Department Chairs as Leaders: A Model of Social Intelligence and Creative Performance in a State University

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Department Chairs as Leaders: A Model of Social Intelligence and Creative Performance in a State University

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This study presents a structural equations model that represents relationships between department chairs' social intelligence (SI) and their creative performance (CP) at a public university in the United States. SI was defined as the ability to be aware of relevant social situations, to manage situational challenges effectively, to understand others' concerns and feelings, and to build and maintain positive relationships in social settings. Four components of SI were examined: situational awareness, situational response, cognitive empathy, and social skills. The model was tested with questionnaire data from 406 faculty members belonging to 43 departments in a state university. The data analyses with LISREL suggest that department chairs' SI was positively associated with CP. Implications for management, directions for future research, and limitations of the study are discussed.

Intelligence has been investigated for many years, as evidenced by the steady stream of theoretical and empirical studies published in scholarly journals. Typically the focus is on cognitive ability and IQ is used to measure intelligence. Grade point average, Scholastic Aptitude Test scores, and other admission tests are used in academic institutions as surrogates of IQ. However, the literature on management shows that cognitive intelligence is inadequate to predict one's effective leadership or success. As a result of the inadequacy of cognitive intelligence in predicting a manager’s success, other dimensions of intelligence are being discussed. These include emotional intelligence, social intelligence or practical intelligence, and cultural intelligence—what scholars refer to as "street smarts" (cf. Bass, 2002; Van Dyne, Ang, & Koh, 2009; Gardner, 1999; Sternberg, 2002). The value-added contribution of the present study is that it explores the relationships of social intelligence (SI) components to each other and to creative performance (CP) of academic department chairs (DCs). This is done by providing a clear definition of the SI construct, collecting data with a new SI instrument, and showing to what extent respondents’ SI is associated with their CP at a state university.

Creative Performance

Innovation, which follows creativity, has become a competitive force for organizations for sustaining high performance goals (Rickards & Moger, 2006). Both management academics and practitioners have been working on identifying the factors that promote CP, which is associated with the generation of novel and useful ideas regarding procedures, processes, tasks, strategies, products, and services to maintain the competitive position of an organization (Stobbeleir, Ashford, & Buyens, 2011). Therefore, CP is different from routine performance measures that involve decision-makers’ day-to-day initiatives or routine operations, such as following standard operating procedures, resolving employee conflicts, signing documents, and so on. Leaders’ CP has been overlooked in the management literature, with the exception of a few studies (e.g. Vincent, Decker, & Mumford, 2002); however, this concept is becoming more important to organizations than ever before due to intense competition in the global market.

In the management literature, numerous studies have shown that there is no significant correlation between individual characteristics, such as intelligence (as measured by an IQ test) and creativity. Even though some studies claim that this is the current status of the intelligence-creativity link, one of the most significant trends in the area of organizational creativity is the role of intelligent leadership to foster creativity in the workplace (Rickards & Moger, 2006;
Byrne, Mumford, Barrett, & Vessey, 2009). Lovelace and Hunter (2013) performed a laboratory study that suggests that charismatic leaders can enhance subordinates’ creative performance more than pragmatic and ideological leaders.

Baron (2008), in an extensive literature review, suggested that positive affect influences cognition involving creativity. In general, individuals experiencing positive affect (joy, contentment, pride in work) tend to be more creative than those experiencing neutral or negative affect (sadness, lack of commitment to work, job dissatisfaction) (Isen, 2002). Amabile, Barsade, Muller, and Staw (2005) reported that “affect relates positively to creativity in organizations and that the relationship is a simple linear one” (p. 367). However, negative affect can elevate creativity if creative performance has a clear relationship to recognition and rewards. In the literature on creativity, positive emotions produce patterns of thought that are linked to creative problem solving, effective decision-making, and creative performance (Fredrickson, 2003; Isen, 1993). The present study on SI was focused more on affect than cognition. Department chairs with high SI are expected to create collaborative cultures in their departments that will generate positive affect leading to creativity.

Barczak, Lassak, and Mulki (2010) concluded that emotional intelligence has a positive influence on trust, which in turn enhances collaborative culture, which increases team creativity. Castro and Jorge de Sousa (2012) reported that leaders’ emotional intelligence was positively associated with employees’ creativity, and Rego et al. (2007) suggested that leaders’ emotional intelligence stimulates creativity in their teams. Even though SI is different from emotional intelligence, there are some overlaps between these two constructs. Considering the research discussed in the preceding paragraph, it is hypothesized that SI is positively associated with the CP of academic leaders.

**Social Intelligence**

There are many definitions of intelligence, but the consensus among scholars is that it is an ability to interact with the environment effectively to be successful in life or in an organization. Generally, SI is considered to be a different concept from academic intelligence. For example, Dewey (1909) was the first scholar to suggest that the “ultimate moral motives and forces are nothing more or less than social intelligence—the power of observing and comprehending social situations” (p. 43). Later, in an article published in Harper’s Magazine, Thorndike (1920) proposed three components of SI: abstract (the ability to understand and manage ideas and symbols), mechanical (the ability to learn, understand, and manage things), and social (the ability to manage and understand people, and act wisely in human relations).

SI includes both cognitive and behavioral components in its definition. As Sternberg (2009) pointed out, success in career is associated with three types of intelligence: creative, analytical, and practical. Sternberg’s practical intelligence is similar to social intelligence. Recent studies have investigated other related concepts such as intrapersonal (emotional) and interpersonal (social) intelligence (Gardner, 1999), emotional intelligence (Goleman, 1998; Mayer, Salovey, & Caruso, 2008), and cultural intelligence (Dyne et al., 2009).

While there is no agreement on the construct of SI, many scholars agree that SI is associated with one’s ability to understand the thinking, feelings, and behaviors of other people; to interact with them properly; and to act effectively in various situations (Ford & Tisak, 1983; Kihlstrom & Cantor, 2000; Sternberg, 2002; Thordike, 1920). In this study, we build on these definitions and broaden the concept of SI. For the present study, we have adopted the definition of SI suggested by Rahim (2014) as “the ability to be aware of relevant social situational contexts; to deal with the contexts or challenges effectively; to understand others’ concerns, feelings, and emotional states; and to speak in a clear and convincing manner that involves knowing what to say, when to say it, and how to say it and to build and maintain positive relationships with others” (p. 46). This definition consists of four categories of abilities—situational awareness, situational response, cognitive empathy, and social skills. This four-category SI nomenclature has been used in the present study.

The first two abilities, situational awareness and situational response, are necessary for one’s career success and effective leadership. Situational awareness refers to one’s ability to collect information for the diagnosis and formulation of problem(s); situational response refers to one’s ability to use this information to make effective decisions to obtain desired results. The other two abilities, cognitive empathy and social skills, refer to the abilities to understand the feelings and needs of people, to communicate with them effectively, and to build and maintain relationships. These two abilities can help a leader to remain aware of various social situational contexts, thus improving their situational response competence. Next, we describe theoretical bases of the four SI components and interrelationships among them in detail.

**Situational Awareness.** This is defined as one’s competence or ability to comprehend or assess relevant social situational contexts, and is also known as contextual intelligence (Bennis & Thomas, 2002). This ability enables leaders in organizations to collect relevant information and diagnose situations in a timely manner and to formulate a problem correctly. The ability to diagnose a problem is very important, and shouldn’t be taken for granted. Contingency theories of leadership usually neglect situational awareness, implicitly assuming that leaders understand the relevant
situational variables and are able to formulate their problems correctly. But not all leaders possess the capability to make an appropriate assessment of situational variables. When the leaders formulate a problem wrongly, it could lead to Type III error, defined as the probability of solving a wrong problem when one should solve the right problem (Mitroff, 1998; Mitroff & Silvers, 2010). Leaders who possess this ability are able to collect necessary information and formulate a problem correctly, thereby avoiding this error.

