

EFFECT OF LEADERSHIP BEHAVIORS ON KNOWLEDGE CREATION IN INDIAN ORGANIZATIONS

Mohnish Kumar*

PURPOSE

THE purpose of this paper is to investigate the relationship as well as impact of behaviors or actions of a leader on the creative performance of employees for a sample of 204 employees from 6 organizations.

Design/Methodology/Approach: A questionnaire consisting of four psychometric instruments has been provided to respondents i.e., to workers and managers spread across various functional groups, managerial levels from six selected organizations operating in different sectors of the Indian economy. A total of 204 fully-filled questionnaires have been received both personally and through emails and digital forms. Data, regarding different aspects of Knowledge Worker viz., their leaders' behaviors, organizational culture, technology, and Knowledge Creation were collected using questionnaire. Data were statistically treated and analyzed using SPSS software package to obtain results for the stated purpose of the study.

Findings: Expectancy-free, Non-Bossy leader with collaboration and experimentation ethos in the organizations along with tailor made IT services help in knowledge identification and creation. Expectancy of a leader is considered negatively as pressure leading us to believe the anti-Pygmalion effect under the overall head of self-defeating prophesies. Expectancy is generally taken as positive as it influences the motivation of the employees. But this paper argues that expectancy of a leader creates a pressure or negatively impacts the knowledge creation and they really abhorred it in these organizations surveyed. Non-bossy leadership is well accepted by the employees of the surveyed organizations for better Knowledge Identification and Creation. Expectancy-free, Non-Bossy Leadership behaviors help in the organizational endeavor of Knowledge Creation.

Research Limitations: This study was conducted in only six Indian Organizations or organizations located in India. Hence, its generalizability is limited to other similar contexts.

Practical Implications: The research study offers several recommendations for helping leadership of the organization as well as top management to design and implement such practices and actions which will help in effective Knowledge Capture for Organizational excellence.

Originality/Value: There is a dearth of literature and especially empirical research regarding Knowledge Creation and its determinants that take into consideration wide array of variables and their respective enabling and disabling roles and contributions. This gap is being filled by this empirical study about the impact of leaders' behavior on Knowledge creation in Indian organizations.

Key Words: Leaders' behavior, Expectations, Anti-Pygmalion, Self-defeating Prophecy, Knowledge Creation.

* Assistant Professor, Bhim Rao Ambedkar College, Univeristy of Delhi, Delhi, India.

Introduction

The present study tries to augment the understanding of applicability and efficacy of western concepts regarding leadership and creative performance in the non-western context especially India. As Smith and Peterson (1988) argued for greater need to investigate leadership styles in different countries that arises from the variation in preferences for leadership styles from one culture to another. The majority of leadership researchers conceptualize and conduct studies in developed countries while limits of the current understanding of the dynamics of leadership concepts in non-western contexts remain (Fein, Tziner, and Vasiliu, 2010; Shahin and Wright, 2004). The cultural difference between oriental and occidental world is so extreme that simply copying and implementing western concepts in non-western world would benefit no one and might provide unintended negative consequences. Ryan and Tipu (2013) argued for such kind of research which improves understanding of the usefulness and validity of western leadership concepts in non-western contexts and assists in identifying different dimensions of leadership to inform to a better degree both the practice and development of leadership skills.

Leadership provides dynamism in an organization. The present and future of the organization lies in the hands of able leaders. The human civilization is full of contributions of great leaders. Leadership is one of the world's oldest preoccupations. The study of leadership rivals in age the emergence of civilization, which shaped its leaders as much as it was shaped by them. Purposeful stories have been told through the generations about leaders' competencies, ambitions, and shortcomings; leaders' rights and privileges; and the leaders' duties and obligations (Bass, 1990).

A considerable portion of leadership research focuses on transformational, transactional, and laissez-faire leadership styles (Antonakis, Avolio, and Sivasubramaniam, 2003). The study of leadership concepts in developing countries results in inconsistent findings that often contradict expected outcomes from developed country contexts (Pillai, Scandura, and Williams, 1999; Shahin and Wright, 2004). That's why, the most basic aspect of leadership i.e., leaders' behaviours must be taken into account. Bedeian and Glueck (1983) defined leadership as a term used to describe a *category of behaviors*. According to this view, leadership is a dynamic process in which an individual behaves in a certain manner thereby influencing others to follow. Thus, leadership is the art of influencing individual or group activities towards achievement of enterprise goals.

Creative Performance

For long term survival in the context of rapid technological development, new production techniques and increasing global competition, creative and innovative new products and services is the only strategy to cushion the organization in future (Mumford et al., 2002; Hitt, Hoskisson, and Kim, 1997; Porter, 1990). The organizations must have the ability to develop new ideas "in house" frequently to have competitive advantage (Bolton, 1993; Cohen & Levinthal, 1990; Pavitt, 1990). These development of new ideas "in house" is nothing but the creation and identification of new knowledge. Creativity i.e., the generation of new ideas (Mumford et al., 2002) is basically knowledge creation (Kumar, 2012). It has a potentially powerful influence on organizational performance (Arad, Hanson, and Schneider, 1997; Drazin, Glynn, and Kazanjian, 1999; Tushman and O'Reilly, 1997) including profit and growth (Nystrom, 1990). Bowen, Rostami, and Steel (2010) report the positive relation between innovation and future firm performance. Knowledge creation form integral part of the Knowledge management. The Knowledge management has various antecedents (Singh and Sharma, 2008a; Singh and Sharma, 2011a), main drivers (Singh and Sharma, 2008b); key attributes (Singh and Sharma, 2008c); and important implications and consequences (Singh and Sharma, 2008d).

Those civilizations that had well developed culture were able to subsume the less developed civilizations due to better and effective weaponry, war traditions, and culture. An inspiring hero or leader like Alexander can shape and sharpen the war traditions and weaponry culture to write history as engraving on the stone for generations to come to learn and inspire. Similarly, modern organizations, the better ones, survive and prosper and the weaker organizations are consumed or wasted in the path of history.

This argues the role of leadership, culture, and technology in the development of civilization which also applies in the modern organizations (Kumar, 2012).

Creativity or knowledge creation has been studied and found to have been impacted by culture (DeLong, 1997; Tesluk, Farrand Klein, 1997), technology (Castells, 1996), and leadership (Bass, 1990), strategies (Amabile et al., 2004), climate (Tesluk, Farr and Klein, 1997), human resource management policies and procedures (Newell et al., 2002), and access to resources (Amabile et al., 2004).

Nystrom (1979) argued that the probability of success may be increased by establishing and maintaining a creative problem solving environment. Starbuck (1992) argued that it is very easy for creativity and innovation to be stifled even when the structural conditions are generally supportive of knowledge work tasks. Firms are, therefore, cautioned to try and avoid the development of particular norms and practices that might constrain innovative behavior (Newell et al., 2002).

Several earlier studies argued about the inter-relationship of cultural ethos, technology, and leadership with knowledge creation. Pareek (2006) suggested that some organizations promote creativity and excellence, while other organizations may make people obedient, dependent and conformist. Organizational learning, development, and planned change cannot be understood without considering culture as a primary source of resistance to change and learning – the challenge lies in conceptualizing a culture of innovation in which learning, adaptation, innovation, and perpetual change are the stable elements (Schein, 1992).

Nonaka and Takeuchi (1995) argued that organizational culture can be seen as consisting of beliefs and knowledge shared by members of the organization. Studies of organizational culture have been able to shed light on the organization as an epistemological system. In addition, they have underscored the importance of such human factors as values, meanings, commitments, symbols, and beliefs, and paved the way for more elaborate research on the tacit aspect of knowledge. Furthermore, they have recognized that the organization, as a shared meaning system, can learn, change itself, and evolve over time through the social interaction among its members and between itself and the environment. Culture is important to organizational knowledge creation. A good part of our knowledge has been learned as culture from the older generations (Nonaka and Takeuchi 1995). Older or different cultures are basically the knowledge repository for respective civilization. As Schein (1992) suggested that group's culture is that group's accumulated learning. When a particular civilization starts taking root, the culture is formed involving an accumulated learning of its citizens.

Creation of knowledge is not so new. However, the development of ICTs helped in storing and sharing the ideas and knowledge with all the employees in the organization. The technology per se is very influential for the knowledge creation. The relationship between knowledge creation and technology is bi-directional. As technology helps in knowledge creation, same way created knowledge is instrumental in development of new technologies or technological revolutions. Newer technologies or technological revolutions come on the heap of older technology (Kumar, 2012).

However, Knowledge creation is not only the domain of technology or IT firms rather it is being practiced by almost all firms with different level of intensity under different name. Knowledge can be managed without much help of the technology even and is being done since ancient times. For example, the most religious and most basic- story-telling and suggesting moral of the story to the kids by their grandparents at home since the time immemorial, “*Shruti*” and “*Smriti*” viz., “*Manusmriti*” – these are traditional texts that have passed on through generations just by hearing and memorizing from *Gurus* to *Shishya*. Technology has become the enabler and prompter in the whole gamut of Knowledge creation and management (Kumar, 2012).

Several authors defined Leaderships in different ways having different attributes and functions. Koontz and O'Donnell (1964) defined leadership simply as influence, the art or process of influencing people so

that they will strive willingly toward the achievement of group goals and also argued that leadership is the ability of a manager to induce subordinates (followers) to work with confidence and zeal. Roberts and Hunt (1991) also defined a leader as a person whose behavior has a determining effect on the behavior of other group members. Leadership is the interaction among members of a group in which leaders are agents of change. The leader is a person whose acts, more than anyone else's affect the motivation and competencies of the group. Singh and Kumar (2013) pointed out various attributes of a leader having different functions in the organization including spirituality.

Relationship between Leadership and Creative Performance

However, the creative performance is different altogether due to several factors viz., nature of creative work, characteristics of the creative employees and nature of environment required for creative performance. The creative work involves complex, ill-defined problems where performance requires the generation of novel and useful solutions (Besemer and O'Quin, 1999; Ford, 2000; Mumford and Gustafson, 1988; Ward, Smith, and Finke, 1999; Mumford et al., 2002). The creative employees show a variety of traits like expertise, strong orientation towards autonomy and achievement, lack of concern about power and affiliation, a common personality profile includes openness, flexibility, cognitive complexity, self-confidence, dominance and introversion (Mumford et al., 2002), intense curiosity (Heinzen, Mills, and Cameron, 1993), work based identity and achievement (Rostan, 1998), and substantial achievement motivation (Barron and Harrington, 1981; Mumford and Gustafson, 1988).

