EMOTIONAL INTELLIGENCE
Assessing Its Importance in Safety Leadership
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WORKPLACE SAFETY IS AN ESSENTIAL PART of business operations and the success for any professional work culture rests on a combination of factors such as management support, quality safety and health processes and procedures, effective safety training and employee buy-in. Safety leadership is important for achieving organizational safety goals, where leaders exert influence on employees through positive interactions. Transactional and transformational leadership are two unique leadership styles that have been broadly studied and reported (Gardner & Stough, 2002). Transactional leadership emphasizes work standards using reward or discipline-based systems to influence performance, while transformational leadership provides inspiration, stimulation, motivation and individualized consideration for each employee (Bass & Avolio, 1994). The influence from transformational leadership is more effective and yields better employee performance and satisfaction (Hater & Bass, 1988).

This influence becomes even more effective when properly used with other applicable strategies such as emotional intelligence (EI) at every level of an organization. EI is defined as the ability to perceive emotions, to access and generate emotions to assist thought, to understand emotions and emotional meanings, and to regulate emotions reflectively to promote both better emotion and thought (Mayer & Salovey, 1997). In simpler terms, it is our ability to recognize and understand not only our own emotions and reactions but also that of others. EI is vital for perceptive thinking, intuitive emotion response and managing stressful situations. It is an influential tool for team leadership, which helps with thorough situational awareness of how one's words and actions can affect others. It is a gateway to a balanced life and is essential to every aspect of life including work environments. EI is widely considered an important variable in training, leadership development and team building by organizations (Joseph, Jin, Newman, et al., 2015). Employees with the ability to effectively manage their emotions and use emotional information have been found to perform better than those who lack such ability (Parke, Seo & Sherf, 2015). According to EI, success is strongly influenced by personal qualities such as perseverance, self-control and skill in getting along with others.

EI is described as the ability to use a set of skills that allows for the perception of emotions in self and in others (sense of empathy for others), and the use of that information to guide behavior. These skills include self-perception, self-expression, interpersonal, decision making and stress management (MHS Inc., 2011). A high level of EI enables individuals to be in touch with themselves in a healthy, positive way. Professional EI can be described as a collection of noncognitive skills and proficiencies that can influence a person's ability for potential success, in managing professional work pressures and related environmental demands (Fernandez, 2007). The achievement of professional success using EI depends on the individual’s capabilities, determined by factors such as personality and the individual's ability to learn new information, recollect information and engage in rational critical thinking. This is known as intelligence quotient (IQ) (Figure 1, p. 42).

High IQ is beneficial for professional development because it enables individuals to observe, learn and implement necessary changes as needed. It has also been noted that IQ predicts an average of about 6% of successes in a given job (Stein & Book, 2006). While IQ is important for workplace performance and success, it is not the best predictor of job performance (Hunter & Hunter, 1984). The emotional intelligence quotient (EQ), which is a tool used to observe interpersonal interactions and effective application of soft skills in the workplace, is also important (Fernandez, 2007). The tool is significantly important for understanding how informed decisions on difficult workplace issues are made, problem solving, resource allocation, cost-benefit analysis, stress and communication management, conflict resolution, team building and influence to effect positive changes. Stein and Book (2006) showed that EQ...
is directly responsible for up to 45% of job performance success. As noted, the benefits of high IQ are many; however, individuals with high level IQ and underdeveloped EQ may still underperform in an organization because they can buckle under minimal stress and behave irrationally. Therefore, having well-developed EQ can provide the capacity for enhanced competitive advantage in the workplace and good working relationships, which fosters a strong management.

Understanding the effects and needs of developing workers’ EI as an essential part of professional development and quality improvement of the workforce has practical implications for professionals, departments and organizations. EI enables the professional to understand internal and external manifestations and expressions of emotions relative to the work environment and the professional code of conduct. Using the Bar-On emotional intelligence inventory (EQI), individual EQ can be measured and nurtured (Bar-On, 1997). The tool is applicable in the workplace for matching EQ with job fitness in several sectors (Fernandez, 2007). Another tool that can be used to measure EQ is the multifactor EI scale (MEIS), which tests for ability rather than self-reported measures like the EQI (Mayer, Salovey & Caruso, 1998). The emotional competence inventory (ECI) is a 360° tool that enables those familiar with a person to assess and rate the individual on competencies. The ECI is “validated against performance in hundreds of competency studies of managers, executives and leaders in North America,” Italy and Brazil (Boyatzis, Goleman & Rhee, 2000). Life success, leadership success, global management performance, employee retention and other job outcomes have been successfully predicted using the ECI.

