

PhD Dissertation

Necessity of Soft Skills for Project
Managers and the Contribution to
Project Success



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of ADELAIDE

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Abstract

Project managers use hard and soft skills to manage their teams, and their proficiency or inaptitude in these skills can eventually lead to a project's success or failure. This dissertation argues that soft skills are critical for project managers who wish to achieve a successful project completion. The key focus of this research is to explore the need for soft skills and identify whether they are essential for project managers, and the degree of influence these skills may have on a project's team members and overall project success.

This thesis is presented in publication/manuscript format. A qualitative–interpretative approach has been used, where a combination of analytical methods, such as thematic analysis and narratives, were adopted as a form of evidence supporting this research. The research process and detailed findings have been divided into four papers, meeting the University's publication/manuscript submission requirements. Firstly, in paper one a Comprehensive Literature Review (meta-framework) has been conducted as evidence to support the argument that project managers could increase the chances of projects being successful by applying their soft skills to manage their project team and overall performance. The second paper defines the skills required to become a project leader and, most importantly, differentiates the role of a project manager from that of a project leader—labels that are often used interchangeably or considered the same in practice. The evidence for the second paper is derived from interviews and a thematic analysis. The findings demonstrate that a project manager could evolve into a project leader by building the soft skills related to Emotional Quotient (EQ). The third paper, which also uses thematic analysis and an inductive approach for data collection, identifies the impact of the project manager's soft skills on the project team's performance and how it may influence the chances of the project being successful. The findings of this paper indicate that a project manager's soft skills can positively impact a project team's performance and thereby

increase the chances of a project's success. This paper also identifies the key soft skills required by a project manager to effectively manage their team. Lastly, the fourth paper, which is a future research exploration using Gioia methodology, focuses on exploring the value of intangible (soft skills) investments to aid successful digital transformation in organisations. The findings of this paper present the essential soft skills required by a project manager dealing with digital transformation projects and identifies the factors which motivate project managers to implement their soft skills.

The results of this research provide a significant contribution to the field of project management, specifically for project managers, academia, and recruiters. For project managers, the findings could aid with identifying key soft skills which they could develop over time to better manage their teams and their performance. It would also assist project managers to manage their project teams efficiently and effectively, thereby increasing the chances of project success. Concerning academia, the research could help program leaders to identify and develop training programs and activities that can be incorporated into the current curriculum which would help students to identify their soft skills and develop them for use in a corporate environment. Recruiters could use this research to identify more suitable candidates for project management and project leader positions, based on the identified skill sets for both.

Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint award of this degree. The author acknowledges that copyright of published works contained within this thesis resides with the copyright holder(s) of those works.

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Date: 3 June 2021

About the Author

Richa Gulati received a Bachelor of Information Technology (2008) and an Executive MBA degree (2014) from James Cook University, Singapore. Thereafter, she pursued a Master of Applied Project Management from The University of Adelaide, Australia in 2017. Once she finished the master degree, she enrolled in the PhD program at Adelaide Business School, The Faculty of Professions.

Richa is an experienced project manager who has worked in the IT and education domains for seven years in Singapore before she moved to Adelaide, Australia. Her past work experience includes managing various education technology projects at the Yong Loo Lin School of Medicine, National University of Singapore, and IT migration projects at a Dutch firm based in Singapore.

Alongside her PhD, she has gathered further research experience in the role of Research Assistant at the University of Adelaide, Australia as well as the University of South Australia, Australia. Currently, she lectures for two University of Adelaide courses: Project Management Methodologies and Concepts, and Research in Practice. She is also working as a tutor for Managing Across Cultures, Organisational Behaviour, Foundations of Project Management and Managing People and Organisation across different semesters.

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Abbreviations

EQ	Emotional Quotient
MQ	Managerial Quotient
IQ	Intelligence Quotient
CLR	Comprehensive Literature Review
PMBOK	Project Management Body of Knowledge
HRM	Human Resource Management
PMI	Project Management Institute

Chapter 1 - Introduction

1.1 Chapter Overview

This chapter will first introduce this thesis by providing the background and outlining the scope of this research. The section “Research Gap” in this chapter establishes the knowledge gap in the literature which this research intends to explore. Next, the chapter states and discusses the research questions and the core objectives of this research. Further, the chapter will also provide a methodology overview that briefly describes how this research has been conducted. The methodology overview will then be followed by the thesis structure, which defines the overall flow, chapters and placement of papers in this thesis. Additionally, the chapter also states the contribution to knowledge in the project management domain, derived from this research. The chapter will then summarise the overview of research presented, leading to the conceptual framework (Paper 1).

1.2 Research Background

A project is a temporary endeavour undertaken to create a unique product, service, or result (PMBOK (®) guide 2017). It is managed by a project manager (the person assigned to achieve project objectives) who leads a team to perform project management (initiation, planning, monitoring and control, closure) (PMBOK (®) guide 2017). The importance of project management has gained increased attention across industries over time, more so as the majority of companies have become more project-oriented. Thus, more organisations are aiming to achieve their goals and objectives by rolling out projects and implementing project management practices (Keil et al. 2003).

There have been many ongoing discussions in the project management community, in which project managers and researchers have put effort into determining key elements that contribute to project managers’ project successes, such as risk management, project

management techniques, and experience (Shenhar & Dvir 2007). In the corporate environment, many projects are executed; however, not every project reaches a successful conclusion. Various factors contribute to project failures, such as scope creep, political factors, underestimating risks, cost overruns, lack of resources, project complexity, and environmental factors (Matta 2003). In addition, the literature has identified that a lack of soft skills in project managers is a key factor contributing to project failures. This research seeks to identify the key soft skills required by project managers and why they are so important. This research will then examine the impact of a project manager's soft skills on a project team's performance and its influence on a project's success.

Soft skills are defined as human, interpersonal, and/or behavioural skills that are required to apply technical skills and knowledge in the workplace (Rainsbury et al. 2002). When a project manager is appointed, their hard skills, for example, the “technical aspect of performing a job”, are considered by recruiters as a part of recruitment criteria (Weber, Finley, Crawford & Rivera 2009, p. 354). However, recruiters may also look at whether they are a right fit for the project in terms of the respective organisation's culture; for example, does the applicant have soft skills to adjust to the organisation's environment. In most organisations, the process of selecting a suitable project manager is well defined; however, there is minimal information or knowledge on how to recruit or assign a best or better fit for a project (Ahsan, Ho & Khan 2013). Hard skills have formed the basis of project manager recruitment in various organisations, and soft skills have not received as much attention due to a lack of measures to identify the impact of soft skills on project success. One of the core parts of project management concerns managing the “*people*” who are involved in the project, for example, team members, stakeholders, management, customers, and suppliers (Manazar et al. 2005). Thus, project

managers’ *“soft skills”* (e.g., communication, human, active listening, and negotiation skills) have an impact on their ability to manage projects (Bourne & Walker 2004).

Besides, it can be argued that soft skills play a vital role in helping project managers to manage their project team, who perform tasks associated with a project’s lifecycle under their project manager’s supervision (Oke, Omoraka & Ayeni, 2017).

The chances of a project being successful increases when project managers are well equipped with both hard and soft skills (Cowie 2003). Project managers who lack soft skills face challenges in managing their team members’ performance, communication, and time management, which leads to project failures (Matta 2003). Hard skills bring efficiency and effectiveness in managing a project, but soft skills also contribute to project management. For example, motivating a team, keeping a team together, being emphatic, and resolving conflicts in a professional manner are all essential for managing a team. Soft skills and hard skills work hand-in-hand to achieve project success (Weber et al. 2009). However, due to limitations in gauging the impact of a project manager’s soft skills on project success, it often goes unnoticed. Leading from the background, review of literature (Paper 1) and establishment of the research gap (see Section 1.3), the conceptual framework of this research was formed.

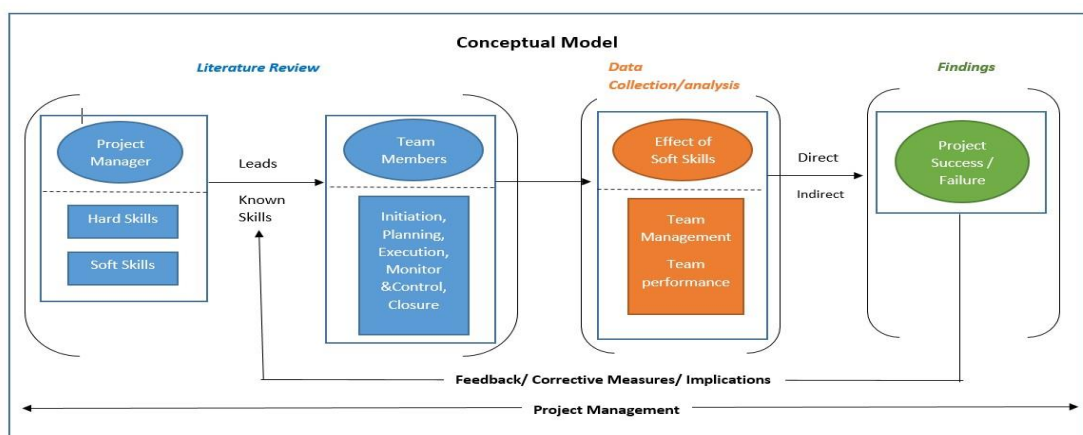


Figure 1: Conceptual Model of Overall Research

Figure 1 above, illustrates the overall model adopted to conduct this research, which included conducting a literature review on the skills required of a project manager (see Chapters 2 and 3) and gaining an understanding of how soft skills can impact team performance and possibly influence project success (see Chapter 6). Based on the literature review and the research questions defined for this research, data collection (see Chapter 5) was conducted. The findings were then derived from data analysis and confirmed after due validation. Thus, the research contributes to knowledge by examining the impact of soft skills on a project team's performance, deemed critical for project success in both the literature and by practitioners.

1.3 Research Gap

Soft skills are individuals' personal traits which aid them to effectively complete a project within a given timeline and efficiently use the minimum available resources to complete a project (Andrews & Higson 2008). Crawford and Pollock (2004) explored the extant literature and then developed a framework to measure the hardness and softness of a project for its success and methods, and techniques to measure the hard skills of a project manager along with its impact on their projects. However, their framework did not measure the impact of project managers' skills on their project success in-depth. This indeed is the "*knowledge gap*" found in the literature which this research intends to explore. There have been suggestions to explore this knowledge gap through various lenses in the future research section of journal papers; however, it has never been addressed in subsequent studies. Also, limited information is available on the different methods that may be used to measure the impact of soft skills on a project manager's project success (Langer, Slaughter & Mukhopadhyay 2008). There are some physiological tests that help identify whether an individual possesses soft skills; however, there is a lack of evidence for measuring its impact on a project's success (Heckman & Kautz 2012;

Singh, Paul & Tiwari, 2021). The importance of selecting a suitable project manager is widely discussed but equal attention needs to be given to their soft skills, especially those skills that have a direct impact on the project manager's project success. There is limited information on the type of soft skills that are considered more important from among the pool of soft skills, and how they impact project manager's project success (Weber et al. 2009; Eva & Afroze 2021). There is also limited discussion on the importance or necessity of soft skills in project managers. Byrd and Turner (2001) identified that both hard and soft skills are equally important for a project to be successful. However, their interdependence appears to not have been discussed in-depth in the extant literature since this gap was identified; rather, it seems to have been overlooked.

A framework to measure the impact of project managers' skills on their project success has not been discussed in the literature (Crawford & Pollack 2004) which reinstates the importance of this research. Several studies in the literature have focused mainly on exploring leaders and the leadership styles of a project manager and have not discussed a project manager's soft leadership skills and what impact they have on the project success (Yang, Huang & Wu 2011). There is limited information on which soft skills are more important from among the pool of identified soft skills and how these sets of key soft skills impact project manager's project success. Also, the importance and/or necessity of soft skills in a project manager has attracted minimal attention. Project Management Body of Knowledge (PMBOK) mentions that the Project Management Institute's (PMI) Talent Triangle ® comprises the ideal skill set a project manager should have: strategic and business management, technical project management, and leadership (PMBOK (®) guide 2017). Even though leadership caters to certain soft aspects of project management, such as emotional intelligence, coaching, and listening etc., it does not cater to the actual soft skills required to manage a project. This further

reinstates the need to identify essential soft skills required by a project manager and possibly also investigate if a project manager and a project leader each require a different set of soft skills to manage their project team.

Past studies have discussed whether effective communication between a project manager and project team may alleviate issues that hurt project success. While Shi and Chen (2006) emphasised the impact of a project manager's communication skills on project teamwork, Yang, Huang, and Wu (2011) argued that there is no conclusive evidence to establish that project manager's communication skills have any impact on their project success. However, Jetu and Rield (2012) argued that there is a general understanding that an unbalanced focus on hard and soft factors may understate the human factors that have a significant effect on project manager's hard skills through which project success is established. Thus, *the researcher has identified this gap about the importance of soft skills and their impact on project manager's project success*. Pena and Munroz (2020) have recently emphasised the need to address this gap as well, which further supports the need to conduct this research. The researcher has noticed this via firsthand experience in the project management domain as well. As a practitioner, the researcher has managed projects wherein a lack of awareness about soft skills has been noticed. A team member who has perfect hard skills but no soft skills with which to build a relationship or simply communicate with the team never becomes a part of that team. In such a scenario, either the team members start to leave, or the project team starts to break up into subgroups. Either way, the team dynamics are disturbed. It is also quite possible that to avoid this situation the team member is given "one-man" tasks—that is, tasks which can be handled by them alone and doesn't require a team effort. However, this again is a loss of a good resource (team member) who has the potential to manage crucial tasks or projects as a whole rather than just manage small tasks within the project. Henrie and SousaPoza (2005) advocate

this aspect and suggest a need to conduct future research into the soft factors that influence project success, with particular emphasis on human factors, i.e., the soft skills of a project manager.

To achieve project success, a project manager must lead a project team. The project team ideally comprises all the human resources involved in a project such as stakeholders, team members, management, etc. This team performs the initiation, planning, implementation, management and control, and closure of a project which determines its success or failure. Hence, to study the impact of a project manager's soft skills on project success or failure, the researcher will analyse the impact of soft skills on team management and team performance as well.

1.4 Research Questions

Hailing from the research background provided in the previous section of this chapter, the researcher will first confirm the need for soft skills in project managers, then identify and delineate these key soft skills. Further to this, the researcher will examine if soft skills help project managers to manage their team and subsequently impact team performance. Lastly, the researcher will explore if the impact of a project manager's soft skills on project team performance influences a project's success. Therefore, the research questions that this study aims to address are:

RQ1: Why are soft skills required of project managers?

RQ1.1: What are the key soft skills required of a project manager?

RQ 2: Do the required soft skills vary between project managers and project leaders?

RQ 2.1: Do soft skills aid project managers to manage their team and impact their team performance?

RQ 3: Does the impact of a project manager's soft skills on team performance influence project success?

1.5 Objectives of this Research

This section presents the objectives of this research. These objectives aim to respond to the research questions stated in the previous section.

1.5.1 To identify the key soft skills required of a project manager.

The first objective of this research is to identify the key soft skills required of a project manager to manage their projects and project teams to complete a project. There are different types of soft skills (e.g., human, negotiation, and team management skills) that are required of project managers to be successful in managing their teams and attaining project success. The researcher will first review the literature to identify the soft skills required of the project manager. This is addressed in Chapter 2 (Paper 1) of this thesis. Then, a set of key skills that are essential for project managers to be successful in managing their project teams will be determined by analysing primary data, i.e., interviews, and these findings will be discussed in Chapter 6 (Paper 3).

1.5.2 To determine whether the soft skills of a project manager vary from those required of a project leader.

The second objective of this research is to determine if the soft skills required of a project manager are different from those required of a project leader. The roles of leaders and managers are well distinguished in extant literature from the duties and responsibilities perspective. There is a common belief that a leader can be a manager; however, all managers are not leaders. Thus, further differentiation between the roles of a project manager and a

project leader from a soft skills perspective will be helpful in establishing clarity. Hence, the research aims to identify the soft skills associated with each of the roles to facilitate prospective candidates of either role to develop themselves appropriately. The findings of this objective will be discussed in Chapter 4 (Paper 2) of this thesis.

1.5.3 To explore the impact of the project manager's soft skills on managing the project team and project team's performance.

The third objective of this research is to explore how the soft skills of a project manager have a role to play in managing their teams and eventually influencing their team's performance. The researcher aims to analyse the data to, first, understand what constitutes soft skills, second, identify the type of soft skills discussed in the extant literature, third, understand what type of soft skills are preferred by project managers, and lastly, understand the impact of soft skills on project team performance. This objective will assist the researcher to recognise how the soft skills of a project manager can contribute to building a team, engaging stakeholders, and increasing overall productivity to achieve project deliverables, thereby determining the impact that soft skills may or may not have on a project team's performance. This objective will be addressed in Chapter 6 (Paper 3).

1.5.4 To test the impact of a project manager's soft skills on team performance influences project success

The fourth objective of this research is to test the impact of soft skills on a project's performance influences project success. The research aims to gauge the relationship between the project manager's soft skills and project success through the lens of team performance. The data will be analysed to examine if a positive impact of a project manager's soft skills on team performance also has a positive influence on project success or vice versa.

The findings pertaining to this objective will be discussed in Chapter 6 (Paper 3).

1.6 Methodology Overview

The thesis seeks to establish the importance of soft skills in project managers to manage their team and influence project success. It also seeks to offer suggestions for curriculum development in the project management domain so that graduating project managers are aware (soft skills knowledge) and prepared (ability to apply soft skills) when they start their careers. To this end, a qualitative study is essential to capture the experience of project managers and therefore, has been employed as the most appropriate approach for the objectives highlighted earlier.

Qualitative research is primarily a non-mathematical process of interpretation carried out to discover concepts and relationships in raw data and then organise these into a theoretical explanatory scheme (Cooper, Schindler & Sun 2003). It is based on an interpretive paradigm that enables qualitative researchers to gain in-depth information in the area(s) being researched (Dickson-Swift et al. 2007). This indeed makes it an appropriate choice of methodology for this research as the researcher seeks to explore the project manager's experience to find answers to the research questions. Semi-structured interviews were conducted as the method of data collection. The semi-structured interviews provided an opportunity for project managers to share their experiences openly, which in turn added to the richness of data. In addition to their experiences, they were also able to share real-life examples. This may not have been possible with other forms of data collection methods such as surveys. The interviews were coded in NVivo to derive emerging themes and establish relationships. These nodes, relations, and themes were then analysed to derive the results of this research. This thesis is presented in "by publication" format, i.e., the thesis comprises four papers in manuscript format (both published

and unpublished). Hence, each paper further explains the methodology adopted for that particular paper.

1.7 Thesis Structure

This section outlines the structure of this thesis. This thesis is presented in “by publication” format, i.e., the thesis includes four papers in manuscript format (published and unpublished) following The University of Adelaide’s guidelines and requirements.

The thesis is divided into eight chapters. Chapter 1 provides an overview of this research by providing information on the research background, research gap, methodology, research questions, research objectives, thesis structure, and contribution to knowledge. Chapter 2 then presents *Paper 1* titled, “The Contribution of Project Managers’ Soft Skills to their Project Success”. This paper presents a comprehensive literature review and conceptual framework for this research. It also identifies a set of soft skills required of a project manager as derived from the literature. Following this, Chapter 3, named “Soft Skills”, defines the identified soft skills and discusses their impact on team management and team performance. The thesis then presents *Paper 2* in Chapter 4, titled “From Project Manager to Project Leader: A Skills and Competency based Pathway”. This paper first differentiates between a project manager and a project leader and then presents a pathway to project leadership for a prospective project manager from a skills and competency perspective. The thesis then proceeds to define the methodology undertaken for this research in Chapter 5. Chapter 6 presents the key findings of this research in line with the research questions and objectives. This chapter is also *Paper 3* of this research, titled “Impact of Project Manager’s Soft Skills on Team Performance and its Subsequent Influence on Project Success”. Further, Chapter 7 presents implications of this research and also discusses ideas for future research. This chapter also presents a short

conference paper wherein a future research area has been explored. This forms *Paper 4* of this thesis, titled “Soft Skills: A Key Driver for Digital Transformation”. Lastly, the thesis offers conclusions in Chapter 8. Figure 2 (below) represents the thesis structure:

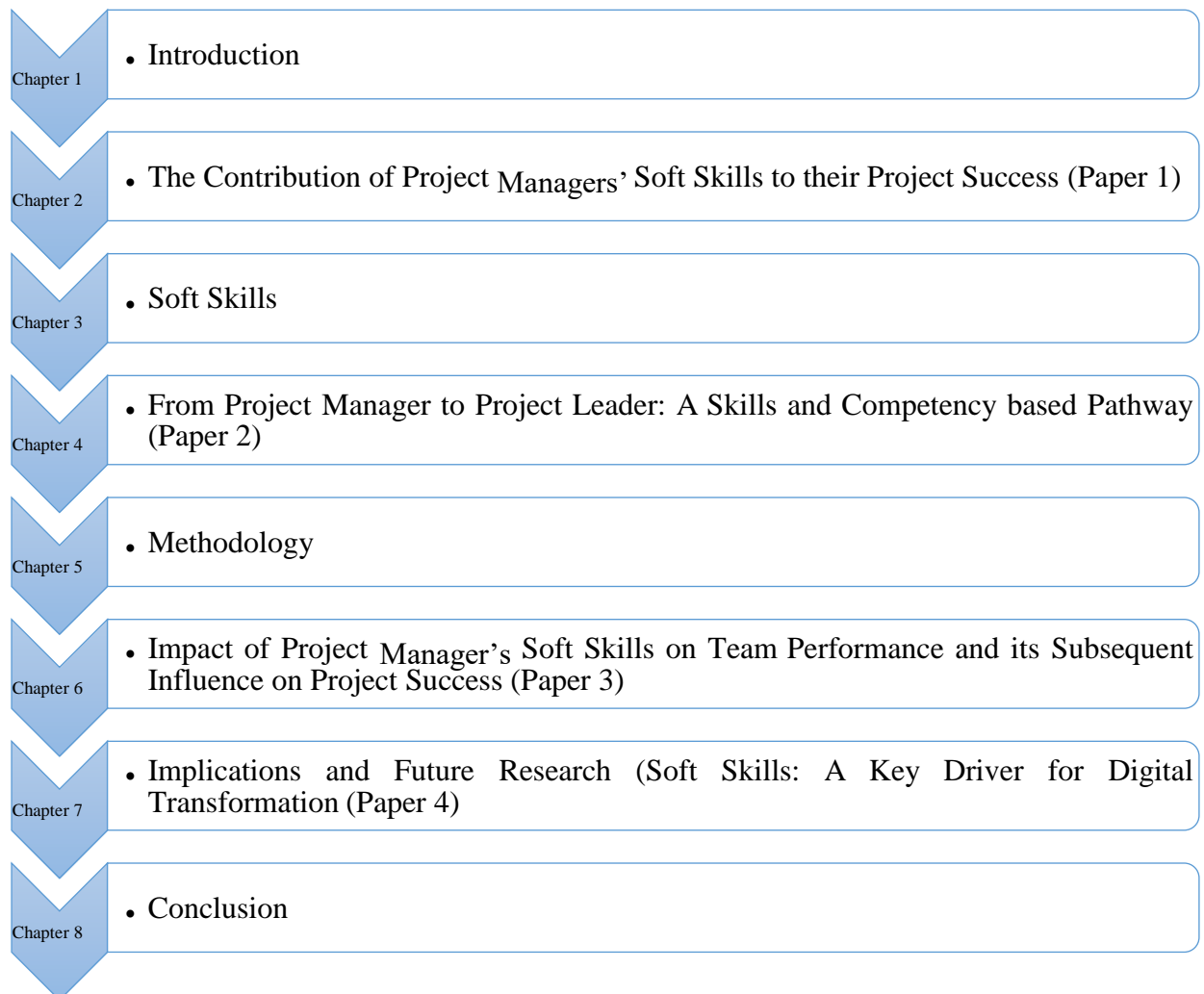


Figure 2: Thesis Structure

In addition to the structure presented above, this next section presents the abstracts of the papers included in this thesis.

Paper 1: The Contribution of Project Managers' Soft Skills to their Project Success

The purpose of this paper is to identify key soft skills required of project managers and the impact of these skills on project success. The authors have performed a Comprehensive

Literature Review (meta-framework) as evidence to support the argument that project managers could increase the chances of projects being successful by applying their soft skills to manage project teams and their performance. The soft skills identified in this review include active listening, communication, conceptual, conflict management, human resource management, team management, human, leadership, motivation, negotiation, people, political and cultural awareness, professional and ethical. These skills are critical for project success; however, it is also identified that soft and hard skills work in conjunction with each other to attain success. This review provides a significant contribution to research by establishing that there is a need to develop soft skills in project managers so that they can manage teams effectively and efficiently, and thereby increase their teams' performance and the chances of the project being successful.

This paper was presented at and published in the proceedings of The Australia and New Zealand Academy of Management Conference, 2019.

Paper 2: From Project Manager to Project Leader: A Skills and Competency based Pathway

This paper discusses the differences between the role of a project manager and the role of a project leader. It argues that project leaders could be project managers, however, project managers may not necessarily be project leaders. Furthermore, it aims to identify the skills required of a project manager who wishes to become a project leader. Evidence for this study is provided via content analysis of secondary data and a thematic analysis for primary data. Findings demonstrate that a project manager could evolve into a project leader by building their Emotional Quotient (EQ) skills; that is, their people, professional and ethical, motivation and human skills. This paper significantly defines the skills required to become a project leader and

most importantly differentiates the skills required of a project manager compared to a project leader, which at times, is perhaps used interchangeably or considered the same in practice.

This paper has been submitted to the International Journal of Project Management (A Journal in ABDC rating) and is under review.

Paper 3: Impact of Project Managers' Soft Skills on Team Performance and the Subsequent Influence on Project Success

Successful completion of a project is largely dependent on the project team's performance lead by a competent project manager. Project teams are led by skilled project managers who guide them through the project lifecycle, eventually leading to completion of the project. One of the key skill sets required of a project manager is the soft skills set which also forms the primary focus of this study. In this paper, we first report on the key soft skills required of a project manager and their impact on a project team's performance. Further, the paper presents the influence a project team's performance (led by a soft skill-competent project manager) may have on their project success. A qualitative approach was used wherein 22 semi structured interviews were conducted with experienced project managers from various domains. A thematic analysis using an inductive approach was conducted to derive the findings. The findings of this study present a set of key soft skills required of project managers, comprising active listening, conflict management, political and cultural awareness, negotiation, communication and leadership skills. The results also indicate that application of soft skills significantly affects the performance of the project team and has a subsequent influence on project success. The study establishes a direct relationship between a project manager's soft skills, their team's performance, and their project's success. Few studies have focused on this relationship from a soft skills perspective, thus this study provides a significant contribution by

identifying the impact of a project manager's soft skills on the project team's performance and its subsequent influence on project success.

This paper has been submitted to Journal of Management Studies (A Journal in ABDC ratings) and is under review.*

Paper 4: Soft Skills: A Key Driver for Digital Transformation

This paper focuses on exploring the value of intangible (soft skills) investments to aid successful digital transformation in organisations. The human capital of a business or an organisation is the key catalyst for implementing change. It is, therefore, important to have a skilled workforce which is capable of adopting and coping with changes such as digital transformation. This research focuses on the importance of soft aspects of digital transformation as an exploration of soft skills across disciplines. The Gioia method was adopted to guide the analysis of the data (interviews) for this research. The results are indicative of the important soft skills required to embrace digital transformation and its potential impact on successful implementation.

This paper has been published by the ICDS 2020: Fourteenth International Conference on Digital Society, 2020.

1.8 Contribution to Knowledge

From the analysis of the collected data, the researcher discovered three key findings. First, the key soft skills required of a project manager include active listening, communication, negotiation, political and cultural awareness, conflict management and leadership skills. Second, project managers are not the same as project leaders; however, a project manager could evolve into a project leader by developing their EQ competency. The findings of this research have provided a proposed pathway to project leadership from a skills perspective. Third, the

research found a positive relationship between application of a project manager's soft skills and team performance. It was further observed during data analysis that the previously mentioned positive relationship eventually has an influence on project success. Hence, if soft skills are appropriately applied to manage a project team, they can increase team performance and subsequently increase the chances of project success as well. In addition to these, the research has also identified "Soft Skills Motivators" which can aid in application of soft skills across project management and other domains as well. Therefore, the research questions presented in Section 1.4 (Chapter 1) have been addressed and associated findings have been reported in this thesis.

It is evident after reviewing the literature and analysing the data, that the soft skills of project managers play an important role in managing project teams and the team's performance which eventually becomes a contributing factor in project success. Firstly, the results derived from this research provide information regarding the key soft skills required of a project manager, the importance of these skills for managing a project team and the impact on a project team's performance. Secondly, the research also identified the influence of a project team's performance (impacted by a project manager's soft skills) on project success.

The results of this research provide a significant contribution to the field of project management, specifically for project managers, academia and recruiters. For project managers, the findings aid in identifying the key soft skills which they could develop over time to better manage their teams and the teams' performance. It would also assist project managers to add more value and manage their projects efficiently and effectively, thereby increasing the overall success rate of their projects.

For academia, the research could be used to revise and/or develop training programs and activities in the curriculum which would help students to identify their soft skills and develop them for use in the corporate environment.

For recruiters, it will help to recruit more suitable candidates for project manager and project leader roles, based on the skills identified for each of them.

This contribution to knowledge is further addressed in Chapter 7 (Implications and Future Research) and Chapter 8 (Conclusion).

1.9 Summary

In summary, this chapter has provided a background for this research and established the research gap. The chapter has also outlined the research questions and research objectives together with the methodology used to derive the results of this research. The chapter has explained the structure of this thesis. Further, the chapter also discussed the contribution to knowledge. The thesis will now present *Paper 1* in the following chapter. This paper presents a comprehensive literature review (meta-analysis) for this research. This paper was accepted by and presented at the 2019 ANZAM (Australia and New Zealand Academy of Management) Conference as a full paper. It has been published in the conference proceedings.

Chapter 2 - The Contribution of Project Managers' Soft Skills to their Project Success (*Paper 1*)

2.1 Statement of Authorship

Statement of Authorship

Title of Paper	The Contribution of Project Managers' Soft Skills to their Project Success
Publication Status	<input checked="" type="checkbox"/> Published <input type="checkbox"/> Accepted for Publication <input type="checkbox"/> Submitted for Publication <input type="checkbox"/> Unpublished and Unsubmitted work written in manuscript style
Publication Details	Australia and New Zealand Academy of Management , 2019

Principal Author

Name of Principal Author (Candidate)	Richa Gulati		
Contribution to the Paper	Conducted the Comprehensive Literature Review and conceptual model for this research		
Overall percentage (%)	70%		
Certification:	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature and is not subject to any obligations or contractual agreements with a third party that would constrain its inclusion in this thesis. I am the primary author of this paper.		
Signature	Richa Gulati	Date	21/04/2021

Co-Author Contributions

By signing the Statement of Authorship, each author certifies that:

- i. the candidate's stated contribution to the publication is accurate (as detailed above);
- ii. permission is granted for the candidate to include the publication in the thesis; and
- iii. the sum of all co-author contributions is equal to 100% less the candidate's stated contribution.

Name of Co-Author	Carmen Haule Reaiche (Primary Supervisor)		
Contribution to the Paper	10 % - Supported making of conceptual model and guided comprehensive literature review		
Signature	Carmen Haule Reaiche	Date	21/04/2021

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Contribution to the Paper	10 % each - Supported making of conceptual model and guided comprehensive literature review		
Signature	Sam Baroudi	Date	21/04/2021

Please cut and paste additional co-author panels here as required.

Indra Gunawan

Date : 21/04/2021

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Subject: Fw: A1701010-RichaGulati-PhDThesisSubmission

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

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Cc: Sam Baroudi <sam.baroudi@adelaide.edu.au>, Indra Gunawan <indra.gunawan@adelaide.edu.au>
Subject: Re: A1701010-RichaGulati-PhDThesisSubmission

Dear Richa
Yes please use my signature as required
Kind Regards
Carmen

Sent from my iPhone

On 7 Jun 2021, at 5:43 pm, Richa Gulati <richa.gulati@adelaide.edu.au> wrote:

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

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To: Richa Gulati <richa.gulati@adelaide.edu.au>; Indra Gunawan <indra.gunawan@adelaide.edu.au>; deancblg@jcu.edu.au <deancblg@jcu.edu.au>

Subject: RE: A1701010-RichaGulati-PhDThesisSubmission

Hi Richa,

Yes, that is fine with me and you have my permission to use my e-signature/typed name on the "statement of authorship" forms.

Regards, Sam

From: Indra Gunawan <indra.gunawan@adelaide.edu.au>

Date: June 7, 2021 at 17:53:43 GMT+10

To: Richa Gulati <richa.gulati@adelaide.edu.au>

Cc: Sam Baroudi <sam.baroudi@adelaide.edu.au>, deancblg@jcu.edu.au

Subject: Re: A1701010-RichaGulati-PhDThesisSubmission

Hi Richa,

It is okay with me and you can use my e-signature/typed name on the "statement of authorship" forms.

Regards,

Indra

On 7 Jun 2021, at 5:09 pm, Richa Gulati <richa.gulati@adelaide.edu.au> wrote:

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

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2.2 Abstract

The purpose of this paper is to identify key soft skills required of project managers and the impact of these skills on project success. The authors have performed a Comprehensive Literature Review (meta-framework) as evidence to support the argument that project managers could increase the chances of projects being successful by applying their soft skills to manage project teams and their performance. The soft skills identified in this review include active listening, communication, conceptual, conflict management, human resource management, team management, human, leadership, motivation, negotiation, people, political and cultural awareness, professional and ethical. These skills are critical for project success; however, it is also identified that soft and hard skills work in conjunction with each other to attain success. This review provides a significant contribution to research by establishing that there is a need to develop soft skills in project managers so that they can manage teams effectively and efficiently, and thereby increase their teams' performance and the chances of the project being successful.

2.3 Keywords

Soft skills, Project manager, Project success

2.4 Introduction

With companies and organisations becoming more project oriented, there have been ongoing discussions in the project management community to determine key elements that contribute to project success (Shenhar & Dvir, 2007; Goles, Hawk & Kaiser, 2008). Inevitably, the knowledge, skills and abilities (KSA) of a project manager become important factors which contribute to a project's success. Project Management Institute (PMI) studies recently applied

the Project Manager Competency Development Framework (PMCD) to the skills required of a project manager through use of the PMI Talent Triangle. This talent triangle focuses on three key skills sets, namely, technical project management (hard skill), leadership (soft skill) and strategic and business management (hard skill) (PMBOK® Guide, 2017). However, soft skills such as negotiation, motivation, stakeholder engagement, communication, empathy and influence, which are considered essential for project managers by other authors, are not included in the PMI Talent Triangle (Nikitina & Furuoka 2012; Grugulis & Vincent 2009; Weber et al. 2009; Pant & Baroudi 2008). They have instead been mentioned as behaviours required of a leader in the PMBOK® GUIDE (2017).

Soft skills are known as people skills and are an individual's personal attributes that assist them to be efficient and effective in performing different tasks (Bancino & Zevalkink 2007). The necessity of soft skills in project managers thus becomes important to manage people (team, sponsors, stakeholders, etc.) who are key denominators in all projects. It is the team (group of people) managed by a project manager who performs the processes in order to initiate, plan, execute, monitor, control and close a project. But there is limited information pertaining to the type of soft skills that are required of a project manager to manage the project team, i.e., people skills, and how this set of key soft skills impacts project manager's project success (Weber et al. 2009). Therefore, the objective of this research is to, first, identify the key soft skills required of project managers and, second, to evaluate the impact and potential contribution of a project manager's soft skills on project success.

2.5 Why Soft Skills?

Studies conducted by Hartman and Ashrafi (2002) identified factors that contribute towards a project's success; however, none of these studies mentioned the role of a *project*

manager in project success. Project managers attempt to accomplish a desired task by managing “through a large and diverse set of people despite having little direct control over most of them” (El-Sabaa 2001, p. 1). They take responsibility of the project as a whole, from building the project team (where applicable) to leading the team to achieve the specific project objective. But there are underlying issues faced by a team which could pose potential problems, such as lack of trust, lack of communication, low morale, inability to reach consensus, lack of appreciation, etc. According to Stevenson and Starkweather (2010), an effective project manager possesses skills such as leadership, team building, motivation, communication, influencing, decision-making, political and cultural awareness, negotiation, trust building, conflict management, and coaching. These skills equip project managers to address the abovementioned underlying issues and keep the team members motivated and satisfied which could be reflected in their performance eventually. A project manager should be able to build trust and layers of loyalty within the project team. It is critical that a project manager *should be* capable of forming the right team to deliver the project effectively and in an efficient manner (Anantatmula, 2010; Cowie 2003).

The project success criterion is continuously developing alongside developments in the project management discipline. These developments are also evident from the changes incorporated in the PMBOK® Guide (2017) which states that a project manager should also manage the business and strategic component of projects, whereas earlier it was limited to completion or closure of the project. With these developments, the need for soft skills in project managers has become even more important but it has not been stated as an explicit factor contributing to project success even though various authors have found it to be true. According to Pinto and Prescott (1988), the critical success factors that contribute towards a project’s success include project mission, management support, project plan, client consultation,

personnel, technical tasks, client acceptance, monitoring and feedback, communication, troubleshooting, conflict resolution, characteristics of project manager and project leader, environmental factors and organisational environment. However, Cserhati and Szabo (2014) found meeting project performance objectives, project specific objectives and stakeholder's satisfaction as the three main criteria for a project to be successful, with project management processes, project resources, project team, organisational culture, communication and cooperation as the main criteria that affect project success. The baseline for project success according to PMI remains scope, time and cost (unless otherwise stated in the project charter).

It is worth noting that a project manager's lack of experience in dealing with particular project problems or risks also leads to project failures. Livesey (2016) argues that for a project to continue towards achieving its overall objective, any conflicts that arise due to any foreseen or unforeseen circumstances need to be resolved in a timely manner to ensure that the project is on the desired track of achieving its goal. He also identified several factors that affect a project's progress as a whole, including limited time to build a team, developing rapport with stakeholders, obtaining organisational support, building a working control system to manage changes, different professional and social backgrounds of the team members, ambiguity about clear goals and objectives, change in stakeholders and team structure, and conflicts resulting in communication problems, scope and personnel. These identified factors clearly indicate the need of soft skills in project managers to manage the "people" aspect of projects.

2.6 Soft Skills in Practice

Project management could be seen as managing the social conduct and interaction between people to accomplish an objective. Contextually, where hard skills bring in efficiency and effectiveness in managing a project with the use of tools and techniques, soft skills

contribute to project management as a whole (Weber et al. 2009). However, due to limitations in gauging the impact of a project manager's soft skills on project success, such requirements go unnoticed (Mayo 2013). Manazar et al. (2005) indicated that project managers' hard skills contribute towards only 15% of their project's success, while soft skills contribute towards 85% of it. Even then, soft skills do not receive the required focus and emphasis when analysing the causes of project failure (Fisher 2011). Having said that, personal attributes, attitudes to work, and individual qualities are extremely difficult to evaluate which adds to the complexity of measuring soft skills. There is limited information available on different methods that may be used to measure the impact that soft skills have on a project manager's project success (Langer, Slaughter & Mukhopadhyay 2008). There are physiological tests that are available to identify whether an individual possesses soft skills, however, there is a lack of evidence for measuring its impact on project success (Heckman & Kautz 2012). The need to select a suitable project manager is widely discussed, but equal attention also needs to be given to their soft skills. Weber et al. (2009, p. 354) argued that recruiters consider a job applicant's hard skills, i.e., "technical aspect of performing a job" as the main criterion to recruit for the role of a project manager, whereas project management is seen as managing the social conduct and interactions occurring between people working together to accomplish an objective (Cicmil & Marshall, 2005). Over time the approaches to defining project success have become more strategic and holistic. But it is still somewhat debateable whether achieving success in projects is solely based on successful frameworks alone.

2.7 Conceptual Framework of this Research

A project is run, managed, controlled and closed by a project manager and their team. Hence, there are *people* involved in every stage, process, decision and task of the project. This particular element of a project indicates that project management is as much about people

management as it is about project management in itself. People are key resources in any project, i.e., stakeholders, suppliers, clients, project team, etc (PMBOK ® Guide, 2017). Thus, a project manager needs to exercise their soft skills while dealing with people, i.e., the project team. In this context, the authors have reviewed the literature to explore if soft skills have a moderating effect on team management and performance and eventually contribute to project success. The conceptual framework is presented in figure 3 below:

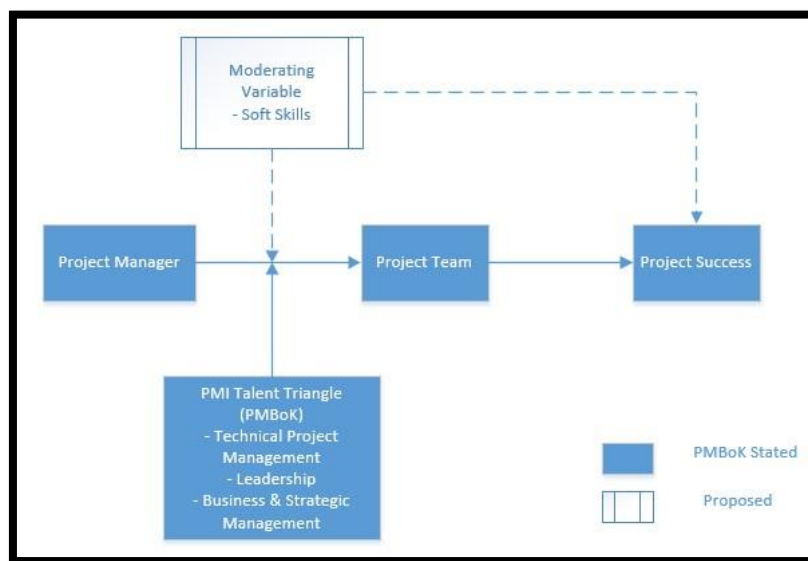


Figure 3: Conceptual Framework

The framework illustrates that a project manager uses technical project management, business and strategic management, and leadership to lead project teams which eventually contribute to project success. The above mentioned three skills in the PMI talent triangle have been identified as key contributors to project success. In this paper, the authors explore the effect that soft skills may have on project success and project team management.

2.8 Methodology

The authors have conducted an in-depth review using a meta framework Comprehensive Literature Review (CLR) technique. CLR has three phases, namely exploration, interpretation and communication. The first phase focuses purely on investigation, the second phase focuses

on interpretation of information extracted in the first phase, and the last phase focusses on the dissemination of findings to the appropriate audience (Onwuegbuzie & Frels, 2016). The three phases combined follow a seven-step model to review literature. It comprises of exploring the beliefs and topics, initiating the research, storing and organising information, selecting/deselecting information, expanding the research, analysing information and presenting the report. Figure 4 below illustrates the synopsis of the review conducted by the authors.

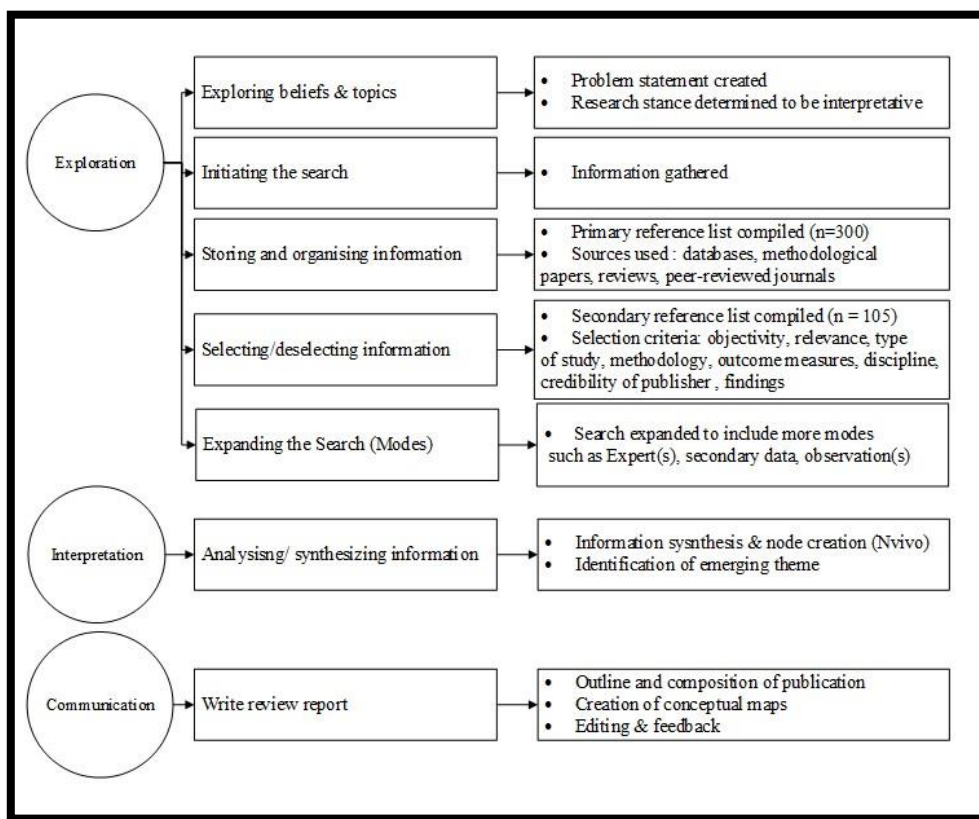


Figure 4: CLR Synopsis

2.9 Synthesis and Discussion

Soft skills assist in managing team members and stakeholders in an effective and efficient manner (Scott-Young and Samson, 2008). A study conducted by Stevenson and Starkweather (2010) identified the most important skills required of a project manager to successfully deliver

projects. Their study showed that out of six core skills identified, four were soft skills. In addition, Fisher (2011) argued that behaviour underpinning competencies are becoming increasingly important in project management as behaviours do drive outcomes of a project. Thus, the specific behaviours pertaining to each skill needs to be applied by a project manager in order to achieve a desired result. Soft skills would help a project manager to further improve their work attitude and cater to the element of flexibility that is involved with individual team members, giving rise to an overall productive environment. The authors have thus identified 13 soft skills which are necessary for a project manager. Table 1 below summarises these skills.

Soft Skills	Description/definition	Authors
Active listening	Listener fully concentrates, understands, responds and remembers the conversation.	Rogers & Farson 1979; Fisher 2011; Henderson 2004; Bubshait & Farooq 1999; Kerzner & Kerzner 2017; Schwalbe 2015; Slevin & Pinto 1987; Heldman 2018; Dohe & Pike 2018; Shivakumar 2018; PMBOK ® Guide 2017
Communication	Ability to convey ideas and feelings effectively.	Belzer 2001 ; PMI 2004; Muller & Turner 2010; Ahmed, Kayis & Amornsawadwatana 2007; El-Sabaa 2001; Crawford 2004; Tonchia 2018; Lauren & Sachreiber 2018; Briere et.al. 2015; Chaghooshi 2016, PMBOK ® Guide 2017
Conceptual Skills	Ability to think creatively and understand complicated or abstract ideas.	El-Sabaa 2001; Sunindijo 2015; Kay & Russette 2000; Tidd, Bessant & Pavitt 1997; Divleli & Ergun 2015; Vargo & Clavier 2015
Conflict Management	Ability to deal with conflict in a rational, balanced and effective manner.	Mills, Robey & Smith 1985; Butler 1973; Gobeli, Koenig & Bechinger 1998; Kerzner & Kerzner 2017; Martinsuo & Hoverfalt 2018; PMBOK ® Guide 2017; Chen et. al. 2016
Human Resource Management	Hiring and maintaining workforce.	PMBOK ® Guide 2017;Huemann, Keegan & Turner 2007; Meyer & Xin 2018;McCaffery 2018

Human Skills	Ability to build relationship with others.	Müller & Turner 2010; Trivellas & Drimoussis 2013; Alam et al. 2010
Leadership Skills	Ability to position executives to take thoughtful decisions in line with the organisation's goals and empower them to achieve those objectives.	Brill, Bishop & Walker 2006; PMBOK ® Guide 2017; Huang et.al, 2006; Koo & Park,2018
Motivation Skills	Ability to exhibit actions or strategies to get desired behaviour from stakeholders or team members.	Shane, Locke & Collins 2003; Eccles, Wigfield & Schiefele 1998; Geoghegan and Dulewicz 2008; Ramazani & Jergeas, 2015; Lee et.al. 2015
Negotiation Skills	Ability to settle conflict by means of compromising, competing, collaborating, accommodating or avoiding.	Hobday 2000; Al-Tabtabai & Thomas 2004; PMBOK ® Guide 2017; Heagney 2016; Burke & Barron 2014
People Skills	Ability to deal with people in a friendly way; it depicts behaviour.	Pant & Baroudi 2008 ; Cowie 2003; Carnall 2018;Bratton & Gold 2017
Political & Cultural Awareness	Ability to recognise project environment and cultural differences to incorporate them in project plan.	Morris et al. 2006; Hodgson & Muzio 2011; PMBOK ® Guide 2017 ; Wang et. al. 2017
Professionalism & Ethics	Ability to drive ethical behaviour and professional conduct.	Ljungblom & Lennerfors 2018; Jonasson & Ingason 2018; PMBOK ® Guide 2017; Anantharam &Chen 2016
Team Management	Ability to administer and coordinate a group to perform a task.	Meredith 2011; Scott-Young and Samson 2008 ; Posner 1987; Zuo et.al 2018; Kerzner 2018

Table 1: Identified Key Soft Skills of a Project Manager

The findings of this research reinforce the importance of soft skills in a project manager and its contribution to his/her project's success. However, Gurugulis and Vincent (2009) argued that increasing emphasis on soft skills creates problems, as personal attributes are extremely challenging to evaluate. They also argued that prevailing stereotypes within an industry pertaining to genders, behaviours and productivity further add to existing complexity.

On one hand, where Grugulis and Vincent's (2009) arguments shed some light on the importance of soft skills in managing a project, there are a number of other authors like Noon and Blyton, and Shibata, Taylor and Tylor (cited in Grugulis & Vincent 2009) who criticise the over importance that is given to soft skills in the reviewed literature. The authors of this paper found that it is quite evident from the reviewed literature that hard skills are an integral part of project management. Traditionally, project managers are recruited based on technical skills as the sole criterion, however, the researchers found that in general a project fails if there is an absence of either skill set (soft or hard skills) in a project manager.

In general, a project manager has a comfort level pertaining to either soft or hard skills. As a result, it becomes imperative for a project manager to receive training to develop the other competencies required of a project manager to increase his/her overall productivity. The high failure rate of projects gives rise to the need to improve the overall quality of a project, increasing the success ratio as a whole. In this context, it then becomes imperative to integrate soft skills along with hard skills in the project management methodologies to further improve the discipline itself. Soft skills are heavily used across various stages of the project. For example, communication skills are used across all project management phases and thus play a crucial role in the executing, controlling and closing phases of a project. Similarly, team management skills are exercised by a project manager during the planning and execution phase, along with motivation skills that assist in developing a stronger bond with team members and communicating goals, roles and responsibilities in a coherent manner, which in turn results in team members successfully performing throughout the remaining phases of a project.

Traditionally, project managers are primarily recruited based on technical skills criteria; however, the authors suggest that projects in general fail in the absence of either skill set (soft or hard skills) in a project manager. In general, a project manager has a comfort level pertaining

to either soft or hard skills. From a project manager's perspective, their behaviour towards work, team members and the organisation, would form the basis of their decision-making towards the project team and how individual and group tasks are carried out. It is evident that a project manager's soft skills play a crucial and decisive role in providing encouragement to a team member to adopt a positive behaviour that eventually results in a team member making a positive contribution to a successful project completion. While soft skills are found to be a contributing factor leading to a project's success, these soft skills on their own would not suffice for a project to be successful in delivery. Soft skills need to work hand-in-hand with hard skills to increase the chances of project success.

2.10 Conclusion

The high failure rate of projects gives rise to the need to take necessary actions to improve the chances of a project being successful. Contextually, it then becomes important to integrate soft skills along with hard skills in the project management methodologies to further improve the discipline itself, as soft skills are heavily used across various stages of the project. Pertaining to the findings of the CLR, there is evidence to suggest that a project manager's soft skills have an impact on team management, the team's performance and project success. The authors found that communication, team management, negotiation, human, human resource management, professional and ethical, political and cultural awareness, conceptual, leadership, active listening, motivational, conflict management and people skills are the key soft skills required of a project manager to manage their team and lead them towards project success. These skills aid in managing the most important resource of the project, i.e., the project team (people). By applying these skills, a project manager can identify the attitudes, strengths and weaknesses of the team members; gain feedback; increase their ability to coordinate tasks better; establish a notion of harmony; exercise leadership skills; motivate the project team;

conduct ethical practices; and keep the team energised to achieve the goals and objectives of the project. This paper contributes significantly to the project management domain by establishing the need for soft skills in project managers and identifying a set of key soft skills and their contribution to project success. Future research could be conducted to identify a revised competency framework for project managers which includes soft skills. The scope of this paper is limited to a review of literature; however, further data collection through interviews, surveys, focus group discussion, etc., is recommended.

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Chapter 3 - Soft Skills for Project Managers

3.1 Chapter Overview

This chapter will provide a brief background of the 13 soft skills identified in Chapter 2 (Paper 1). These soft skills are the very foundation of this research. Therefore, it is crucial to understand their meaning and the impact they have on the project team. The understanding of these soft skills will form the basis of data collection and analysis for this research. This chapter first discusses the term “soft skills” and then proceeds to define active listening, communication, conceptual, conflict management, human resource management (HRM), human, leadership, motivation, negotiation, people, political and cultural awareness, professional and ethical, and team management skills. Additionally, it also discusses how these skills could aid project managers in managing their team(s). This chapter will then conclude by providing an overview of the next chapter (Chapter 4) and establishing the link between the two chapters.

3.2 Soft Skills

Soft skills, also known as people and/or interpersonal skills, are an individual’s personal attributes that assist them to be efficient and effective in performing different tasks (Bancino & Zevalkink 2007). They are a cluster of personal qualities, attitudes, and social graces that influence how we interact with others. Ibrahim, Boerhannoeddin, and Bakare (2017) mentioned that soft skills are “a cluster of qualities, habits, personality traits, attitudes, and social graces”. An individual develops soft skills with age and experience (Sharma & Sharma 2010). Thus, training could enhance an individual’s soft skills; however, these skills must already be a part of one’s personality. In the absence of soft skills, they are hard to teach; however, observation and awareness about them could subsequently influence an individual’s actions (Kumar & Hsiao 2007).

While hard skills may secure a job for an individual, their work ethic, attitude, and other personal attributes play an equally important role in their career success (Schulz 2008) (Tian 2020). Soft skills aid project managers with decision-making, managing interpersonal relationships, professional development, and having an impact on others. Many authors consider soft skills, such as negotiation, ability to engage stakeholders, communication, influence, and motivation to be essential for project managers (Nikitina & Furuoka 2012; Grugulis & Vincent 2009; Weber et al. 2009; Pant & Baroudi 2008; Schulz 2008; Ling, Ofori & Low 2000). Yet, they are often undervalued, primarily because they are hard to measure and quantify. In addition to this, they require more effort, regularity in training, practice, and continuous development to gain desired competence. The project manager's routine tasks may include feedback, reflection, moderation, intervention, etc. Soft skills provide great support in managing these tasks as the project manager deals with emotions, diversity, conflict, and moods in the process.

For this research, Chapter 2 (Paper 1) identified the key soft skills required of a project manager. It is highly important to understand the nature of these soft skills before starting the next step (data collection) in the research design. In the next step, the researcher is aiming to gauge the impact of identified soft skills on the project team and their performance. In further steps, this research will also analyse if the impact of soft skills on the project team could possibly influence the success of a project. Hence, it is critical to review the literature in order to define these skills and capture the possible impact on a project team. The following sections present a brief literature review for each of the soft skills. These skills will also be discussed in Paper 3 wherein their impact on team management, team performance and project success will be discussed.

3.3 Active Listening

Active listening is a communication technique which involves both the speaker and the receiver. This skill helps the project manager to concentrate, understand, respond and then react (Rogers & Farson 1979). It involves feedback and verification clarifying that the receiver of the intended information has understood the sender's intended message exactly (Friston et. al, 2021). It aids in relationship building, diffuses emotional situations, and creates new ways to approach issues. By actively listening, a project manager can decode the message sent by his/her team members and identify the content of the message and feelings of the team member (speaker) without any prejudices or biased judgments. A project manager can also note speaker cues, ask open-ended questions for clarification and then reflect on the team member's thoughts before responding with his/her thoughts and views about the particular issue. It is also worth noting that body language also plays a tangible and important role in the practice of active listening.

By applying active listening skills, the project manager encourages their team members to share and discuss their ideas and concepts without fear or hesitation (Fisher 2011). It increases productivity, reduces conflicts, and improves work relationships. Active listening is a crucial part of communication; it demonstrates respect and focuses attention on the speaker (Jonsdottir & Fridriksdottir 2020).

3.4 Leadership Skills

According to Dobbins and Pettman (1997), leadership is an individual's ability to get things done through others in a positive manner, and in the process inspire others to achieve desired project objectives. It includes influencing them to willingly perform the task to a standard and quality above their norm (Novo, Landis & Haley, 2017). One of the major parts

of being a leader is to coherently communicate the vision of the project to the team members and the value they will create by completing the project (Brill, Bishop & Walker 2006). Showing team members how they can align their objectives with project objectives is an invaluable trait of good leadership that in turn inspires the team members to strive for excellence. Also, leadership skills allow a project manager to take initiatives and work towards ensuring safe working conditions for the team members that might be challenging but at the same time, fair for all the involved team members.

A project manager with leadership skills encourages his/her team members to seek his/her guidance on a regular basis (Bruce & Langdon 2000). They develop the team and assist them with overcoming obstacles while working towards the achievement of goals.

3.5 Conceptual Skills

A project manager's conceptual skills allow them to develop their ability to visualise the overall perspective of the project. This ability helps project managers to develop the synergy in the team, i.e., "recognizing how the various functions of a project depend on one another, and how changes in any single part could affect all the other parts" (El-Sabaa 1999, p. 2). Besides, this ability enables a project manager to work with different aspects of the project simultaneously and manage them in parallel (Kay & Russette 2000). It also assists project managers to develop creative thinking and develop it further to understand the complication of any process. As Tidd, Bessant, and Pavitt (1997) posit, well developed conceptual skills make it easier for project managers to formulate processes. Conceptual skills further aid in determining outcomes, defining problems, analysing situations, decision-making, and implementing appropriate solutions.

3.6 Conflict Management

Conflict refers to a situation wherein two or more independent parties struggle to reach a common ground of understanding. It involves a degree of struggle, incompatibility, and perceived differences in values, goals, or ideas between the parties involved (Rahim 2002). It draws focus away from important activities and undermines morale. It also leads to a lack of cooperation between groups or team members. A conflict between project team members could arise from various sources, such as differences in opinion, lack of information, few common interests, personal rivalry, and scarcity of resources. There are two types of conflicts—functional and dysfunctional (Rahim 2002). Functional conflicts mainly deal with conflicts related to the level of involvement of team members, growth, stress, cohesion, and anger. Dysfunctional conflicts are a product of threats, breaking of trust and confidence, forced decisions, and personal feelings (Mills, Robey & Smith 1985). Thus, conflict management is an opportunity to improve this situation and strengthen relationships (Butler 1973).

A project manager can manage conflict among team members or stakeholders by accommodating requests, making compromises, promoting collaboration and avoidance (Jackson 2013). A manager must carefully choose one of these suggested options to resolve conflicts, as individuals will each be triggered to deal with situations in their own ways. A wellmanaged conflict could eventually contribute to higher productivity and performance of the team members (Gobeli, Koenig & Bechinger 1998).

3.7 Human Resource Management (HRM)

Human Resource Management (HRM) is concerned with the staffing dimension of managing projects. It is a skill that facilitates the effective use of staff to achieve organisational and individual goals. It is also concerned with hiring, engaging, motivating, developing, and

maintaining employees in the organisation (PMBOK ® Guide 2017). It incorporates a series of integrated decisions that form relationships between employees and their employers. Employees are assets to the organisation. The success of most organisations depends on the quality and effectiveness of the people that are employed by it (Huemann, Keegan & Turner 2007). Thus, organisations form policies, programs, and practices to assist their employees with their tasks as well as their personal development (Ulrich et al. 1995). HRM also includes planning for the future personnel needs of the organisation. It aids in the overall strategic planning of the organisation. In the project management context, in general, a project manager prepares an HRM plan, acquires the project team, and develops and manages it to deliver projects (PMBOK ® Guide). With this skill, a project manager could ensure that team members are treated as a resource wherein their skills, abilities, and knowledge can be maximised. With correct use of HRM, a project manager can foster trust and respect, develop loyalty and commitment, and most importantly, retain team members.

3.8 Human Skills

Human skills involve the ability to work well with fellow individuals on a one-to-one basis as well as a group. This skill enables a project manager to identify individual similarities and differences as well as the nature, attitude, Emotional Quotient (EQ), Intellectual Quotient (IQ), and Managerial Quotient (MQ) of their team members (Müller & Turner., 2010). EQ is a way to measure how a person recognises emotions in themselves and others and manages them to work better as a team—it is a measure of emotional intelligence. IQ is a value that indicates a person's ability to learn, understand and apply information and skills in a meaningful way. IQ gets one hired, EQ gets one promoted. IQ competence is comprised of cognitive skills and knowledge, education skills, technical skills, conceptual skills, and political and cultural awareness (Trivellas & Drimoussis 2013). It also helps with performing group analysis. With

this skill, a project manager can form a better understanding with their team members by identifying their interests, thought processes, individual abilities, aptitude, personality, and intelligence (Alam et al. 2010). This skill facilitates relationship building within the team.

Human skills are essential skills which we use to relate to one another. A project manager with good human skills will be able to easily engage their team. This skill increases the ability of the project manager to connect with team members on an individual basis and know them better, which facilitates collaboration, problem-solving, and teamwork (Ives 2005). The key challenge while managing projects is to manage people, as it requires intense use of relationship management skills, i.e., human skills (Alam et.al 2010). Zuo et al. (2018) has emphasised that it is more crucial to align internal and external stakeholders than execute the project from a technical aspect.

3.9 Negotiation Skills

Negotiation refers to the process of attaining the best possible solution at a given point in time as per your needs. Negotiation in projects takes place when one side tries to convince the other side about a particular issue, when agreeing to sharing or dividing limited resources, to resolve dispute, conflicts or problems, or to sell a product or service (Pinto 2000). This can take place within the team as well as with the stakeholders. A project manager uses his/her negotiation skills to manage change requests, manage expectations of stakeholders, resolve conflicts, and look at the economic stability from the viewpoint of finalising a contract with contractors and suppliers. Negotiation is part of every stage of the project lifecycle with a different objective at each stage (Hobday 2000). It allows project managers to positively satisfy both parties rather than let both teams compromise on a win-lose situation that may harm the completion of a project (Al-Tabtabai & Thomas 2004). The nature of project management is

such that it requires people with different skill sets, experiences, and perspectives to form a team and work towards achieving a common goal. Hence it is undeniably important for the project manager to get buy-in from all team members, which possibly involves negotiations in the process. In such cases, the project manager should be able to exert a strong and positive influence on the project team. Most importantly, these skills play a vital role in conflict management.

3.10 People Skills

People skills are related to the behaviour and behavioural patterns of an individual. People skills enable a project manager to get along with others and communicate ideas, resolve conflicts, achieve personal and professional goals, and build team spirit among team members efficiently and effectively (Pant & Baroudi 2008). Thompson (2009) states that people skills comprise three abilities, namely personal effectiveness, interaction skills, and intercession skills. People skills help project managers to create a healthy working culture in their team and eventually transform the culture of an organisation. These skills may include but are not limited to a sense of humour, patience, negotiation, understanding, and respecting emotions. A project manager uses people skills to maintain harmony among members of a project team so that they can collectively work towards achieving the project goals and objectives (Cowie 2003).

While we have reviewed both human and personal skills, it is important to understand the difference between both, as they are often mistaken for the same thing. Human skills are more about how we relate to people, whereas people skills are about how we behave with people. A project manager uses human skills to understand team members at an individual level and develop personal rapport (Levasseur 2013). People skills define a project manager's

behaviour towards their team (Ravindranath 2016); people skills relate more to how project managers “conduct” themselves, whereas human skills are about how project managers “connect” with team members (Mersino 2013).

3.11 Professionalism and Ethics

Professionalism is defined by the effort individuals put in to give their best every single day at work. Some examples of professional behaviour exhibited by project managers are being punctual, wearing professional and presentable attire, and showing mutual respect for all (Morris et al. 2006). A project manager needs to practice professionalism and ethics to establish and enhance their credibility and trustworthiness among the stakeholders and the members of their team. A project manager can achieve this by setting project parameters, promoting transparency among the team, identifying and considering the strengths and weaknesses of his/her team members, and aligning his/her decisions based on a utilitarian approach (Hodgson & Muzio 2011). The utilitarian approach was adopted by nineteenth-century philosophers, Jeremy Bentham and John Stuart Mill. They suggested that moral behaviour produces the greatest good for the greatest number. From this perspective and approach, a project manager is expected to consider all of his/her decision options and then select one that is considered the most effective decision benefitting the majority of the team. According to Kliem (2011), ethics are a philosophy of moral values. These values when applied by a project manager to resolve conflicts, aid in the application of morality guarding the interests of the team as a whole. Ethical practices help project managers to lead by example and as a result gain the respect and loyalty of the team members (Kliem 2011).

3.12 Team Management Skills

A team is a set of people associated by work or activity (Meredith 2011). Team members cooperate to accomplish the assigned task and/or target. According to Scott-Young

and Samson (2008), team management involves managing the team members using processes and tools to ensure better cooperation, communication, and coordination to achieve a common goal. Project managers need to build an environment that motivates members to bond, feel safe, collaborate, and trust each other to manage the team effectively. To aid team management, project managers could add a personal touch by learning something new about their team members, celebrating special occasions, and just being accessible (Posner 1987). In addition to this, behaviour standards need to be created. Project managers should skilfully use their authority and ensure that other senior members of the team follow in their footsteps.

A project team comprises people with complementary skills and work styles. A project manager should have the ability to get the team members to work effectively as a team and contribute to the desired goal. Team management skills may comprise but are not limited to behaviours such as showing respect, consideration for team members, establishing clear individual and team goals, rewarding good work, establishing good communication, and helping team members understand their responsibilities.

3.13 Motivation Skills

Motivation refers to a person's drive to achieve a goal (Shane, Locke & Collins 2003). Motivation consists of a driving state which is a result of a directed behaviour initiated by the driving state (Eccles, Wigfield & Schiefele 1998). A project manager can use motivation skills to keep the team energised to achieve the desired outcomes. In 1954, Maslow theorised on how people satisfy their individual needs in the context of their work. Based on his observations, Maslow suggested that people generally follow the pattern of recognising their needs and satisfaction in the same sequence. Thus, he theorised further that no individual could recognise or pursue the next higher need in the hierarchy until the current need is completely satisfied (Gawel 1997). A project manager can use motivation skills to influence team member's

behaviour and actions towards the achievement of objectives. According to Geoghegan and Dulewicz (2008), knowing what motivates team members and helping them to achieve those desires would assist a project manager to motivate the team effectively.

Herzberg (1959) constructed a two-dimensional paradigm of factors that affect an individual's attitude towards the world. His two-factor theory included hygiene factors and motivators. Herzberg categorised factors such as supervision, interpersonal relationships, working environment, organisational policies, and salary as hygiene factors (also called dissatisfiers; extrinsic motivation). Herzberg categorised achievement, recognition at work, the type of work, progression within the organisation, and responsibility as motivators (also called satisfiers; intrinsic motivation), which are strong determinants of an individual's job satisfaction. According to Herzberg (1959), hygiene factors produce short-term changes in an individual's work performance and attitude while motivators are associated with long-term effects on an individual's work performance. According to Gawel (1997), motivators or intrinsic motivations describe an individual's relationship with what she or he does, many related to the tasks being performed. While dissatisfiers or extrinsic motivations describe an individual's relationship to the context or environment in which she or he performs the work. Thus, a project manager could also use tools such as building a reward structure, issuing letters of commendation, publicly recognising team members for good work and conduct, and recommending them for rewards. Events of achievement, growth, recognition, and responsibility motivate team members to put in more effort and perform productively (Peterson 2007).

3.14 Communication Skills

Good communication is the ability to convey ideas and information clearly through an identified channel to ensure that the team progresses in the direction of accomplishing a

common goal. According to the PMBOK Guide (2004), the process of communication has four components: sender, receiver, medium, and feedback-message. The sender is the party who encodes the message, the receiver is the party who decodes and perceives the message, the medium is the means of conveying the message and the feedback-message is the feedback from the receiver to the sender. Figure 5 below illustrates the communication process as described by PMI.

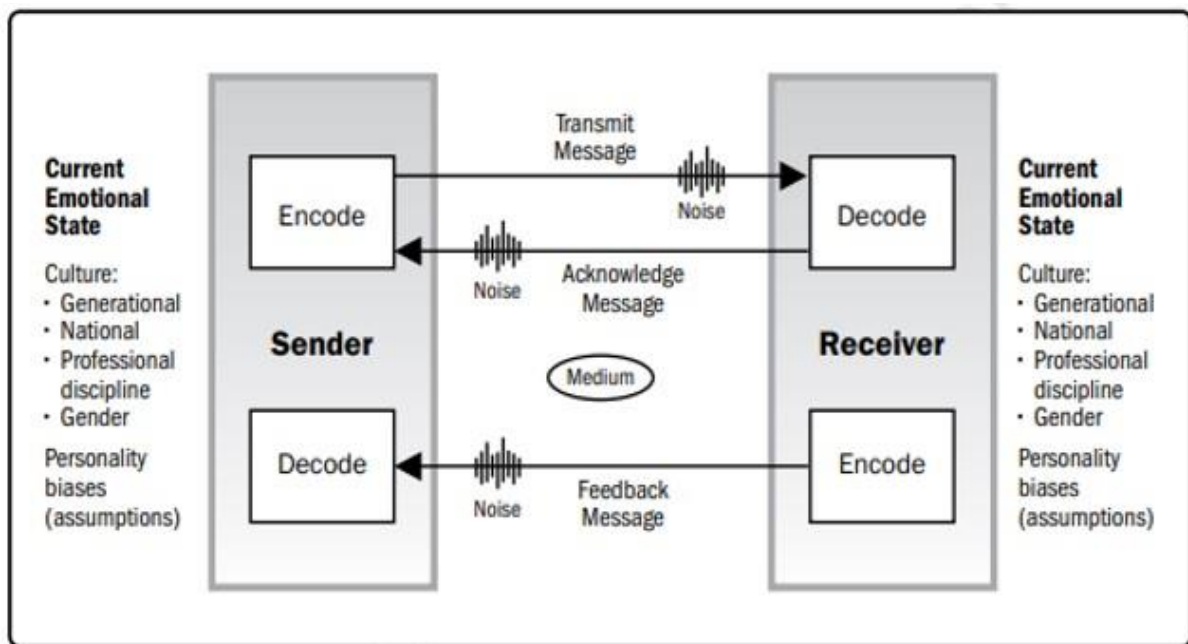


Figure 5: The communication process as described by PMI (PMBOK@Guide 2017, pp. 373)

Communication skills in project management are the most important soft skills. Open, honest communication both ways, i.e., top-down and bottom-up, assists project managers to provide clarity and clear vision to the team members and stakeholders of the project (Muller & Turner, 2005). A project manager develops a communication management plan to manage communications related to the project. This plan comprises the mediums, frequency, and modes of communication to be used for respective stakeholders (Ahmed, Kayis & Amornsawadwatana 2007). The communication plan is created to ensure that information, ideas, and decisions are transparently communicated to all the team members. Open and honest communications assist

project managers to build trust within the team and prepare team members for unforeseen circumstances concerning changes, risks, and updates to the project implementation. A project manager needs to carefully consider cultural differences in perspective and communicate information to the team members on an ongoing basis (El-Sabaa 2001). PMI suggests a project manager should spend 90% of his/her time communicating with the team members and all involved stakeholders (PMBOK @ Guide). Project meetings should be task oriented and must include group maintenance behaviours, allowing all participants to be up-to-date with current information, which thus enhances their understanding and commitment, and allows the project manager to make decisions with transparency and on time (Crawford 2000). Communication can be carried out in four ways: verbal (via public speaking, telephone, listening), written (via email, text messages, letters, reports), non-verbal (via facial expressions, body language, posture), and visual (via dress, personal hygiene) (Griffin et al. 2010).

3.15 Political and Cultural Awareness

A project manager needs to understand the beliefs and values of different cultures. This plays a crucial role in projects which either have geographically dispersed teams and stakeholders or have a multicultural team. What works well in one culture is not necessarily a good fit for another (Hofstede 1984). Hofstede's culture dimensions model (1984) consists of six dimensions: power distance, individualism vs collectivism, uncertainty avoidance index, masculinity, long-term orientation, and indulgence vs restraint. By putting together national scores that range from 1 (as the lowest) to 120 (as the highest), Hofstede's six culture dimensions model allows global organisations to understand the difference between cultures. However, it has received its share of criticism, most notably from McSweeney (2002). A project manager also needs to understand the organisation's corporate culture and accordingly apply

their skills and knowledge through good people project management to achieve desired goals and outcomes. The enhanced cross-culture awareness and understanding of varied cultures that may exist within a team allow project managers to be efficient and effective in the management of an overall project. Knowing the team member and their background assists project managers to create a work environment in which each team member feels comfortable satisfying the motivator factors.

3.16 Summary

This chapter has described the soft skills required of a project manager and briefly discussed their possible application while managing projects and project teams. It is evident from the above review and Chapter 2 (Paper 1) that soft skills play a crucial role in managing projects and may subsequently influence the probability of project success. Each skill has its unique contribution, hence it can be chosen and applied based on the situation. The next chapter builds on these findings and focuses on grouping the identified skills into management and leadership profiles. It has been presented in the form of a journal article (Paper 2), wherein it differentiates the role of a project manager from the role of a project leader. Furthermore, it describes the pathway to project leadership from a skills perspective.

**Chapter 4 - From Project Manager to
Project Leader: A Skills and Competency
based Pathway (*Paper 2*)**

4.1 Statement of Authorship

Statement of Authorship

Title of Paper	From Project Manager to Project Leader - A Skills and Competency based Pathway
Publication Status	<input type="checkbox"/> Published <input type="checkbox"/> Accepted for Publication <input checked="" type="checkbox"/> Submitted for Publication <input type="checkbox"/> Unpublished and Unsubmitted work written in manuscript style
Publication Details	Under Review

Principal Author

Name of Principal Author (Candidate)	Richa Gulati		
Contribution to the Paper	Development of a pathway to project leadership from skills perspective.		
Overall percentage (%)	70%		
Certification:	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature and is not subject to any obligations or contractual agreements with a third party that would constrain its inclusion in this thesis. I am the primary author of this paper.		
Signature	Richa Gulati	Date	21/04/2021

Co-Author Contributions

By signing the Statement of Authorship, each author certifies that:

- i. the candidate's stated contribution to the publication is accurate (as detailed above);
- ii. permission is granted for the candidate to include the publication in the thesis; and
- iii. the sum of all co-author contributions is equal to 100% less the candidate's stated contribution.

Name of Co-Author	Carmen Haule Reaiche (Primary Supervisor)		
Contribution to the Paper	10% - supported in data analysis and theoretical underpinings of this research		
Signature	Carmen Haule Reaiche	Date	21/04/2021

Name of Co-Author	Sam Baroudi & Indra Gunawan (co-supervisors)		
Contribution to the Paper	10 % each - Supported in data analysis and theoretical underpinings of this research.		
Signature	Sam Baroudi	Date	21/04/2021

Please cut and paste additional co-author panels here as required.

Indra Gunawan

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Subject: Fw: A1701010-RichaGulati-PhDThesisSubmission

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

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Cc: Sam Baroudi <sam.baroudi@adelaide.edu.au>, Indra Gunawan <indra.gunawan@adelaide.edu.au>
Subject: Re: A1701010-RichaGulati-PhDThesisSubmission

Dear Richa
Yes please use my signature as required
Kind Regards
Carmen

Sent from my iPhone

On 7 Jun 2021, at 5:43 pm, Richa Gulati <richa.gulati@adelaide.edu.au> wrote:

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

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Subject: RE: A1701010-RichaGulati-PhDThesisSubmission

Hi Richa,

Yes, that is fine with me and you have my permission to use my e-signature/typed name on the "statement of authorship" forms.

Regards, Sam

From: Indra Gunawan <indra.gunawan@adelaide.edu.au>
Date: June 7, 2021 at 17:53:43 GMT+10
To: Richa Gulati <richa.gulati@adelaide.edu.au>
Cc: Sam Baroudi <sam.baroudi@adelaide.edu.au>, deancblg@jcu.edu.au
Subject: Re: A1701010-RichaGulati-PhDThesisSubmission

Hi Richa,

It is okay with me and you can use my e-signature/typed name on the "statement of authorship" forms.

Regards,
Indra

On 7 Jun 2021, at 5:09 pm, Richa Gulati <richa.gulati@adelaide.edu.au> wrote:

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

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4.2 Abstract

This paper discusses the differences between the role of a project manager and the role of a project leader. It argues that project leaders could be project managers, however, project managers may not necessarily be project leaders. Furthermore, it aims to identify the skills required of a project manager who wishes to become a project leader. Evidence for this study is provided via content analysis of secondary data and a thematic analysis for primary data. Findings demonstrate that a project manager could evolve into a project leader by building their Emotional Quotient (EQ) skills; that is, their people, professional and ethical, motivation and human skills. This paper significantly defines the skills required to become a project leader and most importantly differentiates the skills required of a project manager compared to a project leader, which at times, is perhaps used interchangeably or considered the same in practice.

4.3 Keywords

Project manager, project leader, soft skills, competencies, Emotional Quotient (EQ), Intelligence Quotient (IQ), Managerial Quotient (MQ)

4.4 Background

We often use the terms “project manager” and “project leader” interchangeably in the project context, but are they the same? Good leadership is undeniably a common goal for both a project manager and a project leader; however, the difference between the skills and responsibilities of both is significant yet often ignored in practice (Diamond & Spillane, 2016). For instance, leaders delegate authority, whereas managers delegate responsibility. Leaders inspire commitment from a team, whereas managers seek to control their team (Floris &

Cuganesan, 2019). Leadership and management are two different concepts where the leadership skill is part of management as a whole. A manager has skills (soft and hard skills) that enables them to perform tasks, primarily because skills are considered task oriented. On the other hand, a leader's focus is on developing interpersonal relationships that are behaviour oriented. Thus, a leader requires specific competencies (Emotional Quotient (EQ), Intelligence Quotient (IQ) and Managerial Quotient (MQ)), as competencies are behaviour oriented (da Silva, Jerónimo & Vieira, 2019) (Korzynski et. al., 2020).

Even though leadership has been defined in several ways, depending on the context, the ability to influence others is one of the main, important characteristics of a leader and the primary trait adopted in this paper (Myint, 2015; Madsen, 2019). In small-scale projects, the role of the project leader and the manager could be executed by the same person merely due to the size of the project or the organisation. However, the situation is quite different in large organisations, especially project-based organisations, where the project manager and the project leader roles are performed by different individuals. Nevertheless, a project leader could be a project manager, but a project manager may not necessarily be a project leader (Englund & Bucero, 2019). Hence, the importance of clarifying these roles and identifying the key skills and competencies required of both roles becomes critical.

This paper seeks, first, to differentiate between the two roles, and second, identify the skills required of a project manager to become a project leader. The paper is divided into five sections, namely Leader vs Manager: Theoretical Background, Research Method, Findings and Discussion, Conclusion and Future Research Suggestions. The Leader vs Manager: Theoretical Background presents a review of the literature in relation to previous work done in similar fields of study. The Research Method describes the methodology adopted for this research and

the methods used for data collection and analysis. In the Findings and Discussion section, this paper presents a working analysis of the primary data (interviews) to sieve out the differences between the project manager and project leader roles and the skills associated with each role, and then discusses how project managers could be groomed to become project leaders from a required skills perspective. The paper then concludes by presenting some suggestions for future research and practical implications.

4.5 Project Leader Vs Project Manager: Theoretical Background

4.5.1 Roles and Responsibilities

As stated earlier, we can argue that a project leader can be a project manager, however a project manager is not necessarily a project leader (Sense 2003). A project manager is the one who drives and manages a project (Blackburn 2002). They try to accomplish a desired task by managing “through a large and diverse set of people despite having little direct control over most of them” (El-Sabaa 2001, p. 1). A project manager takes responsibility for the project as whole, from building and leading the project team to achieving the specific project objective. In contrast, leadership is a process of influencing the behaviour of others in the direction of achieving visualised goals (Myint 2015), where “influence is the essence of leadership” (Yukl 2001, p. 2). Pye (2005, p. 31) remarks that “leadership as a form of social influence is hard to distinguish from many other influences in relationships between people, however it is argued that, its emphasis on moving towards future action encourages a conception not dissimilar to organizing”. Project leaders lift themselves from their own personal performance to a standard that is higher than expected. As a result, they develop and build a personality that is above and beyond normal expectations of the team members or the organisation (Thite 2000). A project manager undertakes the management of the core processes of project management such as

scope, schedule, cost, quality, human resources, communication, project risk, procurement, and, integration etc., in traditional sectors of construction and IT (Ibbs & Kwak 2000).

However, the role of a project manager has also evolved into non-traditional sectors such as law, health, accounting, production, design, service and retail industries which are contextually different (Azzopardi 2007). Project managers are now expected to work on networking, business and strategic management as well (*PMBOK (®) Guide 2017*). Conversely, project leaders ensure the project is carried through by engaging the team, motivating them, maintaining a productive work environment, setting the expectations for the team, keeping the team on track, and ensuring that the team receives its reward after successfully delivering the project (Laufer et.al., 2018).

A project manager is responsible for organising, staffing, planning, budgeting, directing and controlling the project. Thus, a project manager performs these tasks in relation to what needs to be done, when it is supposed to be done, and how the available resources would be efficiently used and/or acquired to effectively perform these outlined tasks (Sumner, Bock & Giamartino 2006). Similarly, Anantatmula (2010) posits that project managers need to ensure that available resources are used efficiently; project communication is effective, timely and accurate in every possible manner; the project is carefully and competently managed; the project is safeguarded from potential and identified risks; and that the status pertaining to the project's overall budget and planned schedule is accurately reported. Over the years, several seminal authors have described the key responsibilities of the project manager as creating clear and attainable project objectives, building the project requirements and managing cost, time, quality and scope of the project (Maylor 1999; Turner 1999; Ireland 2006; Azzopardi 2007).

While we have discussed the responsibilities that a project manager is accountable for with respect to the project, the project team and their organisation, they also have

responsibilities pertaining to their clients. According to Olander (2007), client responsibility attracts a separate set of project managerial duties. Some of these include, ensuring client acceptance of the project proposal, scope and related documents, and providing a clear picture and preparing a prospective client for possible adverse project outcomes and impacts. Olander (2007) also emphasised preserving the integrity of prospective clients and their organisations yet keeping a focus on client assurance for work-in-progress and performance as per set expectations. This includes resolving conflicts and maintaining confidentiality with professionalism, and providing periodical updates pertaining to the work-in-progress of a project. On the contrary, project leaders seek competence and intelligence, vision, inspiration, fairness, imagination and dependability in comparison to project managers. These traits shed light on how leaders operate differently in comparison to managers. In addition to this, Gillard and Price's (2005) conceptual analysis identified five characteristics of effective project leaders, namely credibility, creative problem-solving, tolerance for ambiguity, flexible management style and effective communication skills. Project leaders are more concerned with developing new processes, inspiring, having long-term goals and influencing. In view of the above it can be stated that project managers are more likely to focus on administration whereas project leaders are more likely to focus on interpersonal relationships.

Being different does not imply that one is less important than the other. However, the focus of leaders is more on developing interpersonal relationships with team members rather than on general administration tasks. According to a seminal and foundational work in the management domain by McDonough (1993), leaders delegate authority, whereas managers delegate responsibility; leaders inspire people to seek commitment from a team, whereas managers seek control of their team members. After reviewing the literature, the researchers identified that leadership is proactive and concerned with prioritising things on a need-to basis

which may not be in line with the outlined plan, whereas management is a discipline within which a manager carries out his/her outlined duties and responsibilities by following the plan. It was found that a project leader, in addition to focusing on the organisational context, also considers the social and environmental aspects within which a team strives to achieve a common goal, whereas a project manager keeps his/her focus primarily/only on the organisational context of a business.

4.5.2 Skills and Competencies

Adding to the hard skills and general management proficiency, an effective project manager must have the ability to apply the possessed knowledge and skills, and demonstrate personal characteristics (such as communications and negotiation skills) while achieving project objectives, as well as balance the constraints of the project. According to Fisher (2011), an effective project manager exercises problem-solving skills by showing empathy towards the members of his/her team and giving value to their emotions per se. According to Neuhauser (2007), in general, project managers are friendly, responsive, tactful, understanding, helpful and sociable in nature. Their focus is mostly on leading their subordinates from the viewpoint of accomplishing specific project objectives. In addition, the characteristics of a *good* project manager include being communicative, self-assured, ambitious and energetic. Project leaders on the other hand, exhibit competencies which are behaviour oriented. Several studies state that leadership characteristics are important for managing projects, as a leader models the way a project is to be driven, shares an inspired vision, challenges existing and implemented processes, enables team members to act in a positive manner, and encourages them to enhance their overall performance.