Although many variables influence creativity and innovation in the organizational settings, there is reason to suspect that leaders and their behavior represent a particularly powerful influence (Mumford et al., 2002). A leader not only influences the knowledge creation indirectly through the organizational culture but also most of the time a leader provides a creative leadership directly for the knowledge creation. Puccio et al., (2007) argued that change originates in creative thought, and the ability to engage in creative thinking or foster it in others a skill that separates those who lead from those who follow. They went one step ahead and suggested that effective leaders embody the spirit of creativity and argued that creative thinking is the core of leadership competence. Kotter (1996) identified five specific skills (risk taking, humble self-reflection, solicitation of opinions, careful listening, and openness to new ideas) that, when developed, enhance leadership effectiveness. Puccio et al., (2007) argued that Kotter's five skills bear a striking similarity to qualities associated with creative people thus creative leadership. Innovation management is a difficult process which requires consistent support and involvement of the leader (Ireland and Hitt, 1999). The followers are more likely to innovate if leaders provide support (Basu and Green, 1997). Examination of the relation between leadership and innovation is pertinent as leaders positively influence outcomes of innovation processes (Den Hartog and Verburg, 1997; Howell and Avolio, 1993). Leaders employing intellectual stimulation behaviors encourage diversity of opinion and the generation of creative ideas among their followers (Bundy, 2002).

Puccio et al., (2007) also highlighted the fact that in today's complex work and social environments, creativity plays a crucial role in helping leaders to be more effective at facilitating change. The dynamic business conditions in developing countries pose challenges to leaders in an environment where organizational disposition towards innovation is a key contributor to gaining and sustaining competitive advantage for survival (Perry-Smith, 2006; Puranam, Singh, and Zollo, 2006). Examination of the leadership – innovation connection is important in a developing country context as organizations often face intense competition, institutional instability (Farashahi and Hafsi, 2009). All the above studies suggest how leader, directly or indirectly, influence creative performance and their combined influence on developing countries like India.

However, Jung (2001) pointed out, leadership, at least traditionally, has not been held to be particularly significant influence on creativity and innovation. Leadership has not generally been found to have a particular important influence on creativity as leadership of creative people requires expertise (Mumford et al., 2002). Amabile et al., (2004) argued that Leaders' behaviors influence creative

performance of the subordinates directly as well as indirectly through perceptual and affective reaction, and discussed in detail, both positive and negative spiral of effective and ineffective forms of leader behavior in the context of perceived leaders' support – a key feature of work environment for creativity (Amabile et al., 2004). The componential theory of organizational creativity specifies broad features of leader behavior that contribute to the perceived work environment for creativity. This suggests that all behaviors of a leader cannot be grouped together as either supporting or hampering creativity. Consequently, leaders' behaviors must be studied more separately and thoroughly than emphasizing on models of leadership.

Relationship between Leadership Expectancy and Performance

Expectancy of a leader plays a very important role in the performance of the employees. Several authors (Likert, 1961, 1967; McGregor, 1960) have argued that leaders who expect more get more. However, the most important expectancy that has been dealt thoroughly is Pygmalion effect under the classification of self-fulfilling prophecies (Merton, 1948, 1968; Wilkins, 1976). Merton (1968) defined the self-fulfilling prophecy as, in the beginning, a *false* definition of the situation evoking a new behavior which makes the original false conception come 'true'. This specious validity of the self-fulfilling prophecy perpetuates a reign of error. For the prophet will cite the actual course of events as proof that he was right from the very beginning. The Pygmalion effect i.e., high expectations of a leader leads to high performance of the subordinates, is supported by several research articles (Eden, 1984, 1990, 1992; Jussim, 1986; Rosenthal & Jacobson, 1968; Rosenthal & Rubin, 1978). The opposite of Pygmalion i.e., Golem effect (low expectation leads to low performance) (Babad, 1977; Babad, Inbar, and Rosenthal, 1982; Oz and Eden, 1994; Davidson and Eden, 2000), is also found to be true. However, the opposite of self-fulfilling prophecies is self-defeating prophecies. The "self-defeating prophecy", through the very fact of its being promulgated, turns out to be wrong (Merton, 1936). As per the self-defeating prophecies, the expectancies itself work against the achievement of the goal. Expectancies of the leader itself set the target or goal to be achieved which is resisted and rebelled rather implicitly by employees.

A lot of literature can be found on the Pygmalion effect and its benefits. The opposite of Pygmalion i.e., golem effect, along with the reverse-Pygmalion (Eden, 1984, Collins, Hair, Jr., and Rocco, 2009), reverse-golem effect and Galatea Effect (Eden, 1984), literature is available albeit a little. However, it's very difficult to find any literature on the anti-Pygmalion effect which falls under the classification of self-defeating prophecy (Bushman, Baumeister, and Stack, 1999). In all the above phenomena, the expectations play a major role, which is also the case in this study. For this research study, the performance of employees is judged on the knowledge creation that's why it is taken as dependent variable.

As Korman (1971) argued that the leaders' expectations work through the medium of work group norms and group values as well as through the medium of leadership influence directly. The variable of organizational culture and technology is taken into consideration in this study as moderating variables having impact on Knowledge creation just to identify and isolate the specific behaviors or actions of leader that influence creative performance.

Researchers report weakness in the appropriateness and applicability of western management theory in non-western contexts across a variety of organizational studies, including leadership studies (Ardichvili and Gasparishvili, 2001; Ford and Ismail, 2006; Kiggundu, Jørgensen, and Hafsi, 1983; Pillai et al., 1999). Overall, the literature linking specific leader behaviors to group performance is scant (Kim and Yukl, 1995), and the literature linking specific leader behaviors to individual creative performance is even smaller (Amabile et al., 2004). This study tries to fill this gap as well as considering the modifying and intervening factors viz., organization culture and technology which influences knowledge creation, into consideration.

Research Methods

The primary objective of this study is to understand and find out the relationship and impact of leadership behaviors on knowledge creation. Since leadership is not the only variable that influences and

significantly predicts the knowledge creation to a large extent, several other intervening variables including organizational culture, technology, and background variables are also taken into the consideration for this research. These variables provide a kind of amicable environment and sometime play very active role for Knowledge Creation to grow and develop in the organization.

Sample

The sample includes 204 employees working in 6 organizations in India. These organizations belong to mainly three sectors viz., power sector, infrastructure sector other than the power sector, and IT sector, with the largest proportion of respondents working in power sector (Power – 49%, IT sector 34.8%, Infrastructure sector other than power – 16.2%). The sample comprises 83.8% males and 16.2 % females. The underrepresentation of women in the study is indicative of existing gender bias in workforce participation among women in India.

Data Collection

The primary data has been randomly collected using self-administered questionnaire from the 204 respondents belonging to various functional areas working at the different managerial levels. The survey process itself ensured the confidentiality of information provided by the respondents and requests them to respond thoughtfully and frankly as their frank answers are the best answers. Data were obtained from a wide range of organizations, varying in size and function, in order to minimize the influence of background and confounding variables and increase the empirical validity of the findings (Nguyen and Mohamed, 2011). As Ryan and Tipu (2013) argued that developed countries offer easy accessibility to secondary data and reference materials for the identification of research populations and development of sampling frames which are non-existent in developing countries. Consequently, appropriate techniques and instruments, as follows, were used in this research study.

Instruments

The questionnaire introduces the researcher and informs the respondents about the questionnaire which is related to leadership, organizational cultural ethos, technology, and knowledge. The study measures leadership with a leadership questionnaire (Likert and Likert, 1976) involving 26 items relating to day to day activities of a leader. For measuring Organizational Culture, the questionnaire suggested by Pareek (1997) was used. It includes 40 questions and all of which relates to organizational ethos of OCTAPACE. The technology aspect of the organization is measured by 5 generic questions related to technology. These questions are applicable even to the most basic of the organization, which may not belong to the IT sector. The knowledge creation is measured by The Knowledge Management Assessment Tool (KMAT) given by Maier and Moseley (2003). This is a diagnostic survey that helps to determine the effectiveness of the Knowledge creation practices. It is administered to employees to assess the presence of such practices in their work. Respondents rate their level of agreement with thirty statements on five KM dimensions: viz., identification and creation, collection and capture, storage and organization, sharing and dissemination, and application and use.

Testable Hypotheses

Following are the null and the alternate hypotheses.

- HA1- There is a relationship between Organizational Cultural Ethos and Knowledge Identification and Creation.
- HA2- There is a relationship between Leadership and Knowledge Identification and Creation.
- HA3- There is a relationship between Technology and Knowledge Identification and Creation.
- HA4- There is difference among the sectors of organizations on Knowledge Identification and Creation.

- HA5- There is a difference in perceptions of male and female regarding Knowledge Identification and Creation.

Analysis and Interpretation of Data

For calculation of gender-wise and sector-wise differences in the Knowledge creation performance, dummy variables were created and used to know the gender (Table 1) and sectorial differences (Table 2) relating to Knowledge Identification and Creation.

Table 1: Dummy Variable for Gender

| | Frequency | Percent | Valid Percent | Cumulative Percent |
|---------|-----------|---------|---------------|--------------------|
| Valid 0 | 171 | 83.8 | 83.8 | 83.8 |
| 1 | 33 | 16.2 | 16.2 | 100.0 |
| Total | 204 | 100.0 | 100.0 | |

Table 2: Dummy Variables for Sector-wise Distribution of Organizations

| | Dum var Sec 1- IT Sector | Dum var Sec 2- Infrastructure Sector | No. of Responses | Remarks |
|-----------------|--------------------------|--------------------------------------|------------------|----------------|
| Organization- A | 0 | 0 | 100 | Base- Power |
| Organization- B | 1 | 0 | 38 | IT Org. |
| Organization- C | 1 | 0 | 30 | IT Org. |
| Organization- D | 0 | 1 | 25 | Infrastructure |
| Organization- E | 0 | 1 | 8 | Infrastructure |
| Organization- F | 1 | 0 | 3 | IT Org. |
| TOTAL | 71 | 33 | 204 | |

Econometric Analysis of Data

The raw scores of all the items of every instruments viz., leadership practices, OCTAPACE, KMAT, and background information of each respondent have been collected and tabulated. These raw scores of each and every question are further processed and transformed into variables including components and dimensions using standard key of the respective instruments.

