The impact of leadership behavior on employees’ innovation: a comparative study of public and private sector organizations

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ABSTRACT
This study aims to observe relationship between leadership behaviors and employee’s innovation; and to analyze the impact of leadership behaviors on employee’s innovation in public and private sector organizations individually and collectively. Two questionnaires were developed, one for employees and one questionnaire for leaders/managers. Sample comprises of randomly selected five hundred managers and five hundred employees of different private and public sector organizations. Percentages, compute variable technique, independent samples T-test, and regression analyses have been used to analyze data. Results indicate that: firstly, same leadership behaviors are adopted in public sector and private sector organizations but heterogeneity prevails in providing vision leadership behavior and consulting leadership behavior. Secondly, all leadership behaviors are positively interrelated with employee’s innovation. Thirdly, all leadership behaviors have no effect on employee’s innovation based on individual analysis; whereas, only innovative role modeling leadership behavior has significant positive impact on employee’s innovation based on pooled analysis.

Introduction
Continuous flows of innovations can be achieved when employees should have to be more innovative and creative, and they should be willing to acquire a constant course of innovation because well-known management principles like organizational learning (Senge, 1990), total quality management (McLoughlin & Harris, 1997), and corporate venturing (Elfring, 2003) navigate around personal innovation. Therefore, leaders should motivate their employees in specific dimensions for innovation and creativity. Zhou and Shalley (2003) reported that leaders play crucial role in increasing innovation in employees because innovative behavior of employees is closely related to their interactions with other employees and managers at work place (Anderson et al., 2004) but those organizations where leaders and employees are appraised on the base of their work performance, where employees are negatively influenced by leaders at work place (Yukl, 2002) as some managers feel uncomfortable when innovative ideas come from employees for better organizational performance. There are various stakeholders of organization namely, managers, employees, organizational policies and system and each employee is responsible for his relevant responsibility. So, it is a responsibility of leaders to generate new principles for better performance and to motivate their employees in their relevant construct to enhance their innovation e.g. behavioral perspective (Janssen, 2000) or output perspective (West, 1987) or personality characteristics (Hurt et al., 1977). Basadur (2004) stated that effective leaders help individuals in future business to integrate and coordinate through application of creativity which needs defining problems, exploring problems, finding remedies and implementing new ways on regular basis.

Katz (1964) argues that capitalizing employees innovative idea is another aspect necessary for organizational performance, whereas totally dependence on prescribed plans and work without creativity leads to a weak system for the organization and hence decline in overall organizational performance.

Now a day, instead of rely on stated procedures; organizations prefer to adopt knowledge based approach in every aspect. In this way, organizational performance can be improved by adopting creative and innovative ideas floated by employees. Academicians and practitioners should support innovative ideas so that an organization can be successful through employee’s innovation (Unsworth & Parker, 2003; Smith, 2002; Axtell et al., 2000; Amabile, 1988; and Van-de-Ven, 1986).

Problem Statement
Leaders are a key to any organization. Good leaders work with and through employees to achieve organizational objectives and goals through handling personnel creativity ability. Managers also exercise their various behavior for strategic achievement of their goals in different scenarios also. Jong and Hartog (2007) presented thirteen behaviors of leadership in organizations. Now, there is a need to examine and understand that which leadership behavior is more fruitful to handle and employee’s innovative and creative abilities, and which leadership behavior is being practiced in different public and private sector organizations of Pakistan.

Purposes of the Study
The purposes of this study are to:

1. What types of leadership behavior are adopted in public sector organizations of Pakistan?
2. What types of leadership behavior are adopted in private sector organizations of Pakistan?
3. What is the difference between leadership behavior which leaders adopted in public and private sector organizations of Pakistan?
4. What type of relationship exists between leadership behavior and employee’s innovation?
5. How much leadership behaviors have impact on employee’s innovation especially in public sector organizations of Pakistan?

6. How much leadership behaviors have impact on employee’s innovation especially in private sector organizations of Pakistan?

7. How much leadership behaviors leadership behaviors have impact on employee’s innovation in all organizations of Pakistan?

**Significance of Study**

This study will practically guide current and prospective leaders that what types of leadership behaviors are already prevailed in public and private sector organizations and which type is more beneficial to handle innovation of employees.

Rest of the paper is structured in the hierarchy: literature review, research methodology, results and analysis and in the last is conclusions.

**Literature Review**

Chao et al. (2011) investigated manufacturing industry of Taiwan to analyze the impact of supervisor leadership behavior on innovative behavior of employees. In this study, organizational justice and organization culture were taken as moderating variable to see the relationship between employee innovative behavior and supervisor leadership behavior. Study found positive relationship between employee innovative behavior and supervisor leadership which means supervisor leadership behavior in organization leads towards more employee innovative behavior. Similarly, Oldham and Cummings (1996) argues that the key element in creativity process is management and managers should take care of their employee’s needs and sentiments, hence supportive behavior from management side essential but lacking of this behavior is observed in organizations.

Good relationship of manager and his or her worker contributes towards innovation and creativity ability of personnel. Graen and Scandura (1987) explain account for of innovation between manager and employee is essential as it is the base of innovation. Yukl (2002) reported the effects of relationship between employees and leaders on organizational performance, employees’ commitment, role of clarity, employees’ turnover, and employees’ satisfaction. Employee’s and leader’s relationship can give birth to employee’s innovation and creativity because both are directly proportional. Kim and Yukl, (1995) showed that employee’s performance and leader’s behavior have limited relation. Leader forecasts performance of general employee through monitoring, clarifying, networking behavior, socio-mental support behaviors, recognition, person oriented subordinate development, and task oriented planning (Yukl et al., 1990; Van Fleet & Yukl, 1986; Kotter, 1982; Komaki et al., 1989; Kim & Yukl, 1995). Many studies showed positive relationship between employee’s creativity and team leader behaviors; which are authorized for team in the organization (Ancona & Caldwell, 1992); only focus on work and not any other activity of the team (Katz & Tushman, 1979); and provide different forms of support to team’s work and general management (Barnowe, 1975). Employees are influence by their managers’ role model and target setting. Employees also analyze organizational climate or environment, model and value for establishment of common model. Moreover it is not always mandatory for manager to explain the creativity process to employees but can also possess the ability to handle creativity and innovation of others and encourage their tasks to achieve organizational goals (Tushman & O’Reilly, 1997). Employee’s innovation and creativity is affected by three ways: firstly, identification of problem and then performance i.e. instead of profit, growth and value, according to the vision in long and short term businesses. Second, leader has great effect on organizational culture and environment (Schein, 1992) and this effect may be positive or negative. If leader supports and motivate employees though giving them rewards including extrinsic and intrinsic than creativity level will lead to increase employees innovation and creativity (Jung et al., 2008). Amabile et al. (1996) assessed working environment for innovation and creativity and investigated organizational encouragement, work group support and supervisory encouragement that showed positive impact on employee’s innovation and creativity. Recognition leadership behavior is related with rewards to employees on their innovative work performance; however, employees should understand their work as enjoyable, pleasant and rewarding because this process help in increasing their mental level, ability, competency and self-control, and these variables are also helpful for better performance (Manz & Neck, 1999; Manz, 1992; Manz, 1986). Driskell et al. (1994) stated that employees should make their thinking positive because positive-thinking increase performance level of individuals that leads towards innovative ideas. Kahai et al. (2003) also examined the effect of anonymity and rewards system on employee’s outcomes, and employee’s creativity through laboratory experiment using an electronic meeting system.

**METHODOLOGY**

**Population, Sample Size, and Instrument**

Sampling is an integral part of any study. Population is consisted on managers and employees of public and private sector organizations operating in Pakistan. Total one thousand (five hundred for managers and employees each) self-administrated questionnaires were distributed to the upper, middle and lower layers managers and employees of all layers also of private and government sector selected on random basis. Some questionnaires were send via email and explanation of various questions to responded was made via telephonic conversations. Response rate remained very nice which is 94%.

Non-probability sampling technique is a technique where each unit of population does not have equal chance to be a part of sample; this study uses this technique due to the unique features of respondent profile. One questionnaire for leaders is developed based on the study of Jong and Hartog (2007). Whereas, another instrument is for employees adopted from “Employee Innovation Survey – Analysis Key developed by Enclaria Leadership organization” and these are concerned with employee’s innovation.

**Variables and Hypothesis Development**

Hypothesis development is based on the following variables with their dimensions.

**Table 1**

<table>
<thead>
<tr>
<th>Dependent and Independent Variables</th>
<th>Leadership behaviors</th>
<th>Employee Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Support for Innovation</td>
<td>a) Power</td>
<td></td>
</tr>
<tr>
<td>b) Recognition</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This study is hypothesized as:

**H1**
Heterogeneity exists between leadership behaviors that are adopted in public sector and private sector organizations.

**Model 1**

**H2**
Leadership Behavior is positively affected by Employee’s Innovation.

**Model 2**

**H3**
Employees’ Innovation has positive significant impact from Leadership behavior in case of public sector organization.

- **H3a** Employee’s Innovation is positively affected by Innovative Role Modeling.
- **H3b** Employee’s Innovation is positively affected by Vision Providing.
- **H3c** Employee’s Innovation positive affect from Consulting of Leadership behavior
- **H3d** Employee’s Innovation has positive affect from Delegating of Leadership behavior.
- **H3e** Employee’s Innovation is positively affected by support for innovation.
- **H3f** Employee’s Innovation is positively affected by recognition of leadership behavior.
- **H3g** Employee’s Innovation is positively affected by monitoring of leadership behavior.

**Model 3**

**H4**
Employee’s Innovation is positively significant affected by leadership behavior in private sector organizations

- **H4a** Employee’s Innovation is positively affected by Innovative Role Modeling.
- **H4b** Employee’s Innovation is positively affected by Vision of leadership behavior.
- **H4c** Employee’s Innovation is positively affected by Consulting of leadership behavior
- **H4d** Employee’s Innovation is positively affected by delegating leadership behavior.
- **H4e** Employee’s Innovation is positively affected by support for innovation of leadership behavior.
- **H4f** Employee’s Innovation is positively affected by recognition of leadership behavior.
- **H4g** Employee’s Innovation is positively affected by monitoring of leadership behavior.

**Model 4**

**Analyses Tools**
Firstly, compute variable technique is used to compute employee innovation through combining four factors. Secondly, independent T-test is applied to know that what type of leadership behavior is adopted by leaders of public and private organizations. and employee innovation. Lastly, Amabile et al. (2004) used regression while analyzing impact of leadership behaviors on innovation and creativity. For investigating the impact of leadership behavior on employees’ innovation, regression analysis is used whereas the reliability analysis has been conducted through Cronbach’s Alpha by using SPSS, V-16. In experimental studies, the value of Cronbach’s Alpha equal one is acceptable and in case of behavioral studies the value ranges from 0.60 to one is deemed good. In the study, the value of Cronbach’s Alpha for leadership behavior is 0.88 and 0.79 for employee’s innovation.
Results

Table 2

Independent Samples T-test Analysis
Leadership Behaviors Relative to Leaders of Public and Private Organizations

<table>
<thead>
<tr>
<th>Leadership Behaviors</th>
<th>Public Sector</th>
<th>Private Sector</th>
<th>t.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Rank</td>
<td>Mean</td>
<td>Rank</td>
</tr>
<tr>
<td>Innovative Role Modeling</td>
<td>14.7228</td>
<td>1</td>
<td>15.2500</td>
<td>1</td>
</tr>
<tr>
<td>Support for Innovation</td>
<td>7.5644</td>
<td>2</td>
<td>7.7583</td>
<td>2</td>
</tr>
<tr>
<td>Monitoring</td>
<td>7.3465</td>
<td>3</td>
<td>7.6667</td>
<td>3</td>
</tr>
<tr>
<td>Providing Vision</td>
<td>7.1980</td>
<td>4</td>
<td>7.4417</td>
<td>5</td>
</tr>
<tr>
<td>Consulting</td>
<td>6.9208</td>
<td>5</td>
<td>7.5083</td>
<td>4</td>
</tr>
<tr>
<td>Recognition</td>
<td>3.7921</td>
<td>6</td>
<td>3.9250</td>
<td>6</td>
</tr>
<tr>
<td>Delegating</td>
<td>3.5446</td>
<td>7</td>
<td>3.7167</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 2 is reflecting difference in leadership behaviors adopted by leaders of public and private organizations. Independent samples T-test is applied to observe the homogeneity or heterogeneity between leadership behaviors relative to the leaders of public and private sector organizations. According to table 2, leadership behavior of private and public sector organizations has been observed except consulting and vision providing (H3 accepted). In private sector organizations, most of the time, leaders provide vision than consulting behavior, whereas, in public sector organizations, consulting behavior most of the times has been identified than providing vision.

Table 3

Corporate Profile of Respondents

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 Year</td>
<td>14</td>
<td>01.30</td>
</tr>
<tr>
<td>1-5</td>
<td>398</td>
<td>42.5</td>
</tr>
<tr>
<td>6-10</td>
<td>249</td>
<td>26.60</td>
</tr>
<tr>
<td>11-15</td>
<td>66</td>
<td>06.90</td>
</tr>
<tr>
<td>16-20</td>
<td>56</td>
<td>06.00</td>
</tr>
<tr>
<td>20+</td>
<td>132</td>
<td>14.20</td>
</tr>
<tr>
<td>Missing</td>
<td>24</td>
<td>02.60</td>
</tr>
<tr>
<td>Total</td>
<td>939</td>
<td>100%</td>
</tr>
<tr>
<td>Type of Company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>407</td>
<td>43.30</td>
</tr>
<tr>
<td>Private</td>
<td>484</td>
<td>51.50</td>
</tr>
<tr>
<td>Missing</td>
<td>48</td>
<td>05.20</td>
</tr>
<tr>
<td>Total</td>
<td>939</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3 is reflecting corporate profile of respondents. On the base of table 3, total nine-hundred and thirty-nine responses are received from respondents. There are: 14 (1.30%) respondents have less than 1 year experience in their whole career; 398 (42.5%) respondents have 1-5 years’ experience in their whole career; 249 (26.60%) respondents have 6-10 years’ experience in their whole career; 66 (6.90%) respondents have 11-15 years’ experience in their whole career; 56 (6.00%) respondents have 16-20 years’ experience in their whole career; 132 (14.20%) respondents have more than 20 years’ experience in their whole career; and 24 (2.60%) respondents did not report their work experience in their whole career.

According the type of company, 407 (43.30%) respondents have been working in public organizations, 484 (51.50%) respondents have been working in private organizations, and 48 (5.20%) respondents did not report about type of company.

**P < 0.01**

Here, to examine impact of leadership behavior on employee’s innovation, regression analysis has been made for public sector organizations. Table 4 shows the impact of dimensions of leadership behavior. Leadership behaviors are independent variables and employee’s innovation is dependent variable. For regression impact, beta significance and t-values leads to hypothesis of the study whereas P, F-values are taken from ANOVA analysis R square and adjusted R square explain the explanatory power of the model.

According to Table 4, leadership behaviors which are adopted in public organizations have no significant impact on employee’s innovation (H3a, H3b, H3c, H3d, H3e, H3f, and H3g rejected).

