A Survey on the Role of Emotional Intelligence in Construction Project

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Abstract

Emotional intelligence (EI) is a growing area of behavioral investigation which is beneficial to both the individual and the organization. Although a lot of studies have been carried out on EI research work related to human factors, not much research has been done on construction industry. Construction is a project-based industry that involves bringing together different combinations of clients, designers, contractors and suppliers for relatively short periods of time. In construction, there is a real need to pay attention to the role of EI and examine how individuals, teams and the structure of projects influence the individuals’ behavior, for the sake of improving the performance of construction managers and their teams. Under this context, the objective of this study is to investigate the benefits of EI in construction industry and how EI could be used to improve the performance of construction projects.

Keywords: Emotional intelligence, Leadership behavior, Construction project performance

1. Introduction

Compared with other industrial sectors, the construction industry has been criticized for its poor performance. Many innovative management tools and techniques coming from other advanced industries (e.g., resources-constrained scheduling) are transferred to construction to solve the problems. During the transferring process, construction researchers have sought to adapt these tools and techniques under a construction setting.

However, surveying the literature provides an insight into frequent series such as cost overruns, delays, and underperformance in terms of quality, which seem to be ubiquitous within the industry [1]. A problem of reality faced by construction professionals and researchers is how to improve project performance. To solve this problem, it is necessary that organizational behavior is propagated. Organizational behavior seeks to: “investigate the impact that individuals, groups and structure have on behavior within organizations for the purpose of applying such knowledge towards improving an organization’s effectiveness” [2]. It is suggested that a greater examination and understanding of how individuals and teams influence organizational behavior will lead to improvement in project performance and the industry as a whole.

Many factors contribute to the success of various endeavors in people’s personal and professional lives. In construction industry, numerous organizations contend that their “greatest asset is our people.” This mantra acknowledges that technology or tools alone will not take an organization from start-up to guru, while the personnel executing different functions can make a large impact. Additionally, research findings in psychology on factors contributing to success have become popular in project management.

Emotional intelligence (EI) is increasingly being recognized as an important issue in workplace. For instance, there is a growing body of literature on the topics related to emotions and its effect in workplace, emotional labor and EI [3]. Emotions are intricately linked to employee satisfaction with work and the workplace, and influence the intentions to behave in productive or non-productive ways. As workplace is generally structured to ignore or downplay emotions, it has been suggested that even positive emotions can be disruptive to work performance [4].

Furthermore, how do emotions fit into construction project? To address this problem, we consider one of the key topics in current research on emotions: the concept of EI. Thus, the investigation of EI to construction industry is proposed in this research. More specifically, the objective of this study is to
investigate the benefits of EI in the construction industry for the sake of improving the performance of construction projects.

2. Emotional Intelligence

2.1 The concept of emotional intelligence

The term Emotional intelligence (EI) was first used in 1990 by Salovey and Mayer and defined as, "the ability to monitor one's own feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions". They hypothesized a framework describing a set of skills, "relevant to the accurate appraisal and expression of emotion in oneself and in others, the effective regulation of emotion in self and others, and the use of feeling to motivate, plan, and achieve in one's life".

Throughout the 1990s a number of differing conceptualizations of EI or models have been proposed, igniting furious debate as to the theoretical validity of the concept [5]. The concept of EI has gained popular attention through the work of Goleman who defined EI as, "abilities such as being able to motivate one and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathize and to hope"[3]. Salovey and Mayer [6] conceptualized EI as composed of four distinct dimensions:

1. Appraisal and expression of emotion in the self: This relates to the individual's ability to understand their deep emotions and be able to express these emotions naturally. People who have great ability in this area will sense and acknowledge their emotions well before most people;
2. Appraisal and recognition of emotion in others: This relates to peoples’ ability to perceive and understand the emotions of those people around them. People who are high in this ability will be much more sensitive to the feelings and emotions of others as well as reading their minds;
3. Regulation of emotion in the self: This relates to the ability of people to regulate their emotions, which will enable a more rapid recovery from psychological distress;
4. Use of emotion to facilitate performance: This relates to the ability of individuals to make use of their emotions by directing them towards constructive activities and personal performance.

