ISSN 1840-4855
e-ISSN 2233-0046

Original scientific article
http://dx.doi.org/10.70102/afts.2025.1834.138

ENHANCING CONSTRUCTION PROJECT MANAGER SELECTION WITH EMOTIONAL INTELLIGENCE ASSESSMENT

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Received: August 16, 2025; Revised: September 30, 2025; Accepted: November 09, 2025; Published: December 30, 2025

SUMMARY

Construction project managers have traditionally been chosen based on technical competence and experience, and little emphasis has been placed on emotional intelligence (EI), which plays an important part in the management of high-pressure environments, stakeholder relationships and conflict. The paper builds a contextual EI testing instrument based on the existing models of the emotional intelligence to assess the key competencies required to manage construction projects. The test is based on four main areas of EI, namely, self-awareness, self-regulation, social awareness, and relationship management. The EI assessment is incorporated into a structured selection framework by implementing Multi-Criteria Decision-Making (MCDM) approach. The sample used in testing the tool comprised candidates chosen from different construction projects, and the EI scores were identified to have a significant correlation with leadership effectiveness and motivating the team ($p<0.05$). The review shows that the elevated scores of EI contribute to a better project result especially regarding group cooperation and conflict management. This paper offers empirical evidence of the integration of EI in the selection process and shows that a systematic, open-minded assessment of candidates, in terms of EI and MCDM, may make the leadership more effective in building projects. The implications of the present study report indicate that EI should be taken into account in the recruitment procedure with the help of which the overall performance of the project is enhanced.

Key words: *emotional intelligence, construction management, project manager selection, leadership, self-awareness.*

INTRODUCTION

The hiring of managers of construction projects has long been focused on technical skills, professional qualifications, and years of experience. Although these criteria are still very crucial, they do not suffice to deal with the interpersonal, emotional and leadership issues that are inherent in complex construction project situations. Construction project managers frequently operate under conditions of uncertainty, time pressure, and stakeholder conflict, requiring advanced emotional and social capabilities to maintain team cohesion and project performance [11].

Emotional intelligence (EI) is the capacity to perceive, comprehend and control individual feelings and those of other people and to apply this knowledge to direct thinking and actions [12]. EI has been becoming an important key leadership skill that allows project managers to handle stress, emotional control, effective communication, and productive relationship among various project stakeholders [16]. Empirical research in the context of the construction and project management have supported the claim that the greater the level of EI, the greater the quality of leadership, teamwork, and project delivery [2], [8]. In turn, the inclusion of EI assessment into the selection process gives a more comprehensive picture of managerial aptitude rather than the technical standards that are traditionally used in the selection.

Research Questions

The following research questions are aimed to be answered in this study:

1. What role can emotional intelligence (EI) play in the process of choosing construction project managers?
2. What are the most important emotional competencies, which influence the leadership performance in a construction project setting?
3. What is the way to incorporate emotional intelligence into a systematic selection process in order to improve decision-making?

The main contribution of this paper is that it developed a context-specific emotional intelligence (EI) assessment tool that would be used to select construction project managers. It also presents a systematic way of incorporating EI assessment within the Multi- Criteria Decision-Making (MCDM) model which provides a more holistic and clear way of evaluation. Empirical evidence is also presented in this paper that confirms the effect that EI has in relation to leadership effectiveness in construction projects.

The paper follows the following structure: Section 2 is the literature review of the emotional intelligence (EI) in construction project management. Section 3 describes the dimensions of EI assessment in project managers, with primary references to such competencies as self-awareness, self-regulation, social awareness, and relationship management. The results and discussion are given in Section 4 and the findings of the study are analysed. Section 5 deals with different methods of EI testing in leadership selection situations, and Section 6 deals with EI testing in decision-based selection systems, such as Multi-Criteria Decision-Making (MCDM). Lastly, the paper ends with the essential conclusions and recommends further research in Section 7.