In case the leaders do not have adequate information on a problem or a potential business opportunity, they are likely to engage in internal and/or external environmental scanning. In addition, the leaders may seek help from experts to gain an overall understanding of the problem. When experts have different and even contradictory assessments of a problem, it is up to the leader to decide which problem formulation reflects social reality and is to be accepted.

Based on Baron and Ensley’s (2006) finding with regard to entrepreneurs’ ability to recognize new business opportunities, this study suggests that leaders with higher situational awareness ability are better able to recognize patterns associated with new business opportunities. This is supported by existing empirical research. For example, O’Brien and O’Hare (2007) find that participants in training programs with high situational awareness performed well irrespective of the training conditions. Albrecht (2007) suggests that situational awareness is one of the five components of SI, the other components including presence, authenticity, clarity, and empathy. Albrecht defines situational awareness as the ability to read situations and comprehend social context influencing behavior, and to choose effective strategies. Mayo and Nohira (2005) suggest that a leader’s ability to understand and adapt to different situational contexts is associated with leadership effectiveness.

**Situational Response.** This is associated with one’s competence or ability to adapt to or deal with any social situations effectively. Bennis and Thomas (2002) described the situational response, which is essentially the decision-making competence of leaders, as adaptive capacity. Most existing research does not distinguish between situational awareness and situational response, and instead rolls them into situational awareness (Albrecht, 2007; Mayo & Nohira, 2005). This study makes a distinction between the two components. These two components have overlaps, but are conceptually independent. Both are essential for effective leadership. It is possible for leaders to recognize or diagnose a situation or problem correctly, but not be able to make a decision leading to desirable outcomes. In other words, it is possible for a leader to have high or low abilities associated with these two components. A high–high leader is more effective than a high–low, low–high, or low–low leader.

To illustrate this point further, consider two processes in organizational learning: *detection* and *correction* of error (Argyris & Schon, 1996); that is, the distinct but related diagnosis and intervention in conflict (Rahim & Bonoma, 1979)—the abilities “to diagnose an issue and its causes” and also “to decide on the best course of action” (Schmidt & Tannenbaum, 1960). These two processes—diagnosis or detection of error, and intervention or correction of error—correspond with the two components of SI—assessment of and responses to situational contexts.

Existing literature on leadership is abundant with prescriptions on how to match leadership styles with situational variables to improve job performance and satisfaction of followers, but it is relatively lacking in identifying the unique situations for which creative responses (leadership styles) would be needed to improve outcomes. Related to this limitation, leadership theories so far have not investigated the need for leaders to possess both situational awareness and response competencies to define the situational variables and respond to them appropriately. Even if a leader can diagnose a situation correctly, he or she may not possess the necessary competence to make an effective decision to deal with it.

Now that it has been illustrated that situational awareness and situational response are two essential abilities for effective leadership, the following sections discusses how the other two components, cognitive empathy and social skills, can help leaders to improve their effectiveness.

**Cognitive Empathy.** Empathy refers to one’s ability to understand others and take active interest in them, recognizing and responding to changes in their emotional states, and understanding their feelings (cf. Goleman, 2005; Albrecht, 2007; Ang & Goh, 2010). Empathy includes several components: cognitive, intellectual, affective, and behavioral. Specifically, cognitive empathy is associated with one’s *ability to recognize the thinking, feelings, intentions, moods, and impulses of people inside and outside the organization* (Kaukiainen et al., 1999) suggest that “the cognitive component of empathy forms an essential part of social intelligence” (p. 83).

Cognitive empathy should help to improve a leader’s awareness of the feelings and needs of supervisors, subordinates, and coworkers as well as people from outside the organization. This ability to connect with people should help to improve the appropriate use of social skills competence of leaders. Moreover, cognitive empathy should be positively associated with social skills.