According to Northouse (2015), many research studies could be categorised as taking a behavioural approach; however, the Ohio State and Michigan studies (Yunker & Hunt 1976)

are the strongest representatives of this leadership approach. Yunker and Hunt's (1976) study is one of the best-known behavioural leadership studies which is still in use and has formed the basis of many leadership models and studies since. In the study, leadership was defined from a trait-oriented perspective, i.e., good leaders were determined by certain characteristics at the individual level. Blake and Mouton (1978) further developed the idea of leadership behaviour based on Yunker and Hunt's study and created the concept of a "Managerial Grid", and later a "Leadership Grid". This evolution again formed a foundational model which is still applicable and used in modern day scenarios. According to Gregoire and Arendt (2014, p. S11), "behaviour approaches suggest that the ideal leader is one who has high concern for people and high concern for the work that needs to be done". As discussed above, past studies have asserted that leadership characteristics are important for managing projects, as a leader models the way a project is driven, shares an inspired vision, challenges existing and implemented processes, enables team members to act in a positive manner and encourages them to enhance their overall performance.

The competencies of a project leader are divided into three types: IQ, EQ and MQ. Each of these is comprised of skills that collectively assist the project leader to deliver the discussed competencies. Competency is an underlying characteristic of a person's motives, traits, skills, aspects of one's self-image or a social role (Le Deist & Winterton, 2005). It is the ability of an individual to perform a task using his/her knowledge, education, skills and experience gained over a period of time (Crawford 2000). Summer, Bock and Giamartino (2006) argued that project managers who aspire to lead projects in the future should develop their leadership skills. Project management is leadership intensive. Good communication, flexibility to deal with ambiguity, developing healthy working relationships with the project team, ability to create and clearly communicate a future vision, and sound knowledge and understanding of timelines and

influential tactics are all required of effective project leaders. In addition, a project leader ought to understand and practice the power of appreciation and constantly remind their team of *what is important*, enabling them to generate trust and more importantly, to sustain it.

According to Trivellas and Drimoussis (2013), IQ is a value that indicates a person's ability to learn, understand and apply information and skills in a meaningful way. IQ gets one hired, EQ gets one promoted. IQ competence is comprised of cognitive skills and knowledge, education skills, technical skills, conceptual skills and political and cultural awareness. According to Saarni (1999), EQ is a measure of emotional intelligence, i.e., a way to measure how a person recognises emotions in themselves and others, which in turn aids leaders in managing work as well as the team. It assists project leaders to develop self-awareness, selfmanagement, social awareness and relationship management. EQ has three distinct components: emotional competency (EC), emotional maturity (EM) and emotional sensitivity (ES). Saarni (1999) explains that EC tackles emotional upsets, high self-esteem, egoism and inferiority complex; EM manages self-awareness, developing others, delaying gratification, adaptability and flexibility; while ES is associated with understanding the threshold of emotional arousal, empathy, improving interpersonal relations and communicability of emotions. Project leaders with a high EQ are not afraid to express their feelings and thereby are not affected by negative emotions. Thus, they are better able to balance their emotions and feelings with appropriate reason and logic that connects them to reality, i.e., they have a practical outlook towards projects (Zhang, Cao & Wang, 2018).

Cavallo and Brienza (2006) further elaborate that EQ competency comprises people, motivation, human, professional and ethical skills. Thus, individuals with a high EQ are independent and self-reliant, while individuals that have a low EQ generally avoid taking responsibility for their actions, exhibit insensitivity, and show lack of empathy and compassion

towards fellow team members. According to Novo, Landis and Haley (2017), MQ comprises leadership, conflict management, human resource management, negotiation, team management, communication, active listening and administrative skills. Thus, MQ assists project leaders to manage their own tasks and responsibilities while leading different projects, and enables them to organise and coordinate resources in an efficient and effective manner. This allows them to establish project objectives and transform these objectives into advantageous long-term plans. The researchers found that the key soft skills identified as important for project managers form the components of MQ, IQ and EQ, i.e., all the competencies required of a project leader. In line with the above literature review, table 2 below summarises the key soft skills related to each of the competencies. This typology highlights the key competencies which are later explored in the interview phase of the research.

Leadership Profiles	Associated Soft Skills	Authors
EQ	<ul style="list-style-type: none"> • People Skills • Professionalism & Ethics • Motivation • Human Skills 	Sarni (1999); Zhang,Cao &Wang (2018); Cavallo & Brienza (2018); Muller & Turner (2010); Anantatmula (2010); turner, Muller & Dulewicz (2009); Trivellas & Drimoussis (2013); Ekvall & Arvonen (1994); Galvin et.al (2014); Gunter (2020)
IQ	<ul style="list-style-type: none"> • Conceptual Skills • Political & Cultural Awareness • Cognitive Skills & Knowledge • Technical Skills 	Trivellas and Drimoussis (2013); Muller & Turner (2010); Cleland (1995); Anantatmula (2010);Pinto (1987); Rad (2002); Jugdev & Muller (2005); Petterson (1991); Galvin et.al (2014); Alvarenga et.al (2019)

MQ	<ul style="list-style-type: none"> • Leadership Skills • Conflict Management • Human Resources Management • Negotiation Skills • Team Management • Communication Skills • Active Listening Skills • Administrative Skills 	Anantatmula (2010); Summer, Bock and Giamartino (2006); Novo, Landis & Haley (2017); Muller & Turner (2010); Weiss (2001); Mullaly (2004); Fedor et.al. (2003); Crawford (2000); Galvin et.al (2014); Geoghegan & Dulewica (2008)
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Table 2: Leadership competency profiles and skills related to each profile

4.5.3 From Project Manager to Project Leader

A comprehensive literature review was conducted to identify the skills required of a project manager (Gulati et.al, 2019). Upon reviewing the literature further, it was found that these skills also form the basis of leadership profiles (Muller & Turner 2010). We explored this in greater depth to sieve out more information pertaining to leadership profiles and group the skills supporting the argument of this paper: i.e., that a project leader can be a project manager however, a project manager may not necessarily be a project leader. Evidence from the secondary data analysis has found differences in the duties and tasks performed by both. For example, leaders bring the change whereas managers manage the change; leaders pave the path and then lead the way down the paved path, whereas managers ensure that the team follows the path that has been paved for them (i.e., achieving the specific objectives of the project). Leaders are described as mentors, whereas managers are evaluated based on how well they follow the principles of management as theorised by Henry Fayol (Lewis 2003), i.e., planning, organising, directing and controlling.

Further, leaders are considered to be revolutionaries, whereas managers are considered to be strategists. Leaders empower the whole team, whereas managers facilitate the team to achieve the desired goals and objectives of a project. Leaders are involved with people, whereas

managers are more inclined towards processes. Leaders innovate, whereas managers conclude on *the* best possible solution according to their understanding and by using available resources to support an innovative idea (Goleman 2003; Epitropaki & Martin 2005; Bolden & Gosling 2006). Upon further analysis of the literature, it has been established that ***both project managers and project leaders have a relationship with MQ and IQ in common.*** Figure 6 below shows the relationship of a project manager and a project leader with the leadership profiles. It is evident that EQ seems to be the missing element of project leadership; however, MQ and IQ are common to both.

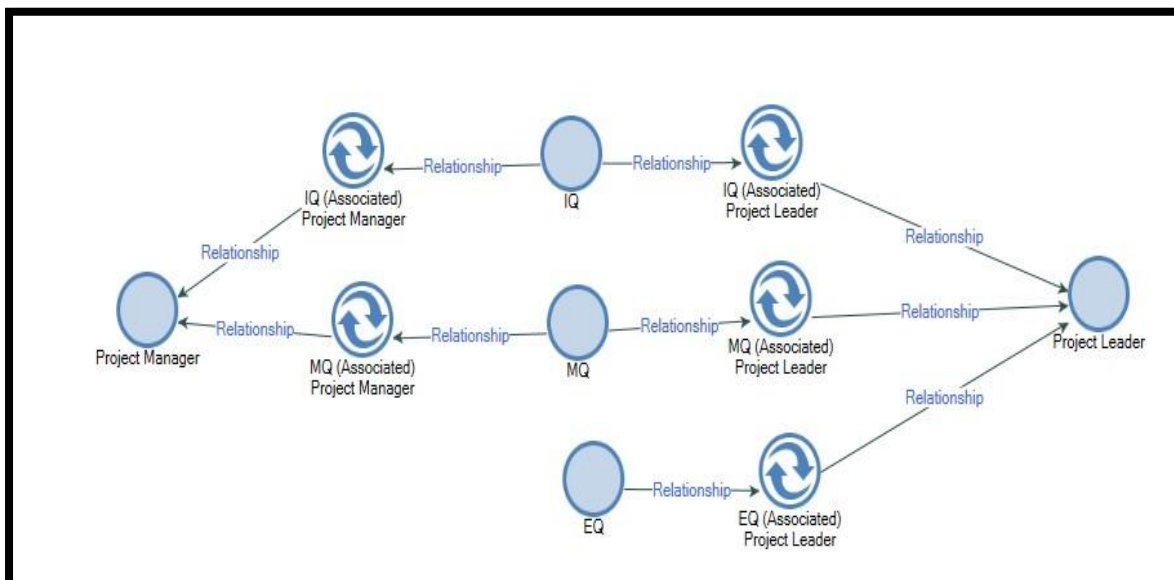


Figure 6: : NVivo Relationships derived for project manager, project leader, EQ, IQ and MQ nodes

According to Bruce and Langdon (2000), a project manager *should* practice leadership skills in order to be an effective team manager. According to the Behavioural Leadership Theory (Salkovskis, Forrester & Richards 1997), a manager could transform themselves into an effective leader with training that focuses on the way a task is performed. From the reviewed literature, it was found that a leader has a specific behavioural trait; however, the researchers also found that the behaviour of an effective leader is different from the behaviour of an

ineffective leader. These behavioural traits are considered more important than physical, mental or social traits. The foundational behavioural leadership studies were conducted by the Ohio State University and the University of Michigan in the late 1940s and 1950s (Salkovskis, Forrester & Richards 1997). The Michigan studies identified two leadership types that have an influential effect on employee performance and productivity as a whole, that were an integral part of employee's and production orientations. The Ohio University identified initiative structure and consideration as two leadership behaviours. According to the Ohio State University study, a leader exhibit two types of behaviours, i.e., people oriented and task oriented from the perspective of facilitating goal accomplishment. Consideration is oriented towards interpersonal relationships, mutual trust and friendship, that relates to a project managers' human and cognitive skills (Zuo et. al 2018). The initiating structure is task oriented; it relates to the ability to define tasks and roles, initiate actions, organise group activities and define how tasks are to be accomplished by the team. As a result, it relates to a project manager's technical, communication and conceptual skills. ***Therefore, it can be concluded that a project manager could possibly evolve into a project leader if they develop the key soft skills pertaining to each competency*** (refer to Table 2).

In order to validate these preliminary findings, interviews were conducted with practising project managers. The research method undertaken is explained in the following section of the paper. Thereafter, the findings will be presented in the findings and discussion section.

4.6 Research Method: Interviews

4.6.1 Participants

To explore the argument that a project manager could be groomed to become a project leader by developing soft skills pertaining to EQ, IQ and MQ, a total of 22 in-depth interviews

were conducted. The interview method was chosen as the most appropriate data collection method primarily because it is an appropriate tool for exploring the views, beliefs and motivations of individual participants about the proposed pathway to project leadership (Gill et. al, 2008). The interviews also aided in establishing a better understanding of differences between a project manager and a project leader, and actual implementation of skills and competencies in the project management domain. Most importantly, it helped to capture the actual scenario prevailing in practice with respect to the research argument. All participants were designated or self-described project managers with experience of managing at least one successful project. Participants were recruited via invitation email which included an information sheet and consent form. Further to this, purposeful sampling technique was used to identify and select participants with the aim of collecting rich data (Suri, 2011). It included recruiting participants from various company websites and professional networks. Each participant was assigned a code ranging from P1 to P22 for the purposes of de-identification.

Figure 7 below shows key demographics of the participants recruited for this study.

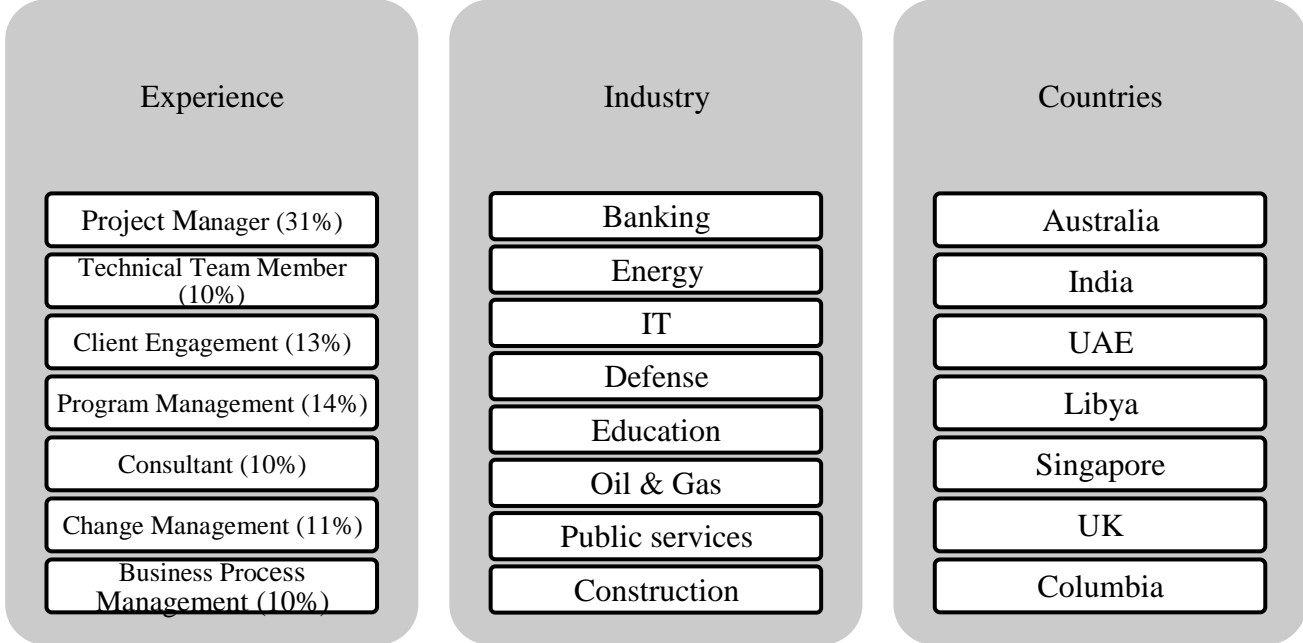


Figure 7: Demographic Data Sample

Participants had held various positions during their careers, which is represented in the percentage distribution assigned in the experience column in figure 7. In addition to a diverse range of project management environments, both large companies and SMEs are represented in the sample. The years of experience of the participants ranged from 5 years up to 20 years in various positions, industries and countries within the project domain. A sample size of 22 was considered sufficient for this research as the data started to saturate during the interviews and further interviews were unable to provide new information as such.

4.6.2 Data Collection

For primary data, semi-structured interviews were conducted. Before conducting the interviews, each participant was informed about the purpose and nature of the study. All interviewees were asked a consistent set of open-ended questions wherein they were asked to describe their experiences in relation to the research topic. Depending on the experience shared, at times, the set questions were followed by some spontaneous, open-ended questions as well, to encourage free flow of information and to allow interviewees to share real-life examples. These interviews were audio recorded with participants' consent and later transcribed for the purpose of adopting a thematic analysis. Interviews were conducted in both formal and informal settings, in person and in English.

4.6.3 Data Analysis

Qualitative methods have been used for this research wherein the underlying epistemology is interpretive. For primary data analysis, i.e., interviews, researchers attempted to understand a phenomenon through the “narratives” derived from the interviews and the meanings which participants assigned to these narratives. Thematic analysis was used for the primary data (interviews), which refers to identifying, examining and recording patterns in the

collected data (Vaismoradi, Turunen & Bondas 2013). NVivo 12 was used to examine and record patterns in this case. NVivo is a software package that supports qualitative data analysis, designed by QSR International Pty Ltd. The patterns generated from the software were then analysed to identify emerging themes, leading to the findings of the study, and addressing the research argument for this paper.

4.7 Findings and Discussion (primary data analysis)

In practice there are three types of project managers, firstly, those who evolve into project leaders in due course of time with their experience and by developing skills during their career. These project managers manage their projects for a certain time and then lead them for the remainder of their career once they become project leaders. Secondly, there are ‘born leaders’ who always portray leadership traits irrespective of situation and the position (project manager or project leader). Lastly, some project managers keep both project manager and project leader traits separate and use them on a need-to basis. They switch between the roles depending on the situation. In any of these cases, the type of project manager one might be is dependent on the awareness, experience, skills and personality of the person. Participant P1 stated that he is a firm believer of leading from the front and has done so all his life, primarily because that is part of his personality. He has been a scout, a sportsperson and a lifeguard which all contributed to developing leadership skills in him and eventually turning him into a groomed leader. He stated:

I'm an absolute firm believer of leading from the front and, have done this my whole life even from, you know, being a Cuban and Boy Scout through lifesaving and through my sports at lacrosse and all my other things always. When other people won't do it or won't get it done, you

step in and fill the void, this is an essential trait of a leader wherein they seek to resolve the issue. (P1)

P1 expressed that being a natural leader, he doesn't actually make a conscious switch between being a manager or a leader while managing teams. On the contrary, participant P12, who also considered himself to be a natural leader, admitted that he is not a very good manager, emphasising his awareness of the differences between the two roles. This was in line with the differences identified from the literature in the earlier part of this paper. In both cases all participants were aware of the fundamental differences between a manager and a leader which formed a strong base for managing or leading their team. 78% of participants also hinted that the experiences they had had in the past, in conjunction with their personal traits, also helped them to shape their approach towards their team. For example, P12 who is a project manager in the IT domain said:

I see myself as a leader. I am not a very good manager. If you ask me to follow the book and do both, I will be the last person to do that, but I myself want to take initiatives. And I like my team to get initiated. That's the main difference...a manager can manage the work to get the work done, but a leader can help to do something exceptional. (P12)

Most participants indicated that a manager's role is more *administrative* in comparison to a leader's role, which they found to be more *interpersonal*. Some also stated that management is more *process oriented* whereas, leadership is more *coaching oriented*. While the data set had natural leaders, there were some who have learned how to become a leader along the way. One such participant, P9, expressed that he had met different people while managing projects and identified that he needs to approach each individual differently and

communicate with each in a different manner. This experience led him to realise that he needs to improve his interpersonal skills while managing projects, and not just focus on the administration. It is worth noting that the majority of the participants emphasised that they “managed” projects (hard skills), however they “led” teams (soft skills, people aspect). They unanimously agreed on the importance of building relationships, i.e., investing in the people aspect of projects. This has been a critical finding in the research. Born leaders (self-identified) understood the difference between management and leadership but did not make a conscious switch between the two in practice. Interestingly, groomed leaders or those who evolved with experience were mindful of when to manage and when to lead. Despite the knowledge of differences in their role as a manager or a leader, leadership was more associated with traits such as empathy, human skills, ethical decision-making, supporting the team in time of need, lifting up employee morale, etc. These traits indicated the EQ competency of a leader and soft aspects of project management. As noted:

It's more of leadership when I am dealing with people on a personal level otherwise it is managing the team and getting the project delivered. (P10)

This aspect was quite clear to those who consciously knew the difference between management and leadership, as illustrated via the statements below:

What I feel leadership really is about emotional intelligence. (P11)

A manager is an administrator. (P14)

I am naturally a leader but I think you need to switch hats in terms of being a manager, which is more administrative sometimes [...]. (P6)

Management is technical. (P14)

Many participants emphasised the differences between the two roles (P1, P5, P18, P20 and P12). In addition to having clarity in roles, almost 85% of participants emphasised the importance of “situational adaptability” while deciding on whether to wear a manager’s hat or a leader’s hat. For example, the situation could be related to phases of the project, people involved in a project, risks, personal circumstances or even a change. A project goes through various phases and each phase has different requirements. Wherein the initial stages of the project may demand more management, the latter half could possibly call for leadership. For example, a participant also mentioned that sometimes the personal circumstances of a team member may impact their performance. In such a scenario they take a leadership approach to motivate the team member and engage them in the task again. They also stated that the situation depends on the team as well as the team members they are dealing with. Every team member may not require management and not all teams need leadership. P19, who manages technology system projects expressed:

I think I am quite flexible trying to manage things depending on the situation. Because for example, there are some colleagues where you need micromanagement. (P19)

Having said that, a few participants also admitted that at times they could analyse the situation incorrectly and use the “wrong hat”. One such participant with 14 years of experience in banking and finance industry admitted:

Sometimes I am unconsciously managing when I am supposed to be leading and vice versa [...]. (P20)

Data has provided us with various examples of leadership being associated with applying human skills, being professional, showing empathy and being ethical. These are the skills associated with the EQ competency profile (refer to Table 2). However, the interview respondents also emphasised that MQ and IQ are equally important aspects of a leader's competency profile. MQ and IQ are common to both management and leadership, but there is undeniably scope to develop EQ and potentially groom current project managers to become future project leaders. For instance, P14, who has extensive experience in implementing management systems said:

Leadership is development of trust, but a leader has to have management skills. It will be impossible to become a leader if you do not have management skills. (P14)

Therefore, it is important to consider that each competency has a unique role to play in grooming a manager or a leader and thus, impact their actions. These findings will play a crucial role in paving the pathway to leadership for current project managers. Participant responses were in line with our secondary data analysis, i.e., that MQ and IQ are common to both roles, and EQ is the key difference between a manager's and leader's competencies. Hence, a project manager could evolve into a project leader by developing their EQ competence.

In addition to the narratives above, nodes and relationships created in NVivo were also analysed to validate these findings. A series of analytical tools, such as concept maps, comparison diagrams, and project maps, etc., were used to critically analyse the data and sieve out emerging themes and patterns. Upon generating the comparison diagram of relationships associated with the project manager and project leader nodes, it was found

that the NVivo analysis was well aligned with the secondary data and narratives analysis.

Figure 8 below illustrates the comparison diagram which reinforces that a project manager could evolve into a project leader by developing EQ.

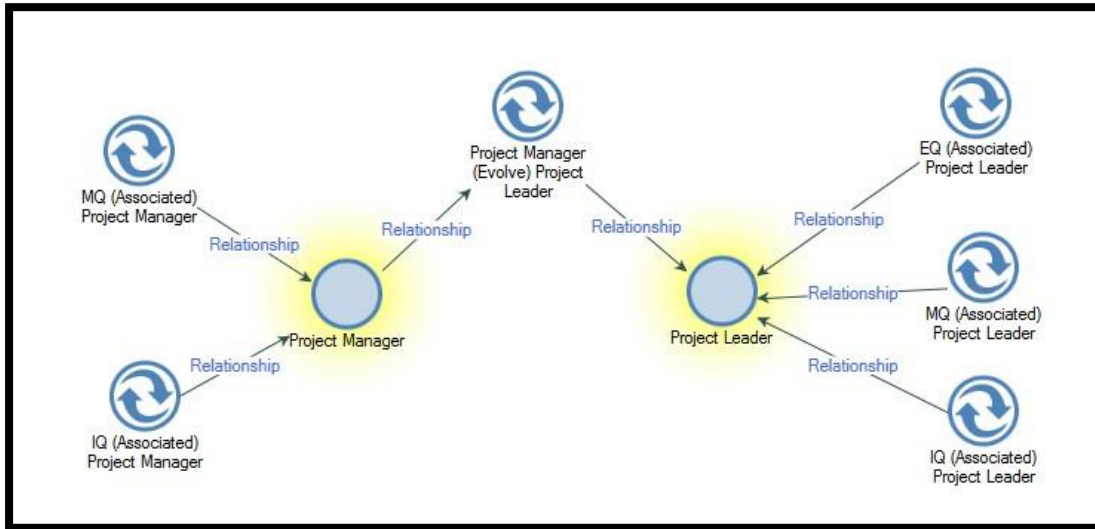


Figure 8: NVivo comparison diagram of the project manager and project leader nodes

As presented throughout the paper, these findings are well supported by both primary and secondary data analysis. The participants of this study also agreed to the possibility of project managers becoming project leaders by following the skills and competency development pathway. Hence, it can be concluded that the pathway to project leadership for a project manager is through developing their EQ profile. Figure 9 below illustrates the recommended pathway to project leadership, which is derived from the secondary data analysis and validated by the primary data analysis.

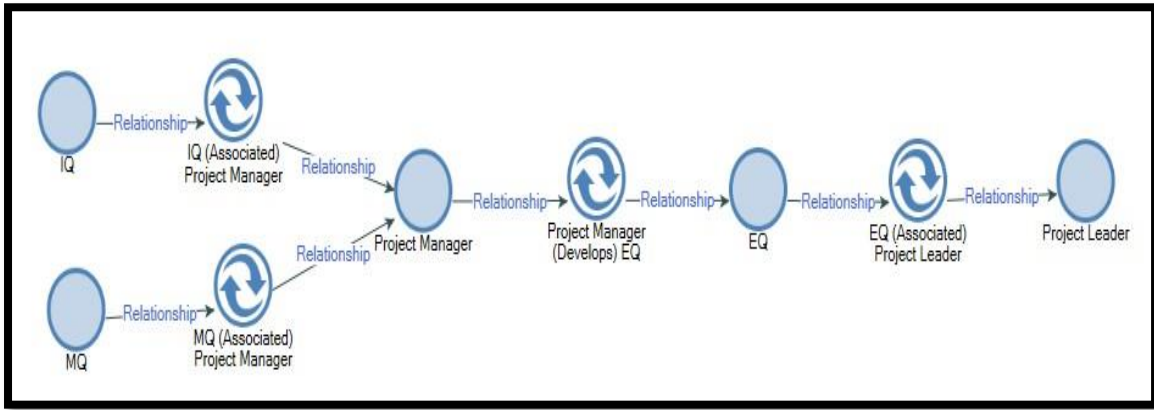


Figure 9: Pathway to Project Leadership

In summary, Figure 9 indicates that evolved managers have the scope to become project leaders. The project leader role is not restricted to those who are natural or born leaders; project managers can develop into project leaders.

4.8 Conclusion

In conclusion, the project manager and project leader are two distinct roles with different responsibilities. However, these roles could be taken up by the same individual in certain circumstances, for example when the role lacks clarity, when the organisation size is small, or when the project itself is relatively small (for example, website development, or grant project). Another common reason for role ambiguity is also the requirement for a manager to be able to “lead” their team, which is often confused with being a leader rather than just using leadership skills. Being a leader is not just about having leadership skills. Being a leader also requires being able to lead by example, motivate followers and act ethically. In the project management domain, in which the terms project manager and project leader are often used interchangeably, this research has attempted to bring clarity to these roles from their skills and competency perspectives. In order to achieve this, the primary (interviews) data set was thoroughly analysed using thematic analysis to sieve out themes, which later led to the findings of this paper. The findings of this paper identified the key competencies of a leader namely,

EQ, IQ, and MQ. It further identified MQ and IQ as the key competencies of a manager. The skills associated with each of these competencies have been illustrated in Table 2. In addition, the paper also establishes that a project manager could evolve into a project leader by developing EQ competency specifically, as MQ and IQ were found to already be common to both roles (refer to Figure 8).

This research also uncovered factors beyond the identified skills and competencies, which also contribute to the grooming of a leader. These factors include but are not limited to the environment in which a person has been raised, their involvement in sports or group-based tasks from an early age, and experiences of working in team environments. This paper has focused on bringing clarity to each role, identifying skills and associated competencies and deriving the pathway to project leadership. Practical implications of these findings will aid in proper division of tasks and responsibilities of both project managers and project leaders. Most importantly, it paves the way for project manager training as well as project leader training with respect to skills and competencies required to effectively manage projects. Practicing project managers could take courses to develop the skills they might be lacking or even groom the skills they may have but not use, or under-use. However, further research and investigation into environmental factors, exposures and required changes in education to aid identification or development of identified skills would add more value to the overall development of both project managers and project leaders in our domain. Lastly, these findings could also serve as a basis for changes in project management curriculum wherein tasks, activities and course materials could be improved and focused upon empowering prospective project managers and project leaders with required skills and competencies.

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Chapter 5 - Methodology

5.1 Chapter Overview

The chapter defines the methodological background of this research. This thesis is presented in a publication format wherein all four papers already include respective methodology sections. As such, each paper defines the methodology adopted; hence, this chapter will focus on the overall research design and philosophical underpinnings of this research. This research uses a qualitative–interpretative method of research to collect and analyse data. Semi-structured in-depth interviews were conducted with participants and thematic analysis was performed for data analysis. This chapter outlines the basis for choosing a qualitative methodology and outlines the limitations of this research. The ethical practices followed throughout conducting this research have also been included in the respective sections of this chapter.

