

**ENHANCING PROJECT SUCCESS THROUGH
LEADERSHIP, TOP MANAGEMENT SUPPORT,
TRAINING AND DEVELOPMENT, AND
KNOWLEDGE SHARING**

VIJAYAKUMAR A/L RAMASAMY VELAR

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KNOWLEDGE SHARING**

by

VIJAYAKUMAR A/L RAMASAMY VELAR

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LIST OF ABBREVIATIONS

AIPM	Australian Institute of Project Management
APM	Association for Project Management Body of Knowledge
CAPM	Certified Associate in Project Management
CIPM	Chartered Institute of Project Management
CSF	Critical Success Factor
DV	Dependent Variable
EI	Emotional Intelligence
ERP	Enterprise Resource Planning
IV	Independent Variable
IPMA	International Project Management Association
ISO	International Standards Organisation
KS	Knowledge Sharing
PLS-SEM	Partial Least Squares Structural Equation Modeling
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PMP	Project Management Professional
PRINCE2	Projects IN Controlled Environments
PS	Project Success
R&D	Research and Development
SBOK	Scrum Body of Knowledge
SPSS	Statistical Package for Social Sciences
TD	Training and development
TL	Transformational Leadership
TMS	Top Management Support
USD	United States Dollar
USM	Universiti Sains Malaysia
WLEIS	Wong and Law Emotional Intelligence Scale

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**MENINGKATKAN KEJAYAAN PROJEK MELALUI KEPIMPINAN,
SOKONGAN PENGURUSAN ATASAN, LATIHAN DAN
PEMBANGUNAN, DAN PERKONGSIAN PENGETAHUAN**

ABSTRAK

Penyampaian projek adalah penting dalam memacu pertumbuhan ekonomi, penciptaan pekerjaan, dan inovasi. Walau bagaimanapun, kadar kejayaan projek semasa adalah kurang memuaskan. Oleh itu, kajian ini meneroka keperluan kepimpinan dan sokongan organisasi yang diperlukan untuk pengurusan projek yang berkesan. Kajian literatur menunjukkan pembolehubah utama kecerdasan emosi, kepimpinan transformasional, sokongan pengurusan atasan, latihan dan pembangunan serta perkongsian pengetahuan membolehkan kejayaan projek. Kajian ini merangka rangka kerja penyelidikan yang menggunakan intipati Teori Modal Sosial dan Teori Peristiwa Afektif sebagai asas dalam memahami dinamik pembolehubah utama tersebut. Juga, kesan perantara perkongsian pengetahuan antara kecerdasan emosi, kepimpinan transformasional, sokongan pengurusan atasan dan latihan serta pembangunan dan kejayaan projek telah dinilai. Reka bentuk penyelidikan keratan rentas dengan persampelan bertujuan di mana dalam talian mengumpul data tinjauan daripada 402 pengurus projek berpengalaman merentasi pelbagai industri di Malaysia. Model struktur dan pengukuran telah dianalisis dengan SmartPLS. Hasilnya menunjukkan kepimpinan transformasi, sokongan pengurusan atasan dan perkongsian pengetahuan mempengaruhi kejayaan projek secara positif. Manakala kecerdasan emosi dan latihan dan pembangunan didapati tidak mempengaruhi kejayaan projek. Manakala perkongsian pengetahuan secara positif menjadi pengantara hubungan

antara kecerdasan emosi, kepemimpinan transformasi, sokongan pengurusan atasan dan latihan dan pembangunan dan kejayaan projek.

ENHANCING PROJECT SUCCESS THROUGH LEADERSHIP, TOP MANAGEMENT SUPPORT, TRAINING AND DEVELOPMENT, AND KNOWLEDGE SHARING

ABSTRACT

Project deliveries are pivotal in driving economic growth, job creation, and innovation. However, present project success rates have been less than satisfactory. As such, this study explored the necessary leadership and organisational support requirements for effective project management. The literature review revealed key variables of emotional intelligence, transformational leadership, top management support, training and development and knowledge sharing, enabling project success. The study designed the research framework applying the essence of Social Capital Theory and Affective Events Theory as a foundation in understanding the dynamics of those key variables towards project success. Also, the mediating effect of the knowledge sharing between emotional intelligence, transformational leadership, top management support and training and development and project success was evaluated. A cross-sectional research design with purposive sampling where online collected survey data from 402 experienced project managers across various industries in Malaysia. The result showed that transformational leadership, top management support and knowledge sharing positively influenced project success. While emotional intelligence was found not to be significant to project success. The influence of training and development towards project success was also supported. While knowledge sharing positively mediated the relationship between emotional intelligence, transformational leadership, top management support and training and development and project success.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The field of project management has been extensively researched, and various frameworks, theories, standards, and practices have been developed to address the evolving needs of the industry. This study aimed to contribute to the project management community by proposing a robust conceptual framework that can assist practitioners in solving real-world problems. Rather than being a mere droplet in the vast ocean of project management research, this study strives to offer a valuable pearl.