Table 5

Regression Analysis
Leadership Behaviors on Employee’s Innovation in Private Sector Organization

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Beta</th>
<th>t.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovative Role Modeling</td>
<td>.361</td>
<td>2.437</td>
<td>.017</td>
</tr>
<tr>
<td>Vision Providing</td>
<td>.117</td>
<td>.902</td>
<td>.370</td>
</tr>
<tr>
<td>Consulting</td>
<td>.088</td>
<td>.815</td>
<td>.417</td>
</tr>
<tr>
<td>Delegating</td>
<td>-.040</td>
<td>-.385</td>
<td>.701</td>
</tr>
<tr>
<td>Support for Innovation</td>
<td>-.136</td>
<td>-.153</td>
<td>.252</td>
</tr>
<tr>
<td>Recognition</td>
<td>.157</td>
<td>1.220</td>
<td>.275</td>
</tr>
<tr>
<td>Monitoring</td>
<td>.007</td>
<td>.067</td>
<td>.946</td>
</tr>
</tbody>
</table>

F-Value | 4.006
P Value | 0.001***
R Square | 0.232
Adjusted R Square | 0.174

**P < 0.01**

Here, to examine impact of leadership behavior on employee’s innovation in case of private sector organizations, regression analysis has been made. Table 5 explains effects of dimensions of leadership behavior as independent variables on employee’s innovation as dependent variable. The values of beta coefficients, significance and t, elaborate results whereas F,P-values have been taken from ANOVA analysis. R square and adjusted R square best explains the explanatory power of independent variables for dependent variable. As per Table 5, (H3a, H3b, H3c, H3d, H3e, H3f, and H3g rejected)
Here, we examine the overall impact (in both scenario, private and government organizations) of various dimension of leadership behavior as independent variables on employee’s innovation as dependent variable, regression analysis has been conducted. Beta coefficients with significance level and t-values explain regression impact on employee’s innovation whereas F-values has been taken from ANOVA table for model summary. R square and adjusted R square explains the explanatory power of model. According to Table 6, innovative role modeling of leadership can have the positive and significant impact on employee's innovation at acceptable significance level (H_a accepted). On the other hand, monitoring, recognition, support for innovation, delegation, consulting and vision providing have insignificant impact on employee’s innovation (H_b, H_c, H_d, H_e, H_f, and H_g rejected).

Conclusions

This study aims to observe relationship between leadership behaviors and employee’s innovation; and to analyze the impact of leadership behaviors on employee’s innovation in public and private sector organizations individually and collectively. Study concludes that

a) Similarity in leadership behavior of private and public sector organizations has been observed except consulting and vision providing. In private sector organizations, most of the time, leaders provide vision than consulting behavior, whereas, in public sector organizations, consulting behavior most of the times has been identified than providing vision (H_1 accepted).
b) Second, all leadership behaviors are positively correlated with employee’s innovation (H_2 accepted).
c) Thirdly, leadership behaviors which are adopted in public organizations have no significant impact on employee’s innovation (H_3a, H_3b, H_3c, H_3d, H_3e, and H_3g rejected). Similarly, leadership behaviors which are adopted in private organizations also have no significant impact on employee’s innovation (H_4a, H_4b, H_4c, H_4e, H_4f, and H_4g rejected).
d) Lastly, on the base of pooled analysis, only innovate role modeling leadership behavior has significant positive impact on employee’s innovation (H_5a accepted); and leadership behaviors like vision providing, consulting, delegating, support for innovation, recognition, and monitoring have no significant positive impact on employee’s innovation (H_5b, H_5c, H_5d, H_5e, H_5f, and H_5g rejected).

In the study, we used various dimensions of leadership behavior rather designs of leadership behaviour. In an initial exploration, while using cross-sectional design, casual relationship cannot be substantial. Obviously, although longitudinal design do not completely addresses the issue of resolving substantiating causality difficulty, longitudinal design is needed in such type of problems and by adding leadership designs, future research may be taken.

References


[Acknowledgment: This study has been extracted from the project funded by University of the Punjab, Lahore-Pakistan]