The tool of Principal component analysis was applied on the raw score of leadership to find out the leadership structure and pattern of behaviors. Kumar (2012) and Singh and Kumar (2013) concluded that in the country like India any leadership is a *category of behaviors*. The four dimensions (viz., support, team-building, goal emphasis, and help with work) of Leadership are perceived differently by employees in India into four new dimensions of practices or actions or category of behaviors (viz., Expressive Environment Facilitator, Non-Bossy, Democratic and Expectancy Pressure by the leader) identified as four categories of leadership behaviors using the Principal Component Analysis technique on 26 items of leadership as collected from the questionnaire. Each item of leadership concerns with a particular leadership practice. The Principal Component Analysis points out how these items are perceived and grouped by an individual employee. As Vera and Crossan (2004) argued about this kind of ingenuity suggesting that most of the work is prescriptive in nature and says little about leadership styles or specific practices through which leaders contribute. Singh and Kumar (2013) argued that a leadership style is a combination of specific practices through which leaders contribute and not all actions/practices of a leader that are generally considered as positive

or with good intentions from the leaders' point of view or from the academic perspective are equally perceived from same perspective by employees. A leader is not only what a leader does but also how those actions are perceived. Some of the categories of behaviors impacts positively and some negatively. These principal components are as follows:

Leadership 1_1: Expressive Environment Facilitator

This principal component of a leader encompasses several leaders' practices which could be collectively called as expressive environment facilitating practices of a leader. Here, a leader is a friendly, open to new ideas, a good listener, allows others to express feelings and ideas, paraphraser, role model, and does not dominate and pressurize his followers.

Leadership 1_2: Non-Bossy Leader

The Principal component "Leadership1_2" has items whose common theme is "*Non-Bossy Leadership*" actions or behaviors where a leader avoids being dogmatic, pontificating, being impatient, dominating, treating his or her subordinates in a condescending manners.

Leadership 2_1: Democratic Leader

This principal component of Leadership has a common theme of "*Democratic Leader*", where a leader avoids imposing a decision, is patient, accepts more blame, uses "we" more often, is open to criticism, encourages disagreements, willing to take risks, generous in giving credit and recognition and avoids favoritism.

Leadership 2_2: Expectancy Pressure of a Leader

This principal component has a common theme of "*Expectancy pressure of a Leader*", where a leader expects best from everyone, believes in self or own group importance, encourages people to be innovative and creative, displays confidence and trust in subordinates and shares information frankly.

Kumar (2012) and Singh and Kumar (2013) further divided these four principal components of leadership into mainly three aspects. Expressive environment facilitator and democratic leadership activities or practices form part of positive aspect of leadership. Expectancy of a leader creates a pressure for an employee which is treated negatively by the employees. Bossy behavior is considered negatively and leaders who avoid bossy behavior are basically leaders who avoid negative practices of bossism as perceived by employees.

Pareek (1997) pointed out that several studies have used different terminology for same thing and also argued that same terms have been used with different meanings. He claimed that various terms, used in the context of organizational culture, are values, ethics, beliefs, ethos, climate, environment, and culture. He argued that the culture-related concepts can also be seen as multi-level concepts. The core (first level) is the values, which give a distinct identity to a group. This is the ethos of the group. *The Random House Dictionary* defines ethos as "the fundamental character or spirit of a culturedominant assumptions of people or period". Ethos can be defined as the underlying spirit or character of an entity or group and is made up of its beliefs, customs, or practices. At the base of ethos are core values. The eight important values relevant to institution building are *openness, confrontation, trust, authenticity, proaction, autonomy, collaboration, and experimentation*. The acronym came out to be OCTAPACE (Pareek, 1997).

The eight dimensions of OCTAPACE were compacted into a single construct of "Over-All-Culture" using the Principal Component Analysis. Similarly, all the five variables or items of technology were transformed into one composite component named "All-Technology" using Principal Component Analysis. The major advantage of using Principal Component analysis is to get one composite construct that represents all the underlying items in it. It helps in understanding the overall impact of all those particular items at the same time on the dependent variable in the regression analysis.

The process of knowledge identification and creation begins with transformation of data (isolated facts with no meaning) and information (interpreted data with meaning) into a value-added resource through experience and logical inferences. Knowledge thus becomes an actionable resource in the organization. It provides employees with the ability to perform a particular task or identify hidden trends and unusual patterns within data and information for operational and strategic decision-making. Identification and creation of knowledge is often accomplished through interviews, observation, brainstorming sessions, focus groups, portfolio analysis, root-cause analysis, and other similar techniques that generate new ideas and knowledge. These are very often led by experts in the particular domain (Maier and Moseley, 2003).

The Principal Component multiple regression analysis was used to find the relevant predictors and the extent of their predicting ability. Initially, Knowledge Identification and Creation was taken as dependent variables and four principal components of Leadership (Kumar, 2012), eight OCTAPACE ethos, five technology variables and relevant background variables were incorporated for modeling of the data. Again, in the another set of multiple regression analysis, the principal components of variables viz., “Over-All-Culture” for OCTAPACE, “All-Technology” for technology and four Principal Components of Leadership are taken as independent variables for the Knowledge Identification and Creation as dependent variable in the Principal Component Multiple Regression analysis for the modeling as follows.

Knowledge Identification and Creation (KIC)-Regression

For the Knowledge Identification and Creation, five (Non-Bossy Leadership 1_2, Expectancy Leadership 2_2, Collaboration, Experimentation, and “Q3. Wede sign and tailor our electronic performance support systems to meet our learning needs” independent variables were identified, as shown in Table 3.

Table 3: Descriptive Statistics

| | Mean | Std. Deviation | N |
|---------------------------------------|-------------|-----------------------|----------|
| KIC | 24.21 | 5.089 | 204 |
| Leadership 1_2 | 0.000000 | 1.0000000 | 204 |
| Leadership 2_2 | 0.000000 | 1.0000000 | 204 |
| Collaboration | 13.72 | 2.189 | 204 |
| Experimentation | 13.14 | 2.376 | 204 |
| Q3. Tailor Performance Support System | 2.96 | 0.748 | 204 |

All the correlation coefficients, as shown in Table 4, among all the variables are highly significant at 1% level of significance, except the correlation coefficient between Expectancy Leadership 2_2 and “Q3. We design and tailor our electronic performance support systems to meet our learning needs”, which is significant at the level of 5%. All the correlation coefficients among the independent variables are relatively small but the correlation coefficients between dependent variable and independent variables are relatively medium and large, as expected, to explain as much variance as possible. Expectancy Leadershsip 2_2 has negative, significant, and relatively small correlation coefficients with remaining independent variables but relatively high with dependent variable. Negative correlations coefficient of Expectancy Leadership 2_2 is quite interesting phenomenon of this study. The small, negative, and significant (at 5% level) correlation coefficient between Leadership 2_2 and Technology item “Q3. We design and tailor our electronic performance support systems to meet our learning needs” suggests that there is an expectancy pressure of a leader to create a more generalized, homogeneous and ready-made technology and not a tailor made Performance Support System. The small but significant correlation coefficients among the predictors suggest that our predictors are measuring different things and there is no collinearity.

Table 4: Correlations

| | KIC | Leadership 1_2 | Leadership 2_2 | Collaboration | Experimentation | Q 3. Tailor Performance Support System |
|--|--------|----------------|----------------|---------------|-----------------|--|
| Pearson Correlation KIC | 1.000 | 0.430 | -0.399 | 0.541 | 0.597 | 0.451 |
| Leadership 1_2 | 0.430 | 1.000 | -0.487 | 0.228 | 0.263 | 0.259 |
| Leadership 2_2 | -0.399 | -0.487 | 1.000 | -0.228 | -0.262 | -0.158 |
| Collaboration | 0.541 | 0.228 | -0.228 | 1.000 | 0.512 | 0.243 |
| Experimentation | 0.597 | 0.263 | -0.262 | 0.512 | 1.000 | 0.288 |
| Q 3. Tailor Performance Support System | 0.451 | 0.259 | -0.158 | 0.243 | 0.288 | 1.000 |
| Sig. (1-tailed) KIC | – | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Leadership 1_2 | 0.000 | – | 0.000 | 0.001 | 0.000 | 0.000 |
| Leadership 2_2 | 0.000 | 0.000 | – | 0.001 | 0.000 | 0.012 |
| Collaboration | 0.000 | 0.001 | 0.001 | – | 0.000 | 0.000 |
| Experimentation | 0.000 | 0.000 | 0.000 | 0.000 | – | 0.000 |
| Q3. Tailor Performance Support System | 0.000 | 0.000 | 0.012 | 0.000 | 0.000 | – |

Table 5: Variables Entered/Removed^b

| Model | Variables Entered | Variables Removed | Method |
|-------|---|-------------------|--------|
| 1 | Q 3. Tailor Performance Support System, Leadership 2_2, Collaboration, Leadership 1_2, Experimentation ^a | – | Enter |

a. All requested variables entered; b. Dependent Variable: KIC

Table 6: Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | |
|-------|--------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change | Durbin-Watson |
| 1 | 0.747 ^a | 0.558 | 0.547 | 3.425 | 0.558 | 50.041 | 5 | 198 | 0.000 | 1.979 |

a. Predictors: (Constant), Q3.tailorperformancesupportsystem, Leadership2_2, Collaboration, Leadership1_2, Experimentation

b. Dependent Variable: KIC.

The Table 5 suggests that all the variables have been incorporated into the model using “enter method” after finding the appropriate variables by forward and backward method of regression.

In the column labeled R (in Table 6) is the value of the multiple correlation coefficient i.e., 0.747 between the predictors and the outcome. The high multiple correlation coefficient of the value +0.747 which suggests that there is good overall fit of the regression model. The R² of the model is 0.558 which suggests that 55.8% of the variance in the KIC is explained by the model based on the sample. The R² (55.8%) of this model refers to moderately substantive magnitude of relationship. However, the same model has Adjusted R² =54.7% which tells us that the 54.7% of the variance in KIC would be accounted for if the model had been derived from the population from which the sample was taken. The adjusted R² indicates that 54.7% of the variance in the dependent variable i.e., Knowledge Identification and Creation can be predicted from these five predictors viz., “Q3. We design and tailor our electronic performance support systems to meet our learning needs”, Expectancy Leadership 2_2, Collaboration, Non-Bossy Leadership 1_2, and Experimentation (Morgan et al., 2011). The adjusted R² gives us some idea of how well our model generalizes and ideally we would like its value to be the same, or very close to, the value of R². In this model, the shrinkage is = 55.8-54.7= 1.1 It’s a mere shrinkage of 1.1 that suggests that if the model were derived from the population rather than a sample it would account for approximately 1.1% less variance in the outcome. The Durban-Watson value of 1.979 which is near to 2 is quite acceptable”.

The ANOVA Table (in Table 7) shows that F = 50.041 and is statistically significant. This indicates that these five predictors significantly combine together to predict Knowledge Identification and Creation”.

Table 7: ANOVA^b

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|--------------------|
| 1 | Regression | 2934.843 | 5 | 586.969 | 50.041 | 0.000 ^a |
| | Residual | 2322.510 | 198 | 11.730 | | |
| | Total | 5257.353 | 203 | | | |

a. Predictors: (Constant), Q3.tailorperformancesupportsystem, Leadership2_2, Collaboration, Leadership1_2, Experimentation

b. Dependent Variable: KIC.

As per Table 8, we have

KIC= 2.443+ 0.803 X Non-Bossy Leadership 1_2 – 0.729 X Expectancy Leadership 2_2 + 0.583 X Collaboration + 0.690 X Experimentation + 1.589 X “Q3. We design and tailor our electronic performance support systems to meet our learning needs”.

When Principal Components of Technology and Ethos are Taken

Here the principal components Leadership 1_2, Leadership 2_2, ‘All-Technology’ and ‘Over-all-Culture’ were incorporated as independent variables for Knowledge Identification and Creation in the Principal Component Regression Analysis, as shown in Table 9.

The principal component multiple regression equation was calculated to investigate the best predictors of Knowledge Identification and Creation involving all the technological variables as principal component named “All-Technology”, all organizational culture ethos as another principal component named “Over-all-Culture” along with two principal components of leadership viz., Non-Bossy Leadership 1_2 and Expectancy Leadership 2_2. The basic objective behind incorporating the principal components of all cultural ethos and technological variables as another principal

Table 8: Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | | | 95% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
|---------------------------------------|-----------------------------|------------|---------------------------|----------|-------|-------------------------------|-------------|--------------|---------|-----------|-------------------------|-------|
| | B | Std. Error | Beta | T | Sig. | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| | | | | | | | | | | | | |
| 1 (Constant) | 2.443 | 1.843 | | 1.325 | 0.187 | -1.192 | 6.078 | | | | | |
| Leadership1_2 | 0.803 | 0.284 | 0.158 | 2.831 | 0.005 | 0.244 | 1.363 | 0.430 | 0.197 | 0.134 | 0.718 | 1.393 |
| Leadership2_2 | -0.729 | 0.279 | -0.143 | -2.609E0 | 0.010 | -1.280 | -0.178 | -0.399 | -0.182 | -1.232E-1 | 0.740 | 1.351 |
| Collaboration | 0.583 | 0.130 | 0.251 | 4.497 | 0.000 | 0.327 | 0.838 | 0.541 | 0.304 | 0.212 | 0.718 | 1.393 |
| Experimentation | 0.690 | 0.122 | 0.322 | 5.656 | 0.000 | 0.449 | 0.930 | 0.597 | 0.373 | 0.267 | 0.688 | 1.454 |
| Q 3.Tailor Performance Support System | 1.589 | 0.344 | 0.234 | 4.621 | 0.000 | 0.911 | 2.267 | 0.451 | 0.312 | 0.218 | 0.873 | 1.146 |

a. Dependent Variable: KIC

Table 10: Correlations

| | | KIC | Leadership 1_2 | Leadership 2_2 | All Technology | Overall Culture |
|---------------------|----------------|--------|----------------|----------------|----------------|-----------------|
| Pearson Correlation | KIC | 1.000 | 0.430 | -0.399 | 0.408 | 0.652 |
| | Leadership1_2 | 0.430 | 1.000 | -0.487 | 0.234 | 0.339 |
| | Leadership2_2 | -0.399 | -0.487 | 1.000 | -0.315 | -0.311 |
| | AllTechnology | 0.408 | 0.234 | -0.315 | 1.000 | 0.410 |
| | OverallCulture | 0.652 | 0.339 | -0.311 | 0.410 | 1.000 |
| Sig. (1-tailed) | KIC | – | 0.000 | 0.000 | 0.000 | 0.000 |
| | Leadership1_2 | 0.000 | – | 0.000 | 0.000 | 0.000 |
| | Leadership2_2 | 0.000 | 0.000 | – | 0.000 | 0.000 |
| | AllTechnology | 0.000 | 0.000 | 0.000 | – | 0.000 |
| | OverallCulture | 0.000 | 0.000 | 0.000 | 0.000 | – |
| N | KIC | 204 | 204 | 204 | 204 | 204 |
| | Leadership1_2 | 204 | 204 | 204 | 204 | 204 |
| | Leadership2_2 | 204 | 204 | 204 | 204 | 204 |
| | AllTechnology | 204 | 204 | 204 | 204 | 204 |
| | OverallCulture | 204 | 204 | 204 | 204 | 204 |

Table 11: Variables Entered/Removed^b

| Model | Variables Entered | Variables Removed | Method |
|-------|--|-------------------|--------|
| 1 | Overall Culture, Leadership 2_2, All Technology, Leadership 1_2 ^a | – | Enter |

a. All requested variables entered.

Table 9: Descriptive Statistics

| | Mean | Std. Deviation | N |
|----------------|-----------|----------------|-----|
| KIC | 24.21 | 5.089 | 204 |
| Leadership1_2 | 0.0000000 | 1.0000000 | 204 |
| Leadership2_2 | 0.0000000 | 1.0000000 | 204 |
| AllTechnology | 0.0000000 | 1.0000000 | 204 |
| OverallCulture | 0.0000000 | 1.0000000 | 204 |

component is to understand and predict to what extent all the organizational ethos and technology items influence Knowledge Identification and Creation.

All the correlation coefficients (in Table 10 among variables are relatively moderate and small, highly significant at the significance level of 1% and positive except with Expectancy Leadership 2_2 which has negative correlation coefficients with all the variables (dependent and independent). The relatively small to moderate and highly significant correlation coefficients suggest that the likelihood of multicollinearity is quite less. The Table 11 – Variables Entered/Removed, suggests that all the above variables have been incorporated into the model using “enter method”.

The multiple correlation coefficient (in Table 12) of these independent variables on Knowledge Identification and Creation is +0.708. The high multiple correlation coefficient suggests that there is good overall fit of the regression model. The R² of the model is 0.502 which suggests that almost 50% of the variance in the KIC is explained by the model based on the sample. The R² (50.2%) of this model refers to moderately substantive magnitude of relationship. However, the same model has Adjusted R² = 49.2% which suggests us that the 49.2% of the variance in KIC would be accounted for if the model had been derived from the population from which the sample was taken. The adjusted R² indicates that 49.2% of the variance in the dependent variable i.e., Knowledge Identification and Creation can be predicted from these four predictors comprising principal components viz., Expectancy Leadership 2_2, Non-Bossy Leadership 1_2, All-Technology and Overall-Culture (Morgan et al., 2011). The adjusted R² gives us some idea of how well our model generalizes and ideally we would like its value to be the same, or very close to, the value of R². In this model the shrinkage is = 50.2-49.2 = 1.0 It's a mere shrinkage of 1.0% that suggests that if the model were derived from the population rather than a sample it would account for approximately 1.0% less variance in the outcome. The Durban-Watson value of 1.865 which is near to 2 is quite acceptable, suggesting that assumption of independent errors is tenable.

The ANOVA Table (in Table 13) shows that F = 50.103 and is statistically significant even at 1% level of significance. This indicates that these four predictors significantly combine together to predict Knowledge Identification and Creation.

Table 13: ANOVA^b

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|--------|--------------------|
| 1 | Regression | 2637.982 | 4 | 659.496 | 50.103 | 0.000 ^a |
| | Residual | 2619.371 | 199 | 13.163 | | |
| | Total | 5257.353 | 203 | | | |

a. Predictors: (Constant), OverallCulture, Leadership2_2, AllTechnology, Leadership1_2

b. Dependent Variable: KIC.

Table 12: Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | | |
|-------|--------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|---------------|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change | Durbin-Watson |
| 1 | 0.708 ^a | 0.502 | 0.492 | 3.628 | 0.502 | 50.103 | 4 | 199 | 0.000 | 1.865 |

a. Predictors: (Constant), Overall Culture, Leadership 2_2, All Technology, Leadership 1_2,

b. Dependent Variable: KIC.