In addition to discussing the background and problem statement, this study provided a comprehensive overview of project management fundamentals and the role of project managers. This will enable a better understanding of the necessary leadership and skill requirements for effective project management. The study then examined the variables of emotional intelligence, transformational leadership, top management support, and training and development in relation to project success. By examining the interplay between these variables and their influence on knowledge sharing, this study offered valuable insights into enhancing project success in the project management industry.

1.2 Background of the Study

Malaysia has experienced remarkable economic growth and development since gaining independence in 1957 (Goh & Mohd Aznan, 2023). This progress has transformed the country into one of Asia's economic powerhouses, with a diversified economy spanning various sectors, including manufacturing, services, agriculture, and technology. Malaysia's strategic geographical location, robust infrastructure, and

stable political climate have contributed to its attractiveness as an investment destination.

As Malaysia has transitioned from an agrarian economy to an industrial and knowledge-based one, the role of projects and project management has become increasingly prominent. Projects in Malaysia range from large-scale infrastructure development, such as the Kuala Lumpur International Airport and the Mass Rapid Transit system, to high-tech initiatives in the electronics and information technology sectors. These projects are pivotal in driving economic growth, job creation, and innovation.

However, the successful execution of projects in Malaysia's dynamic business environment is not without its challenges. While the nation has made substantial strides in infrastructure development and technological advancement, it faces evolving economic and societal demands. Ensuring that projects are not only completed on time and within budget but also deliver intended benefits and value has become a complex and multifaceted task (Roux et al., 2024). Malaysia has experienced significant growth in various industries, resulting in an increase in project-based work. However, despite the country's rapid development, project success rates have been less than satisfactory. This is evident from the final survey where the respondents were asked to rate their organisational project success. There were 65% of the participants claimed the success rate was below 90%. The high rate of project failures can be attributed to various factors, including poor leadership, inadequate training, lack of knowledge sharing, and inadequate top management support. Also, a study highlighted that a lack of project leadership among the primary reasons for project failures in Malaysia (Olsen, 2006).

A study by Zainol et al. (2021) found that only 39% of infrastructure projects in Malaysia were completed on time, and cost overruns were common. The study identified several factors contributing to these challenges, including poor project management practices, a lack of a skilled workforce, and inadequate funding. PwC Malaysia (2021) reported that only 38% of digital transformation projects in Malaysia were successful. The report highlighted the importance of strong leadership and stakeholder engagement in driving digital transformation initiatives and achieving the desired outcomes.

The failure of projects can lead to significant financial losses, which can have a ripple effect on the entire industry and the economy. In Malaysia, the construction industry, for instance, is one of the key contributors to the country's economy. According to the Department of Statistics Malaysia (DOSM, 2021), the construction sector contributed RM 179.9 billion to the country's GDP in 2020. Whilst Tan and Abdul-Samad (2022) reported that construction projects have a significant contribution to Malaysia's economic growth, which is about an annual turnover of RM140 billion. However, the sector has been plagued by project delays and cost overruns, resulting in significant financial losses (Yusof et al., 2018; Abdul-Rahim, Zulfakar, & Ruslan, 2024). Such losses not only affect the construction industry but also have a trickle-down effect on other sectors that rely on it, further highlighting the need for project success (Sohu et al., 2024). The Malaysian government has also recognised the importance of improving project success rates in the country. In the Eleventh Malaysia Plan (2016-2020), the government highlighted the need for effective project management to ensure the successful implementation of national development projects (Government of Malaysia, 2015). Furthermore, the Malaysian Productivity Corporation (MPC) has emphasised the importance of project

management skills in improving productivity and competitiveness in Malaysia (MPC, 2020).

In a survey conducted by Robert Walters Malaysia (2021), 57% of respondents cited poor project management as the main reason for project failure. The survey also identified other factors, such as unclear objectives, lack of resources, and inadequate communication, that contributed to project failures in Malaysia. Ahmad et al. (2021) found that the adoption of project management methodologies in Malaysian construction projects was low, which led to poor project outcomes. The study emphasised the need for standardised project management practices and increased training and development programs to improve project success rates (Nauman et al., 2023). These highlight the widespread challenges facing project management in Malaysia and the need for organisations to prioritise factors such as strong leadership, effective communication, adequate training, and knowledge sharing to overcome these challenges and achieve project success.

The practice of project management is being utilised in a wide range of industries, such as construction, manufacturing, software development, and information technology. Describing a project's success from a business standpoint hinges on its capacity to yield the anticipated return on investment. Consequently, project management is established to ensure the project's capability to deliver the expected return on investment. Achieving a project's return on investment presents greater complexity compared to simply managing the project effectively (Fernando et al., 2018).

Over the past few decades, researchers and project practitioners have paid significant attention to analysing the critical success factors (CSFs) that determine project success (Khan, Jaafar, Javed, Mubarak, & Saudagar, 2020; Tammy, Ramlee,

Mohd Nasir, Mohd Noor, Che Ibrahim, & Chan, 2016; Yong & Mustaffa, 2012; Denni-Fiberesima et al., 2024; Roux et al., 2024). Project success has been the primary focus of these studies. For example, Lee, Rahman, and Doh (2021) studied 23 CSFs among public projects in Malaysia, demonstrating the continued need for project success analysis.

Project performance or project success is one of the most controversial issues in the world of project management (Ma & Fu, 2020). This is because project investments can generate high social returns, transform local populations and the social context, and increase operational, recruitment, government, and private business revenues (Khosravi, Rezvani, & Ashkanasy, 2020). With this in mind, this study focused on project success as the dependent variable of investigation.

The construction industry in Malaysia has been plagued by two persistent project issues: schedule slippage and cost overrun (Dehdasht et al., 2022; Mohsen Alawag et al., 2023), which have resulted in customer dissatisfaction with project outcomes (Aminorlah et al., 2023). Research by Shehu, Endut, Akintoye, and Holt (2014) indicates that 55% of Malaysian construction projects experience cost overruns. Memon, Ismail, Ade Asmi, and Nor Hazana (2013) report that approximately half of all Malaysian construction projects suffer from cost overruns ranging from 0.03% to 72.88%. The oil and gas industry is not immune to such delivery problems, with about 40% of capital projects encountering budget or schedule issues (Sithambaram, Nasir, & Ahmad, 2021). The success of projects in industries such as oil and gas is critical due to the high stakes of investment involved. For example, a three-month-long project can cost a significant amount, with oil drilling rigs costing between USD 50,000 to USD 500,000 per day and a single undersea well taking up to 30 days to drill with a cost of USD 200,000 per day (Sylvester, Rani, & Shaikh, 2011).

Figure 1.1 below shows the number of late projects between 2016 and 2020 as reported by Kementerian Kerja Raya. Similarly, Figure 1.2 shows the percentage of late projects from 2017 to 2023 in the respective States. This data was reported by Kementerian Pembangunan Kerajaan Tempatan.

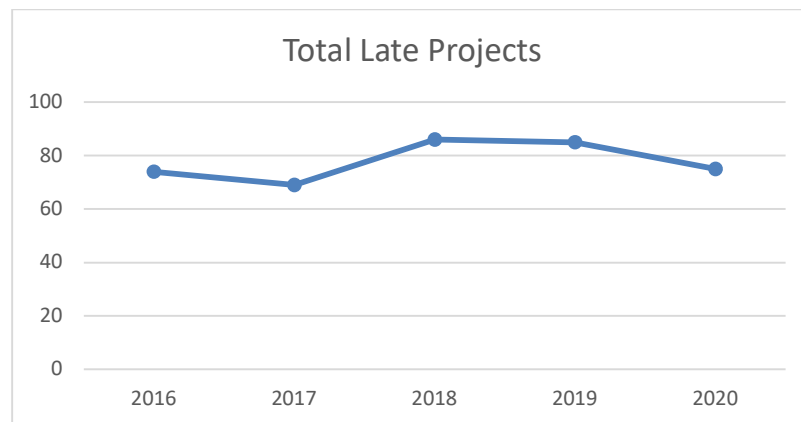


Figure 1.1: Number of late projects (Kementerian Kerja Raya (KKR), 2021)

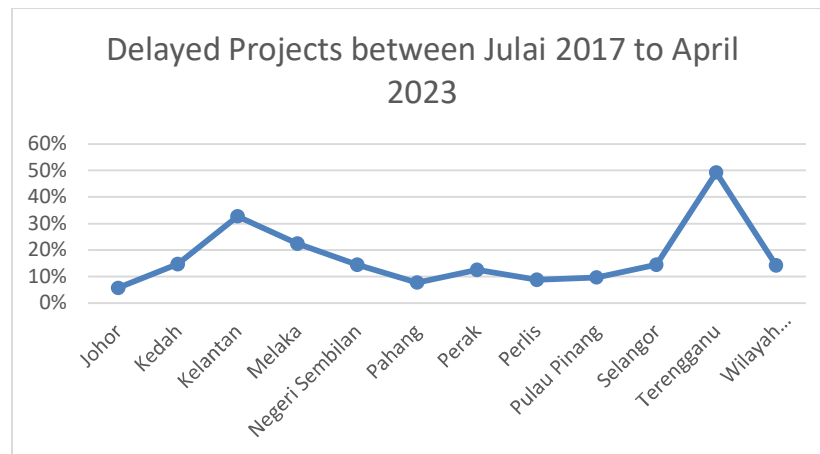


Figure 1.2: Percentage of late projects by State (Kementerian Pembangunan Kerajaan Tempatan (KPKT), 2023)

Unfortunately, the works of literature out there did not specify the said satisfactory level of project success rate, for example, 80 per cent or 95 per cent. Even those pieces of literature that take up analysis on project success never mention a rule of thumb when it comes to defining project success, for instance, Castro et al. (2023),

Ahmed and Jawad (2022), Shameem and Nadeem (2022), Ozguler (2016), Ika and Pinto (2022) and so forth. As such, it may be safe to assume 100 per cent can be the desired project success rate logically.