5.2 Research Design

According to Creswell (2013), a research design is a framework or blueprint for conducting research, dependent on the purpose and nature of the research problem. The research design serves as a foundation stone for conducting the process. As every research has its independent research design to address its unique problem situation, one design cannot possibly fit all research problems. This section will describe the procedures followed to obtain the research data and the analysis and findings concerning the research objectives and the research questions. This research is exploratory in nature and, thus, the researcher has attempted to provide insights and a deeper understanding of the stated research questions (see Chapter 1, Section 1.4). The research process provides a flexible approach because the data collection is semi-structured (in-depth interviews), and analysis of the collected data is qualitative (thematic) in nature. Figure 10 (below) illustrates the overall research design adopted for this research.

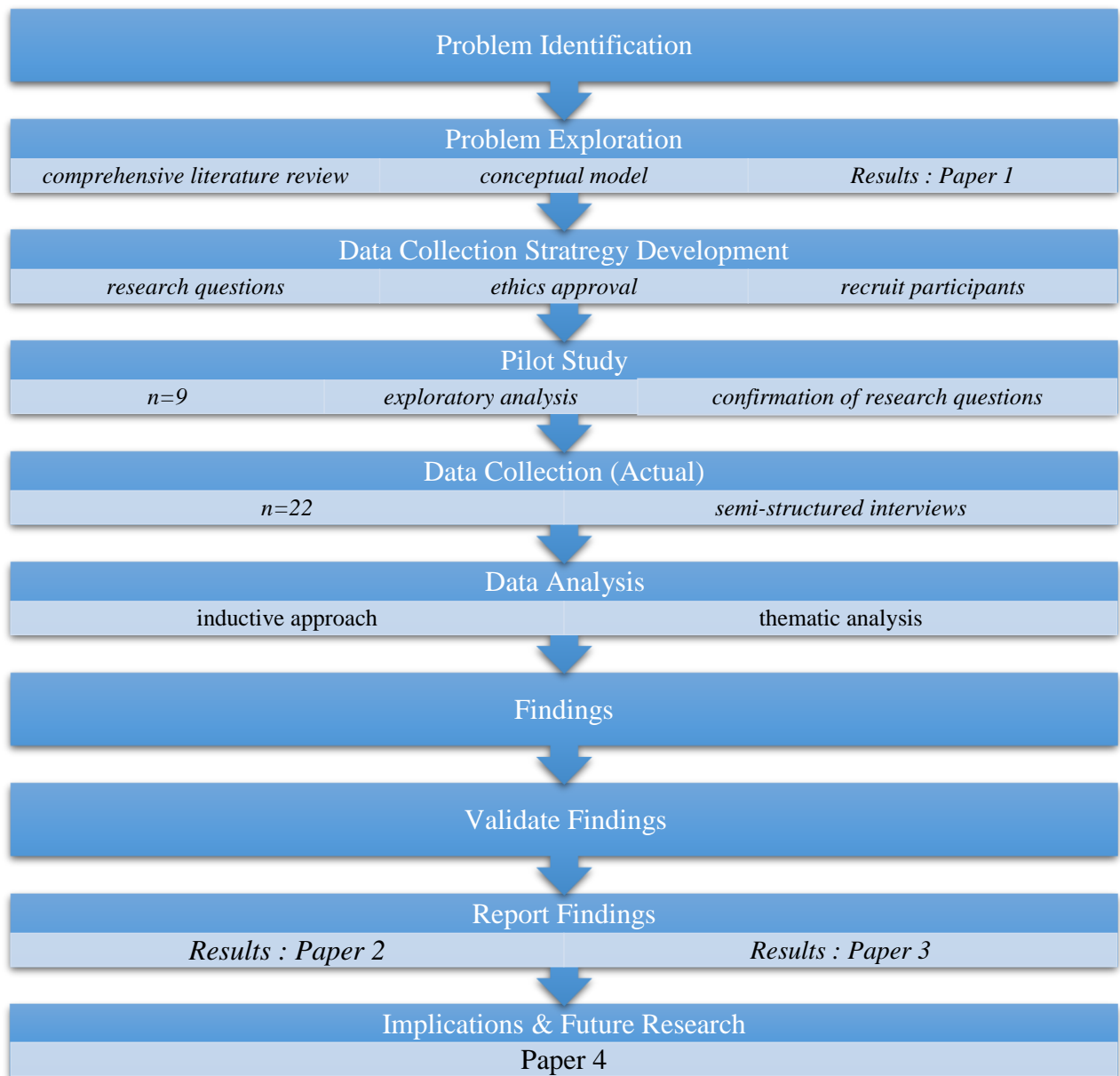


Figure 10: Overall Research Design

This research began with problem identification which was explored by conducting a comprehensive literature review (meta-framework). The results of this phase have been discussed in Paper 1 (see Chapter 2). Then, the exploration phase provided evidence in regard to the identified gap and emphasised the need to conduct this research. In the next phase, a data collection strategy was devised. First, the research questions (see Chapter 1, Section 1.4) were developed and ethics approval (see Appendix A) was obtained which granted permission to

begin data collection. Participant recruitment also began in this phase, and was an ongoing process until actual data collection was completed. The researcher then conducted a pilot study. The main aim of the pilot study was to, first, conduct pilot interviews to test the research questions, second, perform an exploratory analysis to test if emerging themes somewhat provided answers to the research questions and, lastly, to identify if there was a need to change or improve the research questions. Upon completion of this pilot study, actual data collection was performed. In this phase, semi-structured in-depth interviews were conducted with 22 participants. In the next phase, data analysis, the interviews were transcribed which led to 350 pages of interview transcripts and these transcripts were analysed to derive findings. As part of the analysis, NVivo software was used to create nodes and identify emerging themes and relationships. The findings were further validated with/against the literature and then subsequently reported in Paper 2 (see Chapter 4), Paper 3 (see Chapter 6), and Paper 4 (see Chapter 7, Section 7.4).

5.3 Philosophical Foundations

Research is mostly based on assumptions about how the world is perceived and how we can understand it, with researchers continuously arguing about the best way to do so. As researchers, we need to consider how we come to understand the world around us and think about our own philosophical approach to knowledge, before we are able to devise a sound research design. This research has adopted a thematic analysis wherein an inductive approach has been used to analyse the data sample. The thematic analysis emphasises identifying, analysing, and interpreting patterns of meaning within the qualitative data being analysed (Braun & Clarke 2012). These themes aid in identifying patterns across the dataset which are important to either describe the phenomenon or respond to the research questions. In this

approach, the data is first coded to emerge themes. These themes are then reviewed and defined to obtain the findings (Alhojialan 2012).

A thematic analysis allows a naturalist, interpretative view of reality (Vaismoradi et. al. 2016). Unlike content analysis, the information in thematic analysis remains qualitative and is not converted into quantitative data. The research looks for the themes that reoccur in the narratives and summarises the main themes using participant quotations as evidence. Most importantly, the “richness” in the data is maintained. It allows insights into data that are not anticipated by the researcher. This method is often criticised as too subjective in terms of researchers using their judgment to find themes. However, this drawback can be countered by revisiting the themes a few times and ensuring that there is enough evidence to support them before reporting them in the findings—which was the process followed in this research.

For this thesis, a thematic analysis was found to be a suitable approach as the researcher collected a large data set in the form of interviews and this approach is designed to reduce large amounts of data into manageable codes. This was indeed very helpful in managing the data from 22 interviews which ran for an average of one hour each. Though the data is made manageable it does not lose its validity along the way. It follows a cyclic method which allows the researcher to move back and forth through the data and phases of analysis until clear and final themes are derived (Alhojailan 2012). This flexibility to revisit and move within the data provides the researcher with a deep understanding of data and also greatly reduces the possibility of missing out on a key code or theme. It is very important to understand the data to conceptualise the whole scenario and gauge the findings. This research needed to retain the richness of data as the experience shared by participants would lead to the answers to the research questions. A thematic analysis allowed the researcher to retain this richness of data which gave this method an advantage over other methods of data analysis.

5.4 Data Collection

There are two types of data collected while conducting research, namely primary data and secondary data. Primary data is based on data collected via interviews, from the viewpoint of addressing the problem situation; whereas secondary data refers to the data that is already published and which was originally collected for some other purpose by different scholars to explore other research questions (Hox & Boeijs 2005). According to Silverman (2016), in qualitative research, there are four main methods of collecting data:

- Observation: the researcher observes participants to understand if participants do what they say they do, and to gain knowledge of the subject.
- Interview: the researcher develops a questionnaire and conducts interviews wherein a researcher asks questions, gathers responses by listening to the respondents and records them.
- Focus group: this method is guided by a set of questions in an interactive format within groups. The groups are formed in a way that the researcher can gather diverse opinions and each respondent's involvement can be assured.
- Secondary data: this consists of collecting data through secondary means, such as research journals, videos, audio recordings, and published interviews.

The researcher, as discussed in the research design section (see Section 5.2), chose secondary data to establish the research gap and validate findings, and used interviews as the method to conduct primary data collection for this research. The steps in data collection included gaining ethics approval, running a pilot study, and then performing the actual data collection. Each step has its own significance in the overall data collection process which will

be discussed in the following section. Figure 11 (below) provides an overview of the data collection strategy adopted for this research.

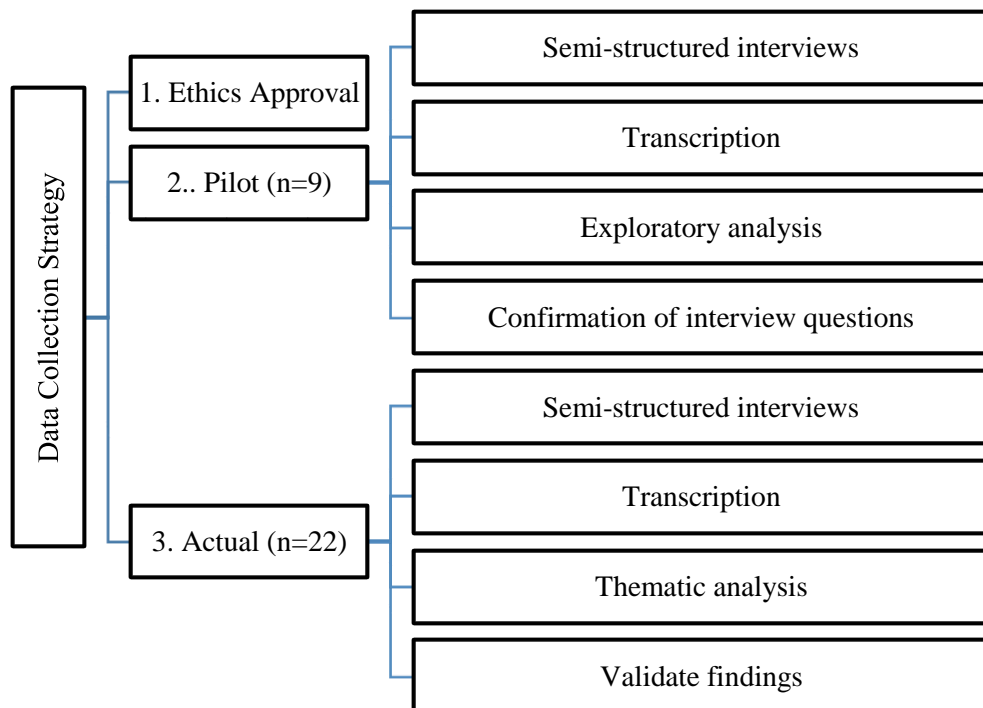


Figure 11: Data Collection Strategy

Before proceeding with data collection, ethics approval was mandatory. An ethics application was launched for this purpose and an approval (H-2018-240; see Appendix A) was subsequently obtained. The interview questions (Appendix D), consent form for participants (Appendix B), and participant information sheet (Appendix C) were included as supporting documents for this application. This approval confirmed that the data collection process complied with the requirements of the *National Statement on Ethical Conduct in Human Research (2007)* and involved no more than a *low risk* for the research participants.

Upon obtaining the ethics approval, a pilot study was conducted. This study focused on testing the interview questions so that the changes (if any) could be incorporated before the actual data collection began. In this study, nine interviews (semi-structured) were conducted in the pilot test. Thereafter, these were transcribed and an exploratory analysis was conducted.

This analysis indicated that the interviews could generate a rich data set which could potentially

lead to the findings of this research. Additionally, it helped the researcher to check if the participants could understand the interview questions and if there was any need to explain key terms related to the research, such as “soft skills”. The pilot also helped to identify if any prompt questions were needed to further investigate certain aspects and aid participants to understand concepts. Since the pilot study provided an avenue to recognise potential shortfalls and areas of improvement which could impact actual data collection, the researcher was better prepared to conduct the next phase of the actual data collection.

During the actual data collection, 22 interviews were conducted with project managers who have managed successful projects. The participants were recruited from different industries such as IT, education, supply chain, defence, etc. The methodology section of Paper 2 (see Chapter 4) and Paper 3 (see Chapter 6) provide further description about participant demographics, experience, and selection criteria, etc. These interviews were then transcribed (350 pages of transcript) and participant information was anonymised for further processing of the data sample. The transcribed interviews were coded in NVivo and analysed to derive the findings of this research.

5.5 Data Analysis

Data analysis is a process of transforming raw data into useful information. According to Elo and Kyngas (2008), there are two common approaches to conducting data analysis, namely inductive and deductive. In the deductive approach, research questions are used to group data and then analysed for similarities and differences (Elo & Kyngas 2008). Whereas in the inductive approach, an emergent framework is used to group data to subsequently find relationships (Thomas 2006). The researcher has used the inductive approach to find relationships, if any, between nodes. Also, the researcher has further performed a thematic

analysis of different nodes (explained in the section below) from a similar viewpoint of finding relationships, if any, between created nodes.

An analysis using the NVivo software was conducted which identified similarities, extracted themes, identified relationships, highlighted differences and created generalisations via codes. Tools within the NVivo software, such as data queries and mind maps, allowed the researcher to identify and make sense of meaningful relationships between the created nodes.

According to Smith et al. (2009), a qualitative researcher needs to analyse all data separately. However, it is difficult to erase the impressions gathered from the analysis of each dataset (literature) from where the information is gathered. Therefore, the researcher deliberately created separate nodes in the NVivo software rather than attempt to force the data into specific nodes. This helped to concentrate on the current analysis without pondering on the themes that had emerged from the review of the literature. Besides, the researcher attempted not to jump to conclusions and waited for themes to emerge from the review of different nodes that were created in real-time while interviews were being reviewed.

As the review of the data sample (interviews) continued and this research progressed, the researcher started discovering meaningful information from the created nodes. The creation of nodes assisted the researcher to code data that provided immense assistance while analysing the collected data (different nodes) and reporting findings. The researcher conducted several queries, created mind maps, project maps, and conceptual maps based on the information discovered from the collected data (reviewing the nodes). The different maps developed by the researcher evolved with the increased number of reviewed sources. Some queries that the researcher ran in the NVivo software assisted the researcher in exploring the data further which in turn resulted in the creation of data subsets. This continuous process allowed the researcher to identify themes that emerged from the analysis. Following this, the researcher attempted to

identify relationships among the different nodes. For this process, the researcher attempted to run multiple conceptual and mind maps to discover if there is any *right* relationship between the nodes. In initial stages of research, mind maps aid in exploring the topic or theories; whereas in the later stages, they are helpful in confirming the structure of nodes. On the other hand, the conceptual maps are used to frame a research project, analyse themes and study the interconnections, i.e., the relationships. Both concept and mind maps are also helpful in presenting the research findings of research. Such exploration allowed the researcher to identify any emergent, meaningful framework. In addition to this exploration, the researcher also experimented with different queries to analyse created data sets. After following each step several times, the researcher identified a framework that validated that the project manager's soft skills contribute to the project's success.

5.6 Limitations of this Research

The researcher has only focused on the skills that were identified in the reviewed literature (refer to Paper 1). Other skills could potentially emerge from cross-disciplinary literature that has not been reviewed at this stage because it was beyond the scope of this research.

The researcher has focused on establishing the importance of soft skills in project management; however, an implementation plan stating how this could be done is not included in this research. This would eventually be derived from the implications and suggestions of future research wherein the researcher has stated how findings of this research could aid various parties.

This research has been conducted with the specific aim of exploring the importance of soft skills in project managers which did not include generic managers who might be managing

other tasks or processes in an organisation other than projects. However, the findings do have the scope to be applied to these managers as well.

Though the research has few limitations, these limitations are more indicative of areas that could be further looked into, wherein the results of the thesis could serve as a sound base from which to start. Such avenues of possible future research have been discussed in Chapter 7 Implications and Future Research.

5.7 Summary

In summary, this chapter has provided the rationale for the research design adopted for this thesis. It has also explained the philosophical underpinnings of this research and elaborated on the data collection and data analysis processes. The chapter also highlighted the limitations of this research. The next chapter, Paper 3 (Chapter 6), will present the key findings of this research and provide answers to the research questions.

**Chapter 6 – Impact of Project Manager’s
Soft Skills on Team Performance and its
Subsequent Influence on Project Success
(*Paper 3*)**

6.1 Statement of Authorship

Statement of Authorship

Title of Paper	Impact of Project Manager's Soft Skills on Team Performance and its Subsequent Influence on Project Success
Publication Status	<input type="checkbox"/> Published <input type="checkbox"/> Accepted for Publication <input type="checkbox"/> Submitted for Publication <input checked="" type="checkbox"/> Unpublished and Unsubmitted work written in manuscript style
Publication Details	

Principal Author

Name of Principal Author (Candidate)	Richa Gulati		
Contribution to the Paper	Identification of Key soft skills required by a project manager, recognising how soft skills can impact a project team's performance and influence the chances of project success (positively or negatively)		
Overall percentage (%)	70%		
Certification:	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature and is not subject to any obligations or contractual agreements with a third party that would constrain its inclusion in this thesis. I am the primary author of this paper.		
Signature	Richa Gulati	Date	29/04/2021

Co-Author Contributions

By signing the Statement of Authorship, each author certifies that:

- i. the candidate's stated contribution to the publication is accurate (as detailed above);
- ii. permission is granted for the candidate to include the publication in the thesis; and
- iii. the sum of all co-author contributions is equal to 100% less the candidate's stated contribution.

Name of Co-Author	Carmen Haule Reaiche		
Contribution to the Paper	10% - supported in data analysis and theoretical underpinings of this research		
Signature	Carmen Haule Reaiche	Date	29/04/2021

Name of Co-Author	Sam Baroudi & Indra Gunawan		
Contribution to the Paper	10 % each - Supported in data analysis and theoretical underpinings of this research.		
Signature	Sam Baroudi	Date	29/04/2021

Please cut and paste additional co-author panels here as required.

Indra Gunawan

Date: 29/04/2021

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Subject: Fw: A1701010-RichaGulati-PhDThesisSubmission

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

Richa Gulati

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Cc: Sam Baroudi <sam.baroudi@adelaide.edu.au>, Indra Gunawan <indra.gunawan@adelaide.edu.au>
Subject: Re: A1701010-RichaGulati-PhDThesisSubmission

Dear Richa
Yes please use my signature as required
Kind Regards
Carmen

Sent from my iPhone

On 7 Jun 2021, at 5:43 pm, Richa Gulati <richa.gulati@adelaide.edu.au> wrote:

Dear Carmen, Sam, and Indra,

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My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

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Sent: Monday, 7 June 2021 5:14 PM
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<deancblg@jcu.edu.au>
Subject: RE: A1701010-RichaGulati-PhDThesisSubmission

Hi Richa,

Yes, that is fine with me and you have my permission to use my e-signature/typed name on the "statement of authorship" forms.

Regards, Sam

From: Indra Gunawan <indra.gunawan@adelaide.edu.au>
Date: June 7, 2021 at 17:53:43 GMT+10
To: Richa Gulati <richa.gulati@adelaide.edu.au>
Cc: Sam Baroudi <sam.baroudi@adelaide.edu.au>, deancblg@jcu.edu.au
Subject: Re: A1701010-RichaGulati-PhDThesisSubmission

Hi Richa,

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Regards,
Indra

On 7 Jun 2021, at 5:09 pm, Richa Gulati <richa.gulati@adelaide.edu.au> wrote:

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My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

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6.2 Abstract

Successful completion of a project is largely dependent on the project team's performance lead by a competent project manager. Project teams are led by skilled project managers who guide them through the project lifecycle, eventually leading to completion of the project. One of the key skill sets required of a project manager is the soft skills set which also forms the primary focus of this study. In this paper, we first report on the key soft skills required of a project manager and their impact on a project team's performance. Further, the paper presents the influence a project team's performance (led by a soft skill-competent project manager) may have on their project success. A qualitative approach was used wherein 22 semistructured interviews were conducted with experienced project managers from various domains. A thematic analysis using an inductive approach was conducted to derive the findings. The findings of this study present a set of key soft skills required of project managers, comprising active listening, conflict management, political and cultural awareness, negotiation, communication and leadership skills. The results also indicate that application of soft skills significantly affects the performance of the project team and has a subsequent influence on project success. The study establishes a direct relationship between a project manager's soft skills, their team's performance, and their project's success. Few studies have focused on this relationship from a soft skills perspective, thus this study provides a significant contribution by identifying the impact of a project manager's soft skills on the project team's performance and its subsequent influence on project success.

6.3 Keywords

Soft Skills, Project Team, Project Success, Team Performance, Project Manager

6.4 Introduction

A project is run, managed, controlled and closed by a project manager and their project team (Fisher 2011). Hence, there are “people” involved in every stage, process, decision and task of the project. This particular element of a project indicates that project management is as much about people management as it is about project management. In order to manage people, a project manager needs to exercise soft skills. Soft skills assist in managing team members and stakeholders in an effective and efficient manner (Scott-Young and Samson, 2008). It is evident from past research that one of the dominant reasons for project failure is a lack of soft skills in a project manager, emphasising that behaviour-underpinning competencies are becoming increasingly important in project management (Levasseur 2013). However, behaviours do not drive project outcomes. Thus, the specific behaviours pertaining to each skill need to be applied by a project manager in order to achieve a desired result. This is where soft skills can help a project manager to further improve their work attitude and cater to the element of flexibility that is required for individual team members, giving rise to an overall productive environment, i.e., affecting team performance. This impact on team performance eventually has an influence on project success as the performance determines if the project is escalating towards its success or failure (Yang, Huang & Wu 2011).

The aim of this study is to identify the key soft skills required of a project manager to manage their project team. Additionally, the study will observe the impact of soft skills on project team performance and the influence of the team performance on project success. This paper is divided into five sections. Section 1 presents a literature review, and Section 2 describes the methodology adopted for this study. Section 3 presents the findings and discussion via the key outcomes of this research and the themes identified during data analysis.

In Section 4, the implications of this research and recommended avenues for future study will be discussed. Lastly, Section 5 summarises and concludes the paper.

6.5 Literature Review

6.5.1 Project Team, Team Members and Team Development

The team that works collectively to plan, execute, monitor, control, and close the project is known as its project team and a project manager is a core part of the project team (Newell, Tansley & Huang 2004). The characteristics and structure of teams may vary from project to project; however, the project manager's role as the leader of the team remains unchanged regardless of the authority that they may have over team members. The key factors to be considered while forming teams include putting skilled people together to work in accordance with project requirements and ensuring that everyone has overall common purpose and are mutually accountable (Cowie 2003). This is very crucial as teamwork is ultimately a cooperative effort by the members of a group or team to achieve a common goal (Kolesnikov et. al 2016). The composition of the team is dependent on various factors, such as organisational culture, scope and location of the team. Thus, the team members can be broadly classified as dedicated members (i.e., working as full-time employees) and part-time members (i.e., working on a project-by-project basis for a limited period of time) (Gallstedt 2003). Each team member has a defined role and tasks within the team and each project team needs to achieve project milestones in order to maintain their effectiveness. An effective team has clear goals and directions specified by the project leader and all the team members are assigned roles and responsibilities according to their skills, expertise and experience. A project team works exceptionally well when it is integrated through effective communication, which is a soft skill

(Pinto & Pinto 1990). In addition, with effective communication, a project team presents itself and works collectively with a strong sense of purpose and commitment towards identified performance goals. Each team member possesses complimentary skills which when combined form a cohesive project team.

A mature project team is one whose members have worked together long enough to understand the tasks, processes and each other, and which therefore requires a project manager with more soft than hard skills. A team passes through different stages during the project lifecycle to attain this maturity (Rad & Levin 2006). Rickards and Moger (2000) discussed Tuckman's five-stage model, a seminal work which is still in use and applicable for development of a project team. Tuckman's five-stage team development model consists of five distinct stages, i.e., forming, storming, norming, performing and adjourning/mourning. Every project team undergoes all of these five stages, starting from when a team is formed until the time when a project concludes and all team members adjourn. Each stage is a stepping-stone for the next stage. Unless a stage is achieved, the team *cannot* move forward with the process of team development. However, there are certain individual factors that may hinder the development, growth and performance of project teams, affecting the efficiency of team members and the effectiveness of the project team as a whole. These factors include individual members who are not loyal to the team or organisation, team members who are not aware of or clear about the goals, having to share resources (team member allotted as a resource for two projects simultaneously), experiencing conflict with another project team, lack of trust and respect among team members, and discouragement of ideas by team members (Scott-Young & Samson, 2008). Whereas factors that enhance overall performance of a project team include establishing the urgency of tasks, carefully selecting team members, setting clear rules and

performance standards, fostering team bonding and working together towards achieving team goals.

6.5.2 Project Manager's Soft Skills, Team Management, Team Performance

Having defined the project team, team members, formation of project team and team development in the previous section of this paper it is important to emphasise the role of a project manager's soft skills in managing each one of them. From the selection of suitable candidates until a project's closure, all processes require the application of soft skills (Gale et.al 2010). A preliminary review conducted for this research identified 13 soft skills which a project manager should have. These include active listening, communication, conceptual, conflict management, human resource management, human, leadership, motivation, negotiation, people, political and cultural awareness, professional and ethical, and team management skills (Gulati et.al 2019). The paper will now discuss how these skills could aid a project manager from the theoretical (literature) point of view.

Active listening enables a project manager to listen to what team members are really saying rather than just receiving surface level information. A conscious effort to not only hear the message but also complete the message being communicated is important here (Cheon & Grant 2009). When a project manager pays deep attention by reducing distractions and assuring that they are attentive, it enables the team member to communicate more openly. It also establishes a sense of trust and reliability between the two, as undivided attention makes the team member feel a stronger sense of belonging to the project (Zuo et. al 2018). This listening process needs to be completed with immediate feedback from the project manager but any judgement could be left until the appropriate time. The team members know that the project manager values their conversation when they provide feedback in the form of repeating,

confirming, summarising, etc., their points. In practicing this skill, a project manager can demonstrate courtesy and understanding towards their team members (Stevenson & Starkweather 2010).

Communication is primarily an exchange of information between two or more people (Ramsing 2009). Though it sounds quite straightforward, many projects fail due to lack of or improper communication. Good communication can motivate and inspire the project team to perform better and build relationships. This skill allows a project manager to not only inform team members but also gather feedback (Ziek & Anderson 2015; Malik et.al 2021; Salmam et.al 2021). Feedback is crucial to ensure that the message has been received as directed but also to identify areas of improvement in the sender's way of communication (Henderson 2004). Keeping team members informed and sharing information with adequate transparency encourages them to remain goal focused and outcome directed. It must be noted that while communicating with team members, project managers should focus more on "expressing" than "impressing". This particular skill, when used with the right medium, type and style of communication, could prove to be very rewarding while managing conflicts and negotiations, and in forming a team culture (Samakova, Sujannova & Koltnerova 2013). The fact that communication is the key and heart of every project is very well supported and accepted by all scholars and researchers in the project management domain (Zulch 2014). Based on this, it would not be wrong to say that the application of any skills, let alone soft skills, is very much dependent on the communication skills of a project manager.

Conceptual skill is the ability of a project manager to understand complex scenarios and abstract ideas, and subsequently develop creative solutions for problems. This skill enables a project manager to not only conceptualise an idea but also transform it into an action-driven solution (Kay & Russette 2000). This ability helps project managers to develop the synergy in

the team, i.e., “recognising how the various functions of a project depend on one another, and how changes in any single part could affect all the other parts” (El-Sabaa 1999, p. 2). It creates an opportunity to provide the best response to and derive the greatest benefits from the challenges which a project manager may face during the project lifecycle, thus making them not only “person-job fit” for their role but also “person-environment fit” for the organisation (Sekiguchi, 2006). It increases the ability of the project manager to coordinate daily tasks in line with long-term goals and the strategic objectives of the organisation.

Conflict management is an opportunity to improve situations and strengthen relationships among team members (Afzalur 2002). Having conflicts, differences and disagreements is a natural result of people working together, due to factors such as difference in values, personal factors, social factors, etc. However, conflict could also be constructive at times. In either case, it needs to be carefully dealt with. A project manager could manage conflicts by avoidance, competition, accommodation, compromise or collaboration, depending on the situation (Jackson 2013). While using any of the previously mentioned strategies to avoid conflict, the project manager should also have the ability to understand their own feelings as well as the feelings of others. A project manager should be able to identify and meet the needs of others while taking responsibility for their own needs and feelings as well. Leung, Koch and Lu’s (2002) study concluded that conflict resolution methods are based on the notion of achieving harmony among team members, which clearly indicates that this skill is imperative for project managers. Conflict can be prevented to a great extent if the rules, goals and objectives are well established and openly communicated. It eventually aids in forming a healthy culture within the project team. Proper conflict management keeps employees motivated and facilitates increased performance and productivity.

