

Full Length Research Paper

Effect of relationship style on innovation performance

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The purpose of this study is to analyze how different relationship styles of employees in the hi-tech industry influence innovation performance. This is helpful to understand whether the intimacy among employees in each relationship style has a positive effect on innovation performance. This study takes employees in the hi-tech industry as subjects and finds that the relationship style of an organization can effectively predict the innovation performance. Hence, an organization needs to establish and maintain the relationship among members, encourage high intimacy among them and increase their work efficiency to improve the innovation performance of the organization. This study presents the following management implications: (1) this study analyzes the effect of social activities on innovation performance from the viewpoint of employees. The result shows a positive outcome, indicating that managers of the hi-tech industry need to pay more attention to the intimacy among organizational members; (2) for the hi-tech industry, improving innovation performance within an organization can start with individual employees. The relationship of an employee with the organization, supervisor and colleague and, thus, the innovative performance of the organization can be improved via job rotation, implementation of the mentoring system, and role-playing activities.

Key words: Relationship style, innovation performance, high-technical industry.

INTRODUCTION

How a member of an organization can voluntarily share his/her knowledge with colleagues or the organization depends on his/her role in the work group and is usually determined by the exchange relation between his/her supervisor and him/her. (Graen, 1976) Usually, employees have more willingness to work hard when they maintain a good relationship with their supervisor. In general, mutual trust, respect, loyalty and obligation are higher between members who have better relationships in an organization. If employees can share their knowledge and experience with others as a result, the organizational capital and customer capital of the company will be increased and a core value will be created within the company (Petrash, 1996).

Knowledge sharing allows members of an organization to learn more knowledge and, more importantly, it provides the organization with an efficient tool to maintain competitive advantages. With increasingly upgraded technology and information, the work of physical laborers has been gradually replaced by new techniques and

machines, and knowledge will be an occupational prerequisite in the new knowledge-economy era. Learning important knowledge and skills within the organization through establishment of relationship among members is helpful not only in enforcing collaboration, but also in speeding up the accumulation of knowledge assets for the organization to improve its innovation performance.

Scope and type of relationship

In an organization, how an individual interacts with others depends on the relationship between them. Social relationship between people is not absolute but relative. To explain involvement psychologically, Foxall and Greenly (1999) pointed out that involvement was the "perception of personