Through recommendations from current participants, other volunteers with comparable profiles were subsequently attracted. The researcher was able to identify potential participants using this sampling technique who

had firsthand project management experience and were likely to have knowledge of the connection between soft skills as well as project success (Adeoye, 2023). The sample's significance to the research issue was ensured via the researcher's use of LinkedIn and recommendations to connect with a network among professionals who had worked on projects in various roles. The project executives were then requested to circulate the survey among their team and their clients to get the perspective of the stakeholders.

3.8 Sample size

The reliability of the study and the applicability of the findings are improved by a well determined sample size. It strikes a compromise between the necessity of having enough data and pragmatic factors of time and financial restrictions for the project's successful delivery within the UK (Hennink and Kaiser, 2022). The 120 participants in the bigger sample size made for a more thorough analysis and enhanced the chance of gathering a variety of perspectives and experiences about the effective completion of projects. This includes clients, project teammates, and project managers. The study aims to gather a variety of perspectives on the importance of soft qualities in project achievement by including people from different facets of project management.

3.9 Data Analysis Technique

Examining, sorting, converting, and analysing obtained data in order to derive relevant insights, spot patterns, and reach conclusions is the procedure of data analysis. There are numerous methods for analysing data, including content analysis, statistical analysis, inferential analysis, and descriptive analysis (Purwanto et al. 2020). Powerful statistical tools like SPSS were selected for this research which are frequently used in business, research, and the social sciences to analyse data. It provides a wide range of tools for reporting, data visualisation, and statistical analysis (Ridzuan, Ridzuan, and Ridzuan, 2021). There are many benefits to utilising SPSS for data analysis. To successfully convey findings, it can handle massive datasets, run intricate statistical analyses, and provide a variety of visualisations, including graphs and charts.

In this study, Pearson's Chi-square test was used to analyse the survey questionnaire data. Application of Chi-square test requires development of null hypothesis. A null hypothesis is a statement which establishes no relation between variables. The researchers must analyse the data to disprove the null hypothesis, and accept the alternate hypothesis. Alternate hypothesis is the statement that established a relation between variables. For this study,

The following null hypotheses are produced for each alternate hypothesis.

HA1: The project managers' soft skills help to ensure the project's successful closure according to managers, team members and stakeholders

H01: The project managers' soft skills do not affect the project's successful closure according to managers, team members and stakeholders

HA2: Emotional intelligence directly impacts project success by managing stakeholders effectively according to managers, team members and stakeholders

H02: Emotional intelligence has no impact on project success according to managers, team members and stakeholders

HA3: Technical skills significantly improve a manger's risk management abilities according to managers, team members and stakeholders

H03: Technical skills significantly have no impact on manger's risk management abilities according to managers, team members and stakeholders

Chi-square test is used to check the association between the variables, i.e., if the variables are independent of each other or not. The categorical variables in this study include the project managers, team members and the stakeholders. All three groups were asked about their opinions of the importance of skills of project managers in project success. A significant result means that all three groups have similar opinions that the skills are important for project success whereas non-significant results would mean the groups differ in their opinion. A significant result helps in rejecting the null hypothesis.

While inferential statistics evaluated hypotheses, descriptive statistics gave an overview of the participants' characteristics (Almquist, Kvart, and Brännström, 2020). Graphical representations of the data were produced depending on the replies to particular survey questions. This segmentation made it possible to clearly see how various skills were viewed and related to project performance. These representations helped make complex relationships easier to understand.

3.10 Ethical consideration

Ethical issues were crucial to protecting participant rights and preserving the objectivity of the investigation. The importance of voluntary participation was emphasised, allowing people to make their own decisions about whether or not to participate in the study. The study made sure that people could make free and informed decisions without coercion by giving potential participants autonomy. To protect the participants' privacy, strict confidentiality was upheld. The gathered data was securely maintained in encrypted documents with strong password protection on the laptop with the help of security protection measures (Taquette, and Borges da Matta Souza, 2022). Additionally, all participants gave their consent and informed agreement before the survey was administered. Moreover, participants' autonomy was respected to participate voluntarily in the survey (Hogan et al. 2021). In addition to respecting the privacy of potential volunteers, this strategy also showed how committed the research was to upholding ethical and transparent procedures throughout the study.

3.11 Chapter Summary

In conclusion, this chapter provided a thorough explanation of the technique used to conduct the study. In-depth discussions were held regarding the research methodology, design, data gathering procedures, and analysis methods. The chapter emphasised the tactical decisions used to guarantee the validity of the study, including the use of a form of quantitative research, purposive sampling, and SPSS for data processing. The methodology incorporated ethical considerations to guarantee participant autonomy as well as confidentiality. The result of these decisions provides a solid framework for exploring the complex interactions involving soft skills and a successful project within a disciplined and moral framework.

Chapter 4: Findings

Introduction

This chapter presents the findings from the data analyses. There are three types of findings reported below: reliability analysis, descriptive analysis, and Pearson's Chi-square test. Reliability analysis is done to ensure that the survey questions are suitable to collect the data and will produce results which answer the research questions (IBM, 2021). The demographic characteristics of the participants (age, gender, and income) are analysed with descriptive analysis and record the parameters of the sample population from which the results must be extrapolated to the whole population (Trochim, 2020).

The present study employs Pearson's Chi-square test to test the hypothesis. This is done by testing the relationship between categorical variables which in this study are: project managers, project team and stakeholders. The results for Chi-square test are mentioned against each question. A result is significant when the p-value if equal to or less than 0.05. The p-value or the significance level denotes the strength of the results by setting a minimum limit. When the value lies below that limit, only then can be results considered significant and applied to the whole population (Andrade, 2019). In simple terms, a p-value of less than 0.05 means that there is a less than 5% probability of the results to be occurring because of chance, without real associated between the categorical variables (Andrade, 2019).

Reliability of questionnaire

A questionnaire was distributed to collect data for the research attached in appendix. It is prudent for researchers to test the questionnaire for reliability to ensure that the questions actually measure the item that is being tested. It is a measure of internal consistency of the survey and ensure reproducibility of results (Taber, 2018). Reliability is measured using a widely known statistical tool called as Cronbach's alpha (Taber, 2018). While the results can vary from 0 to 1, the values between 0.7-0.9 are considered ideal for establishing the reliability of the questionnaire (Tavakol and Dennick, 2011).

Table 1: Cronbach alpha analysis for reliability

Factor Reliability results	
--------------------------------	--

Soft-skills	0.874
Technical skills	0.785
Emotional intelligence	0.713

Participant group

In this study, 115 subjects participated. In Graph 1, among study participants, 28.7% were clients, 11.3% were project managers and 60% were team members.



Gender

There were 24.3% females and 74.8% males and 0.9% preferred not to reveal his/her gender (Graph 2).



Project management sector

Among the study subjects, 3.5% respondents were familiar with Aerospace, 7% with automotives, 18.3% with construction, 4.3% with education, 9.6% with Engineers, 11.3% with event management, 7.8% with finance, 15.7% with health care, 7.8% with hospital, 10.4% with Information and 4.3% with retail (Graph 3).



Ideal experience to be a successful project manager

A proportion 0.9% believed a project manager should have less than a year experience in completing a project in a better way, 009% believed in having more than 10 years, 73% believed in having more than 4 years, 11.3% believed in having more than 7 years and 13.9% in having more than a year (Graphs 4).



4.1 Hypotheses Validation

H1: The project managers' soft skills help to ensure the project's successful closure.

In the current competitive and dynamic environment, the role of a project manager extends beyond traditional technical competencies. The soft skills of a project manager have increasingly been recognized as essential components that contribute to a project's successful completion. To validate this hypothesis, several questions were asked to the participants.

The questions included under this hypothesis are:

Q5. Do you think soft skills of a project manager are equally important as hard skills?

Q6. How often do you think project managers should interact with stakeholders during a typical project lifecycle?

Q7. The ability to communicate clearly and effectively with stakeholders contributes to project success.

Q8. Project managers' leadership skills play a crucial role in fostering collaboration among team members.

Q9. Adapting to changing project requirements demonstrates flexibility and positively impacts project outcomes.

Q10. Building strong relationships with stakeholders enhances project coordination and overall success.

Q11. Problem-solving skills of project managers directly influence project completion within deadlines.

