Internet Survey-Based Empirical Analysis for Relation Between Ethical Leadership and Employees’ Work Performance

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Abstract

At this stage, development of science and technology gradually increases enterprises’ social competitive pressure, which not only indicates enterprise operation pressure, but also more pressure from its human resource. Leader, mainly leading enterprise operation management, plays a crucial role on enterprises’ overall operation and his/her guiding thought of operation has been always research emphasis in academic circles. However, basic reasons lie in that enterprises’ normal operation mainly relies on support from inner employees whose performance always indicates enterprise value. In this, this paper researches relation between ethical leadership and employees’ work performance according to internet survey so as to provide important theoretical guidance for improving enterprise operation efficiency and employees’ work performance.

Keywords: Internet Survey, Internet Survey, Work Performance, Empirical Analysis.

1. RESEARCH BACKGROUND

1.1 Literature review

In recent years, we have investigated food-related hot data according to internet data and analyzed data investigated so that we can make further dissection which is for relevant problems in the data and in favor of analyzing some events and finally obtain solution (Yin and Luo, 2013). Thus, many scholars conducted internet survey-based research for some events and problems. Through discussing relation between ethical leadership and employees based on data investigated of 210 copies of network questionnaires, we found out that ethical leadership can effectively relieve employees’ deviant behavior and create a good ethical atmosphere for company (Shi, 2016). And on the basis of combining predecessors’ research results, we analyzed influence on employees’ behavior by leader’s ethical type by using theoretical and empirical analysis and found out that in construction management, influence on employees by leader’s ethical type is determined by employment relationship between the two (Chen et al., 2013). By using questionnaire survey and taking 228 employees of Anhui cultural industries as main research objects, we discussed relation between transactional leadership and employees’ work performance according to leader’s reliable and effective behavior, as a result of which transactional leadership has a certain influence on above work performance through self-efficiency and leader’s trust and employees’ trust are intermediary location between transactional leadership and employee’s work performance (Liu et al., 2016). And meanwhile, by taking enterprise employees as main survey objects, we made empirical research for relation between leadership style and subordinate’s work performance, indicating that transformational leadership has a certain impact on above performance and leader should pay attention to such influence relation during corporate operation to supervise and urge employees’ work (He and Ling, 2010). At this stage, problems and out-of-balance management structure in some companies such as Eron, Tyco and WorldCom make leadership malfeasance gradually appear in relevant enterprises, which is adverse to corporate long-run development. In addition, during researching relation between authentic leadership and employees’ work performance, we found out that leader’s positive psychology greatly promotes employees’ work performance and is in favor of corporate overall operation (Wang et al., 2012).

1.2 Research purpose

At this stage, based on analyzing relevant literatures, quantity increased of enterprises and corporate leadership structure improved still make relation between leader and employees in family enterprise undefined, requiring further discussion on action mechanism between the two. Therefore, questionnaire survey-based research on relation between leader and employees in private enterprise indicates that in some private enterprises, ethical
Leadership causes certain deviation to employees’ organizing ability and behavior and employees’ work pressure and deviant behavior can be relieved through shaping leader’s image (Huang et al., 2013). And meanwhile, according to relevant theories integrated and related to ethical leadership and employees’ work performance, interactive model obtained between ethical leadership and commitment by business organization and the empirical research conducted indicate that ethical leadership has a positive influence on above commitment (Lin and Yan, 2013). Besides, through empirically analyzing some technical enterprises in Jiangsu Province and taking organizational climate and emotional atmosphere in enterprise as intermediate variable, we discussed influence on employees’ creation behavior by ethical leadership and found out that some leaders with good behaviors can effectively promote above creation behaviors and favor enterprise’s technical improvement (Guan and Wang, 2016). And furthermore, leader’s moral rule is the basis of corporate leaders’ establishment of leadership skills, meaning that relevant decisions made by some ethical leaders during enterprise operation will influence way of using social rights and impact employees’ work behavior to some extent (Zhou et al., 2015). In enterprise, improper organization by leaders (if any) will cause some negative behaviors to employees which are closely linked to enterprise operation. We also conducted questionnaire survey for employees in some enterprises and found out that ethical leadership can effectively adjust business organization and promote employees’ work performance well (Xu, 2016). All above this indicates that it is very important and significant in this paper to conduct questionnaire survey-based empirical analysis for relation between ethical leadership and employees’ work performance.

2. DESCRIPTION FOR RELEVANT THEORIES OF INTERNET SURVEY

Up to now, questionnaire survey has been always used as data survey widely. However, rapid development of science and technology and information technology makes internet gradually permeated into people’s living and greatly changes residents’ living. Compared with traditional paper questionnaire survey, network questionnaire survey, a product of information-based development, is featured by characteristics of high efficiency, low cost and fast recycling, as a result of which it is widely used by lots of scholars. Researchers can investigate some phenomena or objects through collecting data by internet survey. During such survey, firstly, researchers should determine problems and then input them in network electronic system; secondly, they determine main crowd surveyed according to research field characteristics. Finally, they determine internet area of crowd and release questionnaire. Generally, process of network questionnaire survey is as shown in the Figure 1.

![Figure 1. Process for Network Questionnaire Survey](image)

According to Figure 1, network questionnaire survey is different from traditional paper questionnaire survey and mainly includes three processes as follows: firstly, researchers make detailed planning for questionnaire survey contents. Secondly, researchers design above contents in advance. Thirdly, after determining crowd surveyed, researchers invite relevant personnel to fill in questionnaire and make detailed analysis for contents filled in and then register data. Generally speaking, factors influencing network questionnaire survey mainly include reliability, validity, response rate, analysis for difference degree, etc. Analysis for reliability is mainly used for indicating observed score of questionnaire and represented by X, and its main formula is shown as follows:

$$X = T + B + E$$  \(1\)

According to above reliability formula, T mainly represents true score of personnel filling in questionnaire; B mainly represents system error existing in questionnaire survey; E mainly represents random error generated during such survey. And such true score can be obtained by calculating average value. Variance of observed value is mainly obtained by calculating sum of true score variance and sample error, and corresponding formula is as follows:

$$E(X) = E(T)$$  \(2\)

$$\sigma_x^2 = \sigma_T^2 + \sigma_E^2$$  \(3\)
During such survey, reliability is percentage that true score variance accounts for total variance, its main formula is as follows:

\[
\text{reliability } = y_{xx} = \frac{\sigma_T^2}{\sigma_X^2 \left(1 - \frac{\sigma_E^2}{\sigma_X^2}\right)}
\]

(4)

\[
\text{reliability } = y_{xx} = \sqrt{\frac{\sigma_T^2}{\sigma_X^2}}
\]

(5)

For actual credibility, above formula is mainly used for SPSS software, which can make description and statistics for overall observation sample, remove some simple or inaccurate items and can also correctly distinguish degree of reliability of samples. Response degree and difference ratio are evaluation method of network questionnaire. And response rate formula is as follows:

\[
F = \frac{V}{T}
\]

(6)

According to above formula, \(V\) mainly represents quantity of valid questionnaires among network questionnaires collected; \(T\) mainly represents total quantity of questionnaires issued. And difference degree formula is mainly as follows:

\[
D = \min\left\{\frac{x_1}{X}, \frac{x_2}{X}, \frac{x_3}{X}, \ldots, \frac{x_n}{X}\right\}
\]

(7)

\[
T = \max\left\{\frac{x_1}{X}, \frac{x_2}{X}, \frac{x_3}{X}, \ldots, \frac{x_n}{X}\right\}
\]

(8)

According to above formula, \(X_n\) mainly represents number of persons selecting certain option in questionnaire survey; \(X\) mainly represents total number of persons participating in questionnaire survey; \(D\) represents the minimum value of difference degree in questionnaire survey; \(T\) represents the maximum value of above difference degree. In general case, there are no needs to modify model of network questionnaire survey, but if necessary, modification should be made according to the following formula.

\[
r_{xx} = \frac{2r_{xx}}{1 + r_{xx}}
\]

(9)

\[
r_{xx} = 2\left(1 - \frac{s_1^2 - s_2^2}{s^2}\right)
\]

(10)

Under the condition that research items are consistent, above second formula is mainly used for evaluating network questionnaire. And then according to evaluation results, researchers finally confirm whether questionnaire survey is consistent and conduct empirical analysis.

3. INTERNET SURVEY-BASED EMPIRICAL ANALYSIS FOR RELATION BETWEEN ETHICAL LEADERSHIP AND EMPLOYEES’ WORK PERFORMANCE

3.1 Research hypothesis and questionnaire survey

Based on above theoretical analysis, we can clearly understand questionnaire survey method widely used during researching many problems and also sort out contents researched. In this, this paper makes questionnaire survey-based research on relation between ethical leadership and employees’ work performance. In some enterprise, although ethical leadership is usually cognized and accepted by employees or subordinates, the company fails to attach importance to it and some psychological capitals are not better applied in the company, requiring detailed research on action by ethical leadership and discussion of influence on employees’ work performance by ethical leadership from perspective of above work performance. Moreover, during research, we failed to make detailed discussion on above influence, based on which this paper provides the following hypotheses through combining enterprises situation:

H1: Characteristics of ethical leadership have a positive influence on employees’ work performance.
H2: Internal morality of ethical leadership has a positive influence on employees’ work performance.