Human resource management (HRM) is a series of integrated decisions that form the employment relationship; the quality of HRM contributes to the ability of the organisation and its employees to achieve their objectives (Huemann, Keegan & Turner 2007). HRM is concerned with the staffing dimension of management. Since every organisation is made up of people, acquiring their services, motivating them to higher levels of performance and ensuring that they continue to maintain their commitment to the project is essential for completing projects (Chow, Teo & Chew, 2013). This skill not only focuses on acquiring the right talent but also developing talent. It promotes team spirit and provides avenues to build greater trust and respect among team members. It helps to create a sense of job satisfaction, loyalty and commitment too.

Human skills involve the ability to work well with other people both individually and in a group or team. Since a project manager deals with team members directly, this skill is crucial. This skill eases information flow between individuals in the team (Trivellas & Drimoussis 2013). A project manager with good human skills can potentially engage better with the team members. These skills help keep the employees organised and invested in interteam relationships. Human skills used in conjunction with conflict resolution can bring good results. Additionally, human skills are helpful in negotiation and persuasion, and are useful when performing group analysis. With these skills, a project manager can form a better understanding with his/her team members by identifying their interests, thought processes, individual abilities, aptitude, personality and intelligence (Alam et al. 2010).

Leadership skill is an individual's ability to get things done through others in a positive manner and in the process inspire others to achieve desired project objectives (Lord & Hob 2005). One of the major parts of being a leader is to coherently communicate the vision of the project to the team members and the value they will create by successfully completing the

project (Brill, Bishop & Walker 2006). Showing team members how they can align their own objectives with project objectives is an invaluable trait of good leadership that in turn inspires the team members to strive for excellence. In addition, leadership skills allow a project manager to take initiatives and work towards ensuring safe working conditions for the team members that might be challenging but at the same time fair for all the involved team members. A project manager with leadership skills becomes a guide for their team members allowing them to seek their guidance on a regular basis (Bruce & Langdon 2000).

Motivation skills are described as actions or strategies that elicit a desired behaviour or response from a stakeholder. It is crucial because it allows us to change behaviour, develop competencies, set goals, grow interest, develop talent and boost engagement (Schmid & Adams 2008). Every individual has a different way of being motivated. A project manager needs to identify these motivational factors for team members and then capitalise on them to motivate their team. Numerous motivation theories, such as Maslow's hierarchy of needs, ERG theory, and theory X and Y, have been defined by seminal authors in the past. These theories provide a good base for understanding how a team member could be motivated. For example, Vroom's expectancy theory (1964 cited in Lee 2007, p. 789) proposes that an individual behaves or decides to act in a certain way because of their individual mindset. This may be due to what that individual would expect the result of the selected behaviour would be (expectancy). An individual would further conclude that if he/she makes an effort, there would be a definite result (instrumentality). Such a mindset would lead individuals to put some value on the type of reward/award he/she has decided for him/herself (valence). This process defines the mental process of making a choice or choosing on the basis of a desired outcome. From a project manager's perspective, their behaviour towards work, team members and the organisation would influence their decision-making with respect to a team member's behaviour.

Negotiation skills help project managers to resolve conflicts to ensure success is achieved at minimal risk to project objectives. It is also used in decision-making and rapport building. Negotiation could take place at any point of time in the project lifecycle with the team member or other stakeholders. A project manager uses their negotiation skills to manage change requests, manage expectations of stakeholders, resolve conflicts, and look at the economic stability from the viewpoint of finalising a contract with contractors and suppliers.

Negotiation is part of every stage of the project lifecycle with different objectives at each stage (Hobday 2000). It allows project managers to positively satisfy both parties rather than asking one party to compromise or both parties to lose out, either of which may have an adverse effect on the completion of a project (Al-Tabtabai & Thomas 2004).

People skills are related to the behaviour and behavioural patterns of an individual. People skills enable a project manager to get along with others and communicate ideas, resolve conflicts, achieve personal and professional goals, and build team spirit among team members of the project with efficiency and effectiveness (Pant & Baroudi 2008). People skills help project managers to create a healthy working culture among the team and potentially transform the culture of an organisation. A project manager uses people skills to maintain harmony among members of a project team so that team members can collectively work towards achievement of project goals and objectives (Cowie 2003). These skills enhance a project manager's problem-solving abilities, empathy and willingness to work for the common good of the team and project. A project manager will gain the team's trust by showing genuine interest in their needs and performance.

Political and cultural awareness indicates a project manager's understanding of the beliefs and values of different cultures. It plays a crucial role in projects which have either geographically dispersed teams and stakeholders or a multicultural team. What works well in

one culture is not necessarily a good fit for another (Badiru 2009). A project manager also needs to understand the organisation's corporate culture and accordingly apply their skills and knowledge through good people project management to achieve desired goals and outcomes. An enhanced cross-culture awareness and understanding of varied cultures that may exist within a team will allow a project manager to efficiently and effectively manage the overall project. According to Kayworth and Leinder (2000), knowing the team member and their background can assist project managers to create a work environment in which each team member can feel comfortable, and in which team members' motivating factors are satisfied (Osula & Irvin 2009).

Professionalism and Ethics are defined as the efforts that individuals put in to give their best at work every single day. Examples of professional behaviour exhibited by project managers are being punctual, wearing professional and presentable attire, and showing mutual respect for all (Morris et al. 2006). A project manager needs to practice professionalism and ethics to enhance and establish their personal credibility and trustworthiness among the stakeholders and the members of their team. A project manager can achieve this by setting project parameters, promoting transparency among the team, identifying and considering the strengths and weaknesses of their team members, and aligning their decisions based on a utilitarian approach (Hodgson & Muzio 2011). It has been suggested that moral behaviour produces the greatest good for the greatest number. Thus, from this perspective and approach, a project manager is expected to consider the effect that each decision would have on each team member and then select the one that is considered the most effective decision that benefits the majority. Ethical practices help project managers to lead by example and as a result gain the respect and loyalty of the team members (Kliem 2011).

Team Management involves managing team members using processes and tools to ensure better cooperation, communication and coordination to achieve a common goal. Project managers need to build an environment which motivates members to bond, feel safe, collaborate and trust each other, in order to manage the team effectively. Project managers could add a personal touch by learning something new about team members, celebrating special occasions and being accessible to them to aid team management (Carnone & Gholston 2004). Project managers should skilfully use their authority and ensure that other senior members of the team follow in their footsteps. A project manager can use motivation skills to keep the team energised to achieve the final outcome.

6.5.3 Influence of a Project Manager's Soft Skills on Project Success

Over time, approaches to defining project success have become more strategic and holistic. But it is still somewhat debateable whether achieving success in projects is solely based on effective frameworks alone. There are various project-related factors, such as project objectives, stakeholders, work environment and risk that have an impact on the success of a project (Cserhati & Szabo 2014). Many studies have been conducted on project success; however, it appears that none has been able to outline a universally accepted and/or an established definition of project success (Jugdev & Muller 2005; Cooke-Davies 2002). Al-Ahmad et al. (2009) posited that, generally, if a project is not able to deliver the agreed product or service within a specified timeline and/or the estimated budget, the project is considered a failure. Further to this, a study conducted by Hartman and Ashrafi (2002) identified various factors that contribute towards a project's success, however, none of these have identified what role a *project manager* plays in this success. Studies conducted by Hartman and Ashrafi (2002) though, have suggested that project success criteria are continuously developing with the

advancement in the project management knowledge discipline. The critical success factors that contribute towards a project's success include project mission, management support, project plan, client consultation, personnel, technical tasks, client acceptance, monitoring and feedback, communication, troubleshooting, conflict resolution, characteristics of project manager and project leader, environmental factors and organisational environment. In a more recent study, Cserhati and Szabo (2014) identified both success and failure criteria for a project. They found that meeting project performance objectives, project specific objectives and stakeholder satisfaction to be the three main success criteria for a project to be successful, and project management processes, project resources, project team, organisational culture, communication and co-operation as the main criteria that affect project success.

In order to manage people, a project manager needs to exercise soft skills. Soft skills assist in managing team members and stakeholders in an effective and efficient manner (ScottYoung and Samson, 2008). From the review of the literature, the researcher found that one of the dominant reasons for a project failure is a lack of soft skills in a project manager. A study conducted by Stevenson and Starkweather (2010) identified the most important skills required of a project manager to successfully deliver projects. Their study showed that out of six core skills identified, four were soft skills. In addition, Fisher (2006) argued that the behaviour underpinning competencies are becoming increasingly important in project management. However, behaviours do not drive project outcomes. Thus, the specific behaviours pertaining to each skill needs to be applied by a project manager in order to achieve a desired result. Soft skills can help a project manager to further improve his/her work attitude and cater to the element of flexibility that is involved with individual team members, giving rise to an overall productive environment. As a result, the researcher has gathered from the literature that a project manager's soft skills have a positive impact on the success of a project.

From the perspective of developing a deeper understanding of the type of team members that a project manager might need to manage in a team, McGregor's Theory X and Theory Y allow a project manager to develop a philosophical view of humankind. McGregor (1960 cited in Boyatzis 1982, p. 2) claimed that, "every managerial act rests on assumptions, generalisations, and hypothesis—that is to say, on theory. Our assumptions are frequently implicit, sometimes quite unconscious, conflicting". McGregor's (1960) work has some noticeable similarities to Maslow's Hierarchy of Needs. This relationship suggests that management could develop a better and enhanced understanding of why an employee might need to be motivated and also how an employee could be motivated in the workplace. In addition, from the understanding of Hershey and Blanchard's Situational Leadership model (Elmes & Wilemon 1988) the researcher was able to identify that a project manager's style of management strongly influences the beliefs and assumptions of a team member. If a project manager assumes that a team member is not interested in their work, he/she may use an authoritative style of management to manage them. On the other hand, if a project manager notices that an employee takes pride in their work they may adopt a more participative style of management with them in performing tasks and achieving project milestones. In both scenarios, a project manager would need to use their soft skills to manage their team. Sometimes a project manager needs to employ their conflict management skills, communication skills, active listening, and motivation skills to manage their project team and gather their interest in performing a required task, whereas in general and/or in different scenarios, a project manager may prefer to use human skills, conceptual skills, professionalism and ethics to further build and develop a strong bond with their team, encouraging and motivating them to work towards accomplishing a common goal.

Similarly, Vroom's expectancy theory (1964) is another seminal work which proposes

that an individual behaves or decides to act in a certain way because of their individual mindset. This may be due to what that individual would expect the result of the selected behaviour to be (expectancy). Further to this, that individual would further conclude that if he/she makes an effort, there would be a definite result (instrumentality). Such a mindset leads that individual to put some value on the type of reward/award he/she has decided for him/herself (valence). This process defines the mental process of making a choice or choosing on the basis of a desired outcome. Thus, the researcher found that a project manager's soft skills play a crucial and decisive role in providing encouragement to a team member to adopt a positive behaviour that eventually results in a team member making a positive contribution to the successful completion of a project.

After exploring the necessity for soft skills in a project manager in the extant literature, it was observed that soft skills are important not only during the project lifecycle but also in pre and post phases of project management. Figure 12 below illustrates the phases of project management during which a project management's soft skills are required.

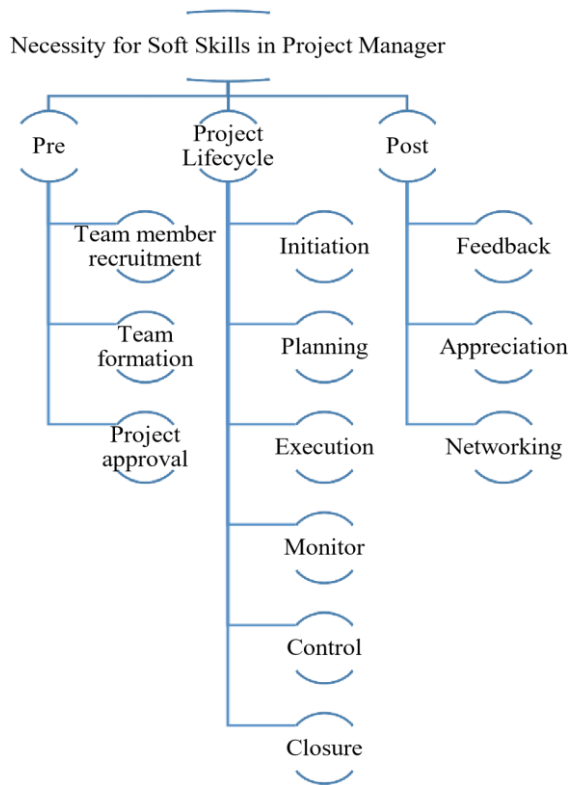


Figure 12: Necessity for Soft Skills in Project Managers in Project Management

In summary, the literature reviewed for this research indicates that a project manager's soft skills aid him/her in managing their team and its performance. We acknowledge that there are management theories associated with some of the soft skills; however, they have not been included as the focus of this research is to identify the key soft skills required by a project manager and explore if they have a relationship with team management, team performance and project success. Further research on soft skills from a management theories perspective could be conducted to establish a deeper understanding. A well-managed and high performing team thus positively influences the chances of a project being successful. This aspect will be further explored from a practitioner point of view in the findings and discussion section.

6.5 Methodology

Qualitative research is well regarded in aiding a researcher to explore, explain, describe and understand a phenomenon, case, or a situation in the natural setting of the participant (Patton 2005). Since soft skills deal with behavioural aspects of people and this research seeks to *explore* the *impact* that soft skills may have on project success and team performance, the qualitative method was found to be a suitable choice. A qualitative approach was adopted for this research as it was critical to capture the participant's experience. For the purpose of this research a comprehensive literature review was conducted first (Gulati et. al 2019), which resulted in identifying 13 soft skills required of project managers. To further identify the key soft skills out of the 13, validate them and study their impact on team performance and project success, a total of 22 semi structured interviews were conducted. The participant set comprised project managers with experience in different domains, in varying positions within the scope of project management and in different countries. The participants were assigned a code ranging from P1 to P22 to anonymise them. Figure 13 below provides detailed information regarding the data sample used for this research.

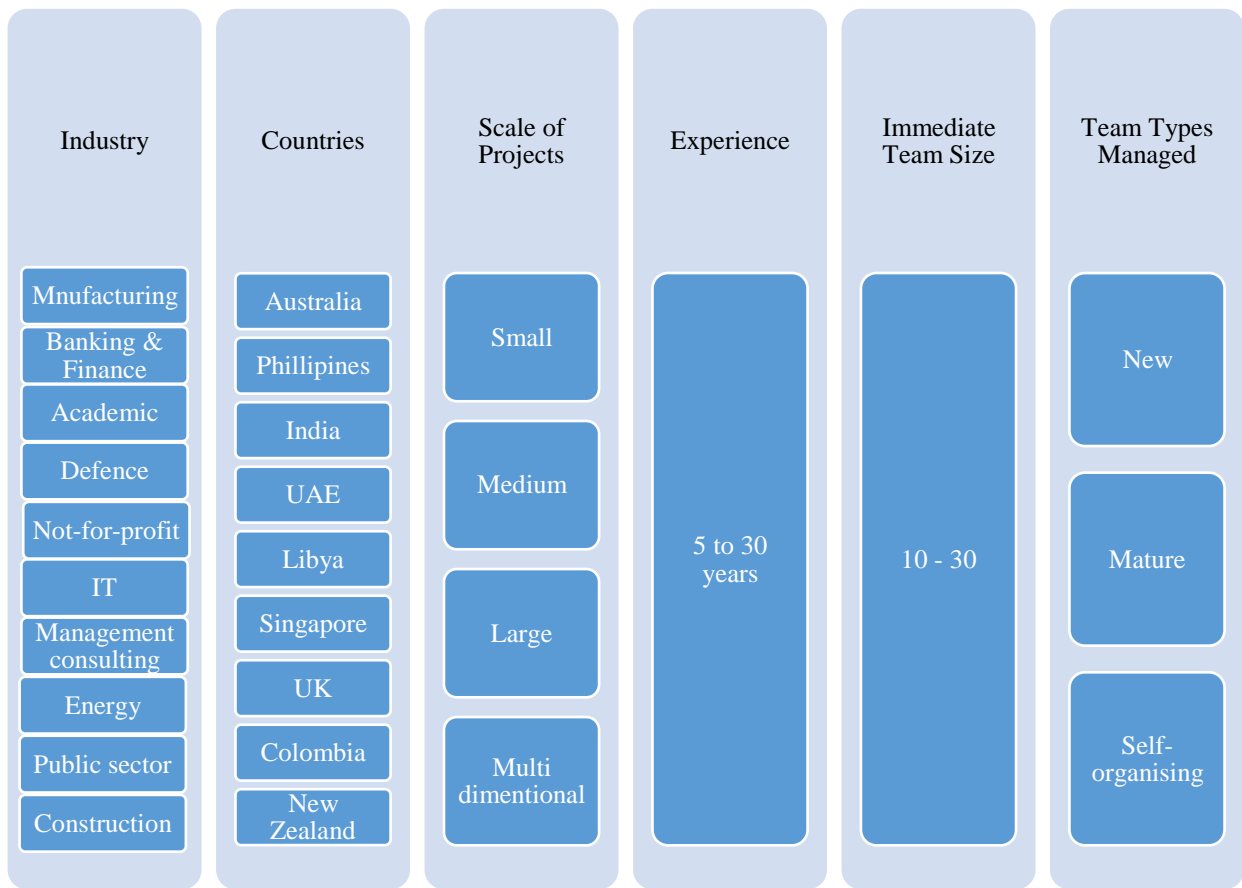


Figure 13: Data Sample Demographics

To recruit these participants, criterion sampling was used. In criterion sampling, participants are recruited if they meet criteria specified by the researcher. The criteria defined for this research was that the project manager must have managed successful projects. After the transcription of interviews, these were coded in NVivo which provides a step-by-step data analysis process which retains data richness and identifies potential connections between the different variables (codes). When analysing the data in NVivo, the data was first divided into codes and then related codes were then categorised. Once the categories were formed the researcher examined them for emerging themes. Figure 14 below illustrates the six steps carried out by the researcher to analyse the data.

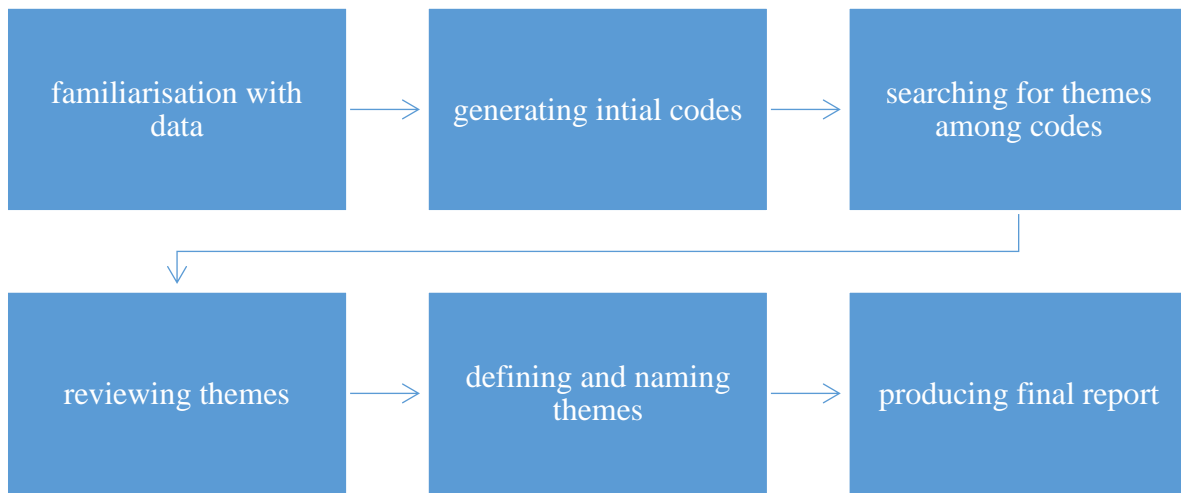


Figure 14: Data Analysis Process

A thematic analysis with an inductive approach was adopted for the purposes of data analysis in this research. Thematic analysis is an analytical method used for organising, describing and interpreting data (Xu & Zammit 2020). In this type of analysis, the researcher looks for themes that reoccur in the narratives and summarises them using quotations from the evidence as support. The same method has been used to perform data analysis for this study.

6.6 Findings and Discussion

6.6.1 Key Soft Skills Required of a Project Manager

As discussed in the literature review section of this paper, the soft skills required of a project manager include active listening, communication, conceptual, conflict management, human resource management, human, leadership, motivation, negotiation, people, political and cultural awareness, professional and ethical, and team management. Each of these soft skills has its individual value and importance in aiding a project manager to manage their project team and impact its performance. The primary data (semi-structured interviews) analysis confirmed that the above-mentioned soft skills are important for project managers as the participants included them as part of their experience sharing. More so, it also aided in

identifying the key soft skills from the complete set of soft skills identified. During the interviews, participants often mentioned the people aspect of managing projects, wherein they emphasised the importance of leading the project teams, working at an individual level with team members, keeping the team informed, and establishing faith and trust, etc. Additionally, they also mentioned which skills they found to be helpful in managing their team and its performance. Please note that the skills have been identified as critical but not given a particular ranking or categorisation.

In order to sieve out the key soft skills, the data sample was first coded in NVivo which provided us with a node structure. A node for each of the identified skills emerged, eventually indicating that the identified 13 soft skills do have an impact on team management and team performance. Further to this, the number of times each of the soft skill nodes was referenced by the participants helped to identify the key soft skills. Table 3 below presents the nodes for each of the soft skills and the number of times it was referenced in the data sample. It also includes a percentage (%) indicating what percentage of participants discussed that particular node while sharing their experience.

Node	Reference	%
Active Listening	20	9.6
Communication	36	17.2
Conceptual Skills	4	1.9
Conflict Management	21	10
Human Resource Management	3	1.4
Human Skills	1	0.5
Leadership Skills	47	22.5
Motivation	11	5.3
Negotiation	31	14.8
People Skills	4	1.9
Political and Cultural Awareness	22	10.5
Professionalism and Ethics	1	0.5
Team Management	8	3.8

Table 3: Soft Skills NVivo Node References

By analysing the nodes from a reference point of view, it was found that the key soft skills required of a project manager are active listening, conflict management, political and cultural awareness, negotiation, communication and leadership. To further confirm these findings, hierarchy charts from NVivo were used. Hierarchy charts enable the researcher to visualise a hierarchy, which aids in viewing the patterns in their coding and also view the attribute values of cases and resources (where applicable). There are two types of hierarchy charts, namely tree map and sunburst. A tree map was adopted for this research. A tree map represents the hierarchical data as a set of nested rectangles of various sizes (Liu et. Al 2020). The size of the rectangle indicates the number of coding references for each node. Figure 15 below presents the tree map hierarchy chart for the soft skills nodes of this research.



Figure 15:: NVivo Tree Map for Soft Skill Nodes

The chart presented above further confirmed the findings derived from Table 3. It can be clearly seen that the largest rectangles in the diagram are for the key soft skills identified

earlier in this section. Thus, it can be concluded that the key soft skills required of a project manager are *Active Listening, Conflict Management, Political and Cultural Awareness, Negotiation, Communication and Leadership*.

6.6.2 Impact of a Project Manager’s Soft Skills on Team Management, Team Performance and Project Success

During the interviews, as practitioners in the field, project managers placed relative importance on the necessity of soft skills. The participants were asked to place a weight on the importance of soft and hard skills as a percentage. Most of the participants did allot a percentage however some preferred not to. This was primarily because, as shared by both P16 and P20, the application of hard and soft skills is heavily dependent on the type of project and the nature of the team involved. P16, who has extensive experience of managing projects in the education domain, stated:

I don’t like to put a percentage on it as it depends on type of project and team you are working with. All I know is that the difference between a great project manager and an average one is soft skills. (P16)

Even though P16 did not allocate a percentage, they placed emphasis on the value of soft skills in project management. Although other participants also had their reservations, they did assign a percentage, collated in Table 4 below.

Participant	Hard Skill	Soft Skills
P1	50	50
P2	20	80
P3	40	60
P4	30	70
P5	50	50

P6	60	40
P7	60	40
P8	40	60
P9	60	40
P10	50	50
P11	30	70
P12	40	60
P13	30	70
P14	60	40
P15	70	30
P16	<i>Prefer not to say</i>	
P17	30	70
P18	60	40
P19	60	40
P20	<i>Prefer not to say</i>	
P21	30	70
P22	60	40
Average	46.5	53.5

Table 4: Hard Skills vs Soft Skills Weighting

Overall, soft skills had a higher average of 53.5% as compared to hard skills which had 46.5%. Even though soft skills seemed to be weighted more than hard skills, the actual difference between them was only 7%. In the past, the weighting given to hard skills has been much higher than that given to soft skills (more than 30% difference). However, recent data is more representative of the increasing emphasis on soft skills. On one hand, where the data sample is representative of the fact that soft skills are important, on other hand it also establishes that the focus on soft skills does not take away from the importance of hard skills in projects. The 7% difference between both has been supported by various factors which can shift the weight from one type of skills to the other. Some of these factors include team size, domain knowledge, type of project, scale of project, organisation culture, complexity of projects and industry, etc. But as reflected by the data, the gap is not substantial, therefore, *the data sample firmly establishes the importance of and need for soft skills in project managers.*

In addition to the importance and need, the impact of a project manager's soft skills on team management and team performance was also discussed by the participants. The participants shared how different skills have aided them over years in managing their project teams and their performance. Beginning with political and cultural awareness, participants emphasised understanding the culture in which the project operates. Here, they emphasised both organisation and the team culture. 90% of the participants had experience across various industries, countries and types of team which led them to identify the importance of understanding the cultural aspect. P1, who has a rich experience of 17 years in the oil and gas industry across various countries, expressed:

As a project manager you're managing the environment that your projects are working in plus your teams. (P1)

To further support this, another participant who has managed remote teams mentioned:

One of the team members is sitting in Sydney and I was working at Adelaide branch and another team member was sitting in Manila. And this happens, while you are actually in a big company, we assume that everything is same. But when it comes another country like Manila, Philippines, India, now the culture is different there. You cannot assume that whatever you see in Australia, you see the same thing in Philippines or India as the place you are in. (P12)

The political and cultural awareness skill works quite well with the team management skill. In order to administer and coordinate a team to perform the task, it is important to understand the culture and dynamics of the team. This aspect becomes even more crucial in the

case of mature teams. Mature teams have a set way of working and an established culture. The project manager may need more soft skills in comparison to hard skills as the team is already well versed in their tasks (i.e., the hard aspects of the project), and just needs supervision and relationship building (P19). Participants categorised active listening, conflict resolution and communication as the most important skills for team management. As P20 mentioned:

You've got to have good communication. You need to be able to build rapport with people quickly, and you need to be able to, I think, build trust with people. (P20)

Further to this, P9, who has been working in the project manager domain since 1995 shared:

So in communication and I know there's a bit of empathy as well, so when you are listening to the issues related to work or not just work related try to actively listen to your team members. Gather underlying reasons as to why are they saying so? (P9)

Regarding conflict resolution, P11, a manager who invests in relationships with his team members in the defence sector, expressed:

It's probably more around managing those conflicts, why would you call them those people that don't take to you seriously for whatever reason? That's where my problems mostly have been rather than the other way around, because I'm relational. (P11)

As participants shared experiences related to different skills, an underlying theme emerged indicating that soft skills not only work in conjunction with each other, but they also

complement each other when combined. For example, communication coupled with active listening (P22 and P3), communication coupled with empathy (P9, P6, P13), negotiation coupled with professionalism and ethics (P18) etc., were said to be more effective for team management together rather than alone, where communication was found to be the common factor in each of the relationships. More so, the application of these skills was found to have an impact on team performance as well. Use of human skills, people skills, leadership skills and HRM displayed a strong association with the motivation levels of team members wherein motivation skills were also identified as one of the soft skills required of a project manager. P11 placed great emphasis on valuing team members in order to motivate them by helping them feel as though they belonged. He quoted:

Valuing people, making them feel worthwhile is so important. (P11)

Lastly, conceptual skills, which relate to creative thinking and understanding complicated and abstract ideas, seemed useful for some participants from the view of understanding various behaviours that exist in the team and aligning them to work towards the common goal.