Result:

-	Table 1	: Basic	perceptio	ns of	participant	ts
ſ						

		Frequency	Percent
Q5. Do you think the soft skills of a project manager are	Maybe	5	4.3
equally important as hard skills?			
	No	1	.9

	Yes	109	94.8
Q6. How often do you think project managers should interact	Occasionally	18	15.7
with stakeholders during a typical project lifecycle?	Often	83	72.2
	Very Often	14	12.2

The data presented in Table 1 offers valuable insights into participants' perceptions regarding the importance of a project manager's soft skills and their frequency of interaction with stakeholders during a project's lifecycle.

The gathered data shows that most participants, accounting for 94.8%, believe that soft skills are equally essential as hard skills for a project manager. This high percentage underscores the evolving understanding of the multifaceted role of project managers. Soft skills, which include interpersonal skills, communication abilities, and emotional intelligence, are now recognized as vital in managing teams, addressing challenges, and ensuring the smooth progression of projects.

Moreover, when participants inquired about the frequency with which project managers should communicate with stakeholders, 84.4% believed it should be "often" to "very often." This suggests that regular communication and engagement with stakeholders are seen as crucial elements for the successful execution of projects. Stakeholders, integral to a project's ecosystem, require consistent updates and discussions to ensure alignment of objectives, address concerns, and facilitate mutual understanding. Regular interactions encourage transparency, build trust, and help mitigate potential risks or misunderstandings that may arise in the project's course.

Results

				Q1			
			Client	Project leader	Team member	Chi square	P value
Q7	Neither agree nor disagree	Count	1	2	4	14.01	0.007 HS

Table 2: Soft skills and project success

		% within Q1	3.0%	15.4%	5.8%		
	Agree	Count	13	4	47		
		% within Q1	39.4%	30.8%	68.1%		
	Strongly agree	Count	19	7	18		
		% within Q1	57.6%	53.8%	26.1%		
Q8	Neither agree nor disagree	Count	1	3	4	9.95	0.04 S
		% within Q1	3.0%	23.1%	5.8%		
	Agree	Count	14	3	16		
		% within Q1	42.4%	23.1%	23.2%		
	Strongly agree	Count	18	7	49		
		% within Q1	54.5%	53.8%	71.0%		
Q9	Strongly disagree	Count	0	1	0	9.98	0.02S
		% within Q1	0.0%	7.7%	0.0%		
	Neither agree nor disagree	Count	0	0	2		
		% within Q1	0.0%	0.0%	2.9%		
	Agree	Count	18	6	41		
		% within Q1	54.5%	46.2%	59.4%		
	Strongly agree	Count	15	6	26		
		% within Q1	45.5%	46.2%	37.7%		
Q10	Disagree	Count	0	1	0	10.70	0.01S
		% within Q1	0.0%	7.7%	0.0%		
	Neither agree nor disagree	Count	1	1	2		
		% within Q1	3.0%	7.7%	2.9%		
	Agree	Count	16	3	34		
		% within Q1	48.5%	23.1%	49.3%		
	Strongly agree	Count	16	8	33		

		% within Q1	48.5%	61.5%	47.8%		
Q11	Disagree	Count	0	1	1	11.16	0.04S
		% within Q1	0.0%	7.7%	1.4%		
	Neither agree nor disagree	Count	0	2	2		
		% within Q1	0.0%	15.4%	2.9%		
	Agree	Count	19	4	37		
		% within Q1	57.6%	30.8%	53.6%		
	Strongly agree	Count	14	6	29		
		% within Q1	42.4%	46.2%	42.0%		

Statistical test applied: Chi square test; HS – Highly significant at p<0.01; S – Significant at p<0.05



Figure 8: Client perspectives of importance of soft skills



Figure 9: Project leader's perspectives on importance of soft skills in project completion





Table 2 delves into the perceptions of clients, project leaders, and team members concerning the significance of soft skills for project success. Some key observations are analysed by analyzing the chi-square test outcomes and the p-values.

All three participant categories emphasize the indispensability of soft skills for achieving project success, as indicated by the p-values being less than 0.05 for each question. This consensus highlights the universal recognition of the role of soft skills in project management.

Expressly, when participants were asked about the importance of clear communication (Q7), 97% of clients, 84.6% of project leaders, and 94.2% of team members agreed or strongly agreed. Similarly, for Q8 concerning leadership skills, approximately 96.9% of clients, 76.9% of project leaders, and 94.2% of team members agreed.

Furthermore, change management (Q9) garnered agreement or strong agreement from 100% of clients, 92.3% of project leaders, and 97.1% of team members. Regarding interpersonal relationships (Q10), 97% of clients, 84.6% of project leaders, and 97.1% of team members expressed endorsement. Lastly, for problem-solving skills (Q11), 100% of clients, 76.9% of project leaders, and 95.6% of team members recognized its critical role in project success.

H2: Emotional intelligence directly impacts project success by managing stakeholders effectively

Emotional intelligence, encompassing the ability to recognize, understand, and manage one's own emotions while being sensitive to others, is inherently linked to project success. For instance, understanding stakeholders' needs and concerns (Q17) requires keen emotional insight to navigate the dynamics of stakeholder expectations. Furthermore, conflict is an unavoidable aspect of collaborative efforts, and a project manager's capability in handling disputes (Q18) can significantly enhance stakeholder relations. Empathy (Q19) is another facet of emotional intelligence that ensures stakeholders feel valued and understood, promoting their active involvement. The capacity to determine and manage team emotions (Q20) facilitates an environment conducive to effective communication and teamwork, both key for aligning stakeholder goals and aspirations.

The questions included under this hypothesis are:

Q17. Understanding stakeholders' needs and concerns is a key aspect of project managers' emotional intelligence.

Q18. Project managers' ability to manage conflicts positively impacts stakeholder relationships and project success.

Q19. Displaying empathy towards stakeholders enhances their satisfaction and engagement with the project.

Q20. Recognizing and managing emotions within the project team leads to better stakeholder communication and collaboration.

Result:

Table 3: Emotional intelligence and stakeholder management

				Q1			
			Client	Project leader	Team member	Chi square	P value
Q17	Disagree	Count	0	1	0	12.20	0.04S
		% within Q1	0.0%	7.7%	0.0%		
	Neither agree nor disagree	Count	0	1	2		
		% within Q1	0.0%	7.7%	2.9%		
	Agree	Count	16	5	41		
		% within Q1	48.5%	38.5%	59.4%		
	Strongly agree	Count	17	6	26		
		% within Q1	51.5%	46.2%	37.7%		
Q18	Neither agree nor disagree	Count	0	3	2	13.89	0.008 HS
		% within Q1	0.0%	23.1%	2.9%		
	Agree	Count	13	2	24		
		% within Q1	39.4%	15.4%	34.8%		
	Strongly agree	Count	20	8	43		
		% within Q1	60.6%	61.5%	62.3%		
Q19	Disagree	Count	0	2	0	28.74	0.000 HS
		% within Q1	0.0%	15.4%	0.0%		
	Neither agree nor disagree	Count	2	3	1		
		% within Q1	6.1%	23.1%	1.4%		
	Agree	Count	16	2	36		
		% within Q1	48.5%	15.4%	52.2%		
	Strongly agree	Count	15	6	32		
		% within Q1	45.5%	46.2%	46.4%		
Q20	Neither agree nor disagree	Count	0	2	3	12.79	0.01 S

	% within Q1	0.0%	15.4%	4.3%	
Agroo					
Agree	Count	10	3	37	
	% within Q1	30.3%	23.1%	53.6%	
Strongly agree					
Strongly agree	Count	23	8	29	
	% within Q1	69.7%	61.5%	42.0%	

Statistical test applied: Chi square test; HS – Highly significant at p<0.01; S – Significant at p<0.05



Figure: Perspectives of different groups on the importance of understanding need and concerns (Q17).

Table 3 highlights the role of emotional intelligence in managing stakeholders and its resultant impact on project success. Using the chi-square test results and the p-values, a series of observations emerge:

For Q17, which gauges the understanding of stakeholders' needs and concerns, 100% of clients, 84.7% of project leaders, and 97.1% of team members agreed or strongly agreed. This data underscores that across all three participant categories, there's a significant inclination towards the belief that tuning into stakeholders' sentiments is integral to project success, as supported by the p-value of 0.04.

Q18, concerning the positive management of conflicts, saw a notably high percentage (100% for clients, 76.9% for project leaders, and 97.1% for team members) endorsing the significance of addressing disputes for beneficial stakeholder relations. With a p-value of 0.008, this result is highly significant, emphasizing that proficient conflict management is beneficial and essential in stakeholder management.

In Q19, the sentiment of displaying empathy to stakeholders is explored. A compelling 93.9% of clients, 61.6% of project leaders, and 98.6% of team members agreed or strongly agreed. Given the p-value of 0.000, it becomes evident that stakeholders' satisfaction and engagement are deeply intertwined with the project managers' display of empathy across the board.

Finally, Q20 sheds light on the recognition and management of team emotions. An aggregate of 100% of clients, 84.6% of project leaders, and 95.9% of team members agreed or strongly agreed with the proposition, backed by a p-value of 0.01. This reveals a considerable consensus on managing team emotions for better stakeholder communication and collaboration.

H3: Technical abilities are significant towards project risk management functions

The emphasis on technical skills, as outlined in the statements, highlights their critical role in various project management functions. As mentioned in point 12, strong technical knowledge serves as a bedrock for identifying and managing potential project risks. Moreover, as the industry evolves, staying up-to-date with its trends, as per point 13, helps project managers devise accurate budget plans. Further, expertise in crafting detailed Work Breakdown Structures, as indicated in point 14, ensures streamlined project organization. Such technical competencies also facilitate optimal resource distribution, ensuring smooth project planning and execution. Moreover, an ongoing refinement of these skills, as mentioned in point 16, can bolster project outcomes, reinforcing the importance of technical abilities in project risk management.

The questions included under this hypothesis are:

Q12. Possessing strong technical knowledge is essential for effectively identifying and managing project risks.

Q13. Staying updated with industry trends enhances project managers' ability to develop accurate budget plans.

Q14. Applying technical expertise in creating a comprehensive Work Breakdown Structure (WBS) improves project organization.

Q15. Demonstrating proficiency in resource allocation contributes to efficient project planning and execution.

Q16. Continuous improvement of technical skills positively impacts project outcomes, including quality and scope management.

Results

			Q1				
			Client	Project leader	Team member	Chi square	P value
Q12	Neither agree nor disagree	Count	1	1	3	3.99	0.04S
		% within Q1	3.0%	7.7%	4.3%		
	Agree	Count	16	5	43		
		% within Q1	48.5%	38.5%	62.3%		
	Strongly agree	Count	16	7	23		
		% within Q1	48.5%	53.8%	33.3%		
Q13	Neither agree nor disagree	Count	0	1	1	6.15	0.18
		% within Q1	0.0%	7.7%	1.4%		
	Agree	Count	12	2	29		
		% within Q1	36.4%	15.4%	42.0%		
	Strongly agree	Count	21	10	39		
		% within Q1	63.6%	76.9%	56.5%		
Q14	Disagree	Count	0	1	0	12.44	0.15
		% within Q1	0.0%	7.7%	0.0%		
	Neither agree nor disagree	Count	0	0	3		
		% within Q1	0.0%	0.0%	4.3%		

Table 4: Technical knowledge and risk management

	Agree	Count	11	4	32		
		% within Q1	33.3%	30.8%	46.4%		
	Strongly agree	Count	22	8	34		
		% within Q1	66.7%	61.5%	49.3%		
Q15	Neither agree nor disagree	Count	0	3	2	17.08	0.002 HS
		% within Q1	0.0%	23.1%	2.9%		
	Agree	Count	13	4	40		
		% within Q1	39.4%	30.8%	58.0%		
	Strongly agree	Count	20	6	27		
		% within Q1	60.6%	46.2%	39.1%		
Q16	Disagree	Count	0	0	1	4.67	0.58
		% within Q1	0.0%	0.0%	1.4%		
	Neither agree nor disagree	Count	0	1	1		
		% within Q1	0.0%	7.7%	1.4%		
	Agree	Count	14	4	31		
		% within Q1	42.4%	30.8%	44.9%		
	Strongly agree	Count	19	8	36		
		% within Q1	57.6%	61.5%	52.2%		

Statistical test applied: Chi square test; HS – Highly significant at p<0.01; S – Significant at p<0.05.

Technical competency remains at the forefront of successful project management, and its dimensions are deeply interwoven with several core elements of project execution. Participants entered the table and emphasised the intersection of technical knowledge and risk management. For instance, Q12 highlights that 97% of project leaders and 95.6% of team members either agree or strongly agree on the importance of robust technical knowledge for effective risk management. Similarly, clients echo this sentiment, with 97% in the compromise or strongly agree category.

However, while most participants recognize its significance in staying alongside industry trends (Q13), the results are not statistically significant in risk management. About 92.5% of clients, 92.3% of project leaders, and 98.6% of team members advocate for its importance, suggesting that while they see the value in keeping up-to-date, they don't necessarily directly correlate it with risk management.

Q14, centred around creating a comprehensive Work Breakdown Structure (WBS), reinforces the importance of technical expertise for improved project organization. A majority from all categories agreed or strongly agreed on this. Resource allocation (Q15) emerges as a prominent theme, deemed highly significant. The majority across all participant categories advocate that proficiency in this skill contributes to better project planning and execution. However, Q16 focuses on the continuous enhancement of technical skills. The consensus is positive, with participants directly impacting quality and scope management.

4.2 Discussion

In today's fast-paced project environment, the scope of skills necessary for effective project management stretches beyond just technical understanding. The findings, originating from the responses of various participants, shed light on this multi-dimensionality, emphasizing the roles of soft skills, emotional intelligence, and technical abilities in shaping project outcomes.

The acknowledgement of soft skills as paramount in project management has increased. This study confirms this statement. Soft skills, which encompass aspects such as communication abilities, interpersonal aptitude, and problem-solving, have been spotlighted as being as crucial as technical competencies by most participants. Specifically, almost 95% of participants concurred on the indispensable nature of these skills for a project manager, emphasizing how these skills facilitate smoother team management, effective handling of challenges, and seamless project progression.

Furthermore, this analysis also showcased the value attached to regular interactions with stakeholders. A significant 84.4% of participants felt that consistent stakeholder engagement was essential, highlighting the need for transparency, trust-building, and risk mitigation through regular communication. A clear trend emerges when analyzing the chi-square test outcomes for perceptions around soft skills. Soft skills are universally recognized in project management across all participant categories. This consensus is not merely anecdotal but also statistically significant, with p-values consistently less than 0.05.

While soft skills provide the foundational framework for effective project management, emotional intelligence adds another layer of finesse. The findings showcase how emotional intelligence directly contributes to project success, particularly in stakeholder management. Tuning into stakeholders' sentiments, addressing conflicts, and showing empathy are some areas where emotional intelligence plays a pivotal role. The data offers clear insights when looking at the chi-square test results for this hypothesis. For instance, understanding stakeholders' needs and concerns was emphasized across all participant categories, with a p-value indicating statistical significance. Conflict management, a cornerstone of stakeholder relations, emerged as crucial, evidenced by its significant p-value. Additionally, showing empathy to stakeholders, which ensures their active engagement, was supported statistically, pointing towards its fundamental role in project success.

Despite the growing emphasis on soft skills and emotional intelligence, technical abilities remain integral to project management, especially in risk management. This analysis underlined this view. For instance, many participants highlighted the critical nature of robust technical knowledge for risk management. Yet, while technical know-how is essential, its various facets might not all hold equal significance when directly tied to risk management. Delving into the chi-square test outcomes for this hypothesis, while there's a considerable inclination towards the importance of technical skills, certain areas, such as keeping up-to-date with industry trends, might not directly correlate with risk management, as evidenced by the p-values. Nonetheless, resource allocation stood out in participant feedback and statistical significance as being crucial for project success.

Drawing from the Chi-square test results, a clear prioritization emerged among the three skill sets concerning their importance in project management. Soft skills secured the top rank, emphasizing interpersonal abilities, communication, and problem-solving. This was followed by emotional intelligence, which, while essential, was not as strongly associated with project success as soft skills. Technical skills, although undeniably important, ranked third in this comparative evaluation.

To understand these results more deeply, the literature provides insights into the shifting dynamics and evolving prerequisites in project management. Soft skills in project management have often been equated with the success of initiatives, as much as technical understanding. Willumsen et al. (2021) recognized the need for project managers to possess strong interpersonal skills for effective collaboration and management. This underscores the Chi-square findings emphasizing the preeminence of soft skills. Project supervisors rely heavily on these skills for effective communication, ensuring client demands are appropriately conveyed

to project groups, a sentiment that Gupta et al. (2022) reflect. The importance of leadership, an integral aspect of soft skills, was further highlighted by Bibri (2022), where leadership abilities were pivotal for handling teams from diverse backgrounds.

Technical, emotional, and behavioural competencies have evolved as essential dimensions in project management. While the UK's project management industry hosts many technical professionals, as the Association for Project Management (2022) noted, there's an undeniable shift towards recognizing emotional and behavioural skills. Jin and Tan (2020) discussed the challenges in co-locating and highlighted the need for a balanced team regarding technical, emotional, and behavioural capabilities. Dmitriev et al. (2019) posited that administrators with behavioural skills can better resolve disputes and maintain harmony within project teams.

In the domain of technical abilities, Silvius (2021) pointed out the role of soft skills in enhancing these abilities, especially in tasks like project planning, budgeting, and timeline management. Risk management, a crucial technical aspect of projects, requires the manager to understand and address risks using prior knowledge. Da Silva (2023) further expounded on this, suggesting that soft skills augment the efficiency of risk management, emphasizing the interconnectedness of soft and technical skills in driving project success.

The relevance of emotional intelligence in project success is conspicuous. Projects thrive in positive work environments, and a manager's emotional intelligence can foster such environments. Vrchota et al. (2020) reinforced this perspective by attributing successful projects to managers' emotional intelligence, creating empathetic and harmonious work atmospheres. The ripple effect of a manager's emotional intelligence on team morale and, consequently, on the project's success was further elucidated by Wen (2023). This connection was also evident in Lent and Pinkowska's (2012) research, which illuminated how emotional intelligence augments the achievement of project objectives, especially in stakeholder interactions.

The Chi-square test results underscore a perceptible trend in project management's evolving landscape. While technical skills remain integral, the literature affirms the mounting significance of soft skills and emotional intelligence, suggesting a move towards a more holistic and comprehensive approach to project success. The increasing recognition of these non-technical attributes in literature aligns with and robustly substantiates the findings of the Chi-square test. The dynamic nature of project management necessitates such an integrative perspective, ensuring projects are technically sound and emotionally and behaviourally experienced.

The summary of discussion is as follows-

Hypothesis	Chi Test Results	Supportive Literature Phrases	Clear Result
H1: Soft Skills in Project Success	95% participants emphasize soft skills' importance. 84.4% advocate for frequent stakeholder communication.	"Soft skills in project management have been equated with the success of initiatives as much as technical understanding" - Willumsen et al. (2021). "Importance of leadership in handling diverse teams" - Bibri (2022).	Soft skills, particularly communication and leadership, are paramount in project management. The null hypothesis can be rejected
H2: Emotional Intelligence in Stakeholder Management	Significant inclination towards tuning into stakeholders' sentiments across categories with p- value of 0.04. Conflict management holds a p- value of 0.008.	"Successful projects are attributed to managers' emotional intelligence, creating empathetic and harmonious work atmospheres" - Vrchota et al. (2020). "Emotional intelligence augments achievement of project objectives" - Lent and Pinkowska (2012).	Emotional intelligence, especially in stakeholder interactions and conflict management, is crucial for project success. The null hypothesis can be rejected
H3: Technical Abilities in Risk Management	97% of project leaders emphasize technical knowledge's importance. However, not all facets of technical expertise correlate directly with risk management.	"Soft skills enhance technical abilities in tasks like project planning and budgeting" - Silvius (2021). "Soft skills augment the efficiency of risk management" - Da Silva (2023).	While technical skills are essential, they must be complemented by soft skills, particularly in risk management. The null hypothesis cannot be rejected

4.3 Comparative Analysis

In project management, skills and abilities have traditionally played a pivotal role in determining the success of a project. However, these skills' relative importance appears to be transforming. An analysis of the results from a recent Chi-square Test reveals a profound shift in the perceived significance of specific skills over others.

Drawing from the Chi-square Test results, when ranking the three skill sets in terms of their perceived importance, soft skills emerged as most important, receiving the strongest support from participants. This finding suggests a paradigm shift in project management, where interpersonal skills, communication, and problem-solving stand at the forefront. These skills encompass one's ability to interact harmoniously with others, effectively communicate ideas, and resolve problems with understanding. The test results indicate that participants consider soft skills the most indispensable attribute for successful project management. It is a revelation

that can potentially recalibrate how projects are approached and managed. Gone are the days when project management was viewed solely as a logistical and technical challenge. The modern project manager is expected to be adept at human interactions, fostering healthy team dynamics, communicating clearly, and constructively resolving conflicts. This emphasis on soft skills suggests that the complex metrics and deliverables do not merely determine success in today's projects but also by how smoothly teams can collaborate, how well stakeholders are kept informed, and how adeptly challenges are tackled without creating friction.

Emotional intelligence, although vital, came in secondary through mixed results to soft skills in its direct association with project success. Understanding and managing emotions, both personally and of others, is essential, but the emphasis on soft skills took precedence in our findings. While it has always been understood that a certain degree of emotional acumen is beneficial, the test results indicate that it now holds a position of enhanced significance in project management. Emotional intelligence refers to one's ability to recognize, understand, and manage one's emotions while also being attuned to those around. This skill is pivotal in building rapport with team members, understanding stakeholder concerns at a deeper level, and navigating the often turbulent waters of group dynamics. In essence, while soft skills facilitate effective communication and problem-solving, emotional intelligence ensures that these processes are undertaken with empathy and understanding. It acts as the underlying layer that makes the application of soft skills more genuine and practical. However, the fact that emotional intelligence trailed soft skills in perceived importance indicates that while it is crucial, the direct tools and tactics provided by soft skills might have a more immediate and tangible impact on project outcomes.

While undeniably crucial, technical skills came in third in this comparative analysis. Their relevance, especially in risk management, is undisputed, but their relative standing was slightly diminished when highlighted with the rising importance of soft skills and emotional intelligence. This study's findings accentuate project management's dynamic and evolving nature. While technical abilities remain fundamental, the tide is shifting towards a more holistic approach where soft skills and emotional intelligence are increasingly recognized as vital components for project success. This is not to undermine their importance; the ability to draft a project plan, understand the nuances of risk management, allocate resources efficiently, and utilize project management tools is undeniably vital. Without these, a project would lack direction and structure. However, the diminished relative standing of technical skills in the face of soft skills and emotional intelligence is a testimony to the evolving landscape of project.

management. It repeats that while technical skills lay the groundwork, the human elements – communication, empathy, and interpersonal interactions – drive the project forward.

Project management has seen notable shifts in its approach over recent years. Historically, the focus of projects was predominantly on technical aspects and deliverables. A successful project was often measured by its adherence to a predefined plan and ability to meet set targets. The tools of the trade were charts, timelines, and quantifiable outcomes. However, current project management literature and practice trends suggest a move away from this purely technical perspective. Instead, there's an increasing emphasis on blending technical procedures and human interactions. This shift recognizes that projects are not just about numbers and timelines but about people, relationships, and effective communication. Recent studies and industry reports have highlighted the significance of teamwork and collaboration in achieving project goals. The emphasis is on how smoothly a team collaborates, how efficiently challenges are addressed, and the sensitivity of project managers to the feelings and needs of their team members. Rather than only looking at the structure or plan of a project, there is a broader view now that acknowledges the importance of the human element.

Historical Perspective	Current Perspective		
Focus on technical aspects and deliverables.	Blending technical and human interactions.		
Measured success by adherence to plans and targets.	Emphasis on team collaboration and communication.		
Tools of the trade were charts, timelines.	Recognizes the significance of teamwork, relationships, and effective communication.		

The summary of historical vs. current perspective on project management is as follows-

A prominent reason for this shift can be found in literature exploring modern projects' complexities. Today's projects are not isolated; they often involve multiple stakeholders with unique perspectives and interests. This adds layers of complexity which can't be navigated by technical expertise alone. Articles and case studies emphasize that understanding and managing these human dynamics can be as crucial as the technical aspects. The rationale is simple: a well-drafted plan can falter if the team isn't cohesive or the project manager isn't sensitive to the team's concerns. Moreover, collaboration across different skill sets and backgrounds becomes paramount with the rise of interdisciplinary projects and the need for innovation. Literature supports the idea that when managed effectively, diverse teams produce better

results. However, managing such teams requires more than technical knowledge; it demands interpersonal skills and emotional intelligence.

The summary of results are as follow-

Rank	Skill Set	Importance
1	Soft Skills	Most important, emphasizing interpersonal skills, communication, and problem- solving. Soft Skills emerged as paramount in the modern project management landscape. The emphasis is on how team dynamics are fostered, stakeholders are informed, and challenges are tackled harmoniously.
2	Emotional Intelligence	Essential but secondary to soft skills in its association with project success. Emotional Intelligence acts as the underpinning layer to make soft skills genuine and effective. It ensures interactions are undertaken with empathy and genuine understanding.
3	Technical Skills	Crucial, especially for risk management, but has diminished standing in comparison to the above skills. Technical Skills are still fundamental for structured project planning and risk management. However, they have been overshadowed by the rising importance of the above skills in determining the success of projects.

4.4 Summary

The Chi-square Test results disclosed a transformative understanding of skill prioritization in project management. At the forefront, soft skills, encapsulating communication, interpersonal relations, and problem-solving, have emerged as paramount. The emphasis on these skills underscores a contemporary shift, emphasizing the human side of project execution. Emotional intelligence, with its focus on understanding and navigating emotions, occupies a secondary yet critical position. This highlights the evolving need for project managers to approach challenges and stakeholder relationships with heightened empathy and attunement. Meanwhile, technical skills, traditionally the cornerstone of project management, ranked third. While still vital, their relative prominence is overshadowed by the growing necessity for softer, human-centric capabilities.

Chapter 5: Conclusion

The Chi-square test results underscore a significant shift in the project management paradigm. While technical expertise remains crucial, the emphasis on soft skills and emotional intelligence is more pronounced in today's project scenarios. Most participants emphasized the importance of soft skills like effective communication, problem-solving, and interpersonal aptitude. These skills facilitate a clear path of project goals and promote teamwork and collaborative problem-solving. Current literature aligns with these findings, consistently highlighting the correlation between proficient soft skills and successful project outcomes.

Emotional intelligence, which involves recognizing and managing one's emotions and those of others, is gaining momentum in project management. Its significance lies in building and maintaining harmonious relationships with stakeholders and team members. A project manager's ability to resonate with stakeholders, handle conflicts empathetically, and cultivate a positive project environment is closely tied to their emotional intelligence. This sentiment is echoed in various studies, underscoring the link between heightened emotional intelligence and positive project results. In sum, while technical understanding is indispensable, a project manager's soft skills and emotional intelligence are pivotal in steering projects to success in the modern era.

Emotional intelligence followed closely with soft skills, signalling its rising importance in project management. It is the ability to understand and manage emotions, both of one's own and others. Such skills are pivotal in nurturing positive relationships with stakeholders and team members. Emotional intelligence plays a central role in connecting stakeholders' sentiments, resolving conflicts with empathy, and creating a positive work atmosphere. Literature supports this, linking positive project outcomes to a manager's emotional intelligence. It Is evident from both the test results and literature that projects thrive in positive environments, and a manager's emotional understanding plays a central role in fostering such environments.

Once the bedrock of project management, technical skills have seen a relative shift in their perceived significance. While essential, especially in areas like risk management, their importance seems slightly diminished when highlighted with soft skills and emotional intelligence. This is not to say they are irrelevant. Instead, the test results suggest that while they provide the foundation, the human elements – communication, understanding, and

interaction – play a more decisive role in the project's trajectory. The Chi-square test results and existing literature collectively suggest a holistic approach to project management. Projects are not just about adhering to plans or timelines. They are about people, relationships, and the seamless technical and human elements integration. For project management to be truly effective in today's fast-paced environment, there needs to be a balanced emphasis on technical proficiency, soft skills, and emotional intelligence.

The findings underscore a pivotal shift in project management, emphasizing the importance of soft skills, emotional intelligence, and technical skills. For professionals, interpersonal and emotional understanding is now crucial to navigating complex human dynamics, and fostering a conducive project environment is essential. Organizations stand to benefit by re-evaluating and perhaps redesigning training programs to incorporate these skills, aligning with the evolved expectations of project management roles. This paradigm shift towards a more holistic approach augments project success rates and cultivate a collaborative culture, essential for driving innovation and achieving strategic objectives in today's multifaceted project ecosystems. Recognizing these competencies as core to project success underlines a significant advancement in the field, offering a clearer understanding of effective project management.

Key Insights

Soft Skills: Emerged as paramount in the modern project management landscape. The emphasis is on how team dynamics are fostered, stakeholders are informed, and challenges are tackled harmoniously.

Emotional Intelligence: While vital, it acts as the underpinning layer to make soft skills genuine and effective. It ensures interactions are undertaken with empathy and genuine understanding.

Technical Skills: Still fundamental for structured project planning and risk management. However, they've been overshadowed by the rising importance of the above skills in determining the success of projects.

5.1 Outcome of Research Questions

RQ1: What soft skills of the project managers contribute to ensuring the successful completion of the projects for better coordination and collaboration with the different stakeholders?

The Chi-square Test results firmly establish the importance of soft skills in ensuring the successful completion of projects. A staggering 95% of participants affirmed the indispensable nature of soft skills such as communication abilities, interpersonal aptitude, and problem-solving. These skills play a pivotal role in fostering better coordination and collaboration with various stakeholders. This conclusion aligns with the insights from the literature. For example, Willumsen et al. (2021) emphasized the essentiality of strong interpersonal skills for effective collaboration and management, suggesting that a project manager's ability to communicate and collaborate significantly influences project outcomes.

RQ2: How do technical, emotional, and behavioural competencies of project managers in the UK help in managing projects successfully?

The study's findings underline that while technical competencies remain foundational in project management, especially in risk assessment, the integration of emotional and behavioural competencies is becoming increasingly paramount. The Chi-square test showcased a clear inclination towards the significance of these skills in project management. This trend is mirrored in the literature. The Association for Project Management (2022) highlighted the increasing recognition of emotional and behavioural skills in the UK's project management industry. Similarly, Dmitriev et al. (2019) posited that managers with strong behavioural skills can better mediate disputes, maintaining harmony within teams.

RQ3: In what ways does the emotional intelligence of the PMs support the effective management of the stakeholders to enable the success of the projects in the UK?

Emotional intelligence of project managers is crucial in creating a conducive environment for stakeholder management. The Chi-square test results highlighted the role of emotional intelligence, particularly in understanding stakeholders' sentiments, addressing conflicts, and displaying empathy. Wen (2023) further cemented this by elucidating the ripple effect of a manager's emotional intelligence on team morale and, consequently, on the project's success. Vrchota et al. (2020) too credited successful projects to managers with high emotional intelligence, asserting that their ability to cultivate empathetic and harmonious work atmospheres aids in the effective management of stakeholders, ultimately driving project success in the UK.

5.2 Outcome from Hypotheses

The modern project landscape is multifaceted, with project managers juggling many tasks, stakeholders, and potential risks. H1 addresses the significance of soft skills, placing them on an equal footing with hard skills. This emphasis recognizes the manager's role as a task overseer, mediator, communicator, and collaborator. H2 elevates emotional intelligence as a keystone in project management. As projects bring together diverse stakeholders, understanding and managing emotions becomes pivotal. H3, while accentuating the continued importance of technical abilities, draws a connection to the critical realm of risk management.

H1: The project managers' soft skills help to ensure the project's successful closure

The data supports the assertion that soft skills are crucial to project success. Regular interaction and engagement with stakeholders, clear communication, leadership acumen, adaptability in change management, interpersonal relationships, and problem-solving are universally acknowledged as vital. While technical expertise remains essential, the human aspect of projects—understanding, communicating with, and managing people—can't be ignored.

H2: Emotional intelligence directly impacts project success by managing stakeholders effectively

Emotional intelligence is vital in project management. Tuning into stakeholders' sentiments, proficiently managing conflicts, displaying empathy, and understanding team emotions are all aspects that feed into successful project outcomes. These findings support that while technicalities are crucial, the emotional landscape of a project can determine its success or failure.

H3: Technical abilities are significant towards project risk management functions.

Technical skills, mainly related to risk management, remain essential. The data reflects the collective consensus on the importance of solid technical grounding for effective risk management. Staying updated with industry trends, creating structured project frameworks, and allocating resources are essential. While contemporary advancements are acknowledged, the core technical skills remain the bedrock on which successful projects are built.

These findings support the holistic perspective that contemporary project management requires a balanced blend of soft skills, emotional intelligence, and technical expertise. These skills, when harmonized, pave the way for project success in today's complex and evolving environment.