To prevent delays and negative budgets, Rahman, Radzi, Saad, and Doh (2020) emphasised the need to better understand the factors that influence Malaysian highway projects. Overcoming these major issues would greatly help highway projects avoid roadblocks. In the manufacturing sector, only about 55% of projects are successfully implemented, with a total value of over RM31 billion in 2005 and RM46 billion in 2006 (Kuen, Zailani, & Fernando, 2009). Therefore, even a failure rate of 20% carries a significant financial impact on the industry. Table 1.1 below summarises the major Malaysian construction projects and their cost values.

Table 1.1: Summary of Malaysian key projects and the overall cost

Project	Project Cost	Source
River of Life project	RM4billion	Auditor General, 2024
Phase 1 sewerage treatment plant upgrade projects	RM4.685 billion	Auditor General, 2024
2020 construction projects	RM 179.9 billion	DOSM, 2021
Kuala Lumpur International Airport2 project	RM4 billion	Ullah, Abdullah, & Nagapan, 2016
Second Penang bridge	RM 4.5 Billion	Zailani et al., 2016
Private sector building and infrastructure projects (between 2011 and 2015)	RM127.7 billion	Lee, Rahman, & Doh, 2022

Project failures, particularly those involving delays and cost overruns, can have profound financial impacts and may seriously damage an organisation's reputation (Ismail, Memon, & Abdul Rahman, 2013; Dehdasht et al., 2022). Studies indicate that extended project durations are often directly linked to financial overruns, sometimes

increasing total costs by as much as 20-30% (Sambasivan & Soon, 2007). In Malaysia, persistent project delays remain a significant factor contributing to project abandonment, with more than 500 projects classified as 'sick' by 2023 (Mydin et al., 2023). Such delays in government initiatives not only heighten public dissatisfaction but also attract negative media coverage (Auditor-General's Report, 2024). Furthermore, contractual delays may escalate into arbitration or legal proceedings, consuming additional time and resources (CIDB, 2023). House buyers impacted by late project delivery frequently experience prolonged mental stress and financial uncertainty (The Malaysian Reserve, 2024). Delays in public infrastructure projects, such as those related to roads and water supply, can disrupt national development plans and contribute to long-term economic inefficiencies (The Star, 2024).

According to Rahman et al. (2020), the competencies of project managers play a critical role in ensuring the success of highway projects. They highlighted the importance of project managers possessing various human-related abilities such as soft and people skills. Similarly, Barros et al. (2024) emphasised people skills in agile software development projects' success. This underscores the need to examine project managers' leadership and soft competencies more closely. In a study of social infrastructure projects in Malaysia, Wai et al (2022) emphasised the importance of clarifying key success factors due to the complexity and uncertainty inherent in such projects.

From the extensive review of literature, it has been empirically projected that emotional intelligence, transformational leadership, top management support, training and development and knowledge sharing are significantly associated with project success. Thus, a mediating variable should be used to explain the causal process behind the link between the independent and dependent variables. In this study, knowledge

sharing is placed as a mediator to explain the relationship between emotional intelligence, transformational leadership, top management support, training and development to project success. In this context, Imam and Zaheer (2021) applied knowledge sharing as the mediator between leadership and project success. Gundersen et al. (2012) identified a significant correlation between leadership and project success, but suggested that mediating factors should be considered in future research. Supporting this perspective, Gerpott, Fasbender, and Burmeister (2020) explored knowledge sharing as a mediator between leadership behaviours and team innovation, providing a foundation for the present study's conceptual framework. Similarly, Imam and Zaheer (2021) found that knowledge sharing mediates the relationship between shared leadership and project success. Hence, the present study examined the mediating role of knowledge sharing between emotional intelligence and project success, transformational leadership and project success, training and development and project success and lastly, top management support and project success.

1.3 Problem Statement

Malaysia's Gross Domestic Product (GDP) grew by an impressive 6.7% in 2020, despite the challenges posed by the global pandemic (Department of Statistics Malaysia, 2021). As of mid-2023, Malaysia's construction sector alone had a good 8.1 per cent growth with a total project value of staggering RM32.4 billion (Wahab et al., 2024). Malaysia also recorded and significant growth in the pre-pandemic stage, refer to Figure 1.3. However, within this context of growth and development, numerous projects still encounter significant challenges.