Data reflected that application of identified soft skills simulated an emotional behaviour among the team members, wherein they were ready to perform beyond capabilities, maintain performance and achieve project goals. Team members portrayed this behaviour primarily because, via the application of soft skills by project managers, they felt motivated and included, and could establish trust and mutual understanding for each other. Additionally, use of the leadership skill developed them and provided opportunities for learning and growing in the organisation. This behaviour boosted their morale and encouraged them to walk an extra mile to achieve goals. These behaviours cumulatively impacted the team's performance in a positive way. In a similar vein, P5 mentioned:

Because ultimately team is a set of people and people have the emotional side and they need to be managed. Unless you manage the emotional side, you won't get the best performance out of them. (P5)

You need to keep talking to them into, uh, keep engaging them in any way that you can think would bring in the credit for today. It's just not the productivity, it is creating the right mindset for the people. (P8)

Figure 16 below demonstrates the relationships between the project manager, their soft skills, team management and team performance. These relationships were established based on the themes which emerged from the data sample.

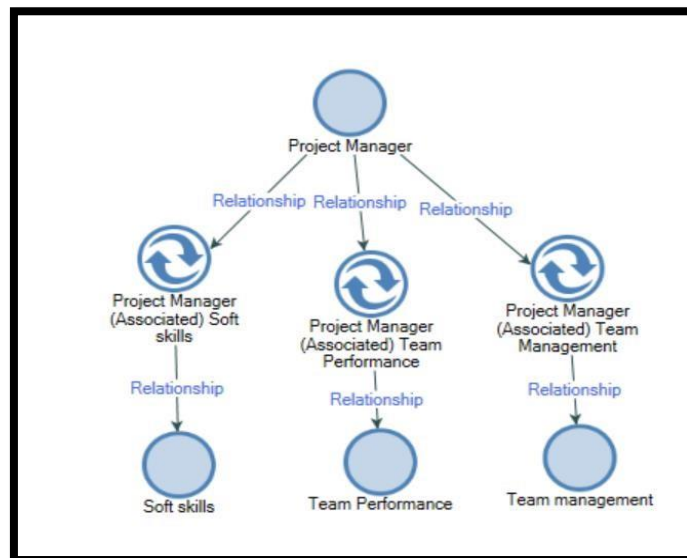


Figure 16: NVivo Relationship Structure for Project Manager, Soft Skill, Team performance and Team Management Nodes

Thus, based on the analysis of emerging themes, relationships and narratives, a project manager's soft skills were found to have an impact on team performance and also aided in team management. With a positive impact on both team management and team performance, a project manager's soft skills also had a positive influence on project success. A high performing and motivated team is more likely to lead a project to its completion than a team with unresolved conflicts and lack of leadership. P10 stated that a well-managed team is usually

self-directed to achieve success and only requires oversight, whereas low performing teams and un-managed teams spend the majority of their time resolving internal issues rather than working on actual project tasks. Further, participants also stated that the team’s performance is an important factor which contributes to project success (P2, P15, P21). It is worth noting that soft skills aid with the people aspect of project management and the “human factor” was unanimously found to be a contributing factor for project success in the data sample. This further implied a strong relationship between the soft skills of a project manager with its team (people/human) and, thus, project success. Figure 17 below shows the relationship between team management, team performance and project success derived from analysis of the data sample.

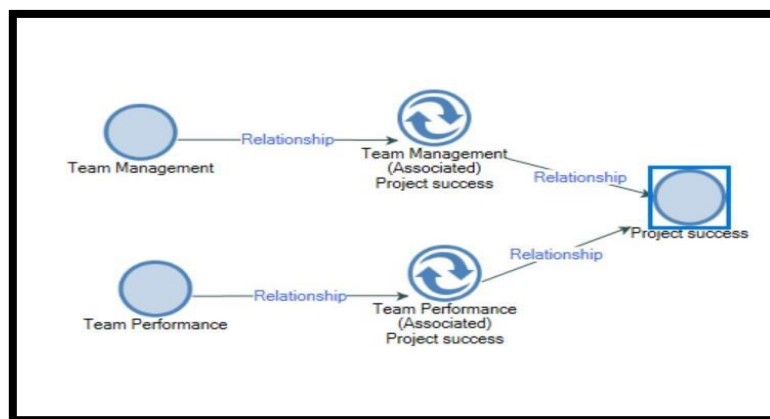


Figure 17: NVivo Relationship between Team Management, Team Performance and Project Success Nodes

While soft skills of a project manager have been found to have a positive influence on project success, it is worth noting that the relationship only increases the chances of a project being successfully completed, not guarantee a clear success rate. This is because a manager’s soft skills is not the only factor contributing to project success. It is a combination of other factors in conjunction with application of soft skills which eventually leads to a successful project completion. Thus, based on an analysis of the relationships identified, the project map in Figure 18 reflects the findings of this research, i.e., that a project manager’s soft skills do

impact a team’s performance and aids in team management which in turn influences the chances of project success.

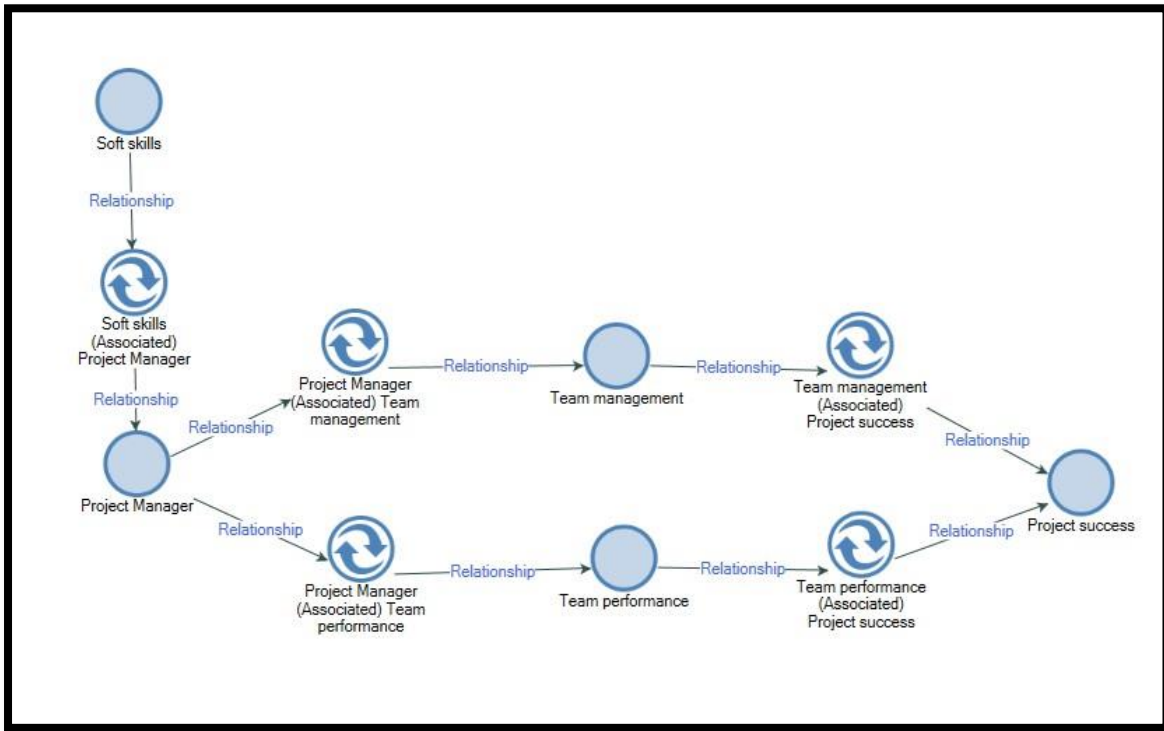


Figure 18: Project Map

While the analysis has concluded that a project manager’s soft skills have a positive influence on the team and success aspect of projects, factors that help this relationship to be fruitful must be considered. First and foremost, the organisation’s environment needs to be supportive of soft skills application. At times, this may call for a cultural shift. Participants mentioned that they faced certain challenges while implementing their soft skills, despite being a people person or at least willing to be one. Some of these challenges included fear of being mistaken for being a micromanager, adopting different communication styles and projects requiring more of “job-fit” project manager than a “people-fit” project manager. Additionally, lack of resources to build soft skills, incorrect assessment of competency levels, and missing training and development opportunities can further hamper project managers’ zeal to develop these skills. It is evident from the research that soft skills are an important and core component

of project management. Hence, an organisational level effort to adopt and foster this change can reap excellent results not only for projects but for the organisation as a whole.

6.7 Implications and Future Research

Project management scholars have extensively studied the factors which influence a project's success or failure. However, due to the great diversity in projects and rapidly changing project context this paper has not been explore all avenues of research. Also, in addition to the theoretical considerations, it is crucial to grasp practitioners' views as well. This research has made a significant contribution by identifying the key soft skills required of a project manager by considering both theoretical and practitioner aspects. Further to this, the findings of this research have also provided evidence of and defined the relationship between a project manager's soft skills, team performance and project success.

Soft skills are often overlooked in the project management domain due to limited availability of empirical data related to its importance; however, it cannot be denied that it is a required skill set of a project manager, as ultimately a project manager leads a project team, i.e., people and their behaviour. This aspect makes it imperative to study the relationship a project manager's soft skills could possibly have on different aspects of a project. In this research we have observed that if a project manager's soft skills has a positive impact on project team performance it is likely to have a positive influence on the chances of project success as well. The same has been found to be true for a negative impact as well. Hence, the findings of this research have strongly established the need to not only implement soft skills but also include them in the PMI talent triangle, i.e., a framework which depicts skills required of a project manager. Currently, it only includes technical project management, strategic and business management, and leadership, wherein leadership is considered a soft skill. The

research has provided evidence to suggest that a project manager needs more than just one soft skill. This research provides an understanding of the relationship between a project manager's soft skills and team performance. For the management field, these findings might be perceived as common knowledge; however, as earlier identified in this research, there is a knowledge gap in the project management field which would benefit from understanding and evaluating the importance of soft skills. This research has illustrated (with supporting evidence) how, by applying soft skills, a project manager could increase a project team's performance by motivating them, establishing trust, practicing professionalism, actively listening to team members and showing empathy.

Key soft skills, including active listening, communication, negotiation, conflict management, political and cultural awareness and leadership, have been identified in this research; however, future research that explores the associated attributes of each of the identified skills could be helpful in developing this topic further. The identification of attributes will also aid project managers to recognise which soft skills they or their team members may have or should develop.

Even though the research has established a relationship between a project manager's soft skills, project team performance and project success, it is crucial to identify the competence level required for each of the soft skills. Further investigation into the competence level required for these soft skills would greatly support trainers, educators and project managers to develop these skills.

Future research opportunities include investigating the moderating factors, such as project size, level of complexity, and governance structure with reference to the link between the project manager's soft skills and project team's performance. Additionally, future research

could also be undertaken to examine the quantitative effects of specific soft skills on certain aspects of project success.

6.8 Conclusion

This study aimed to identify the key soft skills required of a project manager, its impact on project team performance and influence on project success in different industries. Through rigorous analysis of codes and use of queries in NVivo software, five key soft skills were validated with empirical evidence. In addition, a positive effect of soft skills on project team performance and project success was found to be significant during the thematic analysis of the data. Therefore, with empirical evidence, the study has confirmed that a project manager's soft skills significantly contribute to a project team's performance, which in turn helps to positively influence the chances of project success.

The study has achieved its objectives but, unavoidably, it has some limitations. Though the data set is sufficient and rich in nature from the qualitative point of view, it is relatively small for the purposes of generalisation or the assignment of ranking (i.e., prioritisation of soft skills). A further quantitative approach could facilitate working with a larger data sample and creating more generalisable results. Also, the research has identified key soft skills required by a project manager in the project management space; however, more skills could possibly emerge from interdisciplinary research.

This research has presented a thematic analysis with an inductive approach, with the findings derived from a data sample comprising of 22 semi-structured interviews which were coded in NVivo. After forming and categorising the codes, emerging themes were derived. These were formulated into findings after due analysis and validation. Narratives were used as evidence to support the outcomes of this research.

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Chapter 7 - Implications and Future Research (*inclusive of Paper 4*)

7.1 Chapter Overview

The chapter will first state the implications of this research leading from the four papers presented in the thesis. Next, the chapter will present avenues for future research which could further contribute to the project management discipline and enhance the application of the findings of this research. The chapter will then present a conference paper which explores a potential area for future research in relation to soft skills in the digital transformation space.

This paper has been accepted and published in *ICDS 2020: The Fourteenth International Conference on Digital Society*. The chapter will then be summarised leading to the final chapter of this thesis, the conclusion chapter (Chapter 8).

7.2 Implications & Contribution to Knowledge

The implications of this research can assist project managers, organisations, recruiters and higher education institutes in various ways.

First, higher education institutes are better placed to update and/or redesign their existing training programs and/or develop new training programs that would enrich learning for students who wish to pursue a project management career. The research findings allow higher education institutes to not only deliver an up-to-date education based on current market requirements but, in doing so, also assist in making students more employable in the current market.

Second, recruiters can select candidates for a position based on an evaluation of both their hard and soft. Recruiters will be better equipped to put forward a more complete candidate to their clients who may not be satisfied with only the minimum technical requirements (hard skills) but also be looking for a *right fit* from the cultural perspective of their organisation,

enhancing the organisation's chance to achieve a sustainable portfolio of successful project completions.

Third, these research findings allow organisations to design their training programs to prepare and educate their project managers on the required soft skills, clarifying the relationship it has on the success of their individual projects. In addition, organisations could arrange workshops to assist their project managers to identify the required soft skills (outlined in Chapter 6 (Paper 3)) and practice them to enhance their understanding and usage to further develop their team members and lead them towards project success.

The findings of this research can assist project managers to be efficient and effective in not only managing their team members and team as a whole but also be conscious of the requirement and impact their soft skills have on their achievement of project objectives. In addition, from the overall research findings, project managers can better understand and focus on their projects in a more holistic way, i.e., rather than work towards getting the objectives delivered solely on the basis of technical knowledge, they could evaluate their team members more so from an individual perspective catering to individual requirements. This would allow project managers to establish work environments that appeal to team members both extrinsically and intrinsically. Application of their learnt/developed soft skills would eventually contribute to the creation of a healthy and positive work environment, which in turn becomes a contributing factor to the success of the organisation as a whole.

Research findings could contribute just as much to the projects themselves, as well as the environment in which they are planned, executed, controlled and finished. The findings provide awareness about the necessity of soft skills in a project manager and also identifies the key soft skills required (see Chapter 6). The research has found that these skills have an impact on team performance which eventually influences project success (see Chapter 6). Collectively,

these findings form a strong base upon which project management curriculums can be updated, training programs for soft skills development can be designed, and better project management and project leader hires can be generated.

7.3 Future Research

The researcher has briefly covered the criteria that recruiters look for when employing/recruiting project managers. Pertaining to the findings of this research, there is evidence that a manager's soft skills have an impact on the project and project management's success. In line with these findings, future research could be conducted to identify a revised set of criteria for recruiting project managers which would probably include both hard and soft skills relevant to the project's and organisation's success.

Both soft and hard skills play a critical part in the outcome of projects, therefore it is important that training programs are designed to train project managers to utilise their soft skills and competencies to evolve them as future project leaders.

The researcher found that a project manager needs to maintain a balance between hard and soft skills in order to achieve project success. Further research could be conducted to identify the very point at which this balance could be achieved. This could lead to the identification of a framework to identify the application of both hard and soft skills in the right balance for different types of projects depending on scale, industry, and team size, etc.

This research has been concluded purely from the project manager's view. Further research could address the team member's perspective as well as the program/portfolio manager's point of view to affirm the current findings.

Future research focussing on identifying the attributes related to soft skills would further aid project managers to identify and/or develop their own skills as well.

7.4 Conference Paper: Soft Skills - A key Driver for Digital Transformation (Paper 4)

Digital transformation is causing constant and exponential changes. These changes are managed and implemented via various multiscale projects across domains. During the recent uncertainty of the COVID-19 pandemic, many organisations were forced to take a digital leap in order to ensure continuity of their businesses. In such situations, having the right combination of skills, more importantly, having critical soft skills, can enable project managers to run projects and respond to the complexities in a much more organised way. Hence, the contribution to knowledge of the key soft skills identified in this research is also proposed in the area of digital transformation.

A conference paper was written to instate the value of investing in intangible assets, i.e., the people aspect of managing projects in the digital transformation space. This provides an example of the research potential for other interdisciplinary applications. The paper emphasises the use of soft skills in managing digital transformation projects. In addition, the paper briefly discusses the “Soft Skills Motivators”, i.e., the factors in project environments which can motivate a project manager to enhance their soft skills while managing projects.

This paper was submitted to *ICDS 2020: The Fourteenth International Conference on Digital Society*. The paper has been accepted and published. The manuscript of this paper has been presented in the next section. This paper uses a different style of referencing in comparison to remaining thesis as it follows the referencing requirements stated by the conference manager and publisher of the ICDS conference.

7.4.1 Statement of Authorship

Statement of Authorship

Title of Paper	Soft Skills: A Key Driver for Digital Transformation
Publication Status	<input checked="" type="checkbox"/> Published <input type="checkbox"/> Accepted for Publication <input type="checkbox"/> Submitted for Publication <input type="checkbox"/> Unpublished and Unsubmitted work written in manuscript style
Publication Details	ICDS 2020 : The Fourteenth International Conference on Digital Society

Principal Author

Name of Principal Author (Candidate)	Richa Gulati
Contribution to the Paper	Represented frame work of this study and exploratory analysis gathered from pilot study conducted for this research.
Overall percentage (%)	80%
Certification:	This paper reports on original research I conducted during the period of my Higher Degree by Research candidature and is not subject to any obligations or contractual agreements with a third party that would constrain its inclusion in this thesis. I am the primary author of this paper.
Signature	Richa Gulati
Date	21/04/2021

Co-Author Contributions

By signing the Statement of Authorship, each author certifies that:

- i. the candidate's stated contribution to the publication is accurate (as detailed above);
- ii. permission is granted for the candidate to include the publication in the thesis; and
- iii. the sum of all co-author contributions is equal to 100% less the candidate's stated contribution.

Name of Co-Author	Carmen Haule Reaiche (Primary Supervisor)
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Subject: Fw: A1701010-RichaGulati-PhDThesisSubmission

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

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Subject: Re: A1701010-RichaGulati-PhDThesisSubmission

Dear Richa
Yes please use my signature as required
Kind Regards
Carmen

Sent from my iPhone

On 7 Jun 2021, at 5:43 pm, Richa Gulati <richa.gulati@adelaide.edu.au> wrote:

Dear Carmen, Sam, and Indra,

Rising from the email below, I seek your permission to use your e-signature (typed name) on the "statement of authorship" forms included in my thesis for each of the publications respectively. The thesis is attached herewith for your reference.

My Apologies for doing this second time, the website did not state the requirement of a supporting letter. Hence, I did not get this exclusively earlier on.

Richa Gulati

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7.4.2 Abstract

This paper focuses on exploring the value of intangible (soft skills) investments to aid successful digital transformation in organisations. The human capital of a business or an organisation is the key catalyst for implementing change. It is, therefore, important to have a skilled workforce which is capable of adopting and coping with changes such as digital transformation. This research focuses on the importance of soft aspects of digital transformation. The Gioia method was adopted to guide the analysis of the data (interviews) for this research. The results are indicative of the important soft skills required to embrace digital transformation and their potential impact on successful implementation.

7.4.3 Keywords

Intangible Investment; Soft Skills; Digital Transformation; Project Managers.

7.4.4 Introduction

Technology and society are evolving faster than business can naturally adapt, and digital transformation is one aspect of this evolution. Technology has changed relationships between customers and organisations, deeply affecting organisational models and management systems [1] [6]. It is an exponential change, which is not just the job of a person or a team, but a collective effort of the whole organisation. It is about the overall improvement of ways of working and efficiency of an organisation [2]. Due to the scale of change and ease of its management, it is often divided into smaller projects, which are then managed to adopt the change [3]. It is worth considering whether, given the awareness and planning of change, organisations are ready to face it. And more importantly: What drives it? A single thread that

weaves in everything to ultimately produce the outcome is the soft aspect of the organisation. Digital transformation is probably less about digital and more about transformation, which is led by people. Technology is a tool but its actual strength is soft skills [4][5]. This research seeks to address the gap pertaining to soft aspects of digital transformation, which hinders successful implementations and changes management in organisations. It aims to instil the value of investing in intangible aspects of an organisation, which in turn play a key role in their success.

This paper is divided into four sections, namely Background, Significance and Research Contribution, Research Approach and, Preliminary Findings and Future Research. Firstly, the background section provides an insight into the current situation and context of this research leading to the significance and research contribution section. This section then establishes the importance and possible contributions of this project. The next section of research approach elaborates on the process of data collection and method used by researchers. Lastly, the preliminary findings and future research summarises the primary findings of this research and provides insight into the future steps for this project.

7.4.5 Background

Digital transformation has become an integral part of organisations in the pursuit of growth, expansion, quality and sustainability [1]. One on hand, it allows organisations to enhance organisational efficiency and customer experience but on the other hand, it brings tremendous pressure as it demands changes in organisational models and management systems [6][7]. Many organisations adopt a project management approach wherein change management is the key focus [8][9]. However, the key element is the people who drive, accept, adopt and implement this transformation, i.e., the human capital of the organisation [7]. In line with adoption

strategies and careful planning, human capital strategies play an important role as well. The project manager needs to plan how to organise, manage, develop, and align people at work to deliver successful customer and employee experiences [10]. It is probably not the strongest of the species that survives, but the most intelligent that survives. It appears to be the one that is the most adaptable to change [11].

Some of the skills required by a manager in order to successfully manage digital transformation are critical thinking, complex communication, creativity collaboration, flexibility and adaptability, productivity and accountability, building a team that thrives, cultivating a growth mindset, influence, ability to navigate innovation and change, and effective collaboration with leaders and across the team. In addition to these, adaptability, creativity, action-oriented, passionate, curiosity and management skills also play important roles while managing the team and projects [6] [11]-[15]. From the customer's orientation, it is important to create a memorable and meaningful experiences. The most valuable assets for service and experience creation are people, ideas and collaboration [16]. There has been some emphasis on the people aspect in literature however, the importance of soft skills has not gained much focus as a key driver or backbone of digital transformation, though it has been a recommendation in those research studies. Thus, this research aims to establish the importance of soft skills in managers.

7.4.6 Significance and Research Contribution

This research contributes to knowledge by identifying the moderating role of soft skills in digital transformation. The research aims to establish the importance of “people” and their “soft skills” in an organisation by demonstrating the value of investing in intangible assets, i.e., the soft skills of their employees. Prior research has identified key drivers that support digital transformation; however, there has not been enough attention on developing and acquiring the

skills needed to manoeuvre this change. Having an adaptable workforce has become a necessity for businesses and organisations in order to cope with the changes in their respective domains [12].

7.4.7 Research Approach

This is an exploratory research, which has been conducted in two phases. In the first phase, it has explored secondary data comprising of literature and various case studies. This was then followed by a second phase of qualitative data collection concentrating on interviews. Prior to running the interviews, a pilot study was conducted to validate the interview questions.

7.4.8 Data

Firstly, a pilot was conducted in which a qualitative data set of nine interviews were collected. The narratives of these interviews were then analysed to verify if the findings were indicative of the information being sought by researchers. Secondly, a total of ten interviews were conducted particularly focusing on project managers in a variety of fields, which forms the actual data set for this research.

7.4.9 Method

The Gioia method was used to analyse the data for this research. Gioia is a systematic approach to new concept development and grounded theory articulation [17]. During the analysis, we sieved 1st order concepts, followed by 2nd order themes and finally derived aggregate dimensions. This three-step process was adopted to bring in transparency and rigor to the process of inductive research (see Figure 19 for the steps of this process) [18].

In the 1st order concept analysis, researchers adhered to informants' terms, with little attempt to distil categories. After data collection, the interviews were transcribed to obtain the 1st order concepts. As a result, a large number of categories were derived in this step. These

were then analysed to identify the themes emerging from data. Once we had 2nd order themes, the findings were then checked against the literature to verify that these were “new”, i.e., a contribution. As the research progressed to the 2nd order themes, it then sought similarities and differences among the 1st order concepts. Upon confirmation that the findings were new, further literature review and identifying similarities and differences, the aggregate dimensions were finalised. This eventually reduced the number of categories, which were then given labels or phrasal descriptors. Once this data structure of themes and concepts were created, we distilled them further into aggregate dimensions.

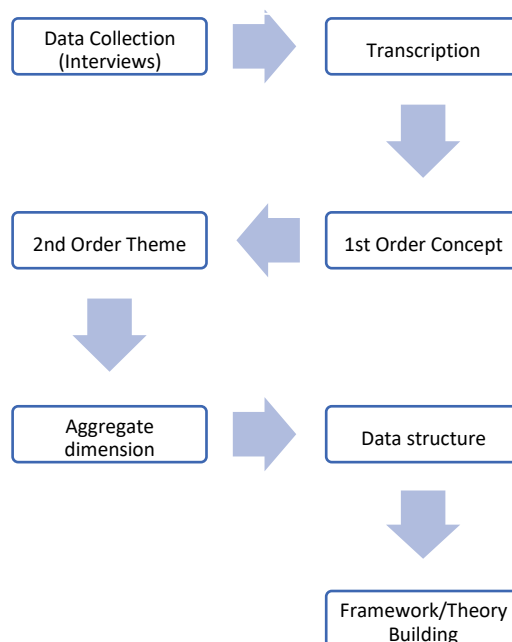


Figure 19: Method

7.4.10 Preliminary Findings and Future Research

A successful digital transformation initiative needs to holistically look into customer experience, organisational culture, business model, processes, technologies, leadership and capabilities, and size of the company [7][12][14][19]. In order to have an edge over such rapid changes, companies need to ensure that they are ready to embrace disruptions and fill skills gaps in their organisations. Skills are the most valuable and essential resource in the knowledge

economy [5]. With markets becoming increasingly complex, complex problem-solving, coordinating with others and people management become crucial aspects [20].

From the dataset collected and analysed, project managers have emphasised the importance of soft skills at various avenues. Additionally, they have also shed light on factors which can impact the skills development culture in an organisation, for example size of the company. Environment plays an important role in skills development, and project managers might pick up skills according to the need of the environment, indicating the importance of organisations being conducive to developing their workforce. Project managers highlighted other factors such as size of projects, mentoring, guidance, etc., during the interviews. It was well supported across various domains such as defense, construction, information technology, etc. Some soft skills considered important by project managers (derived from interviews) are listed in Table 5.

Essential Soft Skills: PM Perspective
Communication
Emotional Intelligence
Empathy
Leadership
Motivation
Resistance
Conflict Resolution
Professionalism
Negotiation

Table 5: Essential Soft Skills: PM Perspective in Digital Transformation Space

In the absence of organisational efforts to develop a workforce, project managers mentioned that self-performance, reflection, individual personality, lessons learnt from past projects, type of people they work with, and zeal to learn more were factors which motivated them to develop soft skills. One of the key findings also indicated that the majority of the project managers realised the importance of soft skills during their experience and had little or no

knowledge prior to work experience. There were exceptions for people who were natural leaders or in cases where their upbringing included elements like leadership opportunities, taught to stand up, parental guidance to manage, sports, etc. Some of the motivators mentioned by project managers during the interviews have been summarised in Table 6 below.

Soft Skills Motivators
Conducive Environment
Reflection: Past Projects
Self-Assessment
Need of Environment
Communication is the Key
Team Management
New Industry/Environment
Collaboration
Mentoring
Team Members
Individual Personalities in Team
Employee Engagement

Table 6: Soft Skills Motivators in Digital Transformation Projects

Though some factors helped practicing project managers to identify the importance of soft skills, in the absence of proper training they struggled with certain issues like the level of comfort colleagues have when you get to the people side of things, judgmental point of view, underestimating soft skills, being mistaken as trying to micromanage and most importantly finding the right balance of expression. These are some of the preliminary findings from the interviews conducted thus far. A detailed and comprehensive analysis will be conducted once the data collection is complete.

7.4.11 Conclusion and Future Research

In conclusion, the researcher has been able to identify some emerging themes from data collected thus far, which indicate the importance of soft skills in digital transformation projects. Essential soft skills such as communication, emotional intelligence, leadership, etc., have been

derived from the data set as well. Additionally, the data set is also reflective of soft skills motivators and suggestions for training project managers to groom their soft skills. Even though the data set looks promising at this stage, this research is an ongoing research and future steps have been planned, wherein the researchers aim to conduct a total of 30 interviews (inclusive of 10 already conducted) with project managers across various domains. These interviews will also be analysed using the Gioia method to obtain findings of the project. The results of this research will not only contribute to overall development of organisations by identifying key soft skills required by project manager, but also provide a competitive edge over their competitors. This would also aid organisations by encouraging them to reinvest the cost of recruiting new managers into their own assets and developing them further.