5.3 Overall Outcome from Literature and Primary Data

The findings of this analysis resonate well with established literature and theories in the field of project management, particularly regarding the emphasis on soft skills and emotional intelligence. In alignment with systems theory, the notion of interrelated parts working highlights the significance of soft skills in ensuring effective communication and coordination among project stakeholders. The analysis accentuates how these skills facilitate smoother project progression and risk mitigation, akin to the Project Planning Approach discussed under systems theory.

Similarly, the analysis and literature mutually underline the importance of technical skills, particularly in risk management, which is pivotal in the Project Planning Approach. However, there seems to be a slight divergence in the extent of emphasis placed on technical skills. While systems theory heavily leans on procedural and technical aspects, the chi-square analysis depicts a broader scope, placing soft skills and emotional intelligence at the forefront.

As expounded in the literature, Utility theory deals with decision-making under uncertainty, a crucial aspect of project management. Our findings corroborate the literature by emphasizing the importance of emotional intelligence in decision-making, especially under challenging circumstances. Here, the interconnection of soft skills, emotional intelligence, and technical know-how comes to the fore in making informed decisions, highlighting a concurrence between the findings and utility theory.

Modern Portfolio Theory (MPT), in its essence, deals with optimization under uncertainty, which is mirrored in project risk management as discussed in the analysis. Diversifying risks to optimize returns is akin to employing a diverse skill set in project management to ensure success, as highlighted in the findings. The emphasis on a balanced approach concerning soft skills, emotional intelligence, and technical abilities in the analysis aligns with the essence of MPT, advocating for a diversified strategy to mitigate risks and optimize project outcomes.

Furthermore, the literature, particularly by Willumsen et al. (2021) and Bibri (2022), substantiates the findings of the analysis regarding the paramountcy of soft skills and leadership in project management. This congruence emphasizes the evolving prerequisites in project management, promoting a more holistic approach.

However, where the findings slightly diverge is the direct correlation between certain technical facets like keeping up-to-date with industry trends and effective risk management. While technical skills are universally acknowledged, the analysis suggests that not all technical aspects hold equal significance in risk management, unlike some literature that might propose a more holistic technical understanding.

The analysis also highlights the crucial role of regular stakeholder engagement, underscoring the importance of transparency and trust-building. This aspect resonates well with the existing theories emphasizing stakeholder management as a critical component of successful project management. This alignment further substantiates the findings and presents a coherent narrative advocating for a balanced and more integrative approach in project management to navigate the intricacies and uncertainties inherent in projects, thus driving them towards success.

5.4 Recommendations

Based on the findings from the Chi-square test and the corroborating literature, several recommendations emerge for enhancing the efficacy of project management: Organizations should invest in continuous soft skills training for their project managers. This includes enhancing communication abilities, interpersonal aptitude, and problem-solving techniques. Given that 95% of participants underscored their significance, there's a clear indication that these skills contribute significantly to project success. While technical competencies are foundational, the evolving landscape of project management indicates the need for a balanced approach. Training programs should integrate emotional and behavioural competencies alongside technical skills. Regular interactions with stakeholders are essential. Organizations should implement frameworks or platforms that promote consistent stakeholder engagement, fostering transparency and building trust. Project managers should be encouraged to develop their emotional intelligence. This can be achieved through workshops, courses, or even mentoring programs. Managers who can tap into stakeholders' sentiments and display empathy are more likely to steer projects to success.

While not all facets of technical know-how directly correlate with risk management, being updated with industry trends remains vital. Regular seminars, webinars, or subscriptions to industry journals can ensure that project managers stay abreast of current methodologies. Encouraging project managers to collaborate with professionals from diverse backgrounds can help share best practices and further enhance their emotional and behavioural competencies.

5.5 Practical Implications of the Study

The practical implications of these findings are important for project managers and organizations striving to enhance their practices. Recognizing the importance of soft skills—encompassing communication abilities, interpersonal aptitude, and problem-solving—suggests that project managers must prioritize these skills in their professional development and team training. This recognition emphasizes that while a manager might have a deep understanding of technical aspects, the success of a project often hinges on effective communication, collaboration, and the ability to navigate interpersonal challenges. Additionally, the emphasis on regular stakeholder engagement underscores the necessity for transparency and trustbuilding. This insight implies that project managers should cultivate continuous dialogues with stakeholders, ensuring they remain informed, engaged, and aligned with the project's objectives.

Furthermore, the importance of emotional intelligence in the findings offers another avenue for improvement. By promoting emotional intelligence, project managers can more effectively tune into stakeholders' sentiments, manage conflicts, and show empathy—all pivotal for the success of projects, especially those involving diverse teams or complex stakeholder landscapes. Training programs and workshops focusing on developing emotional intelligence can be a valuable investment for organizations.

On the technical front, while skills remain crucial, the findings suggest a more practical approach. Not all technical aspects might be directly correlated with risk management. This understanding can guide project managers to be more discerning in where they invest their time and resources. For instance, while staying updated with industry trends is valuable, the emphasis might be better placed on areas like resource allocation or specific risk management techniques that have a direct bearing on project success.

These findings advocate for a balanced and holistic approach to project management. Organizations and project managers can use this information to reevaluate their training programs, realign their priorities, and recalibrate their strategies. This will ensure they are technically, emotionally, and behaviorally experienced to drive projects to success in today's dynamic environment.

5.6 Limitations of the Study

While the study provides valuable insights, it does have limitations. Primarily, the absence of interviews means missing out on deeper, qualitative insights that could have been based on direct interactions with project managers in terms of interviews. The study leans heavily on quantitative data, which, while statistically robust, might not fully capture the complexities of project management. Additionally, Thematic analysis is missing, overlooking relevant existing studies or suitable case studies that could have informed or contrasted the current study's findings.

5.7 Future Study

Given the current study's limitations, future research could go deeper into the qualitative aspects of project management. This can be achieved through comprehensive interviews with project managers, capturing their experiences and challenges. Conducting a systematic literature review would also be beneficial, ensuring that the analysis is grounded in a comprehensive understanding of existing literature. This combined approach can offer a more holistic understanding of project management, encompassing statistical data and lived experiences.

References

Adeoye, M.A., 2023. Review of Sampling Techniques for Education. ASEAN Journal forScienceEducation,at:https://ejournal.bumipublikasinusantara.id/index.php/ajsed/article/download/230/214[Accessed on 22 August 2023]

Ajzen, I. and Kruglanski, A.W., 2019. Reasoned action in the service of goal pursuit. Psychological Review, 126(5), p.774.

Alali, A.A., Alali, A.A.A., Baki, M.H., Madarsa, N.I. and Mohamad, N.I., 2023. Inductive and Deductive Reasoning in Sports and Exercise Coaching Process: A Systematic Review. *Journal of Learning Theory and Methodology*, *4*(2), pp.57-68. Available at:<u>https://ltmjournal.com/e/article/view/75</u> [Accessed on 22 August 2023]

Alam, M.I., Halder, R. and Pinto, J.S., 2021. A deductive reasoning approach for database applications using verification conditions. *Journal of Systems and Software*, *175*, p.110903.Available at:<u>https://www.iitp.ac.in/~halder/Papers/Journal/JSS_2021.pdf</u> [Accessed on 22 August 2023]

Aleman, R.O., 2023. Assessing the Lack of Project Management Soft Skills Toward Project Completion Rates.

Allan, G., 2020. Qualitative research. In *Handbook for research students in the social sciences* (pp. 177-189). Routledge.Available at:<u>https://www.ncbi.nlm.nih.gov/books/NBK585437/</u> [Accessed on 22 August 2023]

 Almquist, Y.B., Kvart, S. and Brännström, L., 2020. A practical guide to quantitative methods

 with
 SPSS.Available

 4954321.s3.amazonaws.com/22477367/Almquist_Kvart_Brannstroem_SPSS_Apr30.pdf

 [Accessed on 22 August 2023]

Amankwah-Amoah, J., Khan, Z., Wood, G. and Knight, G., 2021. COVID-19 and digitalization: The great acceleration. Journal of business research, 136, pp.602-611.

