ASSESSING THE IMPACT OF MODERATOR ON TOLERANCE OF AMBIGUITY AND MANAGERIAL EFFECTIVENESS RELATIONSHIP: AN EMPIRICAL STUDY

Shalini Srivastava*

ABSTRACT

Corporates all over the globe are today increasingly realizing the fact that employees, especially those at the managerial levels, are the only source of competitive advantage. This has resulted in a renewed focus on HR strategies that can make the manpower more tolerant to ambiguous situations so as to make them more committed to the organisation. Managerial effectiveness is very important for the survival and growth of the organisation. Experts have over the years, attempted to describe the work of all managers by a set of common behaviours or roles. A very important personality variable, Emotional Intelligence plays a very important role in making a person effective. It was found during the course of reviewing the literature that there is a paucity of survey research from psychological point of view on the private sector managers.

The present study was done on a sample of 352 managers belonging to Private Sector Organisations. The major objective of the study was to find the moderating effect of Emotional Intelligence on the relationship between Tolerance of Ambiguity and Managerial effectiveness. Variables in the study were assessed using three validated Instruments Descriptive statistics, Pearson Product Moment Correlation and Hierarchical regression analysis was used to analyze the data. It was found that Tolerance of Ambiguity was positively related to Managerial Effectiveness and Emotional Intelligence moderated Tolerance of Ambiguity and Managerial Effectiveness relationship.

The findings of this study can assist administrators and policy makers to provide an attractive working climate in order to decrease side effects and increase productivity of managers. By better understanding the current situation, managers may develop coping strategies to reduce the ambiguity. There should be more emotional and organisational support as well as better resources and opportunity to extend collaborative relationship among managers, and to develop appropriate coping strategies and eventually other forms of possible interventions considered suitable. The knowledge of the relationships undertaken in the

* Associate Professor (OB & HR), IILM-College of Management Studies, Greater Noida, email: shalinisrivastava2@gmail.com
present study may be utilized, by the organisations regarding the enhancement of effectiveness at individual level in particular and organisational level in general.

**Key Words:** Research Paper, Managerial Effectiveness, Tolerance of Ambiguity, Emotional Intelligence, Private sector managers.

As we turn the first page of the new millennium, we witness a plethora of changes occurring in the world. People are facing the heat of tough competition in every arena whether it is in world politics, social values, business or in technology. Everything is getting affected by change, and in turn, also affecting this ‘cycle of change’. It is time to step back from the mundane and reflect on the path through which the management discipline has guided the business world so far.

The study of managerial effectiveness should be central to any organisation. It is a topic that has been actively pursued by managerial researchers for many years. Most research on Managerial effectiveness or competence focuses on personal attributes of the individual. This understates the impact of context, which can assist or hinder job performance. A national (New Zealand) survey, assessed the impact of 16 environmental variables, four management development variables and two variables reflecting personal skills and abilities, on the ability to be effective as a manager. Analysis revealed eight factors explaining the majority of perceived management effectiveness (Page and Inkson, 2003).

In recent years, there has been a focus on the skills, abilities and characteristics of “effective” managers at the level of the individual, the organisation, and the nation (Boyatsis, 1982; Dulewicz and Higgs, 2000; Grugulis, 1994).

Numbers of measures have been developed to study managerial effectiveness. One such measure was developed by Mott (1971) and was identified to have three dimensions of effectiveness namely productivity, flexibility and adaptability. In another study, Jain (1999) on the basis of factor analysis had identified three factors namely functional effectiveness, interpersonal effectiveness and personal effectiveness. The variation in the results of the above two studies can be attributed to the cultural differences of the East and the West. There is a dearth of studies that adequately test theoretically grounded relations between cultural values and behaviours across a sample of cultures that is significantly broad as to include the major sources of global variation within modern societies.

Emotional intelligence is a relatively new construct stemming from the increased interest in emotions in the workplace. Initiated by Salovey and Mayer (1990), who perceived emotional intelligence as a subset of social intelligence, they defined emotional intelligence as “the ability to monitor one’s own and other’s feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and actions” (p. 189).

