Emotional Intelligence and Transformational Leadership to Foster Sustainability

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Abstract
Emotional intelligence (EI) is an increasingly important topic in organizational studies. Research findings show that successful leaders have feelings that enable empathy, compassion, flexibility, and the ability to influence. Higher levels of EI influence a leaders’ ability to make better business decisions, leading to greater efficiency and sustainability for the organization. The research presented used SSEIT (Schutte Self Report Emotional Intelligence Test) to assess emotional intelligence and Kouzes and Posner’s Leadership Practices Inventory (LPI) to measure leadership practices. Using multiple regression analysis, the authors found one emotional intelligence factor, the appraisal of emotion in self/others, was related to leadership. Longevity in supervision was also positively related to leadership. This study supports the position that emotional stability and EI are important factors for organizational leadership and sustainability. Leaders with high EI make better business decisions because they engage more, leading to higher productivity and sustainability. Implications and recommendations are provided.

Keywords: Emotional intelligence, leadership LPI, emotions, SSEIT, sustainability, and competitive advantage

1. Introduction
Interpersonal skills have become an essential component to effective leadership (Goleman, 1998). For this reason, understanding the effects of one’s emotional intelligence and the potential impact emotional intelligence has on leadership deserves attention. Emotional intelligence can be defined as a multifunctional array of interrelated emotional, personal, and social abilities which influence our overall ability to actively and effectively cope with demands and pressures (Bar-On & Parker, 2000).

Effective leadership is essential to an organization’s success therefore; the ability to identify and define effective leadership is crucial. Conventional wisdom denotes technical expertise, superior performance and established experience translated into effective leadership. Today, successful leaders are defined by inspiring and motivating others, promoting a positive work environment, perceiving and understanding emotions and fostering an organizational climate in which people turn challenging opportunities into successes (Kouzes & Posner 2003). Transformational leadership, leadership, successful leadership, and effective leadership are used throughout this research as similar constructs.
The importance of corporate sustainability is also ever increasing (Lourenco, Callen, Branco, & Curto, 2013; Lacy, Cooper, Hayward & Neuberger, 2010). In addition, the effort to enhance sustainability has advanced in pace, recently influencing the complexity involved in leading corporate sustainability initiatives within the organization (Klettner, Clark & Boersma, 2013). Corporate sustainability is progressively becoming an essential component for organizations and researchers alike. Strand, (2014) focuses their attention on strategic leadership of corporate sustainability, highlighting the efforts while exploring the benefits of dedicating corporate sustainability positions into their top management team.

Emotional Intelligence (EI) and Transformational Leadership (TL) are consistently positively related influencing efficiency and sustainability for the organization, as demonstrated in the review of the literature below. Ket de Vries (2013) posits transformational leaders are intensely aware of holding grudges noting confusion can be created by a merciless attitude, translating into hindered progress, thereby negatively influencing organizational success. On the other hand, creating a culture of understanding means people are more likely to make extra efforts, one of Bass’s (1990) outcomes of transformational leadership. Such a culture also promotes a coaching culture, mutual collaboration and retaining valued employees; it “allows greater creativity and innovation, leading to increased profitability”...(Ket de Vries, 2013, p. 11).

Recent research seeks to understand the mechanisms and cognitive strategies that promote EI. Therefore, this research is relevant to understanding the organizational dynamics that promote attitudes and activities that promote sustainability and a competitive advantage. The attitudes that promote harmony and equity in the workplace (EI and TL) are the same ones that promote balance among business, society and the environment. Goleman (1998) recognized that interpersonal skills are an essential component to effective leadership. Leaders with high EI have a competitive edge, which ultimately extends to the organization.

This research examined the relationship between emotional intelligence and leadership practices enhancing sustainability. The overarching research question is: Is there a positive relationship between the four factors of leaders’ emotional intelligence: 1) the appraisal of emotion in self and others, 2) the expression of emotion, 3) the regulation of emotion in self and others and 4) the utilization of emotion in problem solving, and leadership practices (challenging the process, inspiring a shared vision, enabling others to act, modeling the way and encouraging the heart) among leaders?

This study utilizes Goleman’s (1998, p. 317) definition of EI, “the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships.” Emotional intelligence is a multifunctional array of interrelated emotional, personal, and social abilities which influence our overall ability to actively and effectively cope with demands and pressures (Bar-On & Parker, 2000; Alston, Dastoor and Sosa-Fey, 2010). Salovey and Mayer proposed a four branch model of emotional intelligence that emphasized four domains of related skills: 1) the ability to perceive/identify emotions, 2) the ability to use emotions to facilitate thinking and reasoning, 3) the ability to understand emotions, and 4) the ability to manage emotions in both oneself and others. This model proposes that individuals vary in these skills and that these variances contain consequences for individuals in everyday life (Grewal & Salovey, 2005). Accordingly, the four aspects are positively related to each other (Mayer et al., 1990; Mayer & Salovey, 1997; & George, 2000).

Previous research indicates a positive relationship between emotional intelligence and effective leaders (Goleman, 1998; Palmer, Walls, Burgess & Stough, 2001). Kerr et al., (2005) found that emotional intelligence scores were a strong predictor of leadership effectiveness. Transformational leaders are described as leaders who improve followers’ accomplishments and success by influencing their values and needs. Transformational leaders change their followers’ attitudes, beliefs and values to align them with the attitudes, beliefs and values of the organization. Transformational leaders guide their followers towards self-development and higher levels of success (Bass & Avolio, 1994). Successful leadership is about personal characteristics and human qualities that include empathy and compassion, flexibility and influence. In addition, it’s these personal characteristics and human qualities that are encompassed in the definition of emotional intelligence. Emotional intelligence can be defined as a multifunctional array of interrelated emotional, personal, and social abilities which influence our overall ability to actively and effectively cope with demands and pressures (Bar-On & Parker, 2000). Goleman (1998) proposes that emotional intelligence plays a substantial role in leadership. Therefore, understanding the effects of one’s emotional intelligence and the potential impact emotional intelligence has on leadership effectiveness on sustainability are explored in this study.
The hypotheses proposed that emotional intelligence was positively related to leadership practices. The hypotheses are based on previous research findings that support positive relationships between emotional intelligence and leadership practices (Duckett & MacFarlane, 2003; Gardner & Stough, 2002; Leban & Zulaf, 2004; Mandell & Pherwani, 2003; Palmer et al., 2001; Rosete & Ciarrochi, 2005).

2. Emotional Intelligence, Transformational Leadership, and Sustainability

Overall the literature on EI and TL demonstrates positive intercorrelations (Alegre & Levitt, 2014; Goleman et al., 2002; Gardner & Stough, 2002; & Palmer et al., 2001). Alegre and Levitt (2014) noted that a collection of emotional characteristics and skills are predictive of optimum leadership. Additionally, these emotional characteristics and skills can be identified for purposes of leadership selection and development and used to increase leaders’ effectiveness. Goleman et al., (2002) assert that it is the level of a leaders’ understanding of the powerful role emotions play in the workplace that separates the best leaders from the rest. George (2000) writes that feelings are an integral part of leadership, and it is the multiplicity of mood and emotion that influences leadership effectiveness. “Leaders are obviously human beings with the full range of emotions potentially available to them” (George, 2006, p. 1032). She also proposes that emotional intelligence enhances leaders’ foresight in their organization because emotions promote thought process regarding internal challenges and opportunities. Leaders high in emotional intelligence will have the ability to manage their emotions and followers so that followers are secure and optimistic about where they are going and their personal contribution to the organization leading to improved strategic sustainability.

Leban and Zulauf (2004) examined the linkage between emotional intelligence, transformational leadership, and performance and found several significant linkages between emotional intelligence abilities and transformational leadership style. Overall, emotional intelligence and the ability to understand emotions were related significantly to the inspirational motivation component of Bass’s (1985) transformational leadership model. In addition, the strategic use of emotional intelligence was related significantly to the idealized influence and individual consideration components of transformational leadership. Duckett and MacFarlane (2003) also found a strong link between the theory of emotional intelligence and transformational leadership. Their results demonstrated a high level of commonality between transformational leadership and emotional intelligence leadership profiles and success.

Gardner and Stough (2002) investigated whether emotional intelligence measured by the Swinburne University Emotional Intelligence Test (SUEIT) predicted leadership style measured by Bass’s (1985) multifactor leadership questionnaire (MLQ). Results supported a strong relationship between transformational leadership and overall emotional intelligence. This study provides strong evidence for the usefulness of emotional intelligence in identifying effective leaders (Gardner & Stough, 2002). The results indicate that two SUEIT dimensions (the ability to identify and understand the emotions of others and the ability to manage positive and negative emotions within themselves and with others) stimulate effective leadership styles.

Palmer et al., (2001) reported positive relations between emotional intelligence and transformational leadership. Specifically, inspirational motivation and individualized consideration of transformational leadership correlated with the ability to monitor and the ability to manage emotions in oneself and others. The transformational component "charisma" correlated significantly with the ability to monitor emotions within oneself and others. Finally, individualized consideration was positively correlated with the ability to monitor and the ability to manage emotions.

Rahim and Psenicka (2005) investigated the relationships of two components of emotional intelligence, empathy, and social skills, to leader effectiveness. Results indicated that empathy was a mediator of the relationship between social skills and leader effectiveness in the United States. In order to improve their own effectiveness, managers must develop, use and improve upon their social skills and empathy as a leader in the organization.

Figure 1 in the appendix illustrates how intertwined EI and TL are and how these two components naturally lead to give more attention to organizational sustainability. By being aware of one’s emotions higher levels of EI influence a leaders’ ability to make better business decisions hence, leading to greater efficiency and sustainability for the organization.
3. Emotional Intelligence Literature

To effectively discuss the notion of emotional intelligence, there must be a general understanding of emotions as well as intelligence as separate concepts. Emotions are usually viewed as structured reactions, “crossing many psychological subsystems, including the physiological, cognitive, motivational, and experiential systems” (Salovey & Mayer, 1990, p. 186). A person’s emotions usually surface in response to an internal or external event. These emotions typically have a positive or negative meaning for the individual. Leeper (1948, p. 17) implies emotions are primarily poignant forces; they are “processes which arouse, sustain, and direct activity.” Emotions are generally recognized as an awakened reaction to circumstance or situations (Mandell & Pherwani, 2003).

Moving on to emotional intelligence, “the early definition of social intelligence influenced the way emotional intelligence was later conceptualized. Contemporary theorists like Peter Salovey and John Mayer originally viewed emotional intelligence as part of social intelligence (1990, p. 189), which suggests that both concepts are related and in all, represent interrelated components of the same construct” (Bar-On, 2000). Emotional intelligence also embraces inner thoughts and feelings that influence performance which may or may not be related to social skills (George, 2006). Essentially, emotional intelligence illustrates the skill to successfully link emotions and reasoning, using emotions to aid reasoning intelligently about emotions (Mayer & Salovey, 1997).

Emotions play an important role in understanding leadership and in being a good leader (Humphrey, 2002). Pope and Singer (1990) define emotional intelligence as “the subset of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and use this information to guide one’s thinking and actions” (p. 189). Goleman (1998, p.317) identifies emotional intelligence as “the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships.” Goleman (1998) recognized emotional aptitude as competencies that blend feeling and thought.

4. Leadership/Transformational Leadership Literature

“True leadership emerges from those whose primary motivation is a deep desire to help others” (p.15). Who is a servant leader? Greenleaf (2003) stated the servant leader is one who is a servant first. Greenleaf states, “It begins with the natural feeling that one wants to serve, to serve first. Then conscious choice brings one to aspire to lead” (p.16). Bass’s (1985) leadership model identifies and defines the components of transformational leadership. Transformational leaders improve followers’ accomplishments and success by influencing their values and needs and motivating them to accomplish more than they considered possible. Transformational leaders change their followers’ attitudes, beliefs and values to align them with the attitudes, beliefs and values of the organization. Transformational leaders guide their followers towards self-development and higher levels of success. Bass’s fundamental theory of transformation leadership includes four dimensions: charisma, inspiration, individualized consideration, and intellectual stimulation.

Throughout their research of more than twenty years, Kouzes and Posner (2003, p.13) found that “credibility is the foundation of leadership.” They developed the theory of leadership termed the “Five Practices of Leadership.” Although there has been a substantial amount of research on leadership and emotional intelligence as separate constructs, limited research has been conducted on the relationship and/or linkage between emotional intelligence and various leadership styles to sustainability.

Kouzes and Posner (2002) defined leadership as a relationship that was built from a foundation of trust, which enables leaders and followers to seize opportunities and take risks to effect change within an organization ultimately influencing organizational effectiveness while fostering sustainability. Leaders must first change themselves before they can effectively stimulate change within the organization (Covey & Gulledge, 1994). Leadership is about practice; leaders who can boost their understanding of the role and impact of emotions in the workplace can effectively instill meaning and influence into an organization’s management structure.

5. Sustainability

The importance of corporate sustainability is ever increasing (Lourencro et al., 2013; Lacy et al., 2010). “Sustainable development is development that meets the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs” (Oxford University Press, 1987, p. 43).
Metcalf and Benn (2012) posit the interpretation of how an organization is to be sustainable is complex requiring leaders to possess extraordinary abilities. Leaders must “have the emotional intelligence to adaptively engage with their own emotions associated with complex problem solving. Leaders and leadership is a key interpreter of how sustainability of the organization ‘links’ to the wider systems in which the organization sits” (p 369). A source of competitive advantage for the organization includes the engagement in those activities that support sustainable development, identified by Porter and Kramer, (2006) as cited in Lourenco et al., (2013).

Based on a review of the literature, it has been argued that emotional intelligence is necessary for measuring, selecting, and developing managers. It is assumed that the rudiments of emotional intelligence are among the important attributes required for effective leaders (Dulewicz & Higgs, 2003). It is also assumed that emotional intelligence is related to actual leadership performance (Rosete & Ciarrochi, 2005). Voola, Carlson, and West (2004) focus one emotional intelligence as an important concept that influences leadership capability, which has implications for effective strategic change and competitive advantage. Higher levels of Emotional Intelligence influence a leaders’ ability to make better business decisions hence, leading to greater efficiency and sustainability for the organization.

6. Method

The purpose of this research is to examine the relationship of emotional intelligence to leadership and to understand the elements of organizational dynamics that promote attitudes and activities that promote and influence sustainability and a competitive advantage. The four EI factors utilized here are described above appear in Figure 2 with TL, the dependent variable.

Several measures of emotional intelligence and leadership are used rather widely and reported in the recent literature. The instruments used for this study are the SSEIT for emotional intelligence and LPI or the Leadership Practices Inventory. The Schutte Self-Report Emotional Intelligence Test (SSEIT). The SSEIT, also known as the Assessing Emotions Scale or the Self-Report Emotional Intelligence test, is a self-report measure of emotional intelligence containing 33 items. Developed by Schutte et al., (1998), it measures the four facets of emotional intelligence defined by Salovey and Mayer (1990): 1) the appraisal of emotion in self and others, 2) the expression of emotion, 3) the regulation of emotion in self and others and 4) the utilization of emotion in problem solving.

6.1 Participants

The population for this study includes managers who work in a Fortune 500 company that provides human resource services, including payroll services to other businesses. This organization has numerous offices and print centers across the United States employing over 12,000 people. Included were supervisors, assistant managers, managers, regional managers, and directors in various departments across the company.

6.2 Measures

SSEIT has been used in over 200 publications listed in the Psyc INFO database (Schutte et al., 2007). In the development of the SSEIT, the internal consistency was measured by Cronbach’s alpha as .90 (Schutte et al., 1998). Researchers also reported two-week test-retest reliability for total scale scores of 0.78. Kouzes and Posner (2002) identified 225 dissimilar qualities and characteristics that were consolidated and categorized into twenty specific attributes for the purpose of identifying what successful leaders do. Through case studies, refined surveys and interviews, Kouzes and Posner identified five practices common to exceptional leadership experiences, named leadership practices. Each practice contains two behavioral descriptors designed to define the actions or “commitments” necessary to convey exemplary leadership.

LPI, according to its developers, can be used to assess transformational leadership behaviors. Completing over a thousand case studies followed by 38 in depth interviews, Kouzes and Posner’s LPI emerged. Using qualitative findings, they developed the LPI scale items. Kouzes and Posner (1995) examined the LPI’s psychometric properties (reliability and validity) when they developed the scale. They reported that: 1) the LPI is internally reliable, 2) the six statements pertaining to each leadership practice are highly correlated with one another, 3) test-retest reliability is high (the scores from one administration of the LPI to another within a short time span and without any significant intervening event are consistent and stable),4) the five scales are generally independent (the five scales corresponding to the five leadership practices don’t all measure the same phenomenon, each measures a different practice, as it should) and 5) the LPI has both face validity and predictive validity.
Face validity means that the results make sense to people, the words and phrases look like they are describing leadership practices. Predictive validity means that the results are significantly correlated with various performance measures and can be used to make predictions about leadership effectiveness. Items in the LPI are highly correlated within each scale and test-retest reliability is high. Internal reliability, as measured by Cronbach’s Alpha, is solid, with all scales above the .75 levels. Scores on the Leadership Practices Inventory relate significantly to other measures of leadership (Kouzes & Posner, 2002). The dimensions and construct definitions of the Schutte’s SSEIT and Kouzes and Posner’s LPI are summarized in Table 1. Demographic variables may influence levels of emotional intelligence and leadership (Mayer, Caruso, Salovey & Sitarenios, 2003). Hence, demographic data was entered into the regression equation as a first step in order to hold their effects constant (control variables). The emotional intelligence dimensions identified during the factor analysis process were entered as independent variables and leadership as the dependent variable. The dependent variables (leadership) were determined by factor analysis. Demographic data included gender, age, education, and years of leadership experience solicited on the questionnaire.

6.2 Procedure
This research examined the relationship between emotional intelligence and leadership practices. The overarching research question is: Is there a positive relationship between the four factors of leaders’ emotional intelligence: 1) the appraisal of emotion in self and others, 2) the expression of emotion, 3) the regulation of emotion in self and others and 4) the utilization of emotion in problem solving, and leadership practices (challenging the process, inspiring a shared vision, enabling others to act, modeling the way and encouraging the heart) among leaders?

7. Data Collection and Analysis
The survey instruments were emailed to the participant’s email address along with a cover letter introducing and explaining the purpose of the study, stressing the confidentiality of responses and enlisting the response of the participant. Participants in this study included 225 professionals in Human Resources from a Fortune 500 corporation. The returned responses totaled 151, and 4 responses were removed as a result of incomplete data. Accordingly, 147 responses were analyzed in this study. The total response rate was 65.3%, comprised of 59 males (40%) and 88 females (60%). While the ages of employees ranged from 20 years to over 66 years, the bulk of respondents were between the ages of 26 and 45 years (70%). The majority of respondents (81.6%) fell between the “Some College” and “Bachelor’s Degree” categories (See Table 8). Finally, there were eight categories of managerial experience to choose from, the bulk of leadership experience (61.8%) ranged between 3 to 15 years. The first step in data analysis was to perform a factor analysis and the means, standard deviations and a correlation matrix.

8. Analysis and Presentation of the Findings
Factor analysis. Exploratory factor analysis identified the underlying dimensions of the LPI and the SSEIT to determine the number of dimensions within each measure and to identify the items within each factor. The five dimensions of the LPI proposed by Kouzes and Posner (1995) could not be identified with factor analysis. After examining the various factor solutions, the decision was made to use all 30 LPI items as a single scale. For the SSEIT factor analysis, Varimax Rotation with Kaiser Normalization yielded a five factor solution from which four factors were used in data analysis because the first four factors correspond to the four dimensions of Emotional Intelligence identified by Ciarrocchi et al., (2001) cited in Schutte et al., (2007).

Descriptive Statistics and Correlation Matrix. The means for LPI and the four EI factors, along with the standard deviations and reliability estimates appear with the correlation matrix in Table 2. The results indicate all scales but one have a high degree of internal consistency since the alpha values were higher than the level of acceptability, suggested by Nunnally’s (1978) criterion in exploratory research of .70. The first, second and third emotional intelligence factors had reliability coefficients of .82, .76 and .74 respectively. The fourth emotional intelligence factor had a reliability coefficient of .64 and was included in the analysis because it represented the distinct factor, utilization of emotion.

The LPI is positively and significantly correlated with each dimension of emotional intelligence, ranging from 0.24 to 0.34. Since the correlation coefficients for LPI and the four factors are relatively low, there is a relatively low concern for co-linearity between the independent and dependent variables.
In addition, all EI dimensions are positively related to one another as expected, since they are all dimensions of the construct emotional intelligence. However, these correlations are not high and will not affect the result of the multiple regression analysis.

The four dimensions of emotional intelligence were regressed on LPI to determine their contribution to TL. The four demographic variables were also entered into the regression as control variables. The results appear in Table 3. The regression analysis yielded an F value of 5.00 (p < .001) and an R^2 of .225(p<.001). The significant F value implies that the model is good, however the R^2 indicates that just under 25% of the variation in leadership practices is explained by variation in the emotional intelligence dimensions and the demographic variables. Only one of the emotional intelligence factors, the appraisal of emotion in self or others, is significantly related to leadership (LPI) (beta coefficient = .520 and p-value of .000). This means that appraisal of emotion in self or others relates to leadership. In addition, there is one demographic variable that is significantly related to LPI (beta coefficient =.094 and p-value of .033). That variable, years of supervision is positively related to leadership. The intercept term has a beta coefficient of 3.35 with a p-value of .000, implying that there are other factors that can explain LPI (leadership), including empathy (Salovey & Mayer, 1990) and/or gender differences (Mandell & Pherwani, 2003).

While the EI dimensions are all positively correlated, regression results show that, in the presence of demographic measures, only one EI dimension is related to leadership. The"r" value for appraisal of emotion in self or others is 3.72 and is significant (p<.001). This EI dimension is positively related to LPI. The other EI dimensions are not related to leadership in the regression results.

9. Discussion of the Findings

The objective of this study was to empirically establish if there was a positive relationship between a leaders’ emotional intelligence and leadership practices. A comparable approach was extended to see if emotional intelligence was influenced by the demographic factors. Hypotheses were considered to answer specific concerns and empirically tested; detailed results are shown in Table 4.A body of research denotes that effective leaders repeatedly use their emotional intelligence competencies to drive leadership performance consequently moving their organizations forward (Alegre & Levitt, 2014; Goleman, 1998; Mayer et al., 2003). Mayer et al., (2003) suggest leaders with a high degree of emotional intelligence will experience greater outcomes for the organization than will leaders with lower levels of emotional intelligence. Few studies have been conducted to determine the outcomes of emotional intelligence on leadership performance leading to sustainability. Leaders today, regardless of industry, must have the ability and flexibility to adapt to an ever-changing workforce. Accordingly, EI has become even more important than intellectual quotient (IQ) and cognitive abilities.

