

Balancing Artificial and Emotional Intelligence in IT Project Management Leadership: A Path to Efficient and High-Quality Project Delivery in the IT Service Industry

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Abstract— Recent technology breakthroughs, especially in Artificial Intelligence (AI), have started to impact many sectors and their processes. However, the field of Project Management (PM) is not solely reliant on AI; rather, other technologies like Emotional Intelligence (EI) also play a significant role by enhancing empathy, communication, conflict resolution, and stakeholder trust. While AI provides predictive insights, automation, and operational efficiency, EI ensures that these insights are implemented in a human-centered manner. Therefore, it is essential to explore how both elements can be used in PM to optimize advantages, as neither can independently deliver the anticipated benefits or quality demanded by clients and stakeholders. This study aimed to investigate the integration of AI and EI in PM within the IT service industry. Semi-structured interviews were conducted across multiple organizations, and the data were analyzed with thematic analysis using both deductive and inductive approaches. Despite the small sample size, thematic saturation was achieved, providing meaningful insights into this emerging area. This ensures a comprehensive understanding of the phenomenon. Findings suggested that six key factors must be considered when integrating AI and EI into PM: AI as a catalyst for efficiency, EI as a leadership enabler, integration challenges, synergy between AI and EI, ethical and trust concerns, and capacity building and training. Together, this highlights not only the opportunities but also the practical barriers in implementation. Importantly, the study offers a road map for industries on how to incorporate AI and EI into their PM processes, ensuring a balance between technological precision and human-centered leadership.

Keywords—Artificial Intelligence, Emotional Intelligence, Project Management, IT Service Industry, Thematic Analysis, AI–EI Integration

I. INTRODUCTION

The domain of project management has undergone significant transformation in recent years, primarily due to the increasing integration of digital technology and the intensified emphasis on human-centered leadership paradigms [1]. In this dynamic context, AI and EI have emerged as two critical determinants influencing project outcomes [2]. As stated in the PMBOK Guide (2021), PM is defined as ‘the application of knowledge, skills, tools, and techniques to project activities to meet project requirements and these activities consist of the specific tasks and actions carried out throughout the project lifecycle. They are traditionally organized within the five process groups—initiating, planning, executing, monitoring and controlling,

and closing, each contributing to the delivery of outcomes that meet scope, time, budget, and stakeholder expectations [3].

AI is characterized as ‘the capability of machines to perform tasks that typically require human intelligence, such as learning, reasoning, and problem-solving’ [4] and within project contexts, AI facilitates task automation, predictive analytics, real-time dashboards, and risk management. In contrast, EI which is defined as ‘the ability to recognize and manage emotions in oneself and others’ [5], serves as the foundation for building trust, motivation, and effective communication with stakeholders. Project management is not just about automation or using tools, it’s also about the human factor. The success of a project depends on communication, collaboration, decision-making, and leadership just as much as it does on processes and technology. In the past, there was no discussion of AI in the Project Management Body of Knowledge (PMBOK). However, the latest edition [6] has incorporated methodologies illustrating the application of AI to refine and enhance project management processes.

Further previous research has predominantly approached these two domains (AI and EI) in isolation. For instance, studies on AI have largely focused on technical aspects such as algorithm development, automation, data analytics, and decision-support systems, with an emphasis on improving efficiency, accuracy, and predictive capabilities [7]. Conversely, research on EI has centred on human factors, exploring leadership effectiveness, conflict resolution, motivation, team cohesion, and the ability to manage emotions in workplace dynamics [8], [9]. Although both approaches provided useful insights, they rarely intersected in a manner that examines how AI-driven tools can complement or enhance EI-driven leadership practices in real-world IT project management contexts [10]. While AI increases operational and EI improves human engagement, there are few studies that explore how AI and EI could be used in combination to maximise project outcomes [11].

This study contributed to the advancement of PM practices by emphasising the need of dual competency—technical expertise in AI technologies and Emotional Intelligence in leadership—for the effective implementation of projects within digitally evolving environments. This study addressed the research question: ‘How can the integration and balancing of Artificial Intelligence (AI) and Emotional Intelligence (EI) improve team performance,

decision-making, stakeholder satisfaction, and optimize project outcomes in IT project management (PM)?’.

The findings of this study contributed to closing a significant gap in the current knowledge base by introducing a conceptual framework that integrates data-driven decision-making with human-centric emotional awareness—two increasingly essential competencies in today's complex project environments. Further, this study facilitated the investigation of prevailing AI tools and technologies that define the contemporary IT landscape, while offering a comprehensive understanding of the interactions between humans and AI systems. It also addressed the critical issue of how IT professionals can remain current with the evolving skill sets required by engaging productively with AI rather than permitting it to supplant human roles.

II. BACKGROUND

Project management has undergone continual transformation, shaped by technological innovation and the growing complexity of organizational environments. Within IT service organizations in particular, project managers now operate in conditions that demand more than technical competence or timely delivery [3], [12]. Advances in digital technologies have gradually redefined project practices, embedding data-driven approaches into planning, monitoring, and execution [13]. Against this backdrop, the intersection of AI and EI emerges as a critical lens for understanding how efficiency and human leadership can be combined to strengthen project delivery [2].

A. AI as a driver of efficiency

AI signifies a contemporary and potent technical innovation in project management. It has reshaped many routine tasks, including scheduling, risk analysis, dashboard reporting, and process automation. These technologies have reduced administrative burdens, enabling project managers to concentrate more on decision-making and strategic supervision [4]. Moreover, robotic process automation and machine learning have expedited job execution and enhanced predicted accuracy, thereby mitigating budgetary and temporal constraints [9]. However, these advantages were offset by drawbacks, including low-quality data, high implementation costs, and employee resistance caused by concerns about job security and skill shortages [14], [15].

B. EI as an enabler of leadership

Simultaneously, EI remained essential for a successful project leadership framework, including self-awareness, self-regulation, empathy, social skills, and motivation, which continues to influence leadership research and practice [5]. In project contexts, EI empowered managers to address issues, engage with stakeholders, and maintain team morale, especially in high-pressure situations [12], [16]. Research indicated that leaders with emotional intelligence cultivate trust and teamwork, hence increasing the probability of project success [17]. However, EI also presents certain limitations. Its inherently subjective nature and dependence on cultural context, Generation gap, working culture make it difficult to apply consistently its focus on interpersonal dynamics may hinder efficiency in complex IT-driven environments [18].

C. AI and EI in Isolation

A notable concern in the literature was that AI and EI were often examined in isolation. This can erode stakeholder trust and reduce morale, as project members may perceive AI-driven decisions as impersonal or insensitive. Conversely, projects relying solely on EI risk subjectivity, slower decision-making, and limited data-informed insight, reducing operational efficiency in complex IT environments. The absence of integration also amplifies resistance to technological adoption, as employees may fear job displacement or feel excluded from digital transformation processes. Research on AI in project management prioritized efficiency and accuracy through automation and analytics [4] [19], whereas EI focused on leadership effectiveness, stakeholder management, and team cohesion [5]. This separation overlooked the possible synergy whereby AI-driven insights might be enhanced by emotionally intelligent leadership, or where EI could mitigate ethical and adoption problems related to AI [11].

D. Towards Integration

Aware of this disparity, academics were arguing more and more for a blended viewpoint where AI and EI serve as complimentary rather than competing constructs [20]. Key constructs for this integration were the synergy between AI insights and EI interpretation, the incorporation of ethical and trust frameworks, and capacity-building initiatives that foster dual-skilling in both domains [11], [21]. This integrated perspective regards project management as both technical discipline and a socio-technical practice, whereby the partnership between humans and machines enhances outcomes [22]. However, many industries remain behind achieving in this integration due to fragmented training systems, limited awareness of EI's strategic value, and a focus on short-term technological gains over long-term human development. Thus, pursuing this integration is not only a theoretical necessity but a strategic imperative for building resilient, intelligent, and ethically grounded project ecosystems [23].

III. METHODOLOGY

This study adopted a qualitative research design to examine how AI and EI are jointly shaping project management practices in IT service organizations. The aim was not to measure variables or test statistical relationships but to understand how individuals experience, interpret, and respond to the growing presence of AI-driven tools in environments where emotional awareness, communication, and leadership behaviour remain essential for project success. Qualitative inquiry was selected because the integration of AI into project workflows is a deeply contextual process that affects human interaction, team coordination, decision-making approaches, and leadership styles in ways that are difficult to quantify without first understanding the lived experiences of those involved. [24], [25], [26].

To capture these realities, the study used a purposive sampling strategy to recruit experienced professionals who

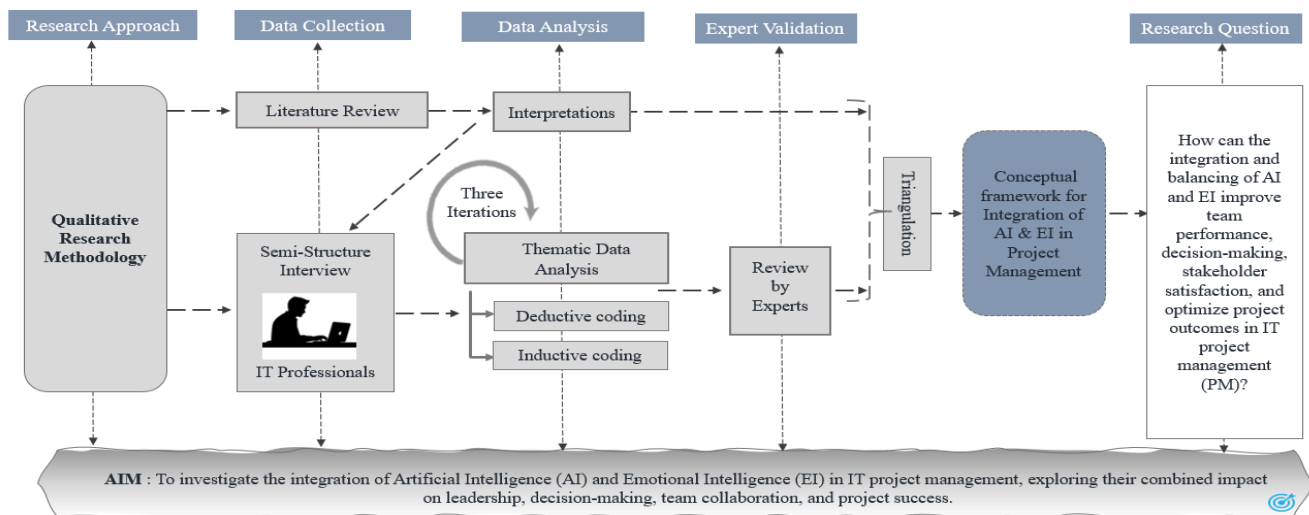


Fig. 1. Research Design

were directly involved with AI-enabled project environments or leadership roles requiring emotional intelligence. The final group consisted of seven participants drawn from five IT service organizations in Sri Lanka. Although the number may appear modest, it is consistent with recognized qualitative research standards where the goal is depth rather than breadth [26]. Several methodological sources argue that small but information-rich samples are sufficient in exploratory studies when the purpose is to achieve conceptual understanding rather than generalization [27]. In this study, no new concepts emerged in the final interviews, indicating that the sample size was adequate and thematic saturation had been reached.

Data were collected using semi-structured interviews to allow participants to describe their experiences in their own words while ensuring that the conversation covered areas central to the research questions. The interview protocol focused on how AI tools were used within project workflows, how team leaders and members drew upon emotional intelligence in daily interactions, the ways in which AI adoption influenced communication and coordination across

teams, and the challenges and benefits observed during the integration of these two competencies. Open-ended questions encouraged participants to expand on their experiences, provide concrete examples, and raise issues that may not have been anticipated during the design phase. All interviews were recorded with consent, transcribed verbatim, and prepared for analysis [28], [29].

The data were analysed using thematic analysis following Braun and Clarke's six-step approach [30], which was chosen for its flexibility and suitability for studies dealing with complex behavioural and organizational interpretations. After familiarization with the transcripts, an initial coding phase produced 104 codes, reflecting both inductive insights emerging from participants' accounts and deductive concepts informed by prior literature on AI adoption and emotional intelligence in leadership. Codes were then reviewed, refined, and consolidated into 42 through three rounds of iterative comparison, allowing overlapping ideas to be merged and ambiguous categories to be clarified. (Fig. 2). illustrates the last two iterations of coding conducted in data analysis.

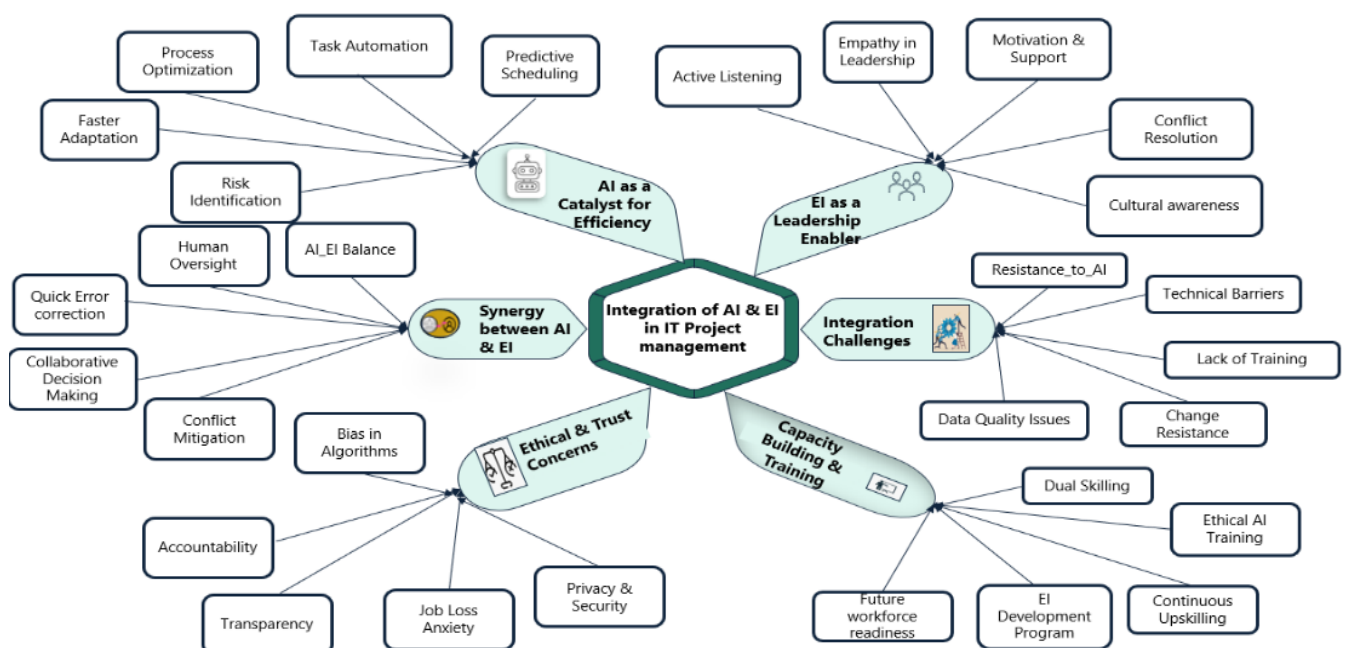


Fig. 2. Thematic Map

Subsequently, to ensure the reliability and practical relevance of the study's findings, an expert validation process was conducted following the completion of thematic analysis.

The themes and conceptual framework were reviewed by a senior project management professionals [39] with over 15 years of experience in the IT service industry, who had successfully led more than 25 major projects at both managerial and operational levels. The expert's role was to assess whether the identified themes, interpretations, and recommendations accurately reflected the realities of PM practices triangulated with the literature findings and refinement process to ensure internal coherence and uniqueness, culminating in the identification of six primary themes. MaxQDA software supported this process by helping organize the data, visualize code relationships, and maintain a structured audit trail. Potential themes were then examined for clarity, coherence, and relevance to the research question, and the final set captured six major areas: efficiency gains from AI, EI as a leadership asset, challenges in integration, synergy between AI and EI, ethical and trust concerns, and capacity-building requirements [30].

To enhance reliability, the themes were reviewed by project management expert familiar with AI-enabled workflows, and the findings were compared with existing literature to ensure alignment and confirm explanatory strength. Ethical approval was obtained from university before data collection, and participants were informed of confidentiality measures, the voluntary nature of participation, and their right to withdraw at any point. Personal identifiers were removed from transcripts, and the data-handling process complied with institutional guidelines. Through these methodological steps, the study aimed to produce findings that are credible, analytically robust, and useful for practitioners seeking to understand the human and organizational implications of combining AI capabilities with emotionally intelligent leadership in contemporary IT project environments [31] [32]. (Fig. 1). above illustrates the research design used in this study.

IV. FINDINGS

The Findings covered six themes, as shown in (Fig. 2). AI as a catalyst for efficiency, EI as a leadership enabler, integration challenges, synergy between AI and Emotional Intelligence, ethical and trust concerns, and capacity building and training.

A. AI as a Catalyst for Efficiency

Study indicates that IT professionals use a range of AI technologies, including Jira, Copilot, Asana, Monday.com, Trello, Wrike, Notion (with Notion AI), Smartsheet, Click Up, Zoho Projects, Epic flow, Airtable (with AI features) and ChatGPT, at various stages of project management to enhance productivity by automating manual tasks such as documentation, maximising resources, and providing real-time dashboards. This has reduced administrative burdens and expedited decision-making [20]. Participants identified AI as a crucial driver for efficiency and predictive capabilities [33]. This theme was mainly created with five codes, and Table I explains the codes with the relevant data samples.

Table I. AI AS A CATALYST FOR EFFICIENCY

Codes	Definitions	Data Samples
Risk Identification	The use of AI tools to anticipate potential risks, project delays, and bottlenecks before they occur, enabling proactive mitigation.	"AI tools identify potential risks early and flag project delays before they escalate".
Task automation	Automating repetitive and administrative tasks such as documentation and reporting through AI tools to increase efficiency.	"Tools like Copilot automate meeting minutes and documentation, saving hours of manual work especially meeting minutes"
Predictive scheduling	Applying AI algorithms to optimize scheduling, effort estimation, and resource allocation based on project data and trends.	"AI helps us allocate resources efficiently and predict effort for SAP upgrades project"
Faster Adoption	Leveraging AI dashboards and analytics to support quicker and more accurate managerial decision-making.	"Real-time AI dashboards have made our decision-making process quicker and more accurate"
Process optimization	Enhancing workflows and minimizing manual intervention by integrating AI tools into project management processes.	"AI reduces manual intervention in reporting, allowing us to focus on strategy instead of routine work"

B. EI as a Leadership Enabler

This theme reflected the essential role of EI in shaping effective leadership and team collaboration within IT project environments [18]. Participants highlighted that empathy, active listening, and cultural awareness were crucial for maintaining trust and motivation, particularly during high-pressure phases of project delivery. EI competencies allowed project managers to manage conflicts, navigate cultural differences, and sustain team cohesion when faced with the challenges of AI-driven transformation [5]. The theme was developed using five codes, as shown in Table II below.

Table II. EI AS A LEADERSHIP ENABLER

Codes	Definitions	Data Samples
Empathy in Leadership	This referred to the project manager's ability to understand and share the feelings of their team members. It helps in maintaining morale, trust, and emotional balance during challenging project phases.	"Empathy for sure it is crucial for understanding team concerns and maintaining morale". "Read emotions and adjust tone before issues escalate"
Conflict Resolution	The manager's ability to manage and resolve interpersonal disagreements calmly and effectively. It prevents tension from escalating and ensures that collaboration remains productive and respectful.	"Being able to manage emotions is essential during conflict resolution within project teams"
Active Listening	This involved paying full attention to others' perspectives	"As a project manager, I listen first before responding;"

	and responding thoughtfully to promote trust & understanding. It is a key EI skill that enhances communication and reduces misunderstandings.	<i>that's how trust is built"</i>
Cultural Awareness	The understanding and respecting diverse values, traditions, and communication styles within multicultural teams. It ensures inclusivity and strengthens cross-cultural collaboration in global project environments.	<i>"Respecting holidays and communication styles across cultures builds stronger relationships"</i>
Motivation and Support	The leader's ability to inspire, encourage, and emotionally support team members to sustain engagement and productivity. Motivation through empathy and recognition fosters a positive work culture and reduces stress.	<i>"During tight deadlines, motivating the team emotionally helps more than any AI metric"</i>

C. Integration Challenges

This theme captured the dual challenges of integrating AI and EI in IT project management. Participants emphasized issues such as resistance to AI adoption, lack of digital literacy, inconsistent data quality, and emotional strain caused by rapid technological transitions [34]. While AI integration demands technical readiness, EI plays a vital role in managing fear, building trust, and ensuring adaptability among teams. This emphasised the need of effective implementation, blending technology training with emotional preparation [35]. Table III presents the corresponding codes and data samples for each.

Table III. INTEGRATION CHALLENGES

Codes	Definitions	Data Samples
Resistance to AI	Referred to reluctance or hesitation among employees to adopt AI tools due to fear of job loss or lack of trust. This often slows digital transformation and reduces overall project efficiency.	<i>"We had some team members who were reluctant to use AI tools because they feared losing control"</i>
Data Quality Issues	Indicated problems arising from incomplete, inaccurate, or inconsistent data fed into AI systems. Poor data quality limits the reliability of AI-generated insights and decision-making	<i>"If we put garbage data into the system, the AI output also becomes unreliable"</i>
Lack of Training	Described insufficient knowledge or skill among employees to effectively use AI technologies or how to integrate EI with AI. This gap hinders adoption	<i>"Many team members didn't know how to use new AI platforms effectively"</i>

	and increases dependency on manual processes.	
Technical Barriers	Included the system compatibility issues, integration challenges, or inadequate infrastructure required to implement AI tools. These technical limitations reduce the scalability and effectiveness of AI deployment.	<i>"Our existing systems weren't compatible with the AI tool initially"</i>
Change Resistance	Represented the organizational or individual unwillingness to accept new technologies or workflows introduced by AI. Emotional insecurity and fear of redundancy often contribute to this resistance.	<i>"People resist automation because they think it will replace them"</i>

D. Synergy Between AI and EI

This theme explored how AI and EI complement one another to achieve balanced decision-making and sustainable project success. Participants explained that AI provides data-driven insights, while EI ensures that these insights are applied with sensitivity to human needs and emotions [36]. Many respondents described instances where AI flagged risks or performance issues, and EI-based communication helped manage team reactions constructively. This balance of analytical precision and human empathy was viewed as a hallmark of successful project management in digital contexts [20], [37]. The theme emerged from five codes as shown in Table IV.

Table IV. SYNERGY BETWEEN AI AND EI

Codes	Definitions	Data Samples
AI-EI Balance	This represented the equilibrium between data-driven insights provided by AI and the empathetic, context-sensitive judgment offered by EI. It emphasized how both intelligence types must work together to achieve effective, ethical, and human-centered project outcomes.	<i>"AI gives the numbers; EI gives the meaning behind them and trustworthy".</i> <i>"We use AI for analytics and EI to interpret results in a way that motivates the team instead of scaring them."</i>
Human Oversight	Human monitoring and verification of AI-generated outputs to ensure accuracy and accountability. This practice maintains credibility and prevents overreliance on automated systems.	<i>"We always cross-check AI reports before sharing with clients".</i> <i>"AI makes our work faster, but we still need to review it as errors can easily slip through if unchecked."</i>
Quick Error Correction	Involved using both AI insights and emotional intelligence to identify and correct mistakes swiftly without damaging trust or workflow continuity. This highlights the importance of responsiveness and	<i>"AI flagged a mistake; I immediately spoke to the client to fix it".</i> <i>"We handle AI errors quickly and calmly, so the team doesn't lose confidence in the system"</i>

	transparency in project management.	
Collaborative Decision-Making	Described the joint process where AI provides analytical input and human teams contribute emotional and contextual perspectives. This approach ensures balanced, inclusive, and well-informed project decisions.	<i>"We discuss AI outputs as a team to ensure decisions considering both data and emotions".</i> <i>"AI provides logic, but final decisions require human input and emotional understanding"</i>
Conflict Mitigation	Referred to using EI-driven communication to address tensions identified by AI data or team interactions. It helps resolve issues constructively, maintaining psychological safety and team harmony.	<i>"AI flags performance issues, but EI helps address them sensitively"</i>

E. Ethical and Trust Concerns

This theme focused on ethical issues and trust associated with AI integration in project environments. Concerns were raised regarding data privacy, algorithmic bias, lack of transparency in decision-making, and the fear of job loss. Participants also stressed the importance of accountability and human oversight to prevent misuse or misinterpretation of AI outputs. [8], [38] Table V presents the corresponding codes and data samples for each.

Table V. ETHICAL AND TRUST CONCERNS

Codes	Definition	Data Samples
Privacy and Security	Referred to concerns about the protection of sensitive project or client data when using AI systems. Participants emphasized the importance of safeguarding information to prevent unauthorized access and data breaches	<i>"We never upload client-sensitive data into public AI tools"</i>
Bias in Algorithms	Described the potential for AI tools to produce unfair or skewed outcomes due to biased training data or flawed programming. Such biases can impact decision-making accuracy and stakeholder trust.	<i>"Bias in AI algorithms is still a big worry as it can influence decisions unfairly"</i>
Accountability	Addressed the uncertainty about who is responsible when AI systems make incorrect or unethical decisions. This code highlights the need for clear governance and shared ownership between humans and technology.	<i>"If AI gives wrong information, who takes the blame—the system or us?"</i>
Transparency Issues	Referred to the "black box" problem in AI, where users cannot fully understand how certain decisions or recommendations are generated. This lack of	<i>"There's still a lack of transparency in how AI makes certain recommendations"</i>

	clarity undermines trust and limits effective human oversight.	
Job Loss Anxiety	Captured employees' fear that automation and AI-driven efficiency might replace human roles in project management. It reflected the emotional and cultural barriers that hinder full adoption of AI tools.	<i>"Many employees fear AI will eventually replace their roles"</i>

F. Capacity Building and Training

This theme emphasized the need for dual skilling, combining AI literacy with Emotional Intelligence competencies to ensure sustainable adaptation to digital transformation. Participants advocated for continuous learning through AI workshops, ethical training, and EI development programs to enhance both technical and interpersonal capabilities [8]. Respondents also noted that future project managers, particularly younger professionals, will require balanced expertise in digital tools and emotional awareness to lead effectively [33], [35]. Codes and the corresponding data samples are summarized in below Table VI.

Table VI. CAPACITY BUILDING AND TRAINING

Codes	Definitions	Data Samples
Dual Skilling	Referred to the simultaneous development of technical proficiency in AI tools and emotional intelligence (EI) competencies. This balanced approach ensures project managers can leverage automation effectively while maintaining empathy and human connection.	<i>"Project managers should learn both AI tools and emotional skills to stay relevant"</i>
Continuous Upskilling	Emphasized the ongoing need for professionals to stay current with emerging AI technologies and leadership practices. Participants highlighted regular learning through workshops, certifications, and hands-on experience.	<i>"We encourage teams to take online AI and leadership courses regularly"</i>
Ethical AI Training	Focused on educating teams about responsible AI use, including issues of data privacy, bias prevention, and accountability. Such training helps ensure that AI applications align with organizational ethics and professional integrity.	<i>"Everyone should be trained in how to use AI responsibly".</i> <i>"We make sure people know not to upload client-sensitive data into public AI tools."</i>
EI Development Programs	Involved structured initiatives such as coaching sessions, workshops, and reflective exercises to strengthen emotional intelligence skills like empathy, self-regulation, and communication. These programs foster healthier team dynamics and leadership maturity.	<i>"We conduct EI workshops focusing on empathy and stress management".</i> <i>"Emotional intelligence training helps us handle pressure and manage conflicts better."</i>

Future Workforce Readiness	Represented preparing upcoming generations, such as Gen Z employees, to balance high digital fluency with emotional and ethical awareness. This readiness ensures sustainable leadership in technology-driven project environments.	<i>"Gen Z employees are tech-savvy but need EI training to lead effectively".</i> <i>"Younger teams pick up AI tools fast but sometimes lack people skills."</i>
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During the review, the expert was presented with a summary of the six key themes, illustrative participant quotations, and a visual representation of the conceptual framework. The feedback emphasized three key areas for refinement as below:

- Strengthening the ethical perspective, particularly regarding transparency and data bias in AI decision-making.
- Incorporating team maturity and adaptability as critical factors when applying the AI–EI integration framework in diverse organizational contexts; and
- Adding practical implementation stages with measurable indicators to evaluate the effectiveness of AI–EI integration in real-world projects.

This validation process reinforced the credibility and applicability of the research, ensuring that the findings were both theoretically sound and grounded in professional practice. The expert's insights contributed to refining the conceptual framework and strengthening its value as a strategic roadmap for IT organizations seeking to balance technology-driven efficiency with emotionally intelligent leadership.

V. DISCUSSION

The findings of this study revealed a complex yet complementary relationship between AI and EI in IT project management, emphasizing the necessity of achieving balance between technical efficiency and human-centered leadership. Through thematic analysis, six core themes were identified: AI as a Catalyst for Efficiency, EI as a Leadership Enabler, Integration Challenges, Synergy between AI and EI, Ethical and Trust Concerns, and Capacity Building and Training. Collectively, these themes highlighted that successful project delivery cannot rely solely on technological automation or emotional management in isolation; rather, sustainable performance arises from the integration of both competencies within project teams.

Interestingly, participants pointed out that while AI tools improved transparency, accuracy, and overall efficiency in project processes, they were still not completely error-free. In other words, human judgment continued to play a crucial role in reviewing and validating the information produced by AI systems. This observation was consistent with [4], who emphasized that even the most advanced automation tools require human supervision to ensure reliability and maintain the quality of project outcomes. Similarly, as [11] highlighted that the best results come from effective collaboration between humans and AI—where technology handles data-driven tasks, and people apply their contextual understanding and emotional intelligence to interpret the results correctly. According to [5] leaders with robust interpersonal awareness may maintain motivation and cohesiveness even in high-

pressure digital contexts. This viewpoint was reinforced to define the idea of "augmented intelligence," in which human insight complements machine accuracy [12]. They argued that humans add empathy, ethical reasoning, and adaptability—qualities that AI cannot replicate. Without proper human oversight, even small AI errors in data interpretation or reporting can lead to major project risks, such as misleading insights or reduced stakeholder trust. Therefore, maintaining a strong balance between AI automation and human verification is essential for ensuring accuracy, accountability, and credibility in IT project management [12], [14].

Further the findings affirm that AI has become a transformative force in project management, primarily enhancing efficiency, predictive capability, and decision-making accuracy. Tools such as Copilot and Jira automate repetitive processes like scheduling, reporting, and documentation, freeing managers to focus on strategy. This observation aligned with [4] who noted that AI enables organizations to optimize workflows and reduce cognitive load in administrative decision-making [14]. However, while AI supports rationality and speed, it lacks the human sensitivity needed to navigate complex social and emotional contexts in teams. As participants noted, unchecked AI outputs—such as misinterpreted meeting summaries or biased analytics—can undermine credibility, highlighting the necessity for human oversight.

When Complementing AI's technical capabilities, EI strengthens the human dimension of leadership, fostering trust, empathy, and collaboration. Participants emphasized that emotionally intelligent leadership—characterized by self-regulation, empathy, and cultural awareness—is crucial for sustaining team motivation during periods of AI-driven change [2]. EI enabled project managers to mediate conflicts, interpret emotions, and maintain psychological safety, particularly when AI systems introduce new workflows or transparency challenges. While AI provides the "logic," EI ensures that decisions are communicated with compassion and fairness, thereby enhancing acceptance across diverse stakeholder groups [37]. Despite their respective advantages, both AI and EI have limitations when applied in isolation. AI systems can misinterpret qualitative factors such as team morale, while EI-led decisions without data-driven input may risk subjectivity or inefficiency. These limitations reinforce the argument by [40] that true value arises from human–AI collaboration, where emotional sensitivity and analytical intelligence are harmonized [19]. Participants echoed this view, describing how AI offers quantitative accuracy while EI provides interpretive and ethical judgment—together ensuring decisions that are both informed and humane. Furthermore, ethical governance mechanisms—including human oversight, data privacy controls, and transparency in AI-assisted decisions—are essential to sustaining trust and ensuring the responsible use of AI in project environments.

On the other hand, with recurrent concern among participants was the ethical dimension of AI deployment—particularly issues surrounding privacy, algorithmic bias, and accountability. These aligned with argument that ethical governance must underpin AI systems to maintain public trust [38]. Participants insisted on strong data governance frameworks and cautioned against using public AI tools for client-sensitive information. Here, EI complements ethics by

ensuring that emotionally aware leaders uphold transparency and fairness while managing AI-driven processes [20], [41].

Finally, the study emphasized the capacity building as a critical enabler for sustainable AI–EI integration. Participants advocated for dual-skilling programs that develop both AI literacy and emotional competence. Future project managers must blend digital proficiency with interpersonal intelligence to succeed in hybrid work environments [1]. Such training ensures that technological advances do not compromise empathy, adaptability, and ethical reasoning—qualities essential for human-centered leadership in digital transformation [8].

This revealed that the integration of AI and EI was not merely complementary but interdependent. AI enhances accuracy, speed, and foresight, whereas EI provides understanding, empathy, and trust—the emotional infrastructure of effective leadership [10]. The findings extend existing literature by presenting a balanced framework where technology and humanity coexist, enabling organizations to achieve operational efficiency without sacrificing human values [5]. For practitioners, this study offers actionable insights for embedding AI–EI collaboration within project management strategies, fostering innovation while ensuring ethical and emotionally intelligent leadership [11].

VI. CONCLUSION

This study examined the integration of AI and EI within IT project management, highlighting the importance of balancing technological precision with human-centered leadership. Drawing from semi-structured interviews with seven project managers across IT service organizations, six key themes emerged: AI as a Catalyst for Efficiency, EI as a Leadership Enabler, Integration Challenges, Synergy Between AI and EI, Ethical and Trust Concerns, and Capacity Building and Training. Together, these themes revealed that project success in the digital era requires both data-driven insights from AI and the empathetic, relational skills provided by EI [4], [5].

This research contributes to the growing body of project management literature by bridging two domains often studied separately — the technological influence of AI and the human influence of EI. The study demonstrated how combining these capabilities can enhance project delivery by fostering efficiency, improving decision-making, and strengthening stakeholder trust. It also advances theoretical understanding by reinforcing the concept of dual skilling, where project managers must cultivate both AI literacy and emotional competence to adapt to hybrid digital environments [1].

The expert review provided important guidance for refining the proposed AI–EI integrated framework. Ethical considerations were strengthened by explicitly embedding principles related to data privacy, transparency, bias mitigation, and human accountability within the framework structure. In response to feedback on team maturity and adaptability, these factors were incorporated as enabling conditions that influence the successful adoption of AI–EI practices across different project environments. Furthermore, the framework was enhanced by introducing measurable implementation elements, linking AI–EI integration to observable outcomes such as project efficiency, leadership

effectiveness, stakeholder trust, and ethical compliance. These refinements ensure that the framework is both theoretically robust and practically applicable.

Nevertheless, this study has certain limitations that must be acknowledged. The qualitative approach and the relatively small sample size of seven participants limit the extent to which the findings can be generalized to broader populations. In addition, the cross-sectional nature of the study provides only a snapshot of AI and EI integration within IT project management. Future research should therefore employ mixed-method or quantitative designs with larger and more diverse samples to enhance empirical rigor. Longitudinal studies are also recommended to examine how AI–EI integration evolves over time. Furthermore, empirical validation of the proposed AI–EI integrated framework would strengthen its predictive validity and practical relevance by systematically evaluating efficiency, leadership effectiveness, and ethical considerations in real-world project environments [11] [16].

In conclusion, the research underscores that effective project management in the age of digital transformation depends on harmonizing AI-driven analytical capabilities with emotionally intelligent leadership [10]. By aligning automation with empathy, data with human judgment, and efficiency with ethical awareness, organizations can achieve both operational excellence and human sustainability. As validated by industry expert, this study offers a roadmap for AI–EI balance, signifying a strategic shift towards smarter, more emotionally aware project leadership in the IT service sector.

(Fig.3).The framework illustrates the strategic alignment of AI and EI within project management. Inputs (AI and EI capabilities) are combined through integrative mechanisms represent the core processes enabling effective AI–EI alignment in project management. Human–AI collaboration combines data-driven insights with emotional judgment, while Kotter’s [34] Change Management Model outlines an eight-step process emphasizing leadership, communication, and employee engagement to manage organizational change. It provides a structured approach for reducing resistance and ensuring sustainable transformation during technology-driven initiatives. supports acceptance of technological change. Additionally, dual-skilling programs ensure balanced development of technical capabilities and emotional intelligence, enabling sustainable and adaptive project leadership then producing outputs or results that enhance project performance, ethical governance, and workforce adaptability. Continuous improvement is supported through a PDCA (Plan–Do–Check–Act) cycle, ensuring sustained alignment between technology and human-centered leadership [19].

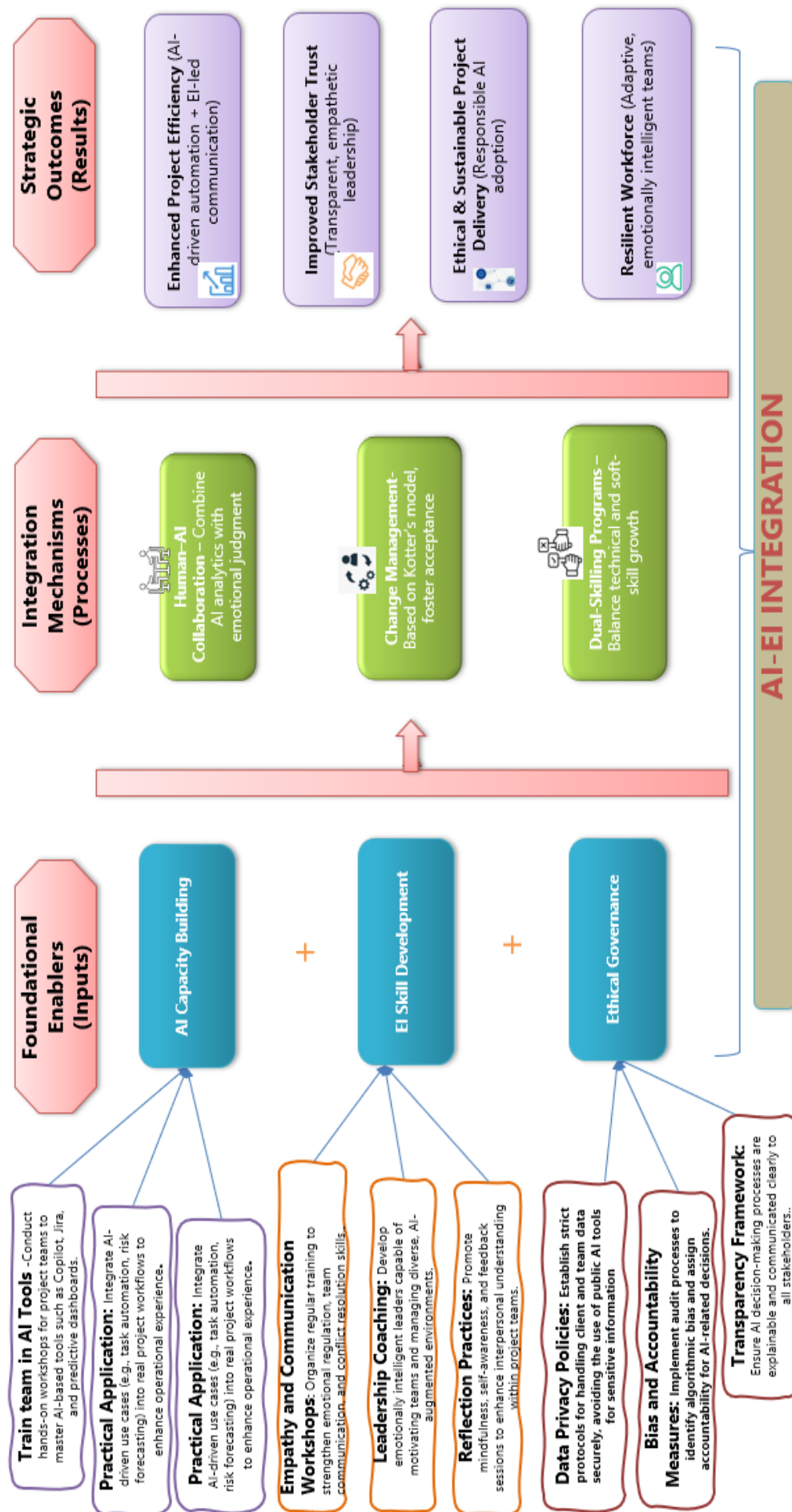


Figure 3. AI-EI Integrated Project Management Recommendation Framework.

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