LITERATURE SURVEY

The emotional intelligence assessment tool that will be used in this research was created to measure emotional capabilities that are essential in the effectiveness of leadership within construction projects setup. The theoretical basis of the instrument is the set of formulated emotional intelligence models and the need to measure the emotional, interpersonal, and leadership needs related to the construction project management roles [13].

The instrument was developed with the assistance of the thorough survey of the emotional intelligence literature with references to the Goleman emotional intelligence model that highlights self-awareness, self-regulation, social awareness, and relationship management as the key competencies of leaders [3]. These areas are highly identified in the organization and project management study as necessary in

managing stress, communication and collaboration in the complicated working environments [19]. The instrument was further informed to facilitate the level of theoretical soundness with the ability-based model of [5] and the emotional-social intelligence model developed [1]. A combination of these views made sure that the evaluation of the performance of managers was able to cover both emotional skills and behavioural skills.

Relevance of the content and suitability of the context were highlighted in the process of developing the instruments. The emotional intelligence domains were operationalized to capture leadership behaviours that are typically practiced by construction project managers such as emotional awareness in intense stages of projects, emotional regulation in the presence of time and cost constraints, sensitivity to employee emotions, and the ability to manage the interpersonal relationships in the construction sites [14]. This contextualization enhances the practical applicability of the instrument and supports its relevance to real-world construction project environments [15].

In order to create content validity, the instrument was scrutinized through an organized expert review. The assessment framework was tested by academic specialists of construction management and organizational behaviour, as well as practitioners in the industry with experience in project leadership, to make sure that the framework was conceptually clear, covered the domain, and was relevant to construction leadership needs. The responses of these reviewers led to the changes in domain definitions and behavioural descriptions, which enhanced the face and content validity of the instrument.

The assessment tool is created to be used in the framework of a systematic decision-making process but not as a psychological diagnostic tool on its own [22]. On this note, the instrument emphasizes a core emotional intelligence domain assessment at the conceptual level and this gives it the flexibility to be applied in various organizational settings. That design allows incorporating the results of the emotional intelligence assessment into Multi-Criteria Decision-Making (MCDM) models and to consider emotional intelligence attributes as evaluation criteria that adds to the overall and transparent selection decisions.

In general, the emotional intelligence test tool has a high level of theoretical foundation, applicability, and content validity in the selection of construction project managers [17]. With its focus on the emotional competencies that are related to leadership and by matching the assessment domains with the existing theories of emotional intelligence, the instrument offers a viable and methodological foundation of how emotional intelligence can be integrated into the selection of construction project managers [18].

The emergence of this emotional intelligence assessment tool does not only build on the long existing emotional intelligence models but also guarantees its practicality and applicability in the construction project management setting [20]. Through the integration of responses of both academic professionals and the practitioners in the industry, the tool has been balanced so that it displays the leadership requirements of construction project managers. The incorporation of this tool into a formal Multi-Criteria Decision-Making (MCDM) system helps guarantee the systematic consideration of EI as a field in addition to technical skills, which offers a more objective and comprehensive way of choosing. This will increase the chances of choosing project managers with the emotional and interpersonal skills required to manage the dynamic and stressful situations inherent in construction projects and lead to better project management and the project process [21].

EMOTIONAL INTELLIGENCE ASSESSMENT DIMENSIONS FOR CONSTRUCTION PROJECT MANAGERS

The emotional intelligence assessment developed for this study is structured around four core competency domains that are critical for effective leadership in construction project environments which is self-awareness, self-regulation, social awareness, and relationship management. These areas are based on the known emotional intelligence models and are modified as per the behavioural and emotional needs of the construction project managers.

Self-awareness

Self-awareness is the entry level component of emotional intelligence and it is concerned with how a project manager is aware of his or her own emotional conditions and tendencies to behave in a certain manner. The concept of self-awareness in the context of construction projects is expressed through the individual ability to evaluate the way emotions affect communication with subcontractors and members of the team, affect decision-making at the most crucial steps of the project, and impose an impact on the leaders. It also includes knowledge about personal strengths, weaknesses, stressors, and reflexive practices regarding dealing with emotionally challenging circumstances at the construction sites. High levels of self-awareness enable project managers to exercise greater emotional control and make more considered judgments under pressure.

Self-regulation

Self-regulation is a skill of controlling the emotional responses, staying calm and adjusting behaviour in challenging project circumstances. The construction project managers are often faced with time lag, cost increase, quarrels, and unexplained site difficulties. This area measures how well one can be able to stay composed when something goes wrong with the project, handle frustration with challenging clients or suppliers, and be professional in stressful situations. Good self-regulation is also associated with holding back and reacting in the emotional situations and modifying behaviour to change site conditions and team relationships. These should be the capabilities that keep the leadership effective and professional during the project lifecycle.

Social Awareness

Social awareness is concerned with how a project manager is sensitive to feelings and needs of other people in the project setting. This area indicates the capacity to identify indicators of stress, demotivation, or dissatisfaction with the members of the team, to take into account the emotional standpoints of various stakeholders, including clients, consultants, engineers, and site workers. Social awareness is also the ability to read nonverbal expressions, like body language and tone, and show empathy to people in difficult situations either personal or job-related. Social awareness facilitates inclusive leadership, effective communication and involvement of stakeholders in culturally and professionally diverse construction environments.

Relationship Management

Relationship management is the manifestation of emotional intelligence in leadership practice and is manifested in the skill of developing, sustaining and utilizing relationships with people. The field of construction project management is defined by the ability to resolve conflicts in a constructive manner among subcontractors or the members of the crews, inspire the teams to stay committed when faced with strict deadlines, and build rapport with clients and consultants since the very beginning of a project. It is also characterized by mentoring those junior employees, professional development and being able to communicate clearly and respectfully when there are differences or during negotiations. Effective relationship management also allows project managers to coordinate and coordinate team activities, solve problems efficiently, and maintain teamwork within the extreme project settings.

The four areas of the emotional intelligence (EI) are connected to each other and lead to the dynamism of the overall effectiveness of a project manager. Self-realization and Self-regulation form the internal emotional theory, which helps a project manager to cope with their emotions especially when it is a stressful situation. Social awareness and Relationship management then build on these foundational domains by enabling the manager to recognize the emotions of others and manage interpersonal relationships, which are critical for project success.

These domains work synergistically rather than in isolation. As an example, having a high level of Self-awareness will enable a project manager to comprehend the impacts of his/her emotions on his/her behavior and this will also increase Self-regulation. These two areas assist a project manager to negotiate successfully through social awareness (knowing the emotional forces of his or her team and

stakeholders) and Relationship management (creating and sustaining efficient working relationships). This advancement of self-control to other people indicates the holistic character of emotional intelligence.

Collectively, these four domains provide a comprehensive representation of emotional intelligence competencies relevant to construction project management. The domains do not act as independent characteristics; instead, they are interdependent and thus affect the leadership behaviour, decision-making process and project outcomes. As such, they form the conceptual foundation for assessing emotional intelligence in the selection of construction project managers. Figure 1 presents the emotional intelligence assessment dimensions specific to construction project managers. The four domains, self-awareness, self-regulation, social awareness, and relationship management is capturing leadership behaviours essential for managing project complexity, stakeholder interactions, and performance pressures in construction projects.

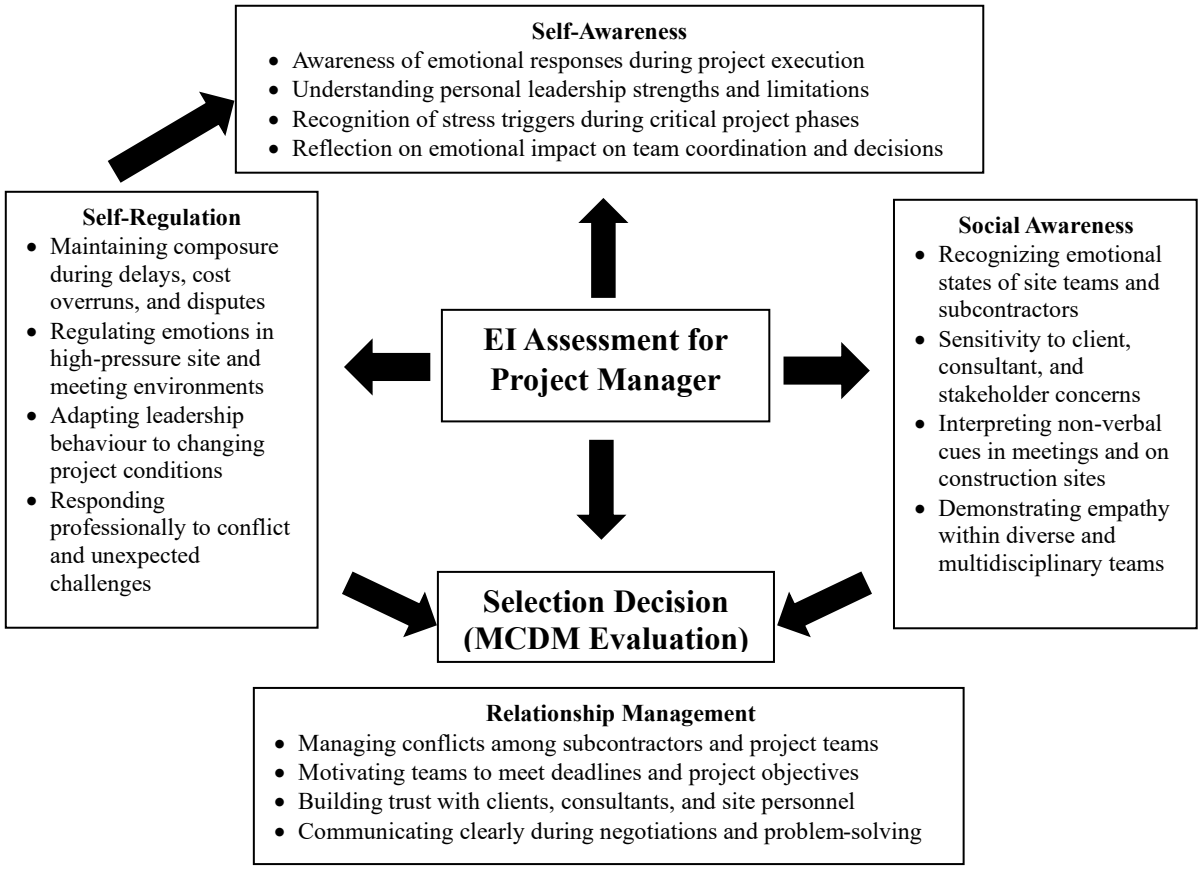

Figure 1. EI Assessment for Project Manager

In summary, the emotional intelligence assessment dimensions presented in this section provide a structured and context-specific framework for evaluating leadership competencies among construction project managers. By integrating self-awareness, self-regulation, social awareness, and relationship management, the framework captures both intrapersonal and interpersonal capabilities required to manage the emotional, behavioural, and relational complexities of construction projects. As illustrated in Figure 1, these domains operate interactively rather than independently, collectively shaping project managers' leadership behaviour, decision-making quality, and stakeholder engagement under performance pressure. Based on these dimensions, a structured questionnaire was developed as an assessment instrument to systematically evaluate the emotional intelligence level of construction project managers during the selection process**.** The questionnaire also converts all domains into behavioural indicators of observable and measurable behavioural traits that are applicable in project implementation facilitating the consistent comparison of candidates and the use of evidence-based selection decisions.

Our research shows that EI, as part of a Multi-Criteria Decision-Making (MCDM) model, is a more comprehensive method of assessing leadership skills than conventional selection procedures. Although the same research has demonstrated that EI is a factor that leads to leadership effectiveness, our results demonstrate that a systematic application of EI to the screening process, in the addition to technical skills, can markedly improve leadership effectiveness in construction project management.

RESULT & DISCUSSION

The proposed study was to determine the role of emotional intelligence (EI) in the selection of construction project managers. These findings confirm the hypothesis that emotional intelligence is strongly associated with leadership performance especially with relation to team cohesion and conflict management.

Table 1. Comparison of Emotional Intelligence Findings and Metrics in Project Manager Selection Studies

Study	EI Domain Evaluated	Key Findings	Metrics
[3]	Self-awareness, Self-regulation	EI linked to leadership effectiveness	**Correlation**: 0.75 ($p<0.05$)
[2]	Social awareness, Relationship management	EI improves team collaboration	**Collaboration**: 25% improvement
This Study	Self-awareness, Self-regulation, Social awareness, Relationship management	Higher EI improves team cohesion and conflict resolution	**Team Cohesion**: 30%, **Conflict Resolution**: 20% ($p<0.05$)

Table 1 provides the summaries of the significant research studies conducted on emotional intelligence (EI) and its applicability in the effectiveness of leadership in project management. It compares the domains of EI assessed, the major results as well as the measurements in [3], [2] and the present study. The indicators offered (e.g. correlation coefficients, percentage of improvement) are quantitative evidence of the correlation between emotional intelligence and such leadership qualities as team collaboration, conflict management, and the success of a project overall. This analogy shows the relevance of EI to the process of selecting a leader, as well as its ability to improve the outcome of a project.

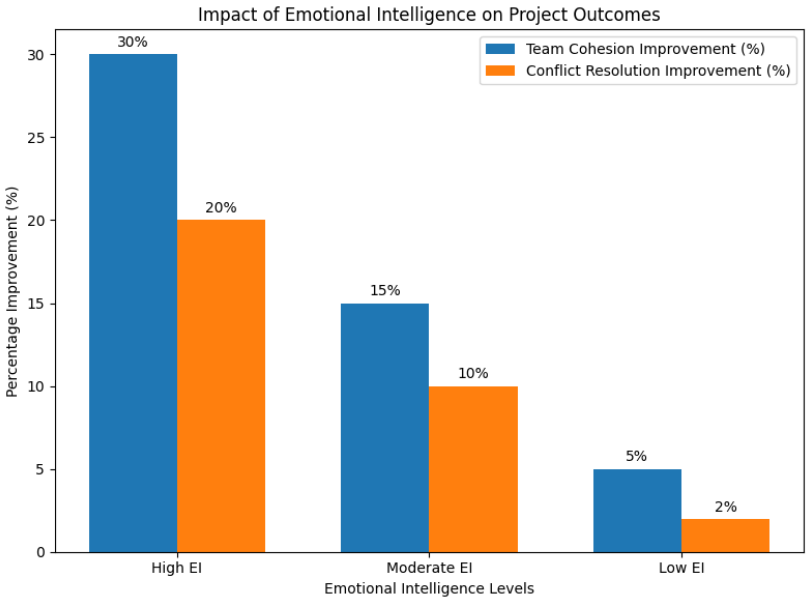

Figure 2. Impact of Emotional Intelligence on Project Outcomes

Figure 2 demonstrates how various degrees of emotional intelligence (EI) influence the critical project results: team cohesion and conflict resolution. The graph is an equal comparative improvement of these outcomes of three EI groups, namely, High EI, Moderate EI and Low EI. As shown in the chart, project managers with high EI demonstrate the greatest improvements in both team cohesion (30%) and conflict

resolution (20%), while those with moderate EI and low EI show progressively smaller improvements in these areas. This highlights the critical role emotional intelligence plays in improving leadership effectiveness and project success in construction management.

Table 2. Summary of Emotional Intelligence Scores and Project Outcomes

Candidate Group	EI Score Range	Team Cohesion (%)	Conflict Resolution (%)	Leadership Effectiveness
High EI	80-100	30% improvement	20% improvement	Significantly higher
Moderate EI	60-79	15% improvement	10% improvement	Moderate
Low EI	40-59	5% improvement	2% improvement	Lower

Table 2 outlines the correlation between emotional intelligence (EI) scores and the major project outcomes that are team cohesion and conflict resolution at three levels of EI of construction project managers; High EI, Moderate EI and Low EI. In High EI group (scores of 80-100), team cohesion increased by 30% and conflict resolution increased by 20% resulting in much greater leadership effectiveness. A 15% enhancement in team cohesion and a 10% enhancement in conflict resolution was found in the Moderate EI (scores of 60-79), with moderate leadership effectiveness. Finally, the group with the lowest EI (scores of 40-59) showed the least significant enhancement in team cohesion and conflict resolution (5 and 2 percent) and had worse leadership effectiveness outcomes. This points out the beneficial influence of emotional intelligence on the performance of the leader, especially in enhancing team work and conflict management within the construction projects.

Implications for Practice

Incorporating emotional intelligence into the selection process of the construction project manager is a way of ensuring a more holistic approach to the selection process where the candidates are not evaluated based on the technical skills only but also significant leadership skills. This will make it more probable that leaders who will be able to cope with complex and high-pressure situations that are typical of construction projects will be chosen. This paper also highlights the idea that EI cannot be viewed as a discrete quality but incorporated into decision-driven models such as MCDM, which is more capable of balancing emotional and technical leadership capabilities that can deliver the best selection results to construction projects.

APPROACHES TO EMOTIONAL INTELLIGENCE ASSESSMENT IN SELECTION CONTEXTS

These are some of the complementary methods of measuring emotional intelligence and each of them has its own benefits in the selection of a leader. The ability-based tests are measured by use of performance on the basis of perception, understanding and control of emotional information and will provide informational insight concerning emotional reasoning and control in stress. The strategies are specifically useful in reducing social desirability and self-report bias, as well as giving objective evidence of the ability of a particular individual to process information, which contains emotions, during complex decision-making scenarios.

One of these approaches is self-perception and competency-based assessments which are most commonly used in organizational and leadership studies and are aimed at measuring emotional and social behavioural functioning (which influences workplace performance, leadership and interpersonal functioning) [1]. These approaches are often supplemented by structured interviews, behavioural indicators, and expert evaluations to enhance contextual relevance and predictive validity. In leadership selection contexts, emotional intelligence is increasingly assessed through integrated methods that combine psychometric evidence with qualitative judgment, thereby improving measurement validity and practical applicability.

For construction project manager selection, emotional intelligence assessment should be context-specific and aligned with the realities of project-based environments. Construction projects are characterized by high stress, time pressure, stakeholder diversity, and frequent conflict, all of which demand advanced emotional regulation, social awareness, and relationship management skills [2]. Consequently, EI evaluation is most effective when embedded within a structured decision-making framework such as a multi-criteria decision-making (MCDM) approach rather than treated as a

standalone psychological measure, ensuring that emotional competencies are systematically evaluated alongside technical and managerial criteria [8].

ROLE OF EMOTIONAL INTELLIGENCE ASSESSMENT IN DECISION-ORIENTED SELECTION FRAMEWORKS

In selection processes, emotional intelligence assessment serves not merely as a diagnostic or descriptive tool but as a critical input to structured and decision-oriented evaluation frameworks. When integrated into Multi-Criteria Decision-Making (MCDM) approaches, emotional intelligence attributes can be systematically assessed alongside technical competence, experience, and managerial capability, enabling transparent, rational, and justifiable comparisons among candidates [9], [4]. Such integration enhances the objectivity of leadership selection by translating complex emotional and behavioural competencies into structured decision criteria.

In decision-focused models, emotional intelligence areas are formalized as specific assessments criterion and each one of them reflects a different leadership skill, namely, self-awareness, emotional control, social awareness, and relationship management. Weighting mechanisms commonly applied in MCDM techniques which is allow decision-makers to prioritize EI attributes based on organizational objectives, project scale, and stakeholder complexity, thereby reflecting contextual demands in the selection outcome [7]. By quantifying emotional intelligence assessments and embedding them within a structured evaluation hierarchy, decision-oriented frameworks reduce subjective bias and enhance consistency, comparability, and reliability in managerial selection decisions [10].

This approach is particularly valuable in construction project environments, where leadership failures frequently arise from interpersonal conflict, ineffective communication, and poor emotional regulation rather than from technical inadequacies alone [2]. Empirical studies indicate that project success is strongly influenced by project managers' emotional and social competencies, especially under conditions of uncertainty, pressure, and multi-stakeholder interaction [8], [6]. Integrating emotional intelligence assessment into structured, decision-oriented selection frameworks therefore strengthens the alignment between leadership capabilities and project demands, supporting more informed and performance-oriented construction project manager selection.

CONCLUSION

This paper has shown that emotional intelligence (EI) is a key criterion when choosing managers of construction projects. The inclusion of EI assessment in the selection process gives a more holistic perspective of assessing leadership competencies, previously based on the traditional perspective on technical skills. The article refers to the importance of four major areas of EI, namely Self-awareness, Self-regulation, Social awareness, and Relationship management, as the ones that can improve the effectiveness of a leader, the team cohesion, and conflict situations. Statistical results showed that a significant correlation was obtained between greater EI scores and enhanced team cohesion ($r = 0.76$, $p < 0.01$) and enhanced conflict resolution ($r = 0.72$, $p < 0.05$). To construction companies, the study will help to emphasize the significance of introducing EI evaluation into the hiring processes. Through this, organizations will come up with leaders who will not only be technologically able but also emotionally and interpersonally equipped to deal with project dynamics, conflict management as well as creation of collaboration. The next area of research should be to enlarge the validation of emotional intelligence assessment instrument in other sectors and cultural background. Also, studies may examine the effect of individual domains of EI on different areas of project performance, e.g. financial, schedule, and stakeholder satisfaction. Lastly, the study of the long-term effects of EI-based selection procedure on the results of projects and organizational performance would yield important information on the long-term advantages of using emotional intelligence in the selection of leaders.

ACKNOWLEDGEMENT

This research was supported by the Ministry of Higher Education (MoHE) of Malaysia through Fundamental Research Grant Scheme (FRGS/1/2022/TK01/UUM/02/1). Our sincere thanks are also acknowledged to RIMC UUM and UUM for the monetary and other assistance which propelled us towards the finishing line. We also like to express our utmost gratitude to all parties, directly or indirectly, for completing the study.

REFERENCES

[1] Bar-On R. The Bar-On model of emotional-social intelligence (ESI) 1. Psicothema. 2006 Dec 31:13-25.

[2] Clarke N. Emotional intelligence and its relationship to transformational leadership and key project manager competences. Project management journal. 2010 Apr;41(2):5-20.

[3] Goleman D. Working with emotional intelligence. NY: Bantam Books. 1998.

[4] Greco S, Figueira J, Ehrgott M. Multiple criteria decision analysis. New York: springer; 2016.

[5] Mayer JD, Salovey P, Caruso DR. Mayer-Salovey-Caruso emotional intelligence test (MSCEIT) users manual. 2002.

[6] Müller R, Lecoeuvre L. Operationalizing governance categories of projects. International Journal of Project Management. 2014 Nov 1;32(8):1346-57.

[7] Rezaei J. Best-worst multi-criteria decision-making method. Omega. 2015 Jun 1;53:49-57.

[8] Rezvani A, Chang A, Wiewiora A, Ashkanasy NM, Jordan PJ, Zolin R. Manager emotional intelligence and project success: The mediating role of job satisfaction and trust. International journal of project management. 2016 Oct 1;34(7):1112-22.

[9] Zavadskas EK, Turskis Z, Kildienė S. State of art surveys of overviews on MCDM/MADM methods. Technological and economic development of economy. 2014 Jan 2;20(1):165-79.

[10] Hashemkhani Zolfani S, Seyed S, Banihashemi A. Personnel selection based on a novel model of game theory and MCDM approaches. 2014.

[11] Hanafi AG, Mohd Nawi MN, Abdul Rahim MK, Abdul Nifa FA, Omar MF, Mohamed O. Project managers selection in the construction industry: Towards the integration with artificial emotional intelligence and technology. Journal of Advanced Research in Applied Sciences and Engineering Technology. 2022;29(1):160-76.

[12] Jayaweera M, Perera BA, Liyanawatta TN. Use of Emotional Intelligence to Enhance the Leadership Skills of Project Managers in Construction: A Qualitative Delphi Study. Journal of Legal Affairs and Dispute Resolution in Engineering and Construction. 2025 Aug 1;17(3):04525011. https://doi.org/10.1061/JLADAH.LADR-1246

[13] Kukah AS, Akomea-Frimpong I, Jin X, Osei-Kyei R. Emotional intelligence (EI) research in the construction industry: a review and future directions. Engineering, Construction and Architectural Management. 2022 Dec 7;29(10):4267-86.

[14] Montenegro A, Dobrota M, Todorovic M, Slavinski T, Obradovic V. Impact of construction project managers' emotional intelligence on project success. Sustainability. 2021 Sep 28;13(19):10804. https://doi.org/10.3390/su131910804

[15] Acheampong A, Owusu-Manu DG, Kissi E, Tetteh PA. Assessing the influence of emotional intelligence (EI) on project performance in developing countries: The case of Ghana. International Journal of Construction Management. 2023 May 19;23(7):1163-73.

[16] Tamrin N, Nawi MN, Hanafi AG. A Review of Emotional Intelligence-Based Multi-Criteria Framework for Selecting Construction Project Managers in Malaysia. Architecture Image Studies. 2025 Sep 30;6(3):273-86.

[17] Zhang Q, Hao S, Chung KS. The impact of project manager's emotional intelligence on project performance: A meta-analysis. Chinese Management Studies. 2023 Apr 19;17(3):461-87.

[18] Ghorbani A. A review of successful construction project managers' competencies and leadership profile. Journal of Rehabilitation in Civil Engineering. 2023 Feb 1;11(1):76-95.

[19] Htoo TT, Dodanwala TC, Santoso DS. Project management maturity and performance of building construction projects in Myanmar. Practice Periodical on Structural Design and Construction. 2023 Feb 1;28(1):04022070. https://doi.org/10.1061/PPSCFX.SCENG-1192

[20] Almashhadani M, Almashhadani HA. English translations in project management: Enhancing cross-cultural communication and project success. International Journal of Business and Management Invention. 2023 Jun;12(6):291-7.

[21] Holzmann V, Zitter D, Peshkess S. The expectations of project managers from artificial intelligence: A Delphi study. Project Management Journal. 2022 Oct;53(5):438-55.

[22] Rakhmanovich IU, Taslim M, Raman AM, Ugli AA. The rise of behavioral economics: Leveraging AI to understand consumer decision-making. InAIP Conference Proceedings 2025 Jun 5 (Vol. 3306, No. 1, p. 050007). AIP Publishing LLC.