7.4.12 References

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7.5 Summary

In summary, this chapter has shed light on the implications of this research in the field of project management and beyond (e.g., digital transformation) which can assist project managers (skills development), organisations (role and responsibilities establishment), recruiters (recruiting the right fit) and higher education institutes (curriculum development). Additionally, the chapter has also presented potential areas for future research using the findings of this research as a base. The chapter has also provided further details for potential interdisciplinary research application in the form of a short conference paper. This thesis has thus far presented an introduction chapter, Paper 1 (literature review) in Chapter 2, soft skills chapter (literature review cont.), Paper 2 (findings) in Chapter 4, methodology chapter, Paper 3 (findings) in Chapter 5 and implications and future research in current chapter. Next, Chapter 8 concludes the thesis with a summary of the research and findings.

Chapter 8 - Conclusion

8.1 Chapter Overview

This chapter will provide an overall summary of this thesis covering the research overview, methodology, findings, implications, and suggestions for future research. Following the overview, the chapter will state the contribution this research has made to the project management domain before concluding this chapter and thus, this thesis.

8.2 Summary of Research

8.2.1 Overview

As illustrated in figure 20 below, a project is a temporary endeavour undertaken to create a unique product, service, or result (PMBOK 2017). A project manager leads a project team to perform tasks associated with a project's lifecycle. The result of different phases of project lifecycle, i.e, initiation, planning, implementation, control and closure, determines the success or failure of a project. The primary focus of this research is on project managers and the soft skills required of them; specifically, how the application of soft skills could influence team performance and project success.

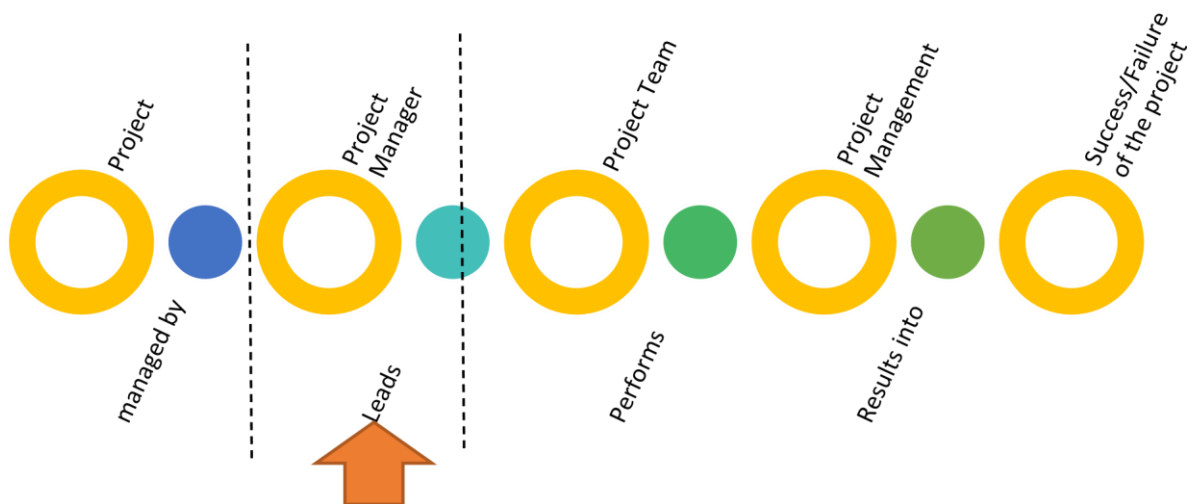


Figure 20: Project workflow from People's Perspective

In practice, soft skills are often overlooked due to various reasons. Some of these reasons include unavailability of measures to gauge the impact of soft skills, challenges associated with implementing soft skills such as dealing with judgemental point of view or fear of being mistaken or misunderstood as a project manager who micromanages, etc., to name a few. However, the contribution of soft skills cannot be overlooked either. Soft skills play a crucial role in motivating team members, understanding how people behave, getting the team engaged, and aiding change management as well. Thus, there is a dire need to create awareness about the necessity of soft skills in project managers and subsequently aid them in acquiring and developing these skills to fill this “gap”.

The researcher started this research to identify if it was necessary for project managers to have soft skills and their impact on project success. This indeed was established as a “gap” in the literature during the exploratory literature review. The three objectives of this research were defined before preparing the data collection strategy. The objectives of this research were to first, find the soft skills required of a project manager and then identify the key soft skills from the identified set. Secondly, to explore if these soft skills have an impact on a project team’s performance and lastly, if a project manager’s soft skills influence project success.

To identify and establish the knowledge gap in the project management literature, a comprehensive literature review (Paper 1; Chapter 2) was conducted in this field of study to identify soft skills required of a project manager, identifying the need for soft skills in a project manager and most importantly, developing a conceptual framework for this research (see Figure 21).

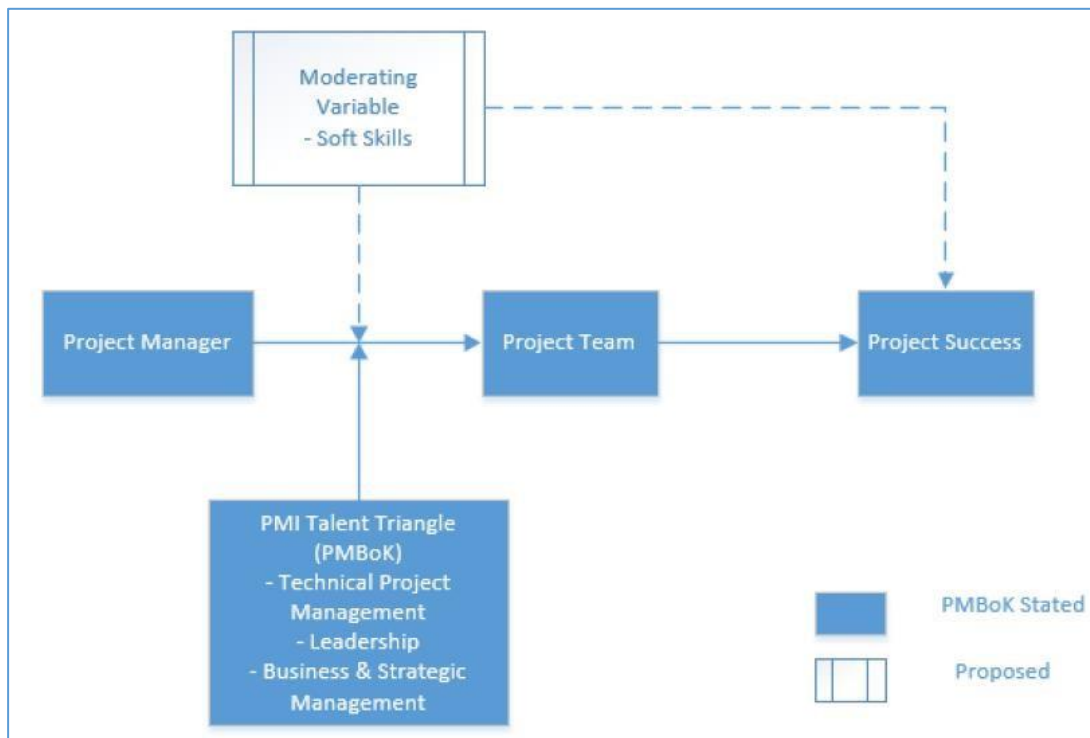


Figure 21: Conceptual framework of research (adopted from Paper 1)

From the review of the literature, the researcher identified 13 distinct skills that were the basis of major discussion in the extant literature. The researcher found communication, team management, negotiation, human, human resource management, professional and ethical, political and cultural awareness, conceptual, leadership, active listening, motivational, conflict management, and people skills as the soft skills required of a project manager to manage their team and lead them towards project success. Subsequently, the key soft skills out of these 13 were identified based on data analysis (Paper 3; Chapter 6). Table 7 below presents the key soft skills required of a project manager.

Key Soft Skills of Project Managers
Active Listening
Communication
Negotiation
Conflict Management
Political and Cultural Awareness
Leadership Skills

Table 7: Key Soft Skills of a Project Manager

8.2.2 Methodology

This research was based on a review of the extant literature and interviews (semi-structured) that allowed the researcher to collect data concerning the objectives of the research

and further code the collected data into different meaningful nodes. Before the actual data collection, ethics approval was obtained to ensure that the researcher would cause no harm to the participants and was low-risk research. A pilot study was conducted with 9 interviews to test the interview questions and prepare the researcher for actual data collection.

Leading from the results of the pilot study, actual data collection comprising interviewing 22 project managers from various industries was conducted. The participants were interviewed in their natural settings using semi-structured interview questions. The interviews were then transcribed and coded using NVivo software which aided in making the large data set (i.e., 350 pages of transcript), somewhat manageable for analysis. A thematic analysis was conducted using an inductive approach to sieve out relationships and emerging themes between the nodes and eventually the findings of this research. The findings were validated against the literature and reported in all four papers in this thesis.

8.2.3 Findings

From the analysis of the collected data using an inductive approach and thematic analysis, the researcher discovered three key findings. First, the key soft skills required of a project manager include active listening, communication, negotiation, political and cultural awareness, conflict management and leadership skills. These soft skills are necessary for a project manager to manage their project team effectively, impact (+) team performance, and thus, influence (+) project success.

Second, project managers are not the same as project leaders; however, a project manager could evolve into a project leader by developing their EQ competency. The findings of this research have provided a proposed pathway to project leadership from a skills perspective (Paper 2; Chapter 4) which would help project managers aspiring to become project

leaders. The pathway provides guidance on which soft skills should be developed to become a project leader.

Third, the findings of this research provided a clear connection between a project manager's soft skills, their team performance, and influence on success. The research found a positive relationship between application of a project manager's soft skills and team performance. It was further observed during data analysis that the previously mentioned positive relationship eventually has an influence on project success. Hence, if soft skills are appropriately applied to manage a project team, they can increase team performance and subsequently increase the chances of project success as well (Paper 3). These findings allowed the researcher to conclude that project managers' soft skills do impact their project success and project managers should develop the key soft skills to manage their team more effectively.

The overall findings of this research (as discussed above) aligned with the papers presented in this thesis have been illustrated in figure22 below. The NVivo or detailed version of this diagram reflecting the underlying relationships within each of nodes has been added in Appendix E titled "Overall Research Findings" for further reference.

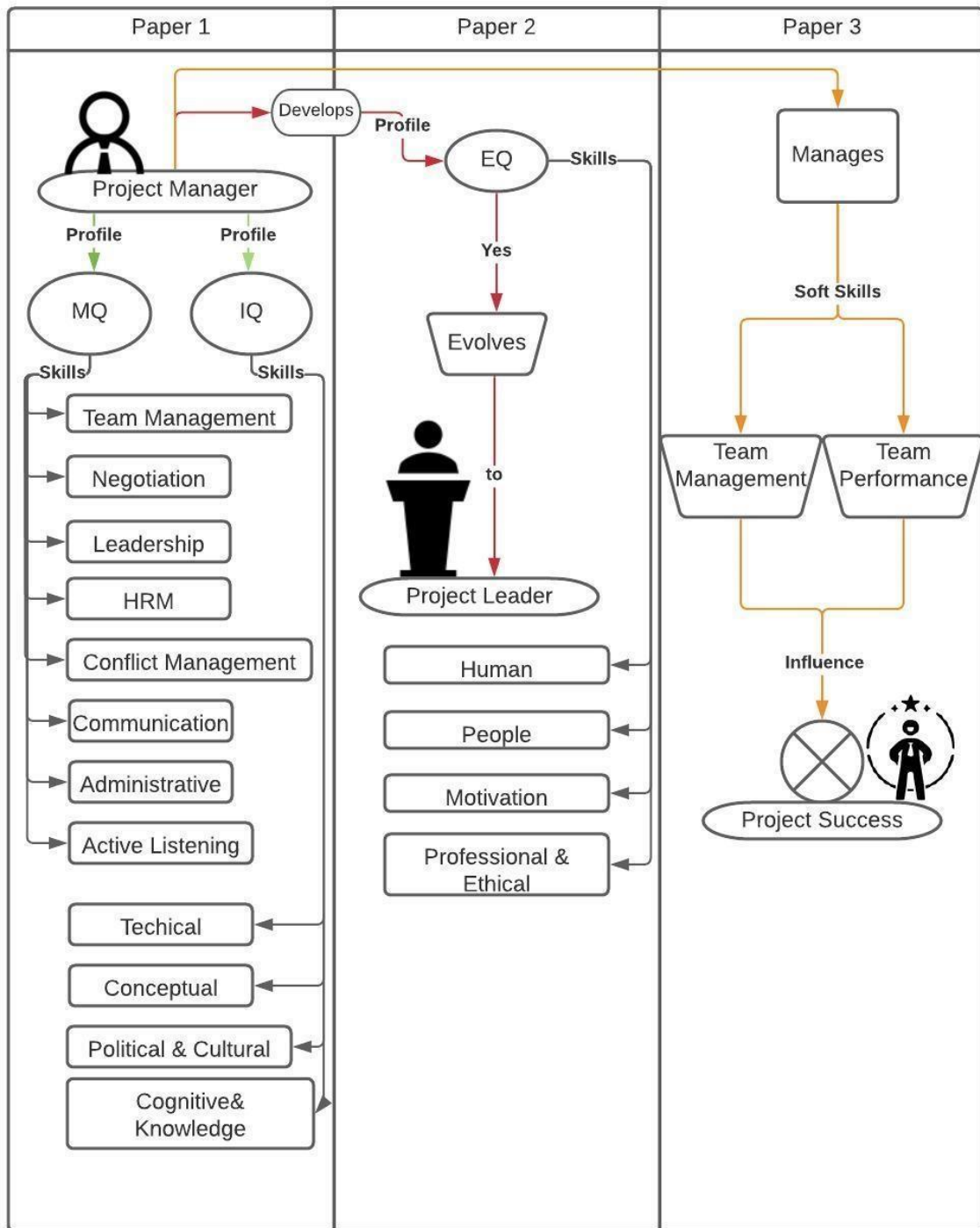


Figure 22: Research Outcomes

In addition to these, the research has also identified “Soft Skills Motivators” which can aid in application of soft skills across project management and other domains as well (Paper 4;

Chapter 7 - Section 7.4). Lastly, the researcher has also compiled suggestions for improving training programs and curriculums during this research. These will aid in developing and improving current and new skills development programs for project managers.

Therefore, the research questions presented in Section 1.4 (Chapter 1) have been addressed and associated findings have been reported in this thesis.

8.2.4 Implications and Future Research

The implications of this research can assist project managers, organisations, recruiters, and higher education institutes that offer project management training or courses. With this new information, higher education institutes are now better placed to update or look into redesigning their existing training programs by including the findings of this research. They can ensure that an awareness is created about soft skills which could help projects managers (both existing and prospective) to identify the soft skills they may have and consciously work on developing them. This would contribute to the development of practicing project managers and aid in introducing better prepared project managers to the corporate world from a soft skills perspective.

This research allows recruiters to be better equipped to choose a more appropriate candidate for their clients from a skills, knowledge and capability point of view. The findings not only aid in employing a “job-fit” but also an “organisation/team-fit” project manager. It will also help foster a healthy and positive culture within the project team and organisation.

The findings of this research assists project managers to manage their project team from a skills perspective by consciously embedding the soft skills deemed to have an important effect on team performance and project success.

In line with the findings of this research, future research can be expanded to identify revised recruitment criteria for project managers which could include recruitment of project managers

based on both hard and soft skills relevant to the project and organisation's success. Future research can also look into devising training programs for project managers to develop their soft skills. This in turn can also be done by updating curriculums so that better-prepared project managers can be introduced into the workforce. Hence, a future research focusing on training and development of soft skills in project management could be considered helpful.

8.3 Contribution to Project Management Domain

This research has made four theoretical contributions to the Project Management domain. First, this research has provided a pathway to project leadership from a skills perspective (Paper 2; Chapter 4). Second, it has identified “key” soft skills required by a project manager (Paper 3; Chapter 6). Third, it has been established that the soft skills of a project manager do have an impact on the project team's performance and influences project success (Paper 3; Chapter 6). Lastly, this research identified essential soft skills required by project managers managing digital transformation projects and the factors which motivate a project manager to implant their soft skills (Paper 4; Chapter 7- Section 7.4). Hence, it is not just the identification of key soft skills or their influence; it lays a strong foundation for including soft skills as the skill set required for project managers in the PMI talent triangle which currently comprises leadership skill, strategy and business development and technical skills only.

8.4 Conclusion

In conclusion, this research began with the objectives of identifying the key soft skills required of a project manager and studying the influence of these skills on team performance and project success. Using qualitative methods of research in conjunction with thematic analysis and an inductive approach, the findings of this research have attained the abovementioned objectives of this research. Additionally, the implications, ideas for future

research, limitations of this research, and most importantly the contribution to the project management body of knowledge have been provided in the thesis.

Further to this, the research has also answered all the research questions. The first research questions sought to recognise a set of soft skills required of project managers and then identify the key soft skills from this set. Paper 1 (Chapter 2) presented a literature review which recognised 13 soft skills required of a project manager, followed by Paper 3 (Chapter 6) which sieved out the key soft skills which a project manager must have.

The second research question aimed at exploring if the soft skills aid a project manager in managing their project team and impact team performance. Also, if a project manager's soft skills vary from those of a project leader. It was found that the soft skills of a project manager aid them in managing their project team by providing an avenue to build trust, communicate effectively, manage behaviours, etc. A positive relationship was also found between the impacts a project manager's soft skills can have on a project team's performance; however, soft skills need to be carefully implemented depending on the type of team members a project manager is dealing with (Paper 3). Additionally, a set of soft skills for both a project manager and a project leader was also identified in Paper 2. This paper also presented a proposed pathway to project leadership.

The last research question was focused on determining if the impact which soft skills have on a project team's performance, could possibly influence the chances of project success. It was found that the impact on a project team's performance does influence the chances of project success (Paper 3). In fact, the nature of the impact (positive or negative) is exactly same as the nature of influence, i.e., if the soft skills impact the project team performance positively, they will also positively influence the chances of the project being successful and vice versa.

This research also explored a potential future research area and identified essential soft skills required of project managers managing digital transformation projects and the factors which could motivate project managers to implement and develop their soft skills in digital transformation projects.

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Appendices

A. Ethics Approval



RESEARCH SERVICES
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AND INTEGRITY
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05 November 2018

Dr Carmen Haule Reaiche
Entrepreneurship, Commercialisation and Innovation Centre

Dear Dr Reaiche

ETHICS APPROVAL No: H-2018-240
PROJECT TITLE: Necessity of soft skills in project managers and its impact in their project success

The ethics application for the above project has been reviewed by the Low Risk Human Research Ethics Review Group (Faculty of Arts and Faculty of the Professions) and is deemed to meet the requirements of the *National Statement on Ethical Conduct in Human Research (2007)* involving no more than low risk for research participants.

You are authorised to commence your research on: 05/11/2018
The ethics expiry date for this project is: 30/11/2021

NAMED INVESTIGATORS:

Chief Investigator:	Dr Carmen Haule Reaiche
Student - Postgraduate Doctorate by Research (PhD):	Miss Richa Gulati
Associate Investigator:	Associate Professor Indra Gunawan
Associate Investigator:	Dr Sam Baroudi

CONDITIONS OF APPROVAL: Thank you for your emails and responses to the matters raised. The revised application provided on the 05/11/18 has been approved.

Ethics approval is granted for three years and is subject to satisfactory annual reporting. The form titled Annual Report on Project Status is to be used when reporting annual progress and project completion and can be downloaded at <http://www.adelaide.edu.au/research-services/oreci/human/reporting/>. Prior to expiry, ethics approval may be extended for a further period.

Participants in the study are to be given a copy of the information sheet and the signed consent form to retain. It is also a condition of approval that you immediately report anything which might warrant review of ethical approval including:

- serious or unexpected adverse effects on participants,
- previously unforeseen events which might affect continued ethical acceptability of the project,
- proposed changes to the protocol or project investigators; and
- the project is discontinued before the expected date of completion.

Yours sincerely,

Dr Anna Olijnyk
Convenor

Dr Junggho Suh
Convenor

The University of Adelaide

B. Participant Consent Form



Human Research Ethics Committee (HREC)

CONSENT FORM

1. I have read the attached Information Sheet and agree to take part in the following research project:

Title:	Necessity of Soft Skills in Project Managers and its Impact on their Project Success
Ethics Approval	H-2018-240

Number:

2. I have had the project, so far as it affects me, and the potential risks and burdens fully explained to my satisfaction by the research worker. I have had the opportunity to ask any questions I may have about the project and my participation. My consent is given freely.
3. Although I understand the purpose of the research project, it has also been explained that my involvement may not be of any benefit to me.
4. I agree to participate in the activities outlined in the participant information sheet.
- Face-to-Face Interviews
5. I agree to be: Audio recorded

6. I understand that as my participation is anonymous, I can withdraw any time up until submission of the survey/completion of the interview. I am aware that if I decide to withdraw this will not affect my study at the University now or in the future.
7. I have been informed that the information gained in the project may be published in a book/journal article/thesis/conference presentations/report/monographs. My participation, non-participation, or withdrawal will have no impact on my relationship with the research team.
8. I have been informed that while all efforts will be made to remove any information that might identify me in the published materials, it may not be possible to guarantee my anonymity given the nature of the study and/or small number of participants involved.
9. I agree to my information being used for future research purposes limited to journals, books, conference presentations and papers, monographs, thesis.
- Yes No
10. My information will be used for the purpose of this research project and future research projects . It will only be disclosed according to the consent provided, except where disclosure is required by law.
11. I am aware that I should keep a copy of this Consent Form, when completed, and the attached Information Sheet.

Participant to complete:

Name: _____ Signature: _____ Date: _____

Researcher/Witness to complete: [This can be removed for electronically returned consent forms.]

I have described the nature of the research to

(print name of participant)

and in my opinion she/he understood the explanation.

Signature: _____ Position: _____ Date:

PARTICIPANT INFORMATION SHEET

PROJECT TITLE: Necessity of Soft Skills in Project Managers and its Impact on their Project Success

HUMAN RESEARCH ETHICS COMMITTEE APPROVAL NUMBER: H-2018-240

PRINCIPAL INVESTIGATOR: Dr Carmen Haule Reaiche

STUDENT RESEARCHER: Richa Gulati

STUDENT'S DEGREE: PhD

Dear Participant,

You are invited to participate in the research project described below.

What is the project about?

Aim: This research aims to identify key soft skills required by a project manager and how they contribute to project success by affecting team performance and team management.

Background: Soft skills are defined as human, interpersonal, and/or behavioural skills that are required to apply technical skills and knowledge at workplace. When a project manager is appointed, their hard skills, for example 'technical aspect of performing a job' are considered by recruiters as a part of recruitment criteria. However, soft skills have not received much importance due to a lack of measures to identify the impact of soft skills on project success. One of the core parts of project management concerns managing the *people* who are involved as a part of a project, for example team members,

stakeholders, management, customers and suppliers. Thus, project managers' soft skills (communications skills, human skills, active listening skills, negotiation skills etc.) have an impact on their ability to manage projects. Hence, this research aims to explore the necessity of soft skills in a project manager and its impact on their project success.

Who is undertaking the project?

This project is being conducted by Richa Gulati (Student Researcher).

This research will form the basis for the degree of Doctor of Philosophy at the University of Adelaide, Adelaide, South Australia under the supervision of Dr Carmen Haule Reaiche (principal investigator), Assoc. Prof. Indra Gunawan (co-investigator) and Dr Sam Baroudi (co-investigator).

Why am I being invited to participate?

You are being invited as you have worked in capacity of project manager/team member/ program or portfolio manager in project management domain wherein you have either worked, managed or overseen at least one successful project.

What am I being invited to do?

You will be requested to take part in a one-on-one face-to-face Interview. The questions will cover aspects related to project success, skills of a project manager, project team management, project team performance and recruitment of project managers. The interview will be audio-recorded to assist the student researcher with transcription of responses. The transcript of interview will not be used for publication. It is only a means to ensure that a full and accurate record of your responses is being captured.

How much time will my involvement in the project take?

The interview session would take approximately an hour to complete.

Are there any risks associated with participating in this project?

Your name and the name of the organisation you work for and/or names of the organisations that you use during the interview will be de-identified. While all efforts will be made to remove any information that could identify you, as the sample size is small, complete anonymity cannot be guaranteed.

However, the utmost care will be taken to ensure that no personally identifying details are revealed.

If you feel any discomfort, at any time during the interview, you may ask me to leave and I shall comply with your request.

What are the potential benefits of the research project?

This research aims to contribute to the project management domain by identifying key soft skills required by a manager and their contribution to project success. The results could be potentially be beneficial for project managers, academicians and recruiters. As a participant, it would be beneficial to see the analysis regarding the role of soft skills in projects across the data set collected by student researcher and using it to improve efficiency & effectiveness of projects and self-development.

Can I withdraw from the project?

Participation in this project is completely voluntary. If you agree to participate, you can withdraw from the study at any time. It will be possible to withdraw your data only until the submission of the thesis and/or papers submitted to any of journals, conferences and/or other online media.

Participation, non- participation, or withdrawal will have no impact on relationship with the research team.

What will happen to my information?

The information gathered will be accessed only by principal investigator, co-investigators and the student researcher. The data will be securely stored on password protected University of Adelaide's U: drive. The documents related to research will be secured under lock and key. The records, data, information gathered from this research will be retained by the University of Adelaide for the period

of minimum five years. The information and reported results will be used for student researcher's Doctoral degree. Following which, the student researcher may use the data from this research in other forms of publications (e.g., journal papers, conferences, book chapters, monographs). However, any publications that will be made for the student researcher's Doctoral degree and/or any future publications will not identify your name or the name of the company you worked/work for. The information that will be given in this study will be protected. The summary of the results will be made available to you via email or in the form of a hard copy.

Your information will only be used as described in this participant information sheet and it will only be disclosed according to the consent provided, except as required by law.

Who do I contact if I have questions about the project?

You can contact the principal investigator:

Name: Dr Carmen Haule Reachie

Phone: (08) 83132562

Email: carmen.reaiche@adelaide.edu.au

You can contact the Co-investigator:

Name: Assoc Prof Indra Gunawan

Phone: (08) [831 33255](tel:83133255)

Email: indra.gunawan@adelaide.edu.au

You can contact the Co- investigator:

Name: Dr Sam Baroudi

Phone: (08) 83130977

Email: sam.baroudi@adeladie.edu.au

You can contact the student researcher:

Name: Richa Gulati

Phone: 8313 6461

Email: richa.gulati@adelaide.edu.au

What if I have a complaint or any concerns?

The study has been approved by the Human Research Ethics Committee at the University of Adelaide (approval number **H-2018-240**). This research project will be conducted according to the NHMRC National Statement on Ethical Conduct in Human Research (2007). If you have questions or problems associated with the practical aspects of your participation in the project, or wish to raise a concern or complaint about the project, then you should consult the Principal Investigator. If you wish to speak with an independent person regarding concerns or a complaint, the University's policy on research involving human participants, or your rights as a participant, please contact the Human Research Ethics Committee's Secretariat on:

Phone: +61 8 8313 6028

Email: hrec@adelaide.edu.au

Post: Level 4, Rundle Mall Plaza, 50 Rundle Mall, ADELAIDE SA 5000

Any complaint or concern will be treated in confidence and fully investigated. You will be informed of the outcome.

If I want to participate, what do I do?

If you wish to participate in this research, please complete the attached consent form and email it to student researcher (richa.gulati@adelaide.edu.au). If you have any questions you can contact the student researcher directly.

Yours sincerely,

Dr Carmen Haule Reaiche

Assoc Prof Indra Gunawan

Dr Sam Baraoudi

Richa Gulati

D. Interview Questions

Project Managers

- 1) What is project success to you?
 - a) Which factors do you think contribute to a project's success?
- 2) As a project manager, which skills do you consider to be important?
 - a) Apart from the skills you have mentioned, have you worked on developing a skill overtime or increase the competence level of an existing skill to aid you in project management? If so, which skill?
 - b) What is your understanding of soft skills? Do you think soft skills are important in a Project manager? If so Why?
 - c) How would you weigh hard skills in comparison to soft skills i.e. which is more important and why?
 - d) With your experience thus far, would you like to share an example where soft skills contributed, aided or had an impact on project's success?
- 3) What is a well-managed project team for you?
 - a) While managing a project team, any certain skills that are most helpful for you as a manager?
 - b) While managing your team, your people.....are soft skills helpful? Examples?
 - c) From team management perspective, do you think soft skills of a project manager increase the chances of a project being successful? If so how?
- 4) How do you measure project team's performance for your projects?
 - a) Do you think competence level of project manager's skills has an impact on team performance? Example?

- b) What do you look for in a candidate while you recruit your project team?
 - c) Do you consider soft skills of a candidate while recruiting your project team? If yes, how do you check or verify them? If not, why not?
 - d) Were your soft skills considered when you were recruited?
- 5) Do you or your organisation use any competency frameworks for recruiting or developing your employees?

E. Overall Research Findings