Figure 1.3: Malaysia GDP (adopted from Ministry of Economy Department of Statistics Malaysia's official portal)

According to Azmi and Ismail (2022), 80 per cent of public sector projects in Malaysia suffered from schedule delays. Shehu et al. (2014) reported that about fifty per cent of all Malaysian construction projects experience up to 72 per cent cost overruns. Moreover, cost overruns were observed in nearly 40% of these projects, affecting their budgets significantly. These project challenges have significant ramifications for organisations and the broader economy. Organisations facing project delays and cost overruns often experience financial strain and potential damage to their reputation (Ismail, Memon, & Abdul Rahman, 2013; Dehdasht et al., 2022). This issue appeared particularly serious in Malaysia, where research done by Endut et al. (2009), as cited by Ismail et al. (2013), found that 79.5 per cent of the 308 public-sector projects are unsuccessful. Other Malaysian researchers, Yap and Lock (2017), echoed similar figures, claiming that about 55 per cent of the local construction projects blow out in time and cost. According to Abdul Rahman et al. (2012), 92 per cent of projects in Peninsular Malaysia's Central and Southern Regions encountered schedule overruns, while 89 per cent of projects saw cost overruns. In line, project success is one of the concerns or hurdles in the construction project, according to the Malaysian

construction industry (Yong & Mustaffa, 2012). The same project success concerns are renewed by Wahab et al. in 2024 as well.

The causes of project delivery delays within Malaysia's industrial and infrastructure sectors have been consistently linked to factors involving technical, administrative, and structural reasons. Auditor-General (2024) reported that insufficient project scoping and incomplete technical documentation contributed to a high number of delays at early stages of implementation, especially in water and housing infrastructure projects. While in Sabah and parts of East Malaysia, the shortage of qualified technical staff and project personnel was highlighted as a major hiccup to project deliveries, prompting calls for systemic workforce reforms (Ministry of Entrepreneur Development and Cooperatives, 2025). Other contributing factors include frequent mid-project design changes, high volumes of variation orders, and ongoing disruptions to material supply chains, all of which have compounded time and cost overruns in both public and private sector projects (ACPM, 2025; CIDB, 2025). Other Malaysian researchers identified four major causes of the project delays seen in the local industrial environment, especially in the construction sector. The said causes are financial matters, poor planning, poor management and external environmental factors (Sambasivan & Soon, 2007). Moreover, another Malaysian researcher, Othuman Mydin et al. (2014), called for improved project management practices and workforce development in order to address these causes strategically.

The Auditor General (2024) also reported that the River of Life project failed to meet its objectives even after 13 years of project work and spent RM4 billion thus far. The report also highlighted that the Rapid Transit System Link (RTS Link) infrastructure project had a cost overrun of almost 30 per cent. To add on, the Auditor General's report further indicated that 11 out of 34 centralised sewage treatment plant

projects were also delayed. Similarly, 129 out of 636 Phase 1 sewerage treatment plant upgrade projects also suffered delays. Overall, the total cost of these delayed projects amounted to a whopping RM4.685 billion.

Successful project delivery has become a critical factor for sustaining competitive advantage in today's competitive environment. However, the project success rate across Malaysian industries remains less than satisfactory, with many projects experiencing delays, budget overruns, or failure to meet their original objectives. A 2019 report by the Construction Industry Development Board Malaysia (CIDB) revealed that nearly 64% of construction projects encountered delays, while over 20% faced significant cost overruns, underscoring deficiencies in project management practices. Further emphasising the issue, the World Bank (2020) highlighted that Malaysia's economic growth and competitiveness depend heavily on the effective implementation of projects. Yet, inefficiencies in project management practices hinder the realisation of project objectives, affecting both organisational performance and national economic progress. Complementing this, the Project Management Institute (PMI, 2020) reported that only 62% of projects in Malaysia were completed on time, and just 49% achieved their original goals and business objectives. Such figures point to significant shortcomings in achieving desired project outcomes, often leading to substantial financial losses for organisations. This current state highlights a pressing need to address the underlying factors contributing to project failures and to develop strategies for enhancing project success rates in Malaysia.

Along the line, in Malaysia, several works of literature have studied the projects in the construction industry. One of them mentioned that budget overruns plague a large proportion of Malaysian construction projects (Ullah et al., 2018). The construction industry refers to both public and private projects (Lee, Rahman, & Doh,

2022). Why are construction-based projects so important? In 2014, the Malaysian construction sector contributed 4.2 per cent of national GDP, RM43.11 billion, RM46.63 billion, or 4.5 per cent of national GDP in 2015, and RM50.09 billion, or 4.5 per cent of national GDP in 2016. Projects granted in 2015 totalled RM141 billion, rising to RM229 billion in 2016, with the private sector accounting for 77.8% of the total, and over RM40.1 billion in overseas projects obtained in the same year (Ismail, Memon, & Abdul Rahman, 2013). Besides, the construction industry is a source of huge consumption of locally produced materials as well as a huge platform for employment. For instance, back in 2015, there were 1.3 million workers, out of the 9.3 per cent of the total employed local workforce, in the construction industry alone (Dehdasht et al., 2022).