Goleman (1995) has related emotional intelligence to knowing and managing emotions, self-motivation, and handling relationships. More recently, research on the implications of emotional intelligence in the workplace suggests that emotional intelligence may have a substantial role in organisational activities. In his work on positive organisational behaviour (POB), Luthans
(2002) listed emotional intelligence as one of five constructs capable of being developed and managed for improved performance in organisations.

Also, the contemporary theories of leadership (i.e., transformational, and charismatic), because of their interpersonal connection with followers, are affected by a leader’s emotional intelligence level. Furthermore, emotional intelligence has been discussed as an important characteristic to investigate in leadership in the future (e.g., Caruso, Mayer and Salovey, 2002). Within these theories of leadership, emotional intelligence appears to be a catalyst for articulating vision and developing constructive relationships with organisational members (Ashkanasy and Daus, 2002).

Finally, in the work team development context, empirical research suggests that emotional intelligence might influence teamwork. A recent study reported that untrained teams with high emotional intelligence members performed as well as trained teams with low emotional intelligence members (Ashkanasy and Daus, 2002). With the growing importance of teams and team-based work structures within organisations, emotional intelligence might provide a mechanism to better understand the interactive process dynamics and outcomes that take place among team members, and to serve as a useful developmental tool in team-building efforts.

There is a tremendous impact of emotional intelligence (EI) on the rapidly changing corporate world. A strong relationship between EI and work success has been observed using both the Trait—based as well as the Ability—based models of emotional intelligence.

Studies relating personality variables and emotional intelligence (EI) with job effectiveness became manifold in the last two decades wherein emotional intelligence has emerged as an effective predictor of job performance in several work settings (Bar-On, 2000; Handley, 1997; Ruderman and Bar-On, 2003).

Researches along such stream have found that people with high levels of EI have enjoyed more career success (Dulewicz and Higgs, 1998), feel less job insecurity (Jordan, Ashkanasy and Hartel, 2002) lead more effectively (Cooper and Sawaf, 1997; Palmer, Walls, Burgess and Stough, 2000; Prati, 2004), are more adaptable to stressful events (Slaski and Cartwright, 2002), possess better coping strategies (Bar-On, 2000) and show greater sales success (Johnson and Indvik, 1999; Geiser, 2001) than those with low EI. Bar-On (2002) the most widely read researcher of EI trait explained that emotional intelligence includes one’s emotional, personal and social dimensions of intelligence: “Emotional intelligence involves abilities, competencies and skills related to understanding of oneself and others, relating to peers and family members, and adapting to changing environmental situations and demands (p.1)”

The trait conceptualisation of EI as a behavioural tendency has been however reported to overlap with personality traits (Ciarrochi, Chan and Caputi, 2000; Dawda and Hart, 2000; Bedwell, 2003). Newsome, Day and Catano (2000) reported significant positive relationships between major personality traits and factors of emotional intelligence. The role of emotional intelligence in managerial effectiveness has been investigated in several studies (Jae, 1997;
Sipsma, 2000; Sitarenios, 2001) but studies about personality characteristics and emotional intelligence as predictors of managerial effectiveness are rather few. Exploring the nature of personality variables that are mediated by emotional intelligence in their influence on managerial success is the focus of inquiry in this study.

The ability to tolerate uncertainty or ambiguity was first identified as a stable tendency or personality variable by Budner (1962), who defined it as an individual’s propensity to view ambiguous situations as either threatening or desirable. Since this hallmark study, tolerance of ambiguity has been associated with numerous markers of success, including objective and subjective supervisory ratings in selection of employees for hiring (Bauer and Truxillo, 2000) and positive attitude towards the risk (Johanson, 2000). Tolerance has also been found to have association with the relationship skills and performance skills of individuals in training in medical professions (Morton et al., 2000). A significant and positive relationship has been found between creativity and tolerance for ambiguity (Tegano, 1998). Ambiguity tolerance describes how a person perceives, interprets and reacts to ambiguous situations. These are situations that are unclear either because of lack of information or because of incoherence in the available information. Tolerance of ambiguity, or the conceptual opposite of the need for very clear and specific direction, is the tendency of some individuals to see ambiguous situations as desirable. Thus, those people with high tolerance for ambiguity would be hypothesized to be less stress by role ambiguity than those with a low tolerance of ambiguity (Lyons, 1971; Ivancevich and Donnelly, 1974; Keenan and Mcbain, 1979; Wright and Thomas, 1982).