Predecessors’ researchers on ethical leadership and psychological capital indicate that there are positive correlations between the two and there is also certain influencing relation between psychological capital of ethical leadership and employees’ work performance. Therefore, the following hypotheses are provided:

H3: There is a positive influence between psychological capital of ethical leadership and employees’ work performance.

According to above hypotheses and with reference to process and key points of network questionnaire survey, we used 5-point scoring method during questionnaire survey for questionnaires of the research. For this method, one score means dissatisfaction, five scores mean great satisfaction. In this survey, 200 copies of questionnaires were issued in total, including 170 copies of valid questionnaires collected according to statistics, which means valid recovery rate of 85%. It can be seen that questions set for network questionnaire survey are valid and can be further analyzed.

3.2 Empirical analysis

This paper uses SPSS17.0 software to analyze questions for network questionnaire survey and such software is mainly used for researching whether there is consistency among these questions. Based on research results, questions set for network questionnaire survey meet standard for reliability survey. Furthermore, this paper uses Cronbach’sa reliability testing method to analyze information coefficient in network questionnaire, and formula used for the method is mainly as follows; overall reliability of 0.98 is obtained for data of samples researched according to the following formula, meaning the value meets standard of the research. All this indicates that above questions set meet requirements for reliability testing and validity testing can be conducted.

\[
\alpha = \left( \frac{k}{k-1} \right) \times \left( 1 - \sum s_i^2 \right) / ST^2
\]

Validity testing is mainly used for reflecting authenticity of the research contents, including validity of contents and structure. Through referring to predecessors’ researcher experience, this paper uses the following formula to make validity testing for objects of the research.

\[
X^2 = \frac{(ad-bc)^2 n}{(a+b)(c+d)(b+d)}
\]

\[
v = (\text{number of rows-1})(\text{number of columns-1})
\]

\[
t = \frac{\bar{x} - u_0}{\frac{S}{\sqrt{n}}}
\]

\[
\lambda = \frac{\left| \sum A^p \right|^{n/2}}{\left| \sum A \right|^{n/2}}
\]

\[
A = \sum_{i=1}^{n} (XX - \bar{X})
\]

By above formula, this paper conducts validity testing, whose results are as shown in Table 1. The Table 1 indicates that $X^2$ (chi-square value), df (degree of freedom), KMO (measure) and significance testing results meet standards for validity testing. Therefore, questions set for questionnaire survey of the research are valid and analysis for results can be conducted.

<table>
<thead>
<tr>
<th>Items</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square value $X^2$</td>
<td>1589.675</td>
</tr>
<tr>
<td>Degree of freedom df</td>
<td>145</td>
</tr>
<tr>
<td>Sig</td>
<td>0.000</td>
</tr>
</tbody>
</table>
3.3 Analysis for results

During above analysis, we can only determine validity of questions setting and variable selection and cannot make detailed answer for questions of the research, for which this paper conducts regression analysis for above hypotheses to determine specific relation between ethical leadership and employees’ work performance. Results of regression analysis are shown in the Table 2.

Table 2 Results of Regression Analysis

<table>
<thead>
<tr>
<th>Variable</th>
<th>Regression testing items</th>
<th>Standard β</th>
<th>Significant value</th>
<th>F value</th>
<th>R</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics of ethical leadership</td>
<td></td>
<td>0.596</td>
<td>0.000</td>
<td>259.6</td>
<td>0.589</td>
<td>0.451</td>
</tr>
<tr>
<td>Internal morality of ethical leadership</td>
<td></td>
<td>0.632</td>
<td>0.000</td>
<td>202.536</td>
<td>0.631</td>
<td>0.563</td>
</tr>
<tr>
<td>Psychological capital of ethical leadership</td>
<td></td>
<td>0.458</td>
<td>0.000</td>
<td>196.758</td>
<td>0.596</td>
<td>0.421</td>
</tr>
</tbody>
</table>

Above results indicate that there is a positive influence by ethical leadership on employees’ work performance, namely, above hypotheses have been verified. That is, for ethical leadership, if standard β of its internal morality is 0.632, it maximizes positive influence on employees’ work performance; for characteristics and psychological capital of ethical leadership, if their standard β represents 0.596 and 0.458 respectively, such influence takes second place.

4. CONCLUSION

To sum up, through analyzing theories related to network survey and then implementing research on relation between ethical leadership and employees’ work performance, this paper makes such leadership provided with high application value in relevant enterprises and makes it able to provide important reference base for decision making by enterprise leaders, effectively solving deficiency in enterprise human resources, greatly increasing employees’ work performance and also largely promoting enterprise’ overall operational efficiency.

REFERENCES

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