Table 14: Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | | | 95% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
|-----------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------------|-------------|--------------|---------|--------|-------------------------|-------|
| | B | Std. Error | Beta | T | Sig. | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| | | | | | | | | | | | | |
| 1 (Constant) | 24.206 | 0.254 | | 95.294 | 0.000 | 23.705 | 24.707 | | | | | |
| Leadership 1_2 | 0.874 | 0.299 | 0.172 | 2.922 | 0.004 | 0.284 | 1.464 | 0.430 | 0.203 | 0.146 | 0.724 | 1.381 |
| Leadership 2_2 | -0.604 | 0.302 | -0.119 | -2.002 | 0.047 | -1.198 | -0.009 | -0.399 | -0.141 | -0.100 | 0.713 | 1.403 |
| All Technology | 0.624 | 0.286 | 0.123 | 2.180 | 0.030 | 0.060 | 1.188 | 0.408 | 0.153 | 0.109 | 0.793 | 1.262 |
| Overall Culture | 2.580 | 0.292 | 0.507 | 8.839 | 0.000 | 2.004 | 3.155 | 0.652 | 0.531 | 0.442 | 0.761 | 1.313 |

a. Dependent Variable: KIC

Table 15: Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | | | 95% Confidence Interval for B | | Correlations | | | Collinearity Statistics | |
|--------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------------|-------------|--------------|---------|--------|-------------------------|-------|
| | B | Std. Error | Beta | T | Sig. | Lower Bound | Upper Bound | Zero-order | Partial | Part | Tolerance | VIF |
| | | | | | | | | | | | | |
| 1 (Constant) | 23.060 | 0.484 | | 47.650 | 0.000 | 22.106 | 24.014 | | | | | |
| Dumvar Sec1 | 3.391 | 0.751 | 0.318 | 4.515 | 0.000 | 1.910 | 4.872 | 0.323 | 0.303 | 0.301 | 0.897 | 1.115 |
| Dumvar Sec2 | -0.212 | 0.972 | -0.015 | -0.218 | 0.828 | -2.127 | -1.704 | -0.117 | -0.015 | -0.015 | 0.897 | 1.115 |

a. Dependent Variable: KIC

The coefficients Table 14 shows that all the four principal components viz. two components of leaderships, culture and technology, are significantly contributing to the equation for predicting Knowledge Identification and Creation. The resulting model is

$$KIC = 24.206 + 0.874 X \text{ Non-Bossy Leadership } 1_2 - 0.604 X \text{ Expectancy Leadership } 2_2 + 0.624 X \text{ All-Technology} + 2.580 X \text{ Over-all-Culture.}$$

Again, the dummy variables were introduced in the multiple regression analysis to find out any sectoral difference (in Table 15) among the organizations belonging to different sectors and gender differences (in Table 16) as follows.

The t value of “dumvar sec 1” (in Table 15) is highly significant even at 1% level of significance. This suggests that the organizations belonging to IT sector are significantly different from the power sector organization. It’s not only different but they are better than the power sector organization in the area of Knowledge Identification and Creation. Similarly, t value of “dumvar sec 2” is non-significant suggesting that infrastructure sector organizations are not significantly different from power sector organization in the area of Knowledge Identification and creation. Similarly, the t value of “dumvar gender” (in Table 16) what stands for gender is non-significant suggesting that there is no significant difference among male and female employees’ perception about the Knowledge Identification and Creation in their respective organizations.

Table 16: Coefficients^a

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | 95% Confidence Interval for B | |
|---------------|-----------------------------|------------|---------------------------|--------|-------|-------------------------------|-------------|
| | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 (Constant) | 24.029 | 0.389 | | 61.787 | 0.000 | 23.262 | 24.796 |
| Dumvar Gender | 1.092 | 0.967 | 0.079 | 1.129 | 0.260 | -0.815 | 2.999 |

a. Dependent Variable: KIC

Hypotheses Testing

The positive and highly significant correlation coefficients between organizational cultural ethos of OCTAPACE and Knowledge Identification and Creation suggest that there is a relationship between organizational cultural ethos and Knowledge Identification and Creation. Other than the correlation coefficients, some of the OCTAPACE variables were incorporated as predictors of Knowledge Identification and Creation in the multiple regression analysis. Along with that, the principal component multiple regression analysis was also calculated for Knowledge Identification and Creation as dependent variable and the principal component of all OCTAPACE variables as one of the independent principal component variable named “Over-all-Culture”. The presence of this principal component in principal component multiple regression analysis suggest that they do influence the Knowledge Identification and Creation and there is a relationship between them. Thus, the null hypothesis is rejected and the alternative hypothesis, HA1- “There is a relationship between organizational cultural ethos and Knowledge Identification and Creation”, is accepted.

All the correlation coefficients are highly significant, positive, and moderate in the correlation coefficient matrix involving principal components of leadership and Knowledge Identification and Creation. In the principal component regression analysis, two of the principal components of leadership are involved as predictor for Knowledge Identification and Creation. The results, of these two statistical techniques when used in the testing of this null hypothesis, suggest that null hypothesis is rejected. Thus, the alternate hypothesis HA2, -”There is a relationship between Leadership and Knowledge Identification and Creation”, is accepted.

For Knowledge Identification and Creation, two different multiple regression equations were calculated: one involving one item of Technology questionnaire and other involving the Principal Component of Technology named “All-Technology”. The individual items of Technology i.e., “We design and tailor our electronic performance support systems to meet our learning needs” got incorporated. Also, the Principal Component of Technology “All-Technology” positively contributed to Knowledge Identification and Creation. Thus, the null hypothesis is rejected and the alternate hypothesis HA3, – “There is a relationship between Technology and Knowledge Identification and Creation”, is accepted.

The IT sector organizations are significantly different from power sector organization in the Knowledge Identification and Creation. However, infrastructure sector organizations other than power sector are not significantly different from power sector organization Knowledge Identification and Creation. So, it can also be inferred that IT sector organizations are significantly different than the infrastructure sector organizations. Thus, this null hypothesis is rejected and the alternative hypothesis HA4, -”There is difference among sectors of industry on Knowledge Identification and Creation”, is accepted.

In the multiple regression analysis involving Knowledge Identification and Creation as dependent variable, there is no significant difference between the perceptions of male and female respondents about Knowledge Identification and Creation. Thus, null hypothesis is accepted and the respective alternative hypothesis “HA5” is rejected.

Discussion

The Regression Equation -1

The simultaneous multiple regression was conducted to investigate the best predictors of Knowledge Identification and Creation. The five variables viz., Leadership 1_2 :”*Non-Bossy Leader*”, Leadership 2_2 : “*Expectancy pressure of a Leader*”, “Collaboration” ethos, “Experimentation” ethos and one technology item named “Q3. We design and tailor our electronic performance support systems to meet our learning needs”, combined together to predict Knowledge Identification and Creation. All the five variables significantly predict Knowledge Identification and Creation, $F(5, 198) = 50.041$, $p < 0.001$. The adjusted R^2 (0.547) indicates that 54.7% of the variance in the dependent variable i.e., Knowledge Identification and Creation can be explained by the model. According to Cohen (1988), this is a large effect.

Leaving “Expectancy Pressure of a Leader”, all the independent variables have positive impact on Knowledge Identification and Creation. Without any expectancy and bossy behavior of a leader, employees generally easily collaborate with one another and work as a team on any problem and experiment on it to solve any problem or for knowledge creation. In this whole process of Knowledge creation, the tailor made performance support system helps positively. The higher level of standardized beta coefficient of the ethos “Experimentation” in the regression equation confirms and supports beyond doubt the argument that Experimentation helps in Knowledge Identification and Creation by playing major role. This endeavor of “Experimentation” is also supported by Collaboration ethos and tailor-made performance support system.

The above conclusion derived using multiple regression analysis supports the idea and environment regarding knowledge creation itself i.e., nature of creative work, characteristics of creative workers and their relationship with environment viz., leadership, culture, and technology. The characteristics of creative employees i.e., autonomy, etc., are supported by expectancy-free and non-bossy leader’s behaviors.

The Regression Equation-2

Similarly, the Principal Component multiple regression equation was calculated to investigate and find the significant principal components as predictors of Knowledge Identification and Creation. The combination of four variables viz., Leadership 1_2: “*Non-Bossy Leader*”, Leadership

2_2 : "Expectancy pressure of Leader", "All-Technology" and "Over-all-Culture" predict Knowledge Identification and Creation in a statistically significant manner, $F(4, 199) = 50.103$, $p < 0.001$. The adjusted R^2 (0.492) indicates that 49.2% of the variance in the dependent variable i.e., Knowledge Identification and Creation can be explained by the model. This is a large effect. The standardized coefficients of beta for all the independent principal components suggest that "Over-all-Culture" influences the Knowledge Identification and Creation much more and far ahead than other variables like leadership and technology. Positive cultural ethos like OCTAPACE influences Knowledge Identification and Creation more than anything else. Technology and leadership play significant but secondary role in knowledge Identification and Creation (beta values of Principal Components of Ethos, Technology, and Leadership).

The Dummy variables

The dummy variables are used to understand the sector-wise/sector-specific difference among the organizations regarding the functioning of Knowledge Identification and creation. IT sector organizations are significantly different from the power sector organization. It's not only different but they are better than the power sector organization in the area of Knowledge Identification and Creation. Similarly, infrastructure sector organizations are not significantly different from power sector organization in the area of Knowledge Identification and creation. Similarly, gender-wise difference in respective perceptions about Knowledge Identification and Creation was also calculated. There is no significant difference between perceptions of male and female employees about the Knowledge Identification and Creation in their respective organizations.

Technology

Out of five technology variables only one "we design and tailor our electronic Performance Support Systems to meet our learning needs" could get into the regression equation. This suggests that technology per se is not that useful until and unless they support the need and requirements of the knowledge worker. Thus, the tailor-made performance support system instead of generic off-the-shelf that fulfills the employees needs are required by employees for knowledge creation. This idea is also supported by Castells (1996) that what characterizes the current technological revolution is not the centrality of knowledge and information but the application of such knowledge and information to knowledge generation and information processing/ communication devices, in a cumulative feedback loop between innovation and the use of innovation.

Organizational Cultural Ethos

This research study tries to locate the ability of the group of creative employees to create and innovate in the supporting organizational culture and technology in the hands of able leadership. Several studies in India suggest the importance of organizational culture in Knowledge management which involves Knowledge Creation. Singh and Sharma (2011) argued that for an organization to have a KM system (KMS), the organization culture is a key and primary factor. The organizational culture includes the shared values, beliefs, norms, expectations, and assumptions that bind people and systems. The organizational culture is particularly important in KM because it gives the people a stable and harmonious basis and helps them to adapt and integrate other variables with the environment. Singh and Sharma (2011) also found that in telecom industries, organizational culture has a strong influence on KM. It's not only the overall KM that is influenced by overall Organizational Culture, rather specific stages of Knowledge management process is influenced by specific elements of organizational culture. The interaction, dialogue, and frequent contacts must be promoted through cultural issues to create new ideas, share them, transmit tacit Knowledge, and facilitate solutions to novel or existing problems. Singh and Sharma (2011) suggested that companies which need to implement KM successfully should focus on developing learning culture, building networks that foster conversation, relationships, mutuality, and trust among employees.