Although mixed support, intolerance for ambiguity has been rather well used in entrepreneurship studies. In the role stress literature, Frone (1990) and Ivancevich and Matteson (1980) provided convincing support for relationship to role stress. They found that although intolerance for ambiguity might be strongly related to role ambiguity, this personality trait likely influences the other facets of role stress i.e., role conflict and role overload. According to Hersay and Blanchard (1977), since the situation and needs of people keep changing one must be highly adaptive in order to be an effective manager. Role ambiguity, the lack of clear and specific information regarding work role requirements, has also linked repeatedly with organisational role stress and low job satisfaction (Ivanevich and Donnelly, 1974). Most of the research suggests that role ambiguity is indeed negatively correlated with job satisfaction and job performance variables. (Vansell, Brief and Schuler, 1981; Singh, 1998). Singh (1998) postulates that role ambiguity may take on a curvilinear shape when measured against job satisfaction, job performance, tension, turnover intentions and organisational commitments. He notes that increasing role clarity, by reducing role conflict and role ambiguity, is likely to help managers obtain a higher level of job performance, job satisfaction, organisational commitment and a lower turnover intentions, and job tension. Ambiguity can be both “good” (resulting in productive stress), also called eustress by Seyle (1976) and “bad” (the lack of stress or too much stress which results in dysfunction), also known as distress (Selye, 1976). Researchers, such as Singh (1998), who support the curvilinear view of role ambiguity would agree that total absence of ambiguity should not be the goal for managers, but the reduction of ambiguity to levels which are productive should instead be the goal. In 1986, Ellis conducted a study of
role ambiguity in head nurses and found that there was a significant negative relationship between job satisfaction and role ambiguity. Keenan and Mcbain (1979) report that although personality and tolerance for ambiguity moderates the relationship between role ambiguity and job satisfaction, they fail to moderate the relationships between role overload, role conflict, and job satisfaction.

**Tolerance of Ambiguity and Managerial Effectiveness**

Dealing with complex and ambiguous situations is a part of manager’s job as manager climbs up the ladder of complexity and ambiguity (Jaques, 1961; Katz and Kahn, 1978). Organisational decision making is often characterized by complex demands and considerable ambiguity (Lane and Klenke, 2004). Based on this depiction, researchers agree that ambiguity tolerance is a critical skill for making high-quality organisational decisions in complex environments (Lewin and Stephens, 1994; McCormick, 2001; Mitton, 1989).

Judge et al. (1999) in their study hypothesized that managerial responses to organisational change are influenced by seven dispositional traits (locus of control, generalized self-efficacy, self-esteem, positive affectivity, openness to experience, tolerance for ambiguity, and risk aversion). In their study, the seven traits were reduced to two factors: positive self-concept and risk tolerance. Both of these trait factors significantly predicted the self-reports and independent assessments of coping with change.

Koh (1996) suggested that entrepreneurs need to have a substantial tolerance for ambiguity to manage the process for entrepreneurship or they will be unable to tackle or engage in the required tasks. Therefore, intolerance for ambiguity should increase role stress for entrepreneurs. Also, intolerance for ambiguity can likely moderate the relationship between entrepreneur role stress and job satisfaction.

A study on Singaporean entrepreneurs indicate that those higher on tolerance for ambiguity or in risk-taking propensity are better positioned to “neutralise” the effects of role stress in the entrepreneurial role, leading to better performance outcomes (William and Clarence 1996).