10. Managerial Implications

Effective leaders use their emotional intelligence to not only manage themselves but to effectively manage and direct others within the organization. The results of this study suggest that emotional intelligence has a significant effect on leadership; therefore, higher levels of emotional intelligence could help improve leadership performance and leadership effectiveness leading to sustainability. Emotional intelligence can be improved upon with training and development. Therefore, training programs within the organization could have a positive effect on leadership and leadership performance, hence driving the organization to organizational success. While this research did not quantify sustainability, the researchers draw on the body of literature linking the importance of leadership effectiveness on sustainability that delivers competitive advantage in the marketplace.

11. Limitations and Future Research

Self-appraisals were used in this study, which often create an immediate concern because individuals frequently have difficulty rating their behavior accurately. Some underestimate themselves, some overrate themselves, and relatively few rate themselves with accuracy. Self-appraisals cannot control the possibility of a participant having an exaggerated or overstated view of them, nor can self-appraisals control participants giving perceived desirable answers versus the most truthful answers.

Job related interruptions could have influenced the quality of responses as most leaders completed questionnaires while at their place of employment. In addition, some leaders were hesitant to complete questionnaires for various reasons, which may have influenced their co-workers responses.
In addition, a larger sample size might have yielded different factor analysis results as the LPI has 30 items and the SSEIT has 33 items. The intent was for this study to contribute further to the theory around emotional intelligence and leadership and its application in the organization and the impact of significant progress in corporate sustainability. Today, the impact emotional intelligence has on driving sustainability strategies in the organization is somewhat limited in the business world. The contribution this study makes is important in that it provides future researchers with additional evidence to support the relationship between emotional intelligence and leadership related to the successful implementation of sustainability efforts within the organization. Based on the results of this study, the following are recommendations for future research:

1) Qualitatively investigate the concept of emotional intelligence. Research indicates that emotional intelligence is difficult to measure quantitatively (Dulewicz & Higgs, 2003). Exploring emotional intelligence and leadership from a different angle may positively contribute to the body of research around emotional intelligence.

2) Ascertain if the construct of emotional intelligence is an inimitable measure. Emotional intelligence is defined in this research as four factors: 1) the appraisal of emotion in self and others, 2) the expression of emotion, 3) the regulation of emotion in self and others and 4) the utilization of emotion in problem solving. Further research could determine if emotional intelligence itself is a distinctive measure.

3) Explore the degree of emotional intelligence in leaders and their followers from the employee’s perspective.

4) Further research should also focus on emotional intelligence and leadership and its influence on sustainability efforts in other fields.

5) The Importance of viewing things holistically to act sustainably.

6) Practical research on EI/ER/TL and its influence on sustainable decision-making.

12. Summary

This study explored the relationship between emotional intelligence and leadership practices as measured by SSEIT (Schutte et al., 1998) and LPI (Kouzes & Posner, 1995). The LPI is positively and significantly correlated with each dimension of emotional intelligence. Only one of the emotional intelligence factors, the appraisal of emotion in self or others, is significantly related to leadership (LPI). This research also supports the impact of leadership on structured efforts in defining sustainability, providing direction in overall strategic efforts and commitment to sustainability as a core business practice.