**Social Skills.** This component is associated with one’s *ability or competence to speak in a clear and convincing manner that involves knowing what to say, when to say it, and how to say it*. Social skills also involve building and maintaining positive relationships, to act properly in human relations, to deal with
problems without demeaning coworkers, and to negotiate and manage conflict in a tactical and diplomatic way.

Social skills competence enables a leader to continuously collect relevant information from internal and external environments to enhance their situational awareness. Social skills ability helps leaders explain and justify their decisions to followers and motivate them so that leaders' decisions are effectively implemented. Furthermore, entrepreneurs’ social skills competence may play a role in their success (Baron & Markham, 2000; Baron & Tang, 2009).

The previous section indicates that cognitive empathy directly effects social skills, and indirectly effects situational awareness. In other words, social skills mediates the relationship between cognitive empathy and situational awareness. Also, it is suggested that social skills is positively related to situational awareness and indirectly related to situational response. In other words, situational awareness mediates the social skills—situational response relationship. Based on this discussion, the following hypotheses are proposed.

**Hypothesis 1**: Social skills mediates the relationship between cognitive empathy and situational awareness.

**Hypothesis 2**: Situational awareness mediates the relationship between social skills and situational response.

**Hypothesis 3**: Situational response mediates the relationship between situational awareness and creative performance.

Figure 1, which portrays the hypotheses in this study, includes solid lines indicating significant (direct) relationships and broken lines indicating nonsignificant (indirect) relationships.

**Method**

**Sample and Procedure**

The data for the present study were collected from a collegiate sample of 406 faculty at a state university in the United States. Average age, teaching experience, and working experience with the present DC in years were 45.10 (SD = 3.82), 14.4 (SD = 10.99), and 4.61 (SD = 5.26), respectively. About 50.5% of the respondents and 35.2% of the DCs were female. About 84% of the respondents were white, 5% black, 4.8% Asian, 3.6% Hispanic, and 3.6% other. About 18.1% of the respondents were professors, 23.8% associate professors, 24.1% assistant professors, 15.9% lecturers, 11.2% adjunct professors, and 6.8% part-time. About 55.7% of the respondents had Ph.D. degrees, 38.3% had Master's degrees, and 6% had other qualifications. About 20.2% of the respondents were non-tenured.

**Measurement**

**Social Intelligence.** The four components of supervisors’ SI were measured with 28 items of the Rahim Social Intelligence Test (RSIT)—developed and refined by Rahim (2008, 2014). The RSIT was designed to measure subordinates’ perceptions of their respective supervisor’s SI. The RSIT was designed on the basis of repeated feedback from respondents and faculty and an iterative process of exploratory and confirmatory factor analyses of various sets of items in multiple samples.
Considerable attention was devoted to the study of published instruments on SI. The final revision of the instrument was made on the basis of a confirmatory factor analysis of items. The RSIT uses a 5-point Likert scale (5=Strongly Agree to 1=Strongly Disagree) for ranking each of the items, where a higher score indicates a greater SI of a supervisor. The subscales were created by averaging responses to their respective items. Sample items: “Our DC can size up a situation he/she finds himself/herself in rather quickly” (situational awareness); “Our DC usually adapts appropriately to different situations” (situational response); “Our DC understands people’s feelings transmitted through nonverbal messages” (cognitive empathy); and “Our DC interacts appropriately with a variety of people” (social skills). Rahim (2008, 2014) provided evidence of internal consistency and indicator reliabilities and convergent and discriminant validities of the instrument, and that it was free from social desirability response bias.

Creative Job Performance. This was measured with the 7 of the 13 items of an instrument developed by George and Zhou (2001). A 5-point Likert scale (5=Strongly Agree to 1=Strongly Disagree) was used for ranking each item, where a higher score indicates greater CP of a supervisor. These seven items relate directly to supervisor’s CP. Sample item for this scale is: “Our DC comes up with new and practical ideas to improve our teaching and research.”