**EI and Managerial Effectiveness**

The findings of the empirical studies show that highly emotionally intelligent managers lead work units more effectively than those who score low on emotional intelligence. The obtained evidence draws attention to individual differences a person’s capability to recognize, assimilate, understand, and manage own emotions and those of others and how they may related to various desired outcomes. A study of managers from the U.S., U.K. and Malaysia by Shipper, Kincaid, Rotondo, and Richard C. Hoffman (2003) indicated positive relationship between Managerial Effectiveness and Self-awareness, component of Emotional Intelligence. Langhorn (2004) conducted a study on pub restaurant managers in the U.K. concerning their Emotional Intelligence. The study found that EI is positively related to employee satisfaction, customer satisfaction, and profit performance. It was established that EI contributes up to 21% of the success of managers. The main predictors of manager’s performance are self-awareness, social responsibility, interpersonal relationships and optimism (Langhorn, 2004).
Holt and Jones (2005) also suggest that “EI could be a powerful tool in accomplishing strategic business in the areas of hiring, training, and performance development.

**METHOD**

Participants in the study consisted of managers attached to thirty randomly selected private sector organisations located in NCR and Delhi region. The data was collected administering questionnaires mainly during office hours, with the consent of relevant representatives of the employer as well as the respondents. The participants were chosen randomly from each organisation and belonged to different departments of the organisation. Most of the participants showed their willingness to participate in the study after a short meeting.

**Measures**

Questionnaire measures were used to obtain data on three variables included in the study: Managerial Effectiveness, Emotional Intelligence and Tolerance of Ambiguity. Managerial effectiveness was conceptualized as dependent variable whereas, Emotional Intelligence and Tolerance of Ambiguity as Independent variables. Self-report measures were used to obtain the data. Managerial Effectiveness was measured through a questionnaire adapted from Gupta (1986), which consisted of 45 items divided into 16 dimensions. Emotional Intelligence was measured through a questionnaire developed by Schuttle et al., (1997) consisting of 30 items. Tolerance of Ambiguity was measured through a questionnaire developed by Budner consisting of 16 items. The measures used in this study were borrowed from their original source and adapted from Indian work setting.

**About the Scales**

**Managerial Effectiveness Questionnaire (MEQ):** This scale developed by Gupta (1996) consists of 45 items, which describes managerial behaviours incorporating 16 factors of managerial effectiveness. The respondents are required to indicate how frequently they behave or act in that way. A five point Likert rating scale was used to get the response (namely: 5=Always; 4=Usually; 3=Doubtful; 2=sometimes; 1=never). A high score on the scale indicates high managerial effectiveness. The scale is reported to have satisfactory reliability as well as validity (Gupta, 1996). In the present study, instead of taking 16 factors separately, overall managerial effectiveness was taken into account. Overall effectiveness was found to be significant on factor analysis ($\alpha=.87$)

**Emotional Intelligence (EI):** Emotional Intelligence was measured through a questionnaire developed by Schuttle et al., (1997) consisting of 30 items with a responses ranging from strongly disagree (1) to strongly agree (5). The scale has a Cronbach Alpha of .81.

**Tolerance for Ambiguity (TOA):** The 16-item Tolerance for Ambiguity Scale developed by Budner (1962) is based on a seven-point scale, from 1 (strongly disagree) to 7 (strongly agree). It consists of 16 items. The psychometric properties are satisfactory. Budner (1962) reported reliability of .72 for this scale. People with lower scores are tolerant of and even enjoy ambiguous situations whereas high score depicts intolerant of ambiguity.
Methods of Analysis

Five personal variables (age, gender, marital status, working experience and job tenure) were controlled in statistical analysis following previous researchers (Roberts et al., 1997; Smith et al., 1998; Rashed 2001; Cooper et al., 1994). Since gender and marital status were categorical in nature, these variables were initially dummy coded. The hypotheses were tested using a four-step hierarchical regression (Cohen and Cohen, 1975) where the controlled variables were entered in the first step, followed by the main effects of Tolerance of Ambiguity on Managerial effectiveness in the second step. Emotional Intelligence was added in the equation in the third step. In the final step, the interaction term was added into the regression equation. The change in the F-value and the significance of the individual parameter was observed. If interaction term was found to be significant, Emotional intelligence is said to moderate the relationship between tolerance of ambiguity and Managerial effectiveness.