Workplace safety, safe workers’ behavior and overall organizational compliance with applicable codes, regulations, standards and laws are crucially impacted by the existence of mature EI professional development initiatives. Extant studies have explored the relational impact of EI on professional development and workplace behaviors. Employees with high EI were determined to demonstrate greater personal life achievement and satisfaction, and they are less likely to cut corners and undertake unsafe practices to achieve higher performance (Carmeli, Yitzhak-Halevy & Weisberg, 2009). Rundmo (2002) also investigated the role of EI impact in effectively identifying and evaluating workplace risks and hazards. Arnau-Sabatés, Sala-Roca and Jariot-Garcia (2012) established a sufficient strong relationship between EI and risk-taking behavior. Risk-taking behavior can include unsafe acts leading to injuries and incidents and the lack of will to develop professionally.

Importance of EI

The idea of EI has been studied since the 1960s, becoming mainstream in the mid-1990s following a book published by Daniel Goleman. Goleman (1998) said, “Having great intelligence gives you a competitive edge . . . having great intellectual abilities may make you a superb fiscal analyst or legal scholar, but a highly developed emotional intelligence will make you a candidate for CEO or a brilliant lawyer.” Both EI and IQ are considered essential for professional development (Figure 1), however, a calculated EQ is widely accepted to have greater value than IQ scores. Hence, EI can greatly impact lives including work, relationships, self-awareness and cognitive-based performance.

The characteristics of EI are presented in Figure 2. When aspiring to develop enhanced EQ, perfection may not be necessary or attainable. It is important to understand one’s feelings and how they influence and are exhibited in behavioral traits. Developing a mature EI should involve managing the discomfort of one’s shortcomings through self-awareness. Self-awareness is the human quality that allows for being in touch with one’s personality, emotions and desires (Mayer, Salovey & Caruso, 2002). Essentially, self-awareness is the state of an individual knowing who s/he is. This characteristic enables individuals to know their personal limits and delineated comfort zones, which may also bring about emotional stability. Those with adequate awareness of their limitations can exercise control regardless of stress, pressure, adversity or challenges. Emotional stability yields internal drive, which in turn creates action and positive behavior. This state of mind is known as motivation.

Motivated employees are often diligent with their work and focus on making positive, productive choices that ultimately add to the greater good. Motivation is key to a successful and changing life. Many people resist change because it brings adversity (Price, 2016). A motivated individual is capable of self-emotional control, change management, resilience during adversity and expressing empathy for others. Empathy is relevant to EI because it can be contemporaneous with perceiving others’ emotions in a professional or work setting. An empathetic individual understands the needs of others and acts by making sure the needs are met, based on the relational and social connection, facilitated through emotions. Social skills are needed to create the social connection and they are a collection of abilities dealing with how people communicate and interact with others in their environment. Social skills promote better communication, cohesiveness toward unified professional goals and help with responding to adversarial situations collectively, using collaborative EI.

The absence of effective social skills for EI enhancement can potentially lead to an individual being reclusive, the consequence of which may be discomfort of those in the person’s vicinity or work environment. Self-regulation is making a conscious mental effort to change one’s thoughts and behaviors for the better to improve pertinent skills applicable to EI. Changes and adaptations are crucial to professional life, because an individual with high level EI will be capable of successfully facing adversity and exercising effective control of his/her own emotions using self-regulation, as a way to manage or adapt to changes. Self-regulation can bring positive changes to individuals and their pro-

![FIGURE 1 COMPONENTS OF A COMPETENT PROFESSIONAL](image1)

![FIGURE 2 CHARACTERISTICS OF INDIVIDUAL EMOTIONAL INTELLIGENCE](image2)
fessional growth. Figure 2 illustrates a delicate balance between the required characteristics for professionals to enable their interpersonal and intrapersonal skills development through EI.