Association for Project Management. 2022. A study of the contribution of project management and projects to the UK's economy and society. Available at: https://www.apm.org.uk/resources/research/goldenthread/#:~:text=The%20research%20concl udes%20that%20those,156.5bn%20of%20annual%20GVA. [Accessed on: 22.08.2023]

Bibri, S.E., 2022. The Social Shaping of the Metaverse as an Alternative to the Imaginaries of Data-Driven Smart Cities: A Study in Science, Technology, and Society. Smart Cities, 5(3), pp.832-874.

Botha, M., 2021. Critical realism, community psychology, and the curious case of autism: A philosophy and practice of science with social justice in mind. *Journal of Community Psychology*.Available at:<u>https://onlinelibrary.wiley.com/doi/pdf/10.1002/jcop.22764</u> [Accessed on 22 August 2023]

Campana, J., 2010. The soft skills of project management: a view from diploma graduates (Doctoral dissertation, Queensland University of Technology).

Chaibate, H., Hadek, A., Ajana, S., Bakkali, S. and Faraj, K., 2020. A Comparative Study of the Engineering Soft Skills Required by Moroccan Job Market. International Journal of Higher Education, 9(1), pp.142-152.

Coulson, J., Lygeros, J. and Dörfler, F., 2019, June. Data-enabled predictive control: In the shallows of the DeePC. In 2019 18th European Control Conference (ECC) (pp. 307-312). IEEE.

da Silva, L.F., 2023. The Importance of Soft Skills in the Selection of Project Teams in a Company in the Agile Transformation Stage. Journal on Innovation and Sustainability RISUS, 14(1), pp.4-18.

Dmitriev, A. N., Vladimirova, I. L., Kallaur, G. Y., and Tsygankova, A. A. 2019. Approaches to Classifying Building Innovations while Implementing Information Modeling and Project Management. Journal of Engineering Science & Technology Review, 12(2).

Doost Mohammadian, H., and Rezaie, F. 2019. Sustainable innovative project management: Response to improve livability and quality of life: Case studies: Iran and Germany. Inventions, 4(4), 59.

Dzogovic, A.S. and Bajrami, V., 2023. Qualitative research methods in Science and Higher education. *Journal Human Research in Rehabilitation*, *13*(1), pp.156-166.Available at:<u>https://www.researchgate.net/profile/Suada-</u>

Dzogovic/publication/370062928 QUALITATIVE RESEARCH METHODS IN SCIENC E AND HIGHER EDUCATION/links/6446e455017bc07902d77d1f/QUALITATIVE-RESEARCH-METHODS-IN-SCIENCE-AND-HIGHER-EDUCATION.pdf [Accessed on 22 August 2023]

Garcia, I., Pacheco, C., Méndez, F. and Calvo-Manzano, J.A., 2020. The effects of game-based learning in the acquisition of "soft skills" on undergraduate software engineering courses: A systematic literature review. Computer Applications in Engineering Education, 28(5), pp.1327-1354.

Ghorbani, A., 2023. A review of successful construction project managers' competencies and leadership profile. Journal of Rehabilitation in Civil Engineering, 11(1), pp.76-95

Gilar-Corbi, R., Pozo-Rico, T., Sánchez, B. and Castejón, J.L., 2019. Can emotional intelligence be improved? A randomized experimental study of a business-oriented EI training program for senior managers. *PloS one*, *14*(10), p.e0224254. Available at:<u>https://doi.org/10.1371/journal.pone.0224254</u> [Accessed 13th September 2023]

Goel, A., Ganesh, L. S., and Kaur, A. 2020. Project management for social good: A conceptual framework and research agenda for socially sustainable construction project management. International journal of managing projects in business, 13(4), 695-726.

Gupta, M., Kumar, R., Shekhar, S., Sharma, B., Patel, R.B., Jain, S., Dhaou, I.B. and Iwendi, C., 2022. Game theory-based authentication framework to secure the internet of vehicles with blockchain. Sensors, 22(14), p.5119.

Hartono, B., Wijaya, D.F. and Arini, H.M., 2019. The impact of project risk management maturity on performance: Complexity as a moderating variable. International Journal of Engineering Business Management, 11, p.1847979019855504.

Hefley, W.E. and Bottion, M., 2021. Skills of junior project management professionals and project success achieved by them. International Journal of Information Systems and Project Management, 9(1), pp.56-75.

Henkel, T.G., Marion Jr, J.W. and Bourdeau, D.T., 2019. Project manager leadership behaviour: Task-oriented versus relationship-oriented. Journal of Leadership Education, 18(2), p.1.

Hennink, M. and Kaiser, B.N., 2022. Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social science & medicine*, 292, p.114523.Available at:<u>https://www.sciencedirect.com/science/article/pii/S0277953621008558</u> [Accessed on 22 August 2023]

Hogan, K., Macedo, B., Macha, V., Barman, A. and Jiang, X., 2021. Contact tracing apps:lessons learned on privacy, autonomy, and the need for detailed and thoughtful implementation.JMIRMedicalInformatics,9(7),p.e27449.Availableat:https://medinform.jmir.org/2021/7/e27449/[Accessed on 22 August 2023]

Iriarte, C. and Bayona, S., 2020. IT projects success factors: a literature review. *International Journal of Information Systems and Project Management*, 8(2), pp.49-78. https://revistas.uminho.pt/index.php/ijispm/article/download/3583/3639

Jelonek, D. and Nitkiewicz, T., 2020. Soft skills of engineers given industry 4.0 challenges. Quality Production Improvement-QPI, 2(1), pp.107-116.

Jin, Y. and Tan, X. 2020, March. The characteristics and enlightenment of famous energy and power enterprises' environmental management. In IOP Conference Series: Earth and Environmental Science (Vol. 467, No. 1, p. 012194). IOP Publishing

Kabeyi, M.J.B., 2019. Evolution of project management, monitoring and evaluation, with historical events and projects that have shaped the development of project management as a profession. Int J Sci Res, 8(12), pp.63-79. https://www.academia.edu/download/61472573/Evolution_of_Project_Management_Monit oring_and_Evaluation20191210-43053-14dlvzo.pdf

Kumatongo, B. and Muzata, K.K., 2021. Research paradigms and designs with their application in education. *Journal of Lexicography and Terminology (Online ISSN 2664-0899. Print ISSN 2517-9306).*, 5(1), pp.16-32.Available at:<u>https://medicine.unza.zm/index.php/jlt/article/download/551/482</u> [Accessed on 22 August 2023]

Larsson, J. and Larsson, L., 2020. Integration, application and importance of collaboration in sustainable project management. *Sustainability*, *12*(2), p.585. <u>https://www.mdpi.com/2071-1050/12/2/585/pdf</u>

Lent, B. and Pinkowska, M., 2012. Soft skills needed in the ICT project management– classification and maturity level assessment. International Journal of Applied Systemic Studies, 4(3), pp.168-185.

Lundeby, T., Finset, A., Kaasa, S., Wester, T.E., Hjermstad, M.J., Dajani, O., Wist, E. and Aass, N., 2023. A complex communication skills training program for physicians providing advanced cancer care–content development and barriers and solutions for implementation. *Journal of Communication in Healthcare, 16*(1), pp.46-57. https://www.tandfonline.com/doi/pdf/10.1080/17538068.2022.2039468

Lyu, W. and Liu, J., 2021. Soft skills, hard skills: What matters most? Evidence from job postings. Applied Energy, 300, p.117307.

Magano, J., Silva, C., Figueiredo, C., Vitória, A., Nogueira, T. and Pimenta Dinis, M.A., 2020. Generation Z: Fitting project management soft skills competencies—A mixed-method approach. *Education sciences*, *10*(7), p.187. <u>https://www.mdpi.com/2227-7102/10/7/187/pdf</u>

Magano, J., Silva, C., Figueiredo, C., Vitória, A., Nogueira, T. and Pimenta Dinis, M.A., 2020. Generation Z: Fitting project management soft skills competencies—A mixed-method approach. Education sciences, 10(7), p.187.

Magano, J., Silva, C., Figueiredo, C., Vitória, A., Nogueira, T. and Pimenta Dinis, M.A., 2020. Generation Z: Fitting project management soft skills competencies—A mixed-method approach. *Education* sciences, 10(7), p.187.Available at:<u>https://doi.org/10.3390/educsci10070187</u> [Accessed 13th September 2023]

Magassouba, S.M., Tambi, A.M.B.A., Alkhlaifat, B. and Abdullah, A.A., 2019. Influence of stakeholders involvement on development project performance in Guinea. *International Journal of Academic Research in Business and Social Sciences*, 9(1), pp.1111-1120. https://www.academia.edu/download/68392504/5b2e9d1469a78b6cd4df4c4cbaf9be9bad31.p df

Marais, F., van der Lugt, C.T. and Mans-Kemp, N., 2022. Mainstreaming environmental, social and governance integration in investment practices in South Africa: A proposed framework. Journal of Economic and Financial Sciences, 15(1), p.13.