Hypotheses

H1: Tolerance of Ambiguity is significantly and positively related to Managerial effectiveness.

H2: Emotional Intelligence moderates the effect of Tolerance of Ambiguity on Managerial effectiveness.

RESULTS

Out of 400 questionnaires, 352 usable responses were obtained from private sector organisations comprising of BPO, Banks and IT Sectors. The response rate obtained was 88%. The organisations within the private sector were located in Delhi and NCR. The sample profile is shown in Table 1.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Categories</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>186</td>
<td>52.8%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>166</td>
<td>47.2%</td>
</tr>
<tr>
<td>Marital Status</td>
<td>Married</td>
<td>192</td>
<td>54.5%</td>
</tr>
<tr>
<td></td>
<td>Unmarried</td>
<td>160</td>
<td>45.5%</td>
</tr>
<tr>
<td>Age</td>
<td>20-30 yrs</td>
<td>112</td>
<td>1.8%</td>
</tr>
<tr>
<td></td>
<td>31-40 yrs</td>
<td>136</td>
<td>38.6%</td>
</tr>
<tr>
<td></td>
<td>41-50 yrs</td>
<td>104</td>
<td>29.6%</td>
</tr>
<tr>
<td>Working Experience</td>
<td>1-5 yrs</td>
<td>88</td>
<td>25.0%</td>
</tr>
<tr>
<td></td>
<td>6-10 yrs</td>
<td>196</td>
<td>55.7%</td>
</tr>
<tr>
<td></td>
<td>11-15 yrs</td>
<td>68</td>
<td>19.3%</td>
</tr>
<tr>
<td>Job Tenure</td>
<td>1-5 yrs</td>
<td>154</td>
<td>43.7%</td>
</tr>
<tr>
<td></td>
<td>6-10 yrs</td>
<td>132</td>
<td>37.5%</td>
</tr>
<tr>
<td></td>
<td>11-15 yrs</td>
<td>66</td>
<td>18.8%</td>
</tr>
</tbody>
</table>
Table 2: Reliability Coefficients of the Instruments

<table>
<thead>
<tr>
<th>Variables</th>
<th>No. of Items</th>
<th>Cronbach α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial Effectiveness</td>
<td>45</td>
<td>.87</td>
</tr>
<tr>
<td>Tolerance of Ambiguity</td>
<td>16</td>
<td>.96</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>30</td>
<td>.81</td>
</tr>
</tbody>
</table>

As seen from Table 2, the instruments used in this study were reliable, with coefficients ranging from 0.81 to 0.96, which exceeded the minimum acceptance level of 0.70. The mean score for each study variable can be seen from Table 3.

Table 3: Mean, SD’s and Coefficients of Correlations among the variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managerial Effectiveness</td>
<td>1</td>
<td>.46**</td>
<td>1</td>
</tr>
<tr>
<td>Tolerance of Ambiguity</td>
<td>.34**</td>
<td>.51**</td>
<td>1</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>82.16</td>
<td>62.34</td>
<td>46.14</td>
</tr>
<tr>
<td>SD</td>
<td>4.36</td>
<td>2.16</td>
<td>14.12</td>
</tr>
</tbody>
</table>