Over the past two decades, many research activities into the concept and its applicability to both life and workplace have been exploited. Carmeli [7] has revealed that managers who are deemed to be “emotionally intelligent” perform better than those who have a lower EI. Golemann et al. [8] have further claimed that EI can predict leadership effectiveness. Meanwhile, some academics state that EI cannot predict leadership effectiveness beyond IQ (e.g. [9]). However, the most recent research reviews in this area suggest that when appropriately measured, a positive relationship exists between EI and job performance, at least for jobs with high client or customer interaction and emotional demands [10].

2.2 Measures of EI

There has been considerable work undertaken in developing an appropriate measure and establishing its validity with some promising results. The most popular measures of EI, from an individual perspective are the Bar-On Emotional Quotient Inventory (EQ-i), Emotional Competence Inventory (ECI) and the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT).

The Bar-On Emotional Quotient Inventory (EQ-i) is a self-report measure of EI developed as a measure of emotionally and socially competent behavior that provides an estimate of one's emotional and social intelligence. The EQ-i is not meant to measure personality traits or cognitive capacity, but rather the mental ability to be successful in dealing with environmental demands and pressures. A limitation of this model is that it claims to measure some kind of ability through self-report items.

The ECI was created in 1999. As a multirater feedback instrument, the ECI indicates the specific emotional competencies where development is needed to enhance the individual’s emotional intelligence. The ECI can also be used to diagnose an entire unit, profiling its overall strengths and development opportunities. Pooling the individual assessments of an entire work unit provides a
comprehensive profile of the organization’s emotional intelligence. This profile is called a work force audit, and it can reveal key emotional intelligence gaps that may be limiting performance effectiveness.

Developed by academics at Yale and the University of New Hampshire in cooperation with MHS, the MSCEIT evaluates Emotional Intelligence through a series of objective and impersonal questions. It tests the respondent's ability to perceive, use, understand, and regulate emotions. Based on scenarios typical of everyday life, the MSCEIT measures how well people perform tasks and solve emotional problems, rather than having them provide their own subjective assessment of their emotional skills. More details about the structure, design and scales of the MSCEIT can be found in [11].

However, it should be noted that tests such as the MSCEIT should be administered by trained personnel familiar with the principles of testing and psychometrics. The MSCEIT measure of EI is currently recognized in the academic literature as the measure most subjected to relevant psychometric tests of reliability and validity, and attempts to objectively measure the following features [12]:

1. Perceiving emotions: The ability to perceive emotions in oneself and others as well as in objects, art, stories, music, and other stimuli;
2. Facilitating thought: The ability to generate, use, and feel emotion as necessary to communicate feelings or employ them in other cognitive processes;
3. Understanding emotions: The ability to understand emotional information, to understand how emotions combine and progress through relationship transitions, and to appreciate such emotional meanings;
4. Managing emotions: The ability to be open to feelings, and to modulate them in oneself and others so as to promote personal understanding and growth.

In addition, in many cases EI test results can be most productively used in conjunction with other tools for assessing employees, staff and so on. For example, Mayer et al. [11] used an ability performance-based test to assess EI and reported mixed results with positive effects found only in a few of the emotional abilities examined.

3. The Role of Emotional Intelligence in Construction Project Performance

Construction is a project-based industry that involves bringing together different combinations of clients, designers, contractors and suppliers for relatively short periods of time. The effective management demands effective communication skills, group interaction management and leadership abilities. All these factors demand high level of EI in addition to the more traditional (and arguably more tangible) management abilities which leading practitioners possess. Indeed, evidence exists of a positive relationship between high level of EI and leadership behavior in construction executives. Moreover, in construction projects, the many skills of people are required which have to be brought together at the right place in the right sequence. The primary skill required is the ability to marshal (i.e. integrate) the contributors in such a way as to enable them to work at peak efficiency.

3.1 EI and construction managers

Emotion is an organized mental response to an event that includes physiological, experiential, and cognitive aspects, among others [13]. Of particular importance is that emotions typically occur in the context of relationships. If emotions often arise in relationships, then emotional information is information about certain forms of these relationships. The Mayer, Salovey and Caruso Model of EI begins with the idea that emotions contain information about relationships and refers to an ability to recognize the meanings of emotions and their relationships and to use them as a basis in reasoning and problem solving.

EI, however, extends beyond simply possessing social skills. Being emotionally intelligent involves being actively able to identify, understand, process and influence one’s own emotions and those of others to guide feeling, thinking and action [14]. Individuals who possess a high degree of EI are able to make informed decisions, better cope with environmental demands and pressures, handle conflicts in an effective manner, communicate in interesting and assertive ways and make others feel better in their work environment [14-16]. A major component of a project manager’s responsibilities is to deals with relationships, and a higher level of EI should increase the project success [17-18]. Goleman [16] has proposed that individuals who possess a high degree of EI can positively influence
both team and organizational performance. Goleman [19] states that emotionally intelligent leaders build resonance by turning into people’s feelings and guiding them in the right direction. In a similar manner, construction managers must direct and guide team members to successfully meet project goals and objectives.

For construction managers who are constantly confronted with solving disputes and general problems during pre and post construction, and an ability to formulate satisfactory solutions is essential [20]. The role of construction managers is very important as they are the ultimate persons responsible for the success or failure of construction projects. Social skills are of paramount importance as construction managers need to interact with other people frequently. In addition, this high level of interaction demands that construction managers are able to lead effectively and to manage conflicts continuously in order to build good relationships and ensure the success of their construction projects.

3.2 EI and leadership in construction project

3.2.1. The concept of leadership

Leadership is intrinsically an emotional process whereby leaders recognize followers’ emotional states, attempt to evoke emotions in followers, and then seek to manage followers’ emotional states accordingly. As it plays a key factor in an individual’s ability to be socially effective, and leadership literature also indicates that emotional intelligence is a key determinant of effectiveness in communicating with team members and external management.

Leadership concerns the interaction of leaders with other individuals. Once social interactions are involved, emotional awareness and emotional regulation become important factors affecting the quality of the interactions. Leadership is embedded in a social context, and the idea of social intelligence as a required leadership trait is a powerful one.

In the past few years, studies have attempted to correlate effective leadership with EI. By integrating EI into modern theories of leadership, Hooijberg et al. [21] presented a framework of the cognitive, social, and behavioral complexities of leadership. They argued that the social aspect of a leader’s capacity consisted of two components: social differentiation and social integration. Social differentiation was defined as “the ability of a managerial leader to discriminate and recognize the various facets, aspects, and significances of a given social situation over time. Social differentiation is a function of the leader’s ability to discern existing and potential patterns of social relationships; the leader’s ability to regulate emotions within self and recognize emotions in others; the number and degree of independence of a leaders’ value preferences; and the leader’s level of self-complexity”.

Furthermore, Sunindijo et al. [22] summarized thirteen leadership behavior necessary from extensive literature reviews.

1) Visioning: The leader communicates the vision and helps the team to clarify its goals;
2) Inspiring: This behavior is usually displayed by the communication of high expectations, using symbols to focus efforts, and expressing important purposes in simple ways;
3) Stimulating: The leader helps subordinates to look at old problems from new and different perspectives. Intelligence and rationality are used in problem solving;
4) Coaching: The leader pays close attention to individual differences among subordinates; and he/she teaches and advises employees with individual personal attention;
5) Rewarding: The leader provides rewards and positive feedback to employees who meet agreed goals;
6) Punishing: This style is characterized by giving punishment and negative feedback to employees who show undesirable and below par performance;
7) Delegating: The basic concept of delegation is to transfer authority and responsibility to lower positions in the organizational hierarchy and to provide challenging and difficult tasks to subordinates to enhance their development;
8) Leading by example: The leader does the same real work and contributes in the same way like subordinates;
9) Sharing and open communication: The leader shares all types of information throughout the organization, across functional and hierarchical levels;
10) Listening: The leader grasps both facts and feelings to interpret a message’s true meaning, and shifts thoughts to empathizing with others;
Directing: The leader tells subordinates exactly what they are supposed to do. The leader sets the
goals, standards, rules, and the regulations;
Participating: The leader consults with subordinates before making decisions. Opinions,
suggestions, and participation are encouraged in the decision-making process;
Proactive: The leader actively seeks information from others and identifies problems at the early
stage.