References


Appendices

*Figure 1: Sustainability as a Natural Outcome of Increased Emotional Intelligence (Sources: Authors Compilation)*

*Figure 2: Emotional Intelligence and Leadership Model*

<table>
<thead>
<tr>
<th><strong>Independent Variables</strong></th>
<th><strong>Dependent Variable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The Appraisal of Emotion in Self and Others</td>
<td>Leadership</td>
</tr>
<tr>
<td>The Expression of Emotion</td>
<td></td>
</tr>
<tr>
<td>The Regulation of Emotion in Self and Others</td>
<td></td>
</tr>
<tr>
<td>The Utilization of Emotion in Problem Solving</td>
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Table 1: The Dimensions of the Independent and Dependent Measures

<table>
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<tr>
<th><strong>SSEIT-Schutte Self Report Emotional Intelligence Test</strong></th>
<th><strong>Construct Definition:</strong></th>
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<tr>
<td>Independent Variables</td>
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<tr>
<td>The Appraisal of Emotion in Self and Others</td>
<td>Verbal and nonverbal appraisal of emotion</td>
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<tr>
<td>The Expression of Emotion</td>
<td>Verbal and nonverbal expression of emotion</td>
</tr>
<tr>
<td>The Regulation of Emotion in Self and Others</td>
<td>Using emotion to motivate</td>
</tr>
<tr>
<td>The Utilization of Emotion in Problem Solving</td>
<td>Using emotion to motivate as part of the utilization of emotions</td>
</tr>
<tr>
<td><strong>LPI - Leadership Practices</strong></td>
<td></td>
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<tr>
<td>Dependent Variable</td>
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<tr>
<td>Leadership</td>
<td>Challenging the process, inspiring a shared vision, enabling others to act, modeling the way and encouraging the heart.</td>
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Table 2: Descriptive Statistics, Reliabilities and Correlation Matrix for All Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>LPI</th>
<th>Perception of Emotions</th>
<th>Other's Emotions</th>
<th>Emotions Self</th>
<th>Utilization</th>
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<tbody>
<tr>
<td>LPI (dependent)</td>
<td>6.78</td>
<td>0.81</td>
<td>0.92</td>
<td>0.82</td>
<td>0.76</td>
<td>0.74</td>
<td>0.64</td>
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<tr>
<td>Perception of Emotions</td>
<td>3.63</td>
<td>0.51</td>
<td>0.26***</td>
<td>0.42***</td>
<td>0.39***</td>
<td>0.25***</td>
<td>0.422***</td>
</tr>
<tr>
<td>Other's Emotions</td>
<td>3.81</td>
<td>0.53</td>
<td>0.34**</td>
<td>0.49***</td>
<td>0.39***</td>
<td>0.422***</td>
<td></td>
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<tr>
<td>Emotions Self</td>
<td>3.90</td>
<td>0.51</td>
<td>0.26***</td>
<td>0.49***</td>
<td>0.39***</td>
<td>0.422***</td>
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<tr>
<td>Utilization</td>
<td>4.21</td>
<td>0.59</td>
<td>0.24**</td>
<td>0.27***</td>
<td>0.25***</td>
<td>0.422***</td>
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** Correlation is significant at the .01 level (2-tailed)
*** Correlation is significant at the .001 level (2-tailed)

Table 3: Regression Analysis

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
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<td>Model 1</td>
<td>.474a</td>
<td>.225</td>
<td>.180</td>
<td>.73571</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANOVAb</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>21.650</td>
<td>8</td>
<td>2.706</td>
<td>5.000</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>74.696</td>
<td>138</td>
<td>.541</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>96.346</td>
<td>146</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), utilization, highest level of education, gender, age category. Perception of emotions, others' emotions, emotions self, years of supervisory experience.
b. Dependent Variable: LPI dependent
### Table 4: Summary of Hypothesis Testing Results

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Statistical Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: The appraisal of emotion in self or others is negatively related or not related to leadership.</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: The expression of emotion is negatively related or not related to leadership.</td>
<td></td>
</tr>
<tr>
<td>H3: The regulation of emotion in self and others is negatively related or not related to leadership.</td>
<td></td>
</tr>
<tr>
<td>H4: The utilization of emotion in problem solving is negatively related or not related to leadership.</td>
<td></td>
</tr>
</tbody>
</table>