These studies and examples demonstrated that time and expense overruns are important challenges in the Malaysian construction industry, harming our profession's reputation. No other profession permits such a high rate of failure in terms of professional performance and delivery, in addition to large wastes of taxpayers' money for public projects and increased development costs that will ultimately be carried by customers or purchasers for private enterprises.

In another example, the Kuala Lumpur International Airport 2 (KLIA2) project, originally scheduled to open in September 2011 but instead opened in May 2014, was the most recent example of a delayed project and cost overrun in Malaysia. The project was delayed for nearly 33 months and incurred a massive cost overrun from the original RM1.6 billion to the final cost of RM4 billion (Ullah, Abdullah, & Nagapan, 2016). Moreover, the well-known project of the Malaysia External Trade Development Corporation (MATRADE) building project, which turned out to be nine years late, cost an additional 70% more than the budget (Ismail, 2014). According to

Zailani et al. (2016), the second Penang bridge completion was delayed by two years, causing a cost overrun of USD 0.5 billion. Additionally, the Malaysian economy bears the brunt of these setbacks, as delayed projects result in postponed economic benefits, reduced investor confidence, and hindered progress toward the nation's development goals (Asian Development Bank, 2019)

World Bank (2021) highlighted the need for Malaysia to improve its project management practices, achieving its development goals. The report stated that project management skills and practices need to be enhanced across all sectors to improve project success rates and ensure that development projects deliver the intended outcomes. Furthermore, Malaysian businesses are increasingly recognising the importance of project success as a competitive advantage. PwC Malaysia (2021) reported that 82% of Malaysian businesses stated that project management skills were important for achieving their strategic objectives. The survey also highlighted that those businesses faced challenges in executing projects successfully, with inadequate project management skills being one of the key obstacles.

The underlying factors contributing to project setbacks in Malaysia are multifaceted and require in-depth exploration. Traditional project management practices often prioritise technical aspects while overlooking the human and organisational dimensions that significantly influence project outcomes. Therefore, this study aims to investigate and analyse the specific factors that facilitate project success in Malaysia, with a particular emphasis on emotional intelligence, transformational leadership, top management support, training and development, and knowledge sharing.

Researchers have highlighted that emotional intelligence, considered a vital soft skill, plays an important role in ensuring the successful delivery of construction

projects. According to Khosravi, Rezvani, and Ashkanasy (2020), emotional intelligence within project teams creates a more positive social and emotional environment, which boosts teamwork and project outcomes. Davis and Qualter (2020) describe emotional intelligence as a set of abilities related to managing emotions effectively, particularly in situations charged with emotion. Accordingly, this study regards emotional intelligence as a fundamental aspect of project management.

Researchers have explored the connection between transformational leadership in project managers and the achievement of project goals. Previously, Piccolo and Colquitt (2006) noted that the impact of transformational leadership on project success was under-researched in the field of project management. More recent work by Ansari et al. (2024) found that transformational leadership plays a significant role in the success of agile projects. Ding et al. (2017) highlighted that transformational leadership traits can positively shape team members' commitment and reduce project turnover. Consequently, transformational leaders inspire their teams to exceed expectations and deliver outstanding results (Ahmad et al., 2022).

The support from top management has consistently been identified as a critical factor for project success (Plant & Willcocks, 2007). When examining factors influencing the success of software development projects, researchers such as Madanayake et al. (2009) found that backing from top-level leaders is essential. Studies indicate that actions by top management, such as setting strategies, providing resources, and offering guidance are form the foundation of organisational support that enables project managers to achieve strong results (Zada et al., 2023).

Training is an intentional and organised process that provides learning experiences aimed at enhancing attitudes, knowledge, or skill-related behaviours, all to achieve strong job performance (Abdul Aziz & Selamat, 2016). The growing focus on project management competencies reflects findings from earlier research, which identified such competencies as crucial contributors to project success (Chasanah et al., 2023).

The practice of sharing knowledge within project teams is considered essential. When team members exchange specialised and hard-to-find expertise, it broadens the collective knowledge base and strengthens the team's capabilities, which is an element closely linked to project success (Bhatti et al., 2021). In project management, where teams are often temporary and made up of individuals from different departments, the need for effective knowledge sharing becomes even more apparent. Such sharing provides team members with a common platform to interact, exchange their unique skills, and work collaboratively toward shared project goals (Rosmah et al., 2010).

1.4 Research Objectives

The research objectives for this study have been formulated as follows:

1. To investigate the relationships between a project manager's emotional intelligence, transformational leadership, top management support, training and development, and knowledge sharing with project success in Malaysia.
2. To examine the relationships between a project manager's emotional intelligence, transformational leadership, top management support, and training and development with knowledge sharing practices in Malaysia.

3. To assess the mediating role of knowledge sharing in the relationships between emotional intelligence, transformational leadership, top management support, and training and development with project success in Malaysia.

1.5 Research Questions

The research aims to answer the following research questions:

1. What are the relationships between a project manager's emotional intelligence, transformational leadership, top management support, training and development, knowledge sharing and project success in Malaysia?
2. How do a project manager's emotional intelligence, transformational leadership, top management support, and training and development relate to knowledge sharing practices in Malaysia?
3. Does knowledge sharing mediate the relationships between emotional intelligence, transformational leadership, top management support, and training and development with project success in Malaysia?

1.6 Significance of the Study

The significance of this study can be viewed from theoretical and practical perspectives.

1.6.1 Theoretical Significance

This study contributes to the existing body of knowledge in project management by exploring the intricate interplay between emotional intelligence, transformational leadership, top management support, training and development, and knowledge sharing in the context of project success. It adds depth to project management theory by examining these multifaceted factors simultaneously. In addition, this study goes into the role of emotional intelligence and transformational leadership in project success, offering theoretical insights into leadership behaviour and its impact on project outcomes. This can contribute to broader leadership theories and frameworks, enhancing our understanding of leadership in dynamic project environments. Besides, by investigating the mediating role of knowledge sharing, this study advances theoretical understanding of how knowledge flows within project teams and influences project success. This exploration of mediating effects adds nuance to existing project management and knowledge-sharing theories. The findings of this study will contribute to the development of a comprehensive framework for project management success that can guide future research in this area.

By integrating both social capital theory and affective event theory into the proposed research framework, the study provided a comprehensive understanding of the factors that influence project success in Malaysia. Social capital theory emphasises the importance of relationships and networks in achieving shared goals and objectives, while affective event theory focuses on the role of emotions in shaping individual behaviour and performance. Other Malaysian researchers have also applied SCT when investigating leadership domains, such as Mahmud, Khalid & Mat Noor (2022) and Che Zahari (2020). While Ghasemy and Ang (2023) had applied AET in their academic job satisfaction and performance studies. The integration of social capital

theory and affective event theory in this study enabled a more nuanced analysis of the relationship between emotional intelligence, transformational leadership, top management support, training and development, and knowledge sharing practices and project success. The findings of the study provided insight into how these factors can be leveraged to improve project outcomes and reduce the risk of project failure.

1.6.2 Practical Significance

The findings of this study have practical implications for project managers and organisations involved in project management in Malaysia. They can guide the adoption of effective practices that align with emotional intelligence, transformational leadership, and knowledge sharing to enhance project success rates. Besides, organisations can use the insights to develop leadership competencies, fostering emotionally intelligent and transformational project managers who can inspire and lead project teams effectively. This can lead to improved leadership practices within project management.

In addition, understanding the influence of top management support, training, and development can assist organisations in optimising resource allocation for projects. This can result in better resource utilisation, reduced risks, and improved financial management. Organisations can implement knowledge-sharing initiatives and platforms to facilitate collaboration, learning, and innovation among project teams. This can foster a culture of knowledge sharing, enhancing project outcomes and organisational learning.

The findings of this study can contribute to the development of effective project management strategies and practices in Malaysia and potentially have implications for other countries with similar contexts. From a practical perspective, the study's findings

can inform the development of best practices for project management in Malaysia. By identifying the key factors that contribute to project success, the study can help organisations better allocate resources and prioritise investments in training and development, knowledge sharing, and leadership development programs. This, in turn, can lead to improved project outcomes, greater organisational efficiency, and increased competitiveness in the Malaysian marketplace.

The practical significance of this study lies in its potential to improve project success rates in Malaysia. This study provided insights into how emotional intelligence, transformational leadership, top management support, training and development, and knowledge sharing can be effectively integrated into project management practices to enhance project success. The findings of this study can be used as a guide to develop training programs for project managers and team members, implement knowledge sharing practices, and provide adequate resources and support to project teams.

The research was not limited to any specific project industry, for instance, the construction or software industry. Though the research is undertaken in Malaysia, the function of project management is practised worldwide. Therefore, researchers worldwide could use this study's outcome in their respective countries. For example, Tam et. al (2020) wrote a recommendation for future works stating that their study was limited to agile software development projects which were done within a single country, Portugal, which is a limitation when it comes to the concept of generalisation. A similar limitation was pointed out by Aga et al. (2016), where their study was limited to development projects within Ethiopia's non-governmental organisations. Thus, this study's outcome could serve as a reference to the Malaysian and global project management researchers regardless of industry and country.