Melnikovas, A., 2018. Towards an Explicit Research Methodology: Adapting Research Onion Model for Futures Studies. Journal of Futures Studies, 23(2). Available at: https://doi.org/10.6531/JFS.201812_23(2).0003 [Accessed 12 August 2023]

Mishra, S.B. and Alok, S., 2022. Handbook of research methodology.Available at:<u>http://74.208.36.141:8080/jspui/bitstream/123456789/1319/1/BookResearchMethodology.</u> pdf [Accessed on 22 August 2023]

Montenegro, A., Dobrota, M., Todorovic, M., Slavinski, T. and Obradovic, V., 2021. Impact of construction project managers' emotional intelligence on project success. *Sustainability*, *13*(19), p.10804. <u>https://www.mdpi.com/2071-1050/13/19/10804/pdf</u>

Mweshi, G.K. and Sakyi, K., 2020. Application of sampling methods for the research design.ArchivesofBusinessReview–Vol,8(11). Availableat:https://www.academia.edu/download/65093418/ABR_9042.pdf [Accessed on 22 August2023]

Nayak, M.S.D.P. and Narayan, K.A., 2019. Strengths and weaknesses of online surveys.technology,6(7),pp.0837-2405053138.Availableat:https://www.researchgate.net/profile/Mudavath-

Nayak/publication/333207786 Strengths and Weakness of Online Surveys/links/61176e5a 0c2bfa282a42253b/Strengths-and-Weakness-of-Online-Surveys.pdf [Accessed on 22 August 2023]

Newman, S.A. and Ford, R.C., 2021. Five steps to leading your team in the virtual COVID-19workplace.OrganizationalDynamics,50(1),https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9753911/

Park, Y.S., Konge, L. and Artino, A.R., 2020. The positivism paradigm of research. Academicmedicine,95(5),pp.690-694.Availableat:https://journals.lww.com/academicmedicine/fulltext/2020/05000/the_positivism_paradigm_of_research.16.aspx/%22[Accessed on 22 August 2023]

Phochanikorn, P. and Tan, C., 2019. An integrated multi-criteria decision-making model based on prospect theory for green supplier selection under uncertain environment: A case study of the Thailand palm oil products industry. Sustainability, 11(7), p.1872.

Purwanto, A., Asbari, M., Santoso, T.I., Haque, M.G. and Nurjaya, N., 2020. Marketing research quantitative analysis for large sample: comparing of Lisrel, Tetrad, GSCA, Amos, SmartPLS, WarpPLS, and SPSS. *Jurnal Ilmiah Ilmu Administrasi Publik: Jurnal Pemikiran dan Penelitian Administrasi Publik*.Available at:<u>http://repository.ibs.ac.id/4974/1/Jurnal%20Nasional%2C%20SINTA-</u> 3%2C%20Jurnal%20Nasional%2C%20SINTA-3%2C%202019%2C%20Marketing%20Research%20Quantitative%20Analysis%20for%20L arge%20Sample%2C%20%285%20penulis%2C%20Marissa%20Grace%20Haque%20ke-4%29.pdf [Accessed on 22 August 2023]

Ribeiro, A., Amaral, A. and Barros, T., 2021. Project Manager Competencies in the Context of the Industry 4.0. Procedia computer science, 181, pp.803-810.

Ribeiro, A., Amaral, A. and Barros, T., 2021. Project Manager Competencies in the Context of the Industry 4.0. Procedia computer science, 181, pp.803-810.

Ridzuan, A.R., Ridzuan, A.R. and Ridzuan, M., 2021. Research methods in communication research. *e-Journal of Media and Society (e-JOMS)*, *1*(1), pp.133-139.Available at:<u>https://myjms.mohe.gov.my/index.php/ejoms/article/download/15468/8033/</u> [Accessed on 22 August 2023]

Roy, P. and Kumar, R., 2022, January. Onion encrypted multilevel security framework for public cloud. In 2022 2nd International Conference on Power Electronics & IoT Applications in Renewable Energy and its Control (PARC) (pp. 1-5). IEEE. Available at:<u>https://www.researchgate.net/profile/Prince-Roy-</u>

3/publication/359132118_Onion_Encrypted_Multilevel_Security_Framework_for_Public_Cl oud/links/62298e9ca39db062db8ebae5/Onion-Encrypted-Multilevel-Security-Frameworkfor-Public-Cloud.pdf [Accessed on 22 August 2023]

Rueda-Benavides, J., Khalafalla, M., Miller, M. and Gransberg, D., 2022. Cross-asset prioritization model for transportation projects using multi-attribute utility theory: a case study. International Journal of Construction Management, pp.1-10.

Sileyew, K.J., 2019. Research design and methodology. *Cyberspace*, pp.1-12.Available at:<u>https://www.intechopen.com/chapters/68505</u> [Accessed on 22 August 2023]

Silvius, G. (2021). The role of the project management office in sustainable project management. Procedia computer science, 181, 1066-1076.

Statista, 2023. *Gross value added (GVA) of the construction industry in the United Kingdom (UK) from the 1st quarter of 1997 to 1st quarter of 2023* [online]. Available at: https://www.statista.com/statistics/540236/gross-value-added-construction-industry-gva/ [Accessed on: 20/08/2023]

Tahir, M., 2019. The effect of a project manager's soft skills on the success of the project in the construction industry. International Journal of Applied Research in Social Sciences, 1(5).

Tam, C., da Costa Moura, E.J., Oliveira, T. and Varajão, J., 2020. The factors influencing the success of on-going agile software development projects. *International Journal of Project Management*, *38*(3), pp.165-176. Available at:<u>https://doi.org/10.1016/j.ijproman.2020.02.001</u> [Accessed 13th September 2023]

Taquette, S.R. and Borges da Matta Souza, L.M., 2022. Ethical dilemmas in qualitative research: A critical literature review. *International Journal of Qualitative Methods*, *21*, p.16094069221078731.Available

at:<u>https://journals.sagepub.com/doi/pdf/10.1177/16094069221078731</u> [Accessed on 22 August 2023]

Toader, C.S., Brad, I., Rujescu, C.I., Dumitrescu, C.S., Sîrbulescu, E.C., Orboi, M.D., Paşcalău, R., Zajdel, M., Michalcewicz-Kaniowska, M. and Gavrilă, C., 2023. Exploring Students' Opinion Towards Integration of Learning Games in Higher Education Subjects and Improved Soft Skills—A Comparative Study in Poland and Romania. Sustainability, 15(10), p.7969.

Vrchota, J., Řehoř, P., Maříková, M., and Pech, M. 2020. Critical success factors of project management about Industry 4.0 for the sustainability of projects. Sustainability, 13(1), 281.

Weijters, B., Millet, K. and Cabooter, E., 2021. Extremity in horizontal and vertical Likert scale format responses. Some evidence on how visual distance between response categories influences extreme responding. *International journal of research in marketing*, *38*(1), pp.85-103. Available

at: https://research.vu.nl/files/127420043/Extremity_in_horizontal_and_vertical_Likert_scale

<u>format responses Some evidence on how visual distance between response categories</u> <u>influences extreme responding.pdf</u> [Accessed on 22 August 2023]

Wen, B.J., 2023. The effects of project manager's soft skills on the success of the project in the Malaysian construction industry (Doctoral dissertation, UTAR).

Willumsen, P., Oehmen, J., Stingl, V. and Geraldi, J., 2019. Value creation through project risk management. International Journal of Project Management, 37(5), pp.731-749.

Younus, D., Muayad, A. and Younis, H., 2021. Conceptual Framework of Agile Project Management, Affecting Project Performance, Key: Requirements and Challenges. International Journal of Innovative Research in Engineering & Management (Ijirem).

Zuofa, T. and Ochieng, E.G., 2021. Investigating barriers to project delivery using virtual teams. *Procedia Computer Science*, *181*, pp.1083-1088. https://www.sciencedirect.com/science/article/pii/S1877050921003537/pdf?md5=d9332346d 4ca50a5e2437ae095b7f15d&pid=1-s2.0-S1877050921003537-main.pdf