3.2.2. Key leadership characteristics in construction project

Rowlinson et al. [23] have suggested that the construction managers’ leadership style can
influence a construction project’s outcome. Two potential key leadership characteristics may include:
transformational leadership and charisma leadership.

(1) Transformational leadership
Transformational leadership is the cultural maintenance form of leadership which acts to
strengthen existing structures, strategies, and culture in an organization.

   The transformational leader is defined as one who arouses awareness and interest in the group or
organization, increases the confidence of individuals or groups, and attempts to move the concerns of
subordinates to achievement and growth rather than existence.

   Transformational leaders provide a vision that followers accept and believe in, who inspire and
motivate their followers and stimulate them intellectually. The components of transformational
leadership bear a resemblance to the key components of EI. To engage in transformational leadership,
leaders need to have clear emotional self-awareness, which is similar to the EI concept of
understanding.

(2) Charisma leadership
Charismatic leadership is leadership based on the leader’s ability to communicate and behave in
ways that reach followers on a basic and emotional way to inspire and motivate.

   A charismatic leader, on the other hand, tries to obtain his/her followers’ compliance. It is
generally used in a manipulative and emotionally demanding manner when subordinates are subject to
exploitation. It is suggested that construction project managers who are deemed to be emotionally
intelligent should be able to positively utilize charismatic leadership skills to regulate their own and
others’ emotions, and use emotional information for decision-making to achieve creative and positive
outcomes [20]. However, George [24] suggested that EI is an important catalyst of leadership
irrespective of the style adopted, as it enables leaders to: articulate team goals and objectives; instill
enthusiasm to team members; empathize with team members; establish cooperation and trust; and
identify and encourage flexibility.

3.3 EI and teamwork in construction industry

Many studies have been done at the role of EI in work teams. Barsade and Gibson [25] suggested
that focusing on emotion in the workplace would be valuable because emotion affects the outcomes of
team behavior. Kelly and Barsade [26] pointed out that emotional tendencies could be looked at as
individual traits, thus combining to influence the emotional composition of a group.

Furthermore, team based research in construction industry has generally focused on identifying
task processes that distinguish the most successful teams. Meanwhile, the composition of a team is
normally different for each construction project, and therefore the norms developed are impossible to
replicate. This renders the notion of best practice an impossible task to attain [20].

In addition, members of a project team, particularly project managers, need to be aware of their
emotions and understand how their feelings can affect other people. Project managers need to play
different roles at different times, and more important, good leaders have judgments to select the right
role for the very situation. Next, team members of a project should be made aware of how to control
their emotions. Then, concrete actions can be undertaken when the situation is understood clearly.

In particular, the effectiveness of the project team is a critical determinant of project success.
Therefore, it is necessary to assess individuals’ and the team’s EI with an important psychological
description, and enables them to identify strategies to improve their team’s effectiveness.

In summary, the role of EI in construction industry can be shown in Figure 1. It is suggested that
construction project managers who are deemed to be emotionally intelligent should be able to
positively utilize leadership skills to regulate their own and others’ emotions, and use emotional information for decision-making to improve project performance.

Figure 1. The role of EI in construction industry

4. Conclusions

In construction industry, the poor project performance seems to remain unsolved with the help of management tools and techniques adopted from more technologically advanced industries. In most cases, construction project is consisted of many individuals. Meanwhile, the capability of the individual determines whether any tool or technique is successfully implemented. In acknowledgement of these obvious, psychologists have explored the concept of organizational behavior and an individual’s EI. Although, there exists many literature concerned with EI research work, the related work stays largely unexplored in a construction context.

Toward construction project, a construction manager whose primary responsibility is to achieve project objectives leads these individuals. Since the rational and emotional aspects of a project vary in complexity, the linkages among leadership style, EI, team, and etc. From the evidence presented in the literature, it is suggested that if construction organization focused on selecting construction managers who were highly emotionally intelligent determined by the use of EI instrument, then industry may see a significant enhancement of effectiveness over that offered by operational improvements alone. Thus, it is necessary to explore the complex interrelationship that exists among individuals within a project or organization in construction.

5. References