The cost of not achieving project success is huge. For instance, the low-cost carrier airport terminal (KLIA2) faced drastic delays, and the budget overran by almost double (Yap & Skitmore, 2020). Also in 2013, the overall development budget allocated in Malaysia was RM 477 billion, where there were 5,985 projects were planned with a total value of RM 92.3 billion. As such, successful project execution will have an impact on the nation's infrastructure development (Zainal Abidin, Fathi, Md Daud, & Baharum, 2017).

Building and infrastructure projects require long-term investment as well as long-term risks. As a result, to be successful, the projects that are performed must be well-planned and managed. Malaysia's private sector projects grew by 10.1 per cent between 2011 and 2015, totalling RM127.7 billion (Lee, Rahman, & Doh, 2022). So, there is a huge amount of money and resources at stake depending on the success of those projects now and in the future.

These are just a few examples of public and private projects. The study aimed to increase awareness of the factors that could possibly increase the positive risk of achieving project success. In conjunction with that, the project management community and organisations can identify the contributing factors and practices to project success and hence allow them to take appropriate steps to reap the benefits of the undertaken projects in Malaysia.

Enabling emotional intelligence on a broader scale within the project management community can significantly enhance project success. The mediating effect of knowledge sharing on project success suggests that when project managers exchange insights or discuss their experiences in managing emotions, the practical impact and understanding of emotional intelligence are substantially amplified

compared to when such knowledge is retained individually. This collaborative approach, in turn, supports effective project delivery.

The increasing emphasis on transformational leadership highlights the necessity for project managers to cultivate an open and supportive work atmosphere that inspires motivation and engagement among team members. Such an environment enables persistent collective effort, thereby reinforcing successful project implementation. The organisations should create a platform to promote transformational leadership.

Industries are encouraged to uplift top management support, recognising its value as a critical component of project success models. The organisation should assure the project management faction that the higher management team will always be there to provide a supporting hand when needed.

Organisations should invest in comprehensive training and development initiatives for project managers and integrate activities that facilitate knowledge sharing among them. Only through these mechanisms can the competencies gained during professional development be effectively translated into tangible project achievements.

This study recommends that industries systematically promote knowledge sharing as an essential strategy for achieving higher rates of project success. The organisation should create an open platform to enable project teams to exchange information.

In conclusion, the significance of this study extends beyond theoretical contributions to practical applications, offering valuable guidance for organisations

and stakeholders involved in project management. It has the potential to improve project success rates, enhance leadership practices, and contribute to the strategic objectives of organisations and the nation.

1.7 Definition of Key Terms

This section defines the key terms used in this study, as follows:

Project Success is evaluated based on the project's overall objectives and measured against pre-defined success criteria upon project completion (Jiao et al., 2020).

Emotional Intelligence refers to individuals' ability to understand and manage their own emotions, as well as the emotions of others. (Wong & Law, 2002). Wong and Law (2002) identified four dimensions of EI: self-awareness, self-management, social awareness, and relationship management.

Self-awareness: involves recognising and understanding one's emotions and their impact on one's thoughts, decisions, and actions. It's about being in tune with one's feelings and gaining insight into why one feels a certain way.

Self-management: refers to the ability to control and regulate one's emotions effectively. It involves techniques for managing stress, impulse control, and adaptability to changing situations. Individuals with strong self-management skills can remain composed even in challenging circumstances.

Social awareness: is about perceiving and understanding the emotions of others. It includes empathy, the ability to pick up on nonverbal cues, and being attuned to the emotional dynamics of a group or social situation.

Relationship management: focuses on using one's emotional awareness and interpersonal skills to manage and nurture relationships effectively. It involves

communication, conflict resolution, and the ability to inspire and influence others positively.

Transformational Leadership is a leadership style in which leaders inspire and motivate their followers to achieve beyond their personal interests and work for the benefit of the group. It involves elevating the group's goals and objectives and fostering acceptance of these goals among team members (Carless et al., 2000).

Top Management Support refers to the involvement, commitment, and provision of resources by the organisation's top-level management in project activities (Islam et al., 2009).

Training and development refer to the initiatives undertaken by organisations to enhance employees' skills, knowledge, and motivation to improve job performance. It enables employees to stay updated with the latest technologies, methods, and techniques to accomplish tasks efficiently and effectively (Aruldoss et al., 2021).

Knowledge Sharing is the process of identifying and transferring existing and available information to solve problems more efficiently, quickly, and cost-effectively than would have been possible otherwise (Park & Lee, 2014).

Project Manager is a professional responsible for leading a team and managing the planning, execution, and closing of a project. Project managers oversee all aspects of a project, including setting project goals, developing project plans, organising resources, monitoring progress, and communicating with stakeholders. They are responsible for ensuring that projects are completed within the specified scope, timeline, and budget while meeting the required quality standards. Project managers may work in various industries, including construction, engineering, software development, and marketing, among others (Project Management Institute, 2017).