Leadership Behaviours

Kouzes and Posner (1995) found that leaders were able to facilitate extraordinary accomplishments among their followers tended to engage in five specific behaviors viz., challenging the process- looking for innovative ways to improve the organization; inspiring a Shared Vision- envisioning the future, creating an ideal image of what the organization can become; Enabling others to act- building spirited teams (fostering collaboration); Modeling the way- set an example, and Encouraging heart-making people feel like heroes. Puccio et al., (2007) argued that Kouzes and Posner (1995) research on what leaders do to bring about extraordinary results bears a resemblance to known process practices that bring about creative acts. However, the above regression equations in this study did not involve other principal components of leadership which might have supported the above assertions of creative leadership. However, Puccio et al., (2007) went on to suggest that creative people and effective leaders may not be one and the same. The regression equations in this study suggest that leaders are not creative as perceived by employees of the organization as the other principal components of leadership which has ingredients of Kotter's (1996) five skills and Kouzes and Posner's (1995) all the five sets of behaviors have not got incorporated into the regression equations. Of all the four principal components, only two principal components were able to perform its role in the knowledge creation and identification. Some of the categories of behaviors impacts positively and some negatively and some of them don't even count for creative performance.

Anti-Pygmalion

The opposite of Pygmalion effect was found in the selected organizations i.e., expectations create a kind of pressure on employees and thus reduces their performance towards knowledge identification and creation. Even though there are very few studies that involve self-defeating prophecies, some of them reasoned for it as negative compensatory behavior (Zebrowitz, Andreoletti, Collins, Lee, and Blumenthal, 1998), autonomy syndrome (Amabile et al., 2004), Murphy's Law and Peter Principle. The role of a leader, nature of creative work and characteristics of creative employees don't match up completely for example, autonomy and flexibility as required by employees for creative performance and existence of a leader or boss or manager and organization itself, which has rules, roles and resource constraints. Amabile (1996) also provided a detailed account of negative effects of expectations on creative performance. Expectations are more like external constraint which as social force is detrimental to creativity. The creative persons reject expectations, external motivation and external constraints. This research concludes that there is Anti-Pygmalion effect i.e., high expectation leads to low performance, on the knowledge creation in the selected organizations.

Non-Bossy Leadership

A leader can influence the knowledge creation only indirectly by creating conducive environment through the organizational cultural ethos. The negative aspect remains with the leader like expectancy pressure and bossy actions. The bossy leaders are avoided and non-bossy actions of a leader influence positively, cultivate and produce new knowledge through knowledge identification and creation. Apart from that, Bass (1990) reviewed several research studies and found evidence concerning the relationship of dominance to leadership. Bass (1990) argued that leadership were found to be more dominant and ascendant in 11 studies; were rejected as leaders if they were bossy, domineering persons in 4 studies, and no differences appeared in 2 studies (p-67). Caldwell (1920) argued that high school pupils expressed preference for leaders who could keep order without being bossy. Similar is the result that comes out of this research study suggesting that the employees expressed preference for leaders who don't act bossy.

So both the categories of behaviors of a leader viz., non-bossy and expectancy – free, are nothing but requires hand-off approach by a leader. Creative employees perceive that if the leader practices hands off approach, it would be better for knowledge creation. Out of these five specific behaviors of Kouzes and Posner (1995), “enabling others to act” is the basic spirit of the findings of this research.

Recommendations

On the basis of this study, following are the recommendations for organizations to incorporate in their policy.

1. Leaders should avoid bossy behaviors in their practices. Employees want their leaders not to behave like a Boss. The avoidance of Bossy behaviors can improve the organizational culture and thus influencing the Knowledge Identification and Creation in the positive way directly as well as indirectly through organizational culture and ethos.
2. Leaders should avoid expecting too much from the employees rather a leader should sit together with the employees and jointly set the targets or goals as well as check points. It not only reduces the expectancy pressure of a leader but also promotes the democratic values in the organization. This is nothing but practicing of Management By Objectives (MBO) in the organization. Eden (1992) suggested that MBO and goal-setting trigger Self-Fulfilling Prophecies and challenging objectives are explicit expression of high expectations. When a manager and a subordinate agree upon challenging objectives, they are setting the stage for double expectation effects, i.e., a Pygmalion effect on the part of the manager or *leader* (italics mine) and a Galatea Effect on the subordinate's part. This influences the Knowledge Identification and Creation directly and indirectly through improving OCTAPACE Organizational ethos and Organizational Culture (Schein, 1985).
3. Eden (1992) suggested Culture is intimately involved in organizational Self-Fulfilling Prophecies because it is a rich source of performance expectations. Myth making is a promising way of molding organizational culture to create productive Self Fulfilling Prophecies. All the Organizational ethos of OCTAPACE, viz., openness, confrontation, trust, authenticity, Proaction, autonomy, collaboration, and experimentation, are positive ethos. The top management needs to work on them and promote it throughout the organization. Leaders need to be trained to promote it as leadership and organizational culture and ethos have bi-directional relationship. These organizational ethos variables have very significant impact on Knowledge Identification and Creation and all OCTAPACE variables need to be promoted throughout the organization.
4. All the technological variables are important and they provide basic technological infrastructure for the Knowledge Creation to flourish in the organization. However, a few of them influence more than others. Tailor-made electronic Performance Support System specific to the organizational needs and full access to data, information, and knowledge as per the job requirements influence Knowledge Identification and Creation in the organization and help develop it as a 'Knowledge Organization'. Organizations need to work on that aspect of technology than buying a generalized-off-the-shelf technology from the market.

Limitation of the Study

This research study tried to incorporate various variables that have most deterministic influence on knowledge creation involving an integrated, multi-disciplinary and systematic investigation with relatively unique method. Its findings are quite relevant as there is hardly any study in India on knowledge management in general and knowledge creation in particular involving such a large gamut of factors together. However, findings are relevant only to culture specific so its applicability beyond Indian subcontinents may not be exact. The study tries to investigate the knowledge creation in six organizations operating in different sectors to make it more generalized though; the survey method has its own lacuna. Apart from its limitations, being an empirical research on Knowledge Creation in India, the academicians as well the practitioners may find it relevant and useful where there is scarcity of literature on Knowledge Creation in India and the role a leader play through his actions, practices, and behaviors.

References

- Amabile, T.M. (1996), *Creativity in Context*, New York: Westview Press.
- Amabile, T.M., Schatzel, E.A., Moneta, G.B., and Kramer, S.J. (2004), Leader Behaviors and the Work Environment for Creativity: Perceived Leader Support, *Leadership Quarterly*, Vol. 15, pp.5-32.
- Antonakis, J., Avolio, B.J., and Sivasubramaniam, N. (2003), Context and Leadership: An Examination of the Nine-factor Full-range Leadership Theory using the Multifactor Leadership Questionnaire, *The Leadership Quarterly*, Vol. 14, No. 3, pp.261-295.
- Arad, S., Hanson, M.A., and Schneider, R.J. (1997), A Framework for the Study of Relationship Between Organizational Characteristics and Organizational Innovation, *Journal of Creative Behavior*, Vol. 31, pp.42-59.
- Ardichvili, A. and Gasparishvili, A. (2001), Leadership Profiles of Managers in Postcommunist Countries: A Comparative Study, *Leadership and Organization Development Journal*, Vol. 22, No. 2, pp.62-69.
- Babad, E.Y. (1977), Pygmalion in Reverse, *Journal of Special Education*, Vol. 11, pp.81-90.
- Babad, E.Y., Inbar, J., and Rosenthal, R. (1982), Pygmalion, Galatea, and the Golem: Investigations of Biased and Unbiased Teachers, *Journal of Educational Psychology*, Vol. 74, pp.459-474.
- Barron, F. and Harrington, D.M. (1981), Creativity, Intelligence, and Personality, *Annual Review of Psychology*, Vol. 32, pp.439-476.
- Bass, B.M. (1990), *Bass and Stogdill's Handbook of Leadership: Theory, Research, and Managerial Application*, New York, USA: The Free Press.
- Basu, R. and Green, S.G. (1997), Leader-member Exchange and Transformational Leadership: An Empirical Examination of Innovative behaviors in Leader-member Dyads, *Journal of Applied Social Psychology*, Vol. 27, No. 6, pp.477-499.
- Bedeian, A.G. and Glueck, W.F. (1983), *Management*, New York: CBS College Publishing.
- Besemer, S.P. and O'Quin, K. (1999), Confirming the Three-factor Creative Product Analysis Matrix Model in an American Sample, *Creativity Research Journal*, Vol. 12, pp.287-296.
- Bolton, M.K. (1993), Organizational Innovations and Substandard Performance: Often is Necessity the Mother of Invention? *Organizational Science*, Vol. 4, pp.57-75.
- Bowen, F.E., Rostami, M., and Steel, P. (2010), Timing is Everything: A Meta-analysis of the Relationships Between Organizational Performance and Innovation, *Journal of Business Research*, Vol. 63, No. 11, pp.1179-1185.
- Bundy, W.M. (2002), *Innovation, Creativity, and Discovery in Modern Organizations*, Westport, CT: Quorum Books.
- Bushman, B.J., Baumeister, R.F., and Stack, A.D. (1999), "Catharsis, Aggression, and Persuasive Influence: Self-Fulfilling or Self-Defeating Prophecies?", *Journal of Personality and Social Psychology*, Vol. 76, No. 3, pp.367-76.
- Caldwell, O.W. (1920), Some Factors in Training for Leadership, In *Fourth Yearbook, National Association of Secondary School Principals*, Washington, DC.
- Castells, M. (1996), *The Rise of Network Society*, Oxford: Blackwell.
- Cohen, J. (1988), *Statistical Power and Analysis for the Behavioral Sciences* (2nd ed.), Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cohen, W.M. and Levinthal, D.A. (1990), Absorptive Capacity: A New Perspective on Learning and Innovation, *Administrative Science Quarterly*, Vol. 35, pp.128-152.
- Collins, M.H., Hair, Jr., J.F., and Rocco, T.S. (2009), The Older-worker-younger-supervisor Dyad: A Test of the Reverse Pygmalion Effect, *Human Resource Development Quarterly*, Vol. 20, No. 1, pp.21-41.
- Davidson, O. and Eden, D. (2000), Remedial Self-fulfilling Prophecy: Two Field Experiments to Prevent Golem Effects Among Disadvantaged Women, *Journal of Applied Psychology*, Vol. 85, pp.386-398.
- DeLong, D. (1997), *Building the Knowledge-based Organization: How Culture Drives Knowledge Behaviors*, Working Paper, Center for Business Innovation, Ernst and Young LLP.
- Den Hartog, D.N. and Verburg, R.M. (1997), Charisma and Rhetoric: Communicative Techniques of International Business Leaders, *The Leadership Quarterly*, Vol. 8, No. 4, pp.355-391.
- Drazin, R., Glynn, M.A., and Kazanjian, R.K. (1999), Multilevel Theorizing about Creativity in Organizations: A Sense Making Perspective, *Academy of Management Review*, Vol. 24, pp.286-329.