Results

For LISREL analysis, the raw data were aggregated at the departmental level which resulted in a sample of 43. The first part of the analysis was designed to test the psychometric properties of the measures of SI and CP. The second part of the analysis was designed to test the three hypotheses.

Validity Assessment (Measurement Model)

Confirmatory factor analysis of the SI and CP items were computed. Results show acceptable fit indices for the two instruments (see Table 1).

The values for the Root Mean Square Error of Approximation (RMSEA) for this sample was .06. Other fit indexes, such as Normed Fit Index, Comparative Fit Index, Incremental Fit Index, and Goodness of Fit Index are presented in Table 1, and each is ≥.90, a typical psychometric requirement. These indices indicate that the RSIT is a 4-dimensional measure of social intelligence and the criterion measure is a single-dimensional measure of CP.

Common Method Variance. The one-factor solution shows that some of the fit indices (RMSEA = .20, Standardized RMSR = .05, NFI = .91, CFI = .94, IFI = .94, RFI = .88) were unsatisfactory. In other words, the single-factor model did not fit the data well and, as a result, the absence of five dimensions or the presence of common method variance in the measures should not be assumed.

Convergent Validity. All of the average R² exceeded .80, which is higher than the threshold value of .50, supporting convergent validity. Factor loadings were highly significant, with a minimum z-ratio of 5.56 (p < .001). These results support the convergent validity of the subscales.

Discriminant Validity. There is a strong support for the discriminant validity between SI and CP. For each pair of factors, two models are developed. In one model, the two factors are defined by their respective items. In the second model, the correlation between the factors is constrained to 1.00. In each pair-wise comparison of factors, the constrained model resulted in a significantly higher χ² value supporting discriminant validity. The threshold value for this Chi-square difference test (p < .05) is a χ² of 3.84 with 1 degree of freedom. This test supported factor discrimination for all factors. Overall, there is adequate support for discriminant validity.

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<th>Statistic</th>
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<td>1-Factor</td>
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<td>χ²/df</td>
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<tr>
<td>RMSEA</td>
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<tr>
<td>Goodness of Fit Index</td>
<td>.88</td>
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Note: N = 43.
Univariate Normality. The samples exhibited a high degree of univariate normality with skewness and kurtosis statistics well within the acceptable levels of 1 and 7 for all items (Curran, West, & Finch, 1996). Table 2 shows the means, standard deviations, Cronbach $\alpha$ internal consistency and indicator reliability coefficients, and variance inflation factor (VIF) of the five study variables. The internal consistency reliability coefficients of the five scales/subscales, as assessed with Cronbach $\alpha$, ranged between .90 and .97. Overall, these coefficients are satisfactory (Nunnally, 1978).

Each item has a reported $R^2$ that measures the item’s variance explained by its factor. The $R^2$s for all the items ranged between .78 and .97. These reliabilities were judged sufficient. The VIFs (ranged between 2.64-6.92) were < 10.00, which indicate that multicollinearity was not a problem.

Structural Equations Model

Two LISREL models were computed to test the three hypotheses. The first model tested all the relationships in Figure 1 represented by the solid and broken lines. As expected, the links represented by the broken lines were not significant, but the remaining links represented by the solid lines were all significant. In the second model only the links represented by the solid lines were tested; the results are presented in Table 3. Results provided full support for the three study hypotheses.

Hypothesis 1 refers to the mediation effect of social skills on the relationship between cognitive empathy and situational awareness. As shown in Table 3, the two path coefficients from cognitive empathy to social skills ($\beta = .86$) and from social skills to situational awareness ($\beta = .95$) were positive and significant, which provided full support for Hypothesis 1.

Hypothesis 2 was concerned with the mediation effect of situational awareness on the relationship between social skills and situational response. As shown in Table 3, the two path coefficients from social skills to situational awareness ($\beta = .95$) and from situational awareness to situational response ($\beta = .99$) were positive and significant, which provided full support for Hypothesis 2.

Hypothesis 3 was concerned with the mediation effect of situational response on the relationship between situational awareness and creative performance. As shown in Table 3, the two path coefficients from situational awareness to situational response ($\beta = .99$) and from situational response to creative performance ($\beta = .87$) were positive and significant, which provided full support for Hypothesis 3.

The fit indices for the full structural equations model (RMSEA = .09, RMSR = .03, $\chi^2/df$ = 1.44, NFI = .96, CFI = .99, IFI = .99), and GFI = .94) were satisfactory. Overall these fit indices indicate that the model, indicated by the solid lines in Figure 1, fits well with the data. The RMSEA of .09 is greater than .07, which was probably caused by the sample size ($N = 43$) aggregated at the department level.

Discussion

The structural equations model for the study provided moderate to full support for the theoretical model presented in Figure 1. Previous studies did not test the relationships of faculty perception of the department chair’s SI components to each other and to CP. This study contributes to our understanding of the linkage between situational awareness and situational response and CP. It also contributes to our understanding of the relationships of cognitive empathy and social skills to situational awareness and situational response. It provides acceptable evidence of convergent and discriminant validities and internal consistency and indicator reliabilities of the measures of SI and CP. The results support the construct validity of the measure of SI as well as leaders’ CP (cf. Bagozzi, Yi, & Philips, 1991).
Implications for Management

The study suggests that DCs would benefit from improvements in terms of the four components of SI, to enhance their own CP. Interventions may be needed to enhance their SI competencies that would involve education and specific job-related training (Cherniss & Adler, 2000; Goleman, 2005). DCs should also be encouraged to enhance their abilities through continuous self-learning. Universities should provide positive reinforcements for learning and improving DCs’ essential SI competencies that are needed for various academic disciplines.

In the private sector, high performing organizations are now providing opportunities to managers for continuous learning that should help to improve their use of SI. These organizations generally make appropriate changes in the organization design that involve creating flatter, decentralized, and less complex structures. They are also making appropriate changes in organizational culture that provides rewards for learning new competencies and for continuous questioning and inquiry. These changes in the organization design, culture, and positive reinforcements should encourage managers to acquire SI competencies needed for improving their own CP and subordinates’ job performance and satisfaction. Academic institutions can learn from the changes that are taking place in the private sector for improving their effectiveness.

Training and professional development are helpful to improve supervisors’ SI, but there is a limit to what it can do to acquire the four competencies of SI that may have a positive influence on DCs’ CP. Academic institutions may have to adapt the policy of recruiting DCs with vision and charisma who are likely to be high on SI.

Directions for Future Research

Further research is needed to enhance our understanding of the relationships of SI to effectiveness of DCs’ leadership behaviors. Other criterion variables for future research should include some indicators of DCs’ leadership effectiveness and faculty members’ teaching and research performance, satisfaction, intent to leave a job, and organizational citizenship behavior. An important area of future research concerns carefully designing and evaluating the effects of training in SI in enhancing the aforementioned criterion variables. Field experiments are particularly useful in evaluating the effects of SI training on individual and organizational outcomes. There is also need for scenario-based and laboratory studies that control some of the extraneous variables to better understand the effects of DCs’ SI. Moreover, a future study would be useful to investigate the differences in the perceptions of faculty regarding the performance of various types of academic leadership with low and high SI.

Strengths and Limitations

One of the strengths of this study is that the measures of endogenous and exogenous variables were analyzed at the department level, not individual level. This should help to overcome some of the problems of common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Confirmatory factor analyses of the items indicated the absence of common method variance. If common method variance was present, the items of the independent and criterion measures will not significantly load on the five a priori factors. Limitations of this field study should be noted. Data were collected from one public university in the south of the United States that might limit generalizability of the results.

References