**Emotional Intelligence & Workplace Safety**

Working in a safe environment is important to employees, industry, regulatory agencies and government. Safe behavior is typically supported by engineering a safer work environment, educating employees and creating opportunities for employees to be observed and receive feedback useful for improving safety (Geller, 2001). These efforts have positive impacts on creating a safer work environment along with mitigating risks leading to incidents, reducing the number of days lost to injuries and ultimately reducing or eliminating fatalities. The goal of OSH programs is to eliminate conditions favorable to the occurrence of injuries and incidents. To achieve this ambitious goal, it is vital to go beyond previous and current initiatives and address the individual workers’ attitudes as they relate to the working conditions, workers’ own safety and the safety of others (Jeffries, 2011). Workers’ EQ can help predict susceptibility to unsafe behaviors, which could derail OSH goals. Attitudes toward safety and safe behavior in the workplace can be influenced through training to improve individual workers’ EI.

**Emotional Intelligence Training**

Like any skill, EI can be learned and mastered. New employees or young professionals are trained in essential basic skills useful to their development and professional growth. Such skills are crucial in becoming effective on the job and in their respective professional careers. The global workforce calls for individuals who are intelligent and proficient in job-related skills and technological advancement.

The formal education system does an excellent job of preparing professionals for the rigors and challenges on the job by providing the required technical skills. While many professionals are skills competent, the emotional requirements associated with the professional path may be lacking. The inclusion of social and emotional skills development in the educational curricula would better prepare professionals with consistent learning advantage in the global economy.

Studies show that trainees exposed to emotional education tend to have better relationships and emotional stability (Ciarrochi & Mayer, 2007). These attributes together with quality social skills help trainees build and maintain quality relationships and people interaction (soft) skills. These skills have been inevitably shown to increase the well-being and happiness of individuals, leading to high professional performances and success. At a younger age, certain experiences facilitate the shaping of the brain and contribute to emotional incompetence through deep learning associated with daily living. The skills learned and consistently used are improved over time and strengthened; conversely, skills that are less focused on become weakened (Edelman, 1987). Extant studies indicate that EI training received at a younger age can better prepare professionals for their career paths, with excellent and quality life outcomes (Goleman, 1998).

**Learning Types**

There are two main types of learning: cognitive and emotional (Cherniss, Goleman, Emmerling, et al., 1998). The former entails accommodating new information and perspective into existing frameworks of knowledge, while the latter encompasses that and also includes the engagement of the biological neural system with the storage of emotional and social habits. To be effective, emotional training must follow certain guidelines as outlined in the four different phases of developing EI (Figure 3, p. 44). The optimized process can help employees enhance their emotional competence along with the cognitive skills that have presumably been developed prior.

Phase one, which helps prepare for change at the individual and organizational levels, occurs before beginning formal EI development training. The main change process takes place in phase two, which involves training people to change their outlook and perception relative to social and emotional demands. Phase three describes the experience once formal training has taken place. During the last phase, the effectiveness of the process is evaluated. EI training utilizing this four-phase process is applicable for employees and supervisors.

The Collaborative for Academic, Social and Emotional Learning (CASEL) research guidelines suggested that EI training courses should begin with developmental and cultural training. This enables learners to understand the different emotions and backgrounds of people from other cultures. CASEL guidelines also recommend that training courses provide a caring and engaging environment. If the learning environment is oppressive or uncomfortable, productivity will be low.

It is also important to get everyone to participate in good conscience. A persuasive instructor can motivate participants with a warm, welcoming learning style. A community actively coming together to learn about EI creates awareness and understanding between everyone involved, and forms a sense of unity, which in turn creates trust among the community. Finally, the training course should comprise updates and evaluations (phase four) with participants involved.

**Theory of Planned Behavior Integrated With EI**

The theory of planned behavior (TPB) was developed to show that moral maturity and EI can act as intrinsic drivers to positively influence safety attitudes and employee behaviors on the job. Job behavior is described as the manner by which workers respond, positively or negatively, to their work, assigned tasks and responsibilities based on the worker’s perceived interests and view of the organization (Mafini & Poole, 2013). The TPB assumes that people use available information and implicitly or explicitly consider the implications of planned actions before acting (Ajzen, 2005). The theory describes three influences relative to a worker’s behavior: attitude toward an act, subjective norms and perceived behavioral control (Jeffries, 2011).