- Eden, D. (1984), Self-Fulfilling Prophecy as a Management Tool: Harnessing Pygmalion, *Academy of Management Review*, Vol. 9, pp.64-73.
- Eden, D. (1990), Pygmalion in Management: Productivity as a Self-fulfilling Prophecy, Lexington: D.C. Heath.
- Eden, D. (1992), Leadership and Expectations: Pygmalion Effects and other Self-fulfilling Prophecies in Organizations, *Leadership Quarterly*, Vol. 3, No. 4, pp.271-305.
- Farashahi, M. and Hafsi, T. (2009), Strategy of Firms in Unstable Institutional Environments, *Asia Pacific Journal of Management*, Vol. 26, No. 4, pp.643-666.
- Fein, E.C., Tziner, A., and Vasiliu, C. (2010), Age Cohort Effects, Gender, and Romanian Leadership Preferences, *The Journal of Management Development*, Vol. 29, No. 4, pp.364-376.
- Ford, C.M. (2000), Creative Developments in Creativity Theory, *Academy of Management Review*, Vol. 25, pp.284-289.
- Ford, D.L., Jr. and Ismail, K.M. (2006), Perceptions of Effective Leadership Among Central Eurasian Managers: A Cultural Convergence-divergence Examination within a Globalization Context, *Journal of International Management*, Vol. 12, No. 2, pp.158-180.
- Heinzen, J.E., Mills, C., and Cameron, P. (1993), Scientific Innovation Potential, *Creativity Research Journal*, Vol. 6, pp.261-270.
- Hitt, M.H., Hoskisson, R.E., and Kim, H. (1997), International Diversification Effects on Innovation and Firm Performance in Product Diversified Firms, *Academy of Management Journal*, Vol. 40, pp.767-798.
- Howell, J.M. and Avolio, B.J. (1993), Transformational Leadership, Transactional Leadership, Locus of Control, and Support for Innovation: Key Predictors of Consolidated-business Unit Performance, *Journal of Applied Psychology*, Vol. 78, No. 6, pp.891-902.
- Ireland, R.D. and Hitt, M.A. (1999), Achieving and Maintaining Strategic Competitiveness in the 21st Century: The Role of Strategic Leadership, *The Academy of Management Executive*, Vol. 13, No. 1, pp.43-57.
- Jung, D.I. (2001), Transformational and Transactional Leadership and Their Effects on Creativity in Groups, *Creativity Research Journal*, Vol. 13, pp.185-197.
- Jussim, L. (1986), Self-fulfilling Prophecies: A Theoretical and Integrative Review, *Psychological Review*, Vol. 93, pp.429-445.
- Kiggundu, M.N., Jørgensen, J.J., and Hafsi, T. (1983), Administrative Theory and Practice in Developing Countries: A Synthesis, *Administrative Science Quarterly*, Vol. 28, No. 1, pp.66-84.
- Kim, H., and Yukl, G.A. (1995), Relationships of Managerial Effectiveness and Advancement to Self-reported and Subordinate Reported Leadership Behaviors from the Multiple-linkage Model, *The Leadership Quarterly*, Vol. 6, No. 3, pp.361-377.
- Koontz, H. and O'Donnell, C. (1964), *Principles of Management: An Analysis of Managerial Functions*, New York: McGraw Hill Book Company.
- Korman, A.K. (1971), Expectancies as Determinants of Performance, *Journal of Applied Psychology*, Vol. 55, No. 2, pp.18-222.
- Kotter, J. (1996), *Leading Change*, Boston: Harvard Business School Press.
- Kouzes, J.M. and Posner, B.Z. (1995), *The Leadership Challenge: How to Keep Getting Extraordinary Things Done in Organizations*, San Francisco: Jossey- Bass.
- Kumar, M. (2012), *Knowledge Management: A Study of Selected Organizations*, Unpublished Doctoral Dissertation, Delhi: University of Delhi, India.
- Likert, R. (1961), *New Patterns of Management*, New York: McGraw-Hill.
- Likert, R. (1967), *The Human Organization: Its Management and Value*, New York: McGraw-Hill.
- Likert, R. and Likert, J.G. (1976), *New Ways of Managing Conflict*, New York: McGraw-Hill Book Company.
- Maier, D.J. and Moseley, J.L. (2003), The Knowledge Management Assessment Tool, Pfeiffer, <http://www.pfeiffer.com/WileyCDA/>.
- McGregor, D. (1960), *The Human Side of Enterprise*, New York: McGraw-Hill.
- Merton, Robert K. (1936), The Unanticipated Consequences of Purposive Social Action, *American Sociological Review*, Vol. 1, No. 6, pp.894-904.
- Merton, Robert K. (1948), The Self-Fulfilling Prophecy, *The Antioch Review*, Vol. 8, No. 2, pp.193-210.

- Merton, Robert K. (1968), *Social Theory and Social Structure*, New York: Free Press.
- Morgan, G.A., Leech, N.L., Gloeckner, G.W., and Barrett, K.C. (2011), *IBM SPSS for Introductory Statistics: Use and Interpretation*, New York: Routledge.
- Mumford, M.D., Scott, G.M., Gaddis, B., and Strange, J.M. (2002), Leading Creative People: Orchestrating Expertise and Relationships, *The Leadership Quarterly*, Vol. 13, pp.705-750.
- Mumford, M.D. and Gustafson, S.B. (1988), Creativity Syndrome: Integration, Application, and Innovation, *Psychological Bulletin*, Vol. 103, pp.27-43.
- Newell, S., Robertson, M., Scarbrough, H., and Swan, J. (2002), *Managing Knowledge Work*, New York: PALGRAVE.
- Nguyen, H.N. and Mohamed, S. (2011), Leadership Behaviors, Organizational Culture and Knowledge Management Practices: An Empirical Investigation, *Journal of Management Development*, Vol. 30, No. 2, pp.206-221.
- Nonaka, I., and Takeuchi, H. (1995), *The Knowledge – Creating Company: How Japanese Companies Create the Dynamics of Innovation*, New York: Oxford University Press.
- Nystrom, H. (1979), *Creativity and Innovation*, Chichester: John Wiley & Sons.
- Nystrom, H. (1990), Organizational Innovation, In West, M.S. and Farr, J.L. (Eds.), *Innovation and Creativity at Work: Psychological and Organizational Strategies*, New York: Wiley, pp.143-162.
- Oz, S. and Eden, D. (1994), Restraining the Golem: Boosting Performance by Changing the Interpretation of Low Scores, *Journal of Applied Psychology*, Vol. 79, pp.744-754.
- Pareek, U. (1997), *Training Instruments for Human Resource Development*, New Delhi: Tata McGraw-Hill Publishing Company Limited, India.
- Pareek, U. (2006), *Organizational Culture and Climate*, Hyderabad, India: The ICFAI University Press.
- Pavitt, K. (1990), What We Know About Strategic Management of Technology, *California Management Review*, Vol. 33, pp.17-126.
- Perry-Smith, J.E. (2006), Social Yet Creative: The Role of Social Relationships in Facilitating Individual Creativity, *Academy of Management Journal*, Vol. 49, No. 1, pp.85-101.
- Pillai, R., Scandura, T.A., and Williams, E.A. (1999), Leadership and Organizational Justice: Similarities and Differences Across Cultures, *Journal of International Business Studies*, Vol. 30, No. 4, pp.763-779.
- Porter, M.E. (1990), *The Competitive Advantage of Nations*, New York: Free Press.
- Puccio, G.J., Murdock, M.C., and Mance, M. (2007), *Creative Leadership: Skills that Drive Change*, California: Sage Publications, Inc.
- Puranam, P., Singh, H., and Zollo, M. (2006), Organizing for Innovation: Managing the Coordination-autonomy Dilemma in Technology Acquisition, *Academy of Management Journal*, Vol. 49, No. 2, pp.263-280.
- Robert, K.H. and Hunt, D.M. (1991), *Organizational Behavior*, Boston, Massachusetts: PWS-KENT Publishing Company.
- Rosenthal, R. and Jacobson, L. (1968), *Pygmalion in the Classroom: Teacher Expectation and Pupils' Intellectual Development*, New York: Holt, Rinehart & Winston.
- Rosenthal, R. and Rubin, D.B. (1978), Interpersonal Expectancy Effects: The First 345 Studies, *Behavioral and Brain Sciences*, Vol. 3, pp.377-386.
- Rostan, S.M. (1998), A Study of Young Artists: The Emergence of Artistic and Creative Identity, *Journal of Creative Behavior*, Vol. 32, pp.278-301.
- Ryan, J.C. and Tipu, S.A.A. (2013), Leadership Effects on Innovation Propensity: A Two-factor Full Range Leadership Model, *Journal of Business Research*, <http://dx.doi.org/10.1016/j.jbusres.2013.02.038>.
- Schein, E.H. (1985), *Organizational Culture and Leadership*, San Francisco, CA: Jossey-Bass.
- Schein, E.H. (1992), *Organizational Culture and Leadership*, California. USA. Jossey-Bass Inc.
- Shahin, A.I. and Wright, P.L. (2004), Leadership in the Context of Culture: An Egyptian Perspective, *Leadership and Organization Development Journal*, Vol. 25, No. 6, pp.499-511.
- Singh, A.K., and Kumar, M. (2013), Organizational Leadership in India, In C.S. Sharma and R.K. Singh (Eds.), *Transformational Leadership and Beyond*, New Delhi: Excel India Publishers, India, pp.53-67.
- Singh, A.K. and Kumar, V. (2013), Spirituality and Leadership, In C.S. Sharma and R.K. Singh (Eds.), *Transformational*

Leadership and Beyond, New Delhi: Excel India Publishers, India, pp.14-27, ISBN – 978-93-82880-26-4.