Note: ** p < 0.01; * p < 0.05

Table 4: Hierarchical Regression Results

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Std BetaStep 1</th>
<th>Std BetaStep 2</th>
<th>Std BetaStep 3</th>
<th>Std BetaStep 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>0.062</td>
<td>0.082</td>
<td>0.044</td>
<td>0.042**</td>
</tr>
<tr>
<td>Age</td>
<td>0.246</td>
<td>0.214</td>
<td>0.321**</td>
<td>0.392**</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.016</td>
<td>0.028</td>
<td>0.143*</td>
<td>0.421**</td>
</tr>
<tr>
<td>Work Experience</td>
<td>0.164</td>
<td>0.182**</td>
<td>0.243**</td>
<td>0.282**</td>
</tr>
<tr>
<td>Job Tenure</td>
<td>0.062**</td>
<td>0.168**</td>
<td>0.232</td>
<td>0.286**</td>
</tr>
<tr>
<td>Model Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tolerance of Ambiguity</td>
<td>0.426**</td>
<td>0.328**</td>
<td>0.314**</td>
<td></td>
</tr>
<tr>
<td>Moderating Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td>0.826**</td>
<td>0.218**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction Term</td>
<td></td>
<td></td>
<td></td>
<td>3.364**</td>
</tr>
</tbody>
</table>

Note: ** p < 0.01; * p < 0.05

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As shown in table 3, when the five personal variables were entered into the regression analysis in the first step, the coefficient of determination ($R^2$) was found to be 0.23 indicating that 23% of managerial effectiveness is explained by demographic variables. In step 2, to test whether Tolerance of Ambiguity serves as an independent variable, a second regression was undertaken. By adding Tolerance of Ambiguity as independent variables, the $R^2$ increased to 32.4%. This $R^2$ change (0.32) is significant. This implies that the additional 32.4% of the variation in managerial effectiveness is explained by Tolerance of Ambiguity. The F-statistics is significant ($p = 0.000$) suggesting that the proposed model was adequate. As can be seen from Table 5, Tolerance of Ambiguity had a positive relationship with managerial effectiveness. This proves the first hypothesis of the present study.

From the second regression model, it can be observed that Control variables (Work experience and Job tenure) did have a significant influence on managerial effectiveness at 0.05 level. As for the Independent variable, Tolerance of Ambiguity was found to have a positive and significant impact on Managerial Effectiveness at 0.05 level. This result provided full support for the first hypothesis of the study.

In the third step, Emotional Intelligence was entered into the equation in order to gauge its impact on the Independent variable. The $R^2$ increased from 55.2% to 76.4% indicating a change of 21.2%, which is significant at .01 level.

In the fourth and final step, the interaction terms was entered into the model. It can be seen that the additional variance explained by the interaction term of 13.2% was significant at .01 level. The result derived from the final step proved the second hypothesis of the study.

**DISCUSSION**

The results of the present study depicted that Tolerance of Ambiguity, no doubt, is a very important personality variable in assessing the effectiveness of a manager in any organisation. The earlier studies also supported the present result. Organisational decision making is often characterized by complex demands and considerable ambiguity (Lane and Klenke, 2004; Wang and Chan, 1995). Based on this depiction, researchers agree that ambiguity tolerance is a critical skill for making high-quality organisational decisions in complex environments (Lewin and Stephens, 1994; McCormick, 2001; Mitton, 1989). Another study by Hartmann (2005) on how task uncertainty, environmental uncertainty and tolerance of ambiguity affect managerial performance measures. Based on the results, it was concluded that task uncertainty and environmental uncertainty differ in their direct effects of the appropriateness of performance measures and furthermore the relationship between uncertainty and appropriateness of performance measures which is moderated by manager’s tolerance of ambiguity. The second hypothesis is also proved by the result which said that Emotional Intelligence acts as a moderator for Tolerance of Ambiguity and Managerial Effectiveness Relationship. In other words, we can say that a manager who is high on emotional intelligence, will be able to manage the uncertainty in terms of task as well as in terms of the environment and thus he will be able to perform better and in turn will be considered as more effective.
CONCLUSION

It can be concluded from the above study that Tolerance of Ambiguity, which represents an important personality dimension, is associated with self-perceived managerial effectiveness. As predicted, managers who were more tolerant to ambiguous situations were found to be higher on overall managerial effectiveness. In order to be effective as managers, it is very much essential that managers should be high on emotional intelligence in order to reduce the stress faced due to organisational variables. The findings of this study are indeed significant for HR practitioners. The results of this study also indicate that it is possible to identify the potentials of existing employees for higher level managerial jobs based on their ability to tolerate and accordingly develop career plans for them.

REFERENCES