Studies on workers’ job behavior have reported that understanding employee behavior (through prediction models) can help provide positive controls for challenging behaviors, which enhance organizational performance and productivity (Delmas & Pekovic, 2016; Pajo, Coetzer & Guenole, 2010; Stavros, Nikolaos, George, et al., 2016). Previous attempts to correct safety behavior have been controlled through extrinsic factors including training, engineering and compliance, measured by using discipline to ensure that procedures are followed (transactional leadership). Subjective norms have been influenced through efforts to create a safety culture and through the process of observation and feedback (Gronhöz, Bech-Larsen, Chan, et al., 2012). This creates peer pressure to conform to safety policies.

While these extrinsic factors can influence attitudes, it has shown that no real effort has been focused on understanding intrinsic influence on safety behavior. Intrinsic influence is crucial to encouraging safe behavior. Enduring safety behavior at work through
intrinsic drive can achieve improvements in behavior/attitudes and create a safe workplace. As part of the intentional EI training programs that organizations can implement to improve employee EQ, encouragement from organizational management promoting employees’ use of learned skills is crucial to prevent relapse (Figure 3). If there were any misunderstandings or confusion from the planned learning, there may be a relapse of behavior (Cherniss, et al., 1998). With proper guidance and instruction, individuals will be much more prepared for the workforce with well-developed EQ than those without adequate instruction (Stein & Book, 2011).

Moral maturity and EI can be long-term positive influences on employee safety behavior. The three levels of moral maturity include preconventional, conventional and principled (Jeffries, 2011). They can all be related to the actions taken by the organization to improve safety. The preconventional level relates to engineering and training in that compliance is all that really matters and does not require moral maturity to improve safety. The conventional level is related to behavior-based safety because it focuses on social awareness and responsibility to others. The principled level has not been addressed yet, which is a perfect opportunity for improvement. If employees are trained in EQ development and can be convinced to do the right thing as it relates to safe behavior, it could be a breakthrough in workplace safety and provide advancements to the zero-incident goal.

Conceptual Model

The attempt to predict, rationalize, explain and control employees’ behavior has been complex and difficult. Previously, the cognitive method for the prediction of behaviors has been commonly used (Ajzen, 1991; Conner & Norman, 2005). Other researchers have attempted to predict behaviors by exploring models such as interpersonal negotiation strategies, social-cognitive processing (Nangle, Hansen, Erdley, et al., 2009), innovation diffusion theory (Kim & Crowston, 2011) and the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980).

TPB is an extension of TRA and the extended framework including EI training and development (EI-td) is fundamental to improved productivity and performance for organizations (Figure 4). Other conceptual models have correlated job stress and EI, and associated impacts on safety behavior using container terminal operation workers (Lu & Kuo, 2016). The researchers determined that long-term job stress affects safety behavior and increases workplace injury risk. The study determined that job stress could adversely affect employees’ work practices, and hypothesized that workers with higher EI have less stress on the job, which in turn has a positive impact on their safety behavior.

The study data were obtained from a questionnaire survey; items assessed included job stress, EI and self-reported safety behavior. Six senior frontline workers, three senior safety executives and three terminal supervisors at the container terminal were interviewed and a questionnaire survey was sent to 800 container terminal workers. The study concluded that EI played a significant role in safety participation and safety compliance. This means that EI had a greater impact on safety participation than safety compliance. The multiple moderated regression analysis results suggested that EI positively moderated the effect of job stress on safety compliance. A high EI level reduced the negative effects of job stress on workers’ safety compliance (Lu & Kuo, 2016).

In a similar study, the Mayer-Salovey-Caruso emotional intelligence test (MSCEIT) produced highly relevant and important data in favor of EI. The survey was administered to 38 supervisors in manufacturing corporations. The survey focused on determining leadership effectiveness. The authors determined that EI is a large indicator of leadership effectiveness ($r = 0.50$) and ($p < 0.001$) (Kerr, Garvin, Heaton, et al., 2006). The data results determined that EI development is a strong factor for leadership effectiveness, hence employees’ EI training is strongly encouraged.

The Six Seconds EI model converts theory into practice. It has three main pursuits that are specific, learnable, measurable competencies: 1) awareness of what you do; 2) doing what you mean;
and 3) doing it for a reason (Freedman, 2010). A study using the Six Seconds EI model surveyed 75,000 people across the globe. The study considered race and gender differences, with the aim of determining the factors that affect decision making, performance and effectiveness. The data from the study showed that EI predicted 50% to 60% of these categories (Freedman, 2014).

Different studies have been explored to determine the impact of EI on safety behavior using the conceptual method, theory of planned behavior and MSCEIT. The TPB studies reviewed showed that employees who scored higher on EI assessments would be less likely to adopt negative coping strategies in response to stress related to job insecurity. Perceiving and regulating emotions as components of EI were found to improve performance that was distinct from general intelligence (Lam & Kirby, 2002). MSCEIT also determined that high EI contributes significantly to leadership effectiveness (Kerr, et al., 2006).

The purpose of conceptual model study was to extend the TPB model (TPBε) to include competencies in cognitive skills and EI-td. If all four behavioral conditions are met through EI-td (Figure 4), then the intention to use behavior will indicate the employee's estimation of the perceived probability and readiness for performing the behavior (Fishbein & Ajzen, 2010). The TPBε prediction is useful to explain that the higher the employee's approximation of the probability of exhibiting the behavior, the higher the probability for the behavior to be executed.

The exertion of influence from social environment can directly affect the employee's intentions and actions, which can be described as the subjective norm. The influence from others in the employee's environment can be powerful. According to Fishbein and Ajzen (2010), this could be due to reward power (e.g., supervisor with the ability to provide rewards), coercive power (e.g., supervisor or manager with the ability to enforce disciplinary actions), legitimate power (e.g., staff or coworker having other important roles in the organization), expert power (e.g., someone with subject matter expertise or skills) or referent power (e.g., a role model for skills and behavior).

Employees often have a preconceived perception about people in the workplace to potentially exert any (or multiple) of these powers, which in turn puts enormous pressure on the employee's intention to either perform a behavior or not. The process of maturation through EI-td can reduce this pressure and the formation of an intraorganizational network between employees is advantageous for realizing organizational change. The social network relationships in the workplace influenced by subjective norms are important for the intention to use positive change behaviors by employees, hence the stronger the employee's subjective norms are for performing a workplace behavior, the higher the likelihood of using the behavior.

The intention to use a beneficial workplace behavior is also influenced by perceived behavioral control. Employees have innate controls used to decide whether to use a specific behavior. Successful implementation of the behavior is only possible when adequate discretionary control (autonomy) exists (Ajzen, 1991; Fishbein & Ajzen, 2010). The discretionary control is a function of internalized factors including competence, self-drive, self-control and determination; other external influences that may affect the behavioral outcome include resource availability, environmental conditions (e.g., situations, conditions, settings) and chance. Employees with higher EQ are expected to be able to process information faster and have greater discretionary control of internal and external factors that influence the ability to perform certain behavioral demands. Enhanced perceived behavioral control relative to improved EQ can lead to improved job performance, higher productivity, improved health and employee wellness (Skinner, 1996) and overall greater career accomplishments. Therefore, the degree to which employees are certain that they possess the potentials and are capable of using new behaviors is beneficial to their actions in a change-supportive environment (Sonnentag & Spychala, 2012; Terry & Jimmieson, 2003). The higher the perceived behavioral control by employees, the higher the intended use of the behaviors.
In the changing world, recruiting for a job is no longer about hiring candidates with appropriate qualifications only; the focus has shifted to hiring people with the right blend of qualifications and personality (high EQ). During the interviewing process, the human resources (HR) representatives not only focus questions on past and present performance and achievements, they also observe how candidates receive questions, process and respond. The HR representative usually looks for people who demonstrate good personality, high EQ, confidence, team-oriented problem solving and, of course, the required skills. The implementation of an EI test during the recruitment process to assess these parameters would be important in meeting HR goals.

Another applicable use of EI is for employee retention and for avoiding large employee turnover. Integration of EI-td in the hiring process and thereafter will help select candidates who are fit for the job and emotionally mature to manage behaviors that may lead to turnover. Organizations on the right growth trajectory must invest in retaining results-driven employees. Investments in cognitive and emotional training of employees increases an organization’s human capital development. These trainings are essential to skills development, knowledge acquisition, stronger commitment and motivation to use change behavior (Ji, Huang, Liu, et al., 2012) and EI maturation.

EI evaluation should be integrated into an organization’s culture. Development and implementation of EI-td programs will benefit employees and management, as new leaders will emerge with enhanced soft skills and high EQ that are invaluable to the organization. The continuous implementation of the EI-td program will ensure employee growth and actualization of organizational objectives. Embedding EI early in the hiring process sets the stage for continuous consideration of EQ competencies, for identifying professional development opportunities, performance appraisals and building employees’ emotional connection to the job, which increases retention.

Enhanced EQ helps ease decision making on the use of beneficial workplace behaviors. With the inclusion of EI-td and cognitive skills competence in the conceptual framework, it is expected that employees’ attitudes, subjective norm and perceived behavioral control will be enhanced, which in turn will improve employee retention. The value of having highly emotionally intelligent employees cannot be overstated; this will position the organization ahead of the curve in the exceedingly competitive global economy.

Discussion
Current occupational safety management and professional development strategies focus on the use of extrinsic factors to influence employee behavior and adherence to safety policies. However, analysis of current literature demonstrates that a positive relationship is possible between EI and behavior-based safety. The conceptual model describes the significance of EI-td to improved basic determinants and predictions of intentions toward changed behavior. Employees with higher EQ would have reduced negative effects of job stress and, therefore, higher rates of safety compliance.

TPB studies have established positive relationships between EI and job stress coping strategies (Lam & Kirby, 2002). It was determined that higher EI levels contributed to greater ability to perceive and regulate emotions, which mitigated negative responses to job stress. It has also been observed that individuals with high EI were able to set priorities and attend to tasks based on prioritization (Abraham, 2000). Workers trained in EI development are expected to have high EQ and demonstrate affective skills including emotional perception, emotional assimilation, emotional understanding and emotion management (Mayer & Salovey, 1997), or traits such as empathy, optimism, motivation and the ability to engage in relationships (Goleman, 1995). These skills or traits affect work attitudes that influence behavior. By incorporating the TPB, that specifically addresses both extrinsic and intrinsic aspects of behavior, it is likely that more variability in safety-related behavior can be explained. Moral maturity and EI theorize that intrinsic drivers will influence safety attitudes and behavior. Attitudes toward safety and safe behavior in the workplace can be influenced positively through training, to improve EI and moral maturity with the influence of intrinsic factors.

OSH professional development in the workplace is dependent on a combination of factors, such as management support, quality OSH processes and procedures, effective OSH training, and successfully influencing employees to comply with established policies and procedures. Based on the positive correlation that exist between employees with higher levels of EQ and positive safety behaviors, the professionals with higher EQ have been determined to have higher levels of moral maturity, improved regulation of emotions and behaviors, greater cognitive reasoning abilities, are more adaptive and are better able to manage stress. These qualities have effectively enhanced pertinent skills, translated to positive safety behaviors.

Conclusion
Previously, the most desired trait for professional development was high IQ. There was a common acceptance that intelligence was more favorable because high IQ individuals could learn and adapt to overcome obstacles. However, recent studies have shown that IQ alone is not a guarantee for an employee’s later career success.

Three major categories describe the entirety of an individual: IQ, EQ and personality. Extant studies indicate that EQ is of greater importance for professionals than IQ alone. This is because people with higher EQ are empathetic and able to perceive emotions of others. People with high EQ also have superior stress management skills and are better able to make decisions under pressure. Limitations to EI studies include limited research to support the claims of EI effectiveness for professional development and improvement. However, the information available typically shows the high significance of EI for professional development and maturity.

There is an increase push for EI to be included in educational curriculum, integrated with other core topics in degree programs. There are some complications to adding this content because of the limited research and changing school curriculum. An alternate option is to offer seminars to employees already in the workforce. The demand for EI is growing as more people are beginning to appreciate the relevance of its impact for professional success and better quality of life. The TPB model can potentially be utilized as an important tool to evaluate the efficiency and performance of employee training programs in an organization’s management of change process.

References