Singh, A.K. and Sharma, V. (2008a), Antecedents of Knowledge Management and Its Impact on Employee Satisfaction: A Study on Indian Telecom Sector, In B.S. Sahay, J. Ranjan, R.R. Thakur, S. Nicholas (Eds), *Redefining Business Horizons*, Proceedings of the International Conference on Innovation and Redefining Business (IIRB) -2008, IMT, Ghaziabad, India, pp.18-19 December, 2008, McMillan Advance Research Series, McMillan Publications, First Edition, pp.570-581.

Singh, A.K. and Sharma, V. (2008b), A Study on Implications of Culture Driven Knowledge Management on Employee Satisfaction in Indian Telecom Sector, In Coskun Can Aktan and Ozkan Dalbay (Eds.), *Management and Behaviour in Organizations*, Vol. 2, Selected Proceedings of the First International Conference on Social Sciences, Organized by Social Sciences Research Society on August 21-22, 2008, at Izmir, Turkey, pp.15-28, ISBN: 978-605-5741-16-3.

Singh, A.K. and Sharma, V. (2008c), Key Attributes of Successful Knowledge Management: An Empirical Study in Telecom and Software Sector, Proceedings of the International Conference on Data Management-2008, (February 25-26) at IMT, Ghaziabad, McMillan Advanced Research Series, Data Management, McMillan Publications, First Edition, pp.495-502, ISBN: 10: 0230-63469-9; ISBN: 13: 978-0230-63469-5.

Singh, A.K. and Sharma, V. (2008d), Knowledge Management and Organisational Learning: An Empirical Study of its Implications on Employee Satisfaction in Telecom Sector”, Proceedings of the National Conference on Management -2007 (November, 23-24) at GGS Indraprastha University, New Delhi, *Corporate Strategies and Innovations in the Emerging Global Economy*, Wisdom Publications, First Edition, pp.302-318.

Singh, A.K. and Sharma, V. (2011), Key Attributes of Successful Knowledge Management: An Empirical Study in Telecommunication and Software Industries, *International Journal Business Information Systems*, Vol. 7, No. 1, pp.78-92.

Singh, A.K. and Sharma, V. (2011a), Knowledge Management Antecedents and its Impact on Employee Satisfaction: A Study on Indian Telecommunication Industries”, *Learning Organization, The – TLO*, Vol. 18, No. 2, pp.115-130, *Emerald Journal*, United Kingdom, <http://www.emeraldinsight.com/10.1108/09696471111103722>.

Smith, P.B. and Peterson, M.F. (1988), *Leadership, Organizations, and Culture*, New York: Sage Publications.

Starbuck, W. (1992), Learning by Knowledge-intensive Firms, *Journal of Management Studies*, Vol. 29, No. 6, pp.713-40.

Tesluk, P.E., Farr, J.L., and Klein, S.R. (1997), Influences of Organizational Culture and Climate on Individual Creativity, *The Journal of Creative Behavior*, Vol. 31, pp.27-41, doi: 10.1002/j.2162-6057.1997.tb00779.x.

Tushman, M.L. and O'Reilly, C.A. (1997), *Winning Through Innovation*, Cambridge, MA: Harvard Business School Press.

Vera, D. and Crossan, M. (2004), Strategic Leadership and Organizational Learning, *The Academy of Management Review*, Vol. 29, No. 2, pp.222-240.

Ward, T.B., Smith, S.M., and Finke, R.A. (1999), Creative Cognition, In Sternberg, R.J. (Ed.), *Handbook of Creativity*, Cambridge, England: Cambridge University Press, pp.189-213.

Wilkins, William E. (1976), “The Concept of a Self-Fulfilling Prophecy”, *Sociology of Education*, Vol. 49, No. 2, pp.175-183.

Zebrowitz, L.A., Andreoletti, C., Collins, M.A., Lee, S.Y., and Blumenthal, J. (1998), Bright, Bad, Babyfaced Boys: Appearance Stereotypes do not Always Yield Self-fulfilling Prophecy Effects, *Journal of Personality and Social Psychology*, Vol. 75, No. 5, pp.1300-1320.

Annexure 1: Collinearity Diagnostics^a

| Model | Dimension | Eigen value | Condition index | Constant | Leadership 1_2 | Leadership 2_2 | Collaboration | Experimentation | Q 3. Tailor Performance Support System |
|--------------|------------------|--------------------|------------------------|-----------------|-----------------------|-----------------------|----------------------|------------------------|---|
| 1 | 1 | 3.934 | 1.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 2 | 1.485 | 1.627 | 0.00 | 0.24 | 0.25 | 0.00 | 0.00 | 0.00 |
| | 3 | 0.514 | 2.768 | 0.00 | 0.70 | 0.72 | 0.00 | 0.00 | 0.00 |
| | 4 | 0.040 | 9.857 | 0.02 | 0.02 | 0.00 | 0.05 | 0.06 | 0.96 |
| | 5 | 0.015 | 16.258 | 0.25 | 0.02 | 0.01 | 0.17 | 0.93 | 0.01 |
| | 6 | 0.011 | 18.684 | 0.73 | 0.02 | 0.02 | 0.78 | 0.01 | 0.03 |

a. Dependent Variable: KIC

Annexure 2: Casewise Diagnostics^a

| Case Number | Std. Residual | KIC | Predicted Value | Residual |
|--------------------|----------------------|------------|------------------------|-----------------|
| 32 | -2.841 | 10 | 19.73 | -9.730 |
| 42 | 2.711 | 31 | 21.72 | 9.283 |
| 52 | -3.336 | 15 | 26.42 | -11.424 |
| 108 | 2.689 | 32 | 22.79 | 9.208 |
| 140 | -2.704 | 15 | 24.26 | -9.262 |
| 151 | 2.521 | 36 | 27.37 | 8.633 |

a. Dependent Variable: KIC.

Annexure 3: Residuals Statistics^a

| | Minimum | Maximum | Mean | Std. Deviation | N |
|-----------------------------------|---------|---------|--------|----------------|-----|
| Predicted Value | 12.79 | 35.24 | 24.21 | 3.802 | 204 |
| Std. Predicted Value | -3.003 | 2.901 | 0.000 | 1.000 | 204 |
| Standard Error of Predicted Value | 0.259 | 1.251 | 0.562 | 0.170 | 204 |
| Adjusted Predicted Value | 12.61 | 35.19 | 24.21 | 3.809 | 204 |
| Residual | -11.424 | 9.283 | 0.000 | 3.382 | 204 |
| Std. Residual | -3.336 | 2.711 | 0.000 | 0.988 | 204 |
| Stud. Residual | -3.381 | 2.772 | 0.000 | 1.006 | 204 |
| Deleted Residual | -11.740 | 9.713 | -0.003 | 3.507 | 204 |
| Stud. Deleted Residual | -3.475 | 2.821 | -0.001 | 1.013 | 204 |
| Mahal. Distance | 0.162 | 26.079 | 4.975 | 3.865 | 204 |
| Cook's Distance | 0.000 | 0.143 | 0.006 | 0.016 | 204 |
| Centered Leverage Value | 0.001 | 0.128 | 0.025 | 0.019 | 204 |

a. Dependent Variable: KIC.

Annexure 4: Collinearity Diagnostics^a

| Model | Dimension | Eigen value | Condition Index | (Constant) | Variance Proportions | | | |
|-------|-----------|-------------|-----------------|------------|----------------------|----------------|----------------|-----------------|
| | | | | | Leadership 1_2 | Leadership 2_2 | All Technology | Overall Culture |
| 1 | 1 | 2.050 | 1.000 | 0.00 | 0.09 | 0.10 | 0.08 | 0.09 |
| | 2 | 1.000 | 1.432 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | 3 | 0.855 | 1.549 | 0.00 | 0.24 | 0.15 | 0.35 | 0.15 |
| | 4 | 0.610 | 1.833 | 0.00 | 0.06 | 0.20 | 0.38 | 0.60 |
| | 5 | 0.485 | 2.057 | 0.00 | 0.61 | 0.56 | 0.19 | 0.15 |

a. Dependent Variable: KIC.

Annexure 5: Casewise Diagnostics^a

| Case Number | Std. Residual | KIC | Predicted Value | Residual |
|-------------|---------------|-----|-----------------|----------|
| 18 | 2.344 | 33 | 24.50 | 8.503 |
| 32 | -3.107 | 10 | 21.27 | -11.273 |
| 43 | -2.192 | 16 | 23.95 | -7.954 |
| 52 | -3.484 | 15 | 27.64 | -12.641 |
| 98 | -2.613 | 16 | 25.48 | -9.480 |
| 108 | 2.507 | 32 | 22.90 | 9.095 |
| 118 | -2.281 | 17 | 25.28 | -8.275 |
| 140 | -2.455 | 15 | 23.91 | -8.907 |
| 151 | 2.585 | 36 | 26.62 | 9.377 |

a. Dependent Variable: KIC.

Annexure 6: Residuals Statistics^a

| | Minimum | Maximum | Mean | Std. Deviation | N |
|-----------------------------------|---------|---------|--------|----------------|-----|
| Predicted Value | 11.68 | 33.77 | 24.21 | 3.605 | 204 |
| Std. Predicted Value | -3.474 | 2.654 | 0.000 | 1.000 | 204 |
| Standard Error of Predicted Value | 0.292 | 1.260 | 0.539 | 0.179 | 204 |
| Adjusted Predicted Value | 11.31 | 33.67 | 24.21 | 3.614 | 204 |
| Residual | -12.641 | 9.377 | 0.000 | 3.592 | 204 |
| Std. Residual | -3.484 | 2.585 | 0.000 | 0.990 | 204 |
| Stud. Residual | -3.529 | 2.608 | 0.000 | 1.007 | 204 |
| Deleted Residual | -12.965 | 9.547 | -0.003 | 3.716 | 204 |
| Stud. Deleted Residual | -3.635 | 2.647 | -0.001 | 1.014 | 204 |
| Mahal. Distance | 0.324 | 23.477 | 3.980 | 3.701 | 204 |
| Cook's Distance | 0.000 | 0.136 | 0.007 | 0.019 | 204 |
| Centered Leverage Value | 0.002 | 0.116 | 0.020 | 0.018 | 204 |

a. Dependent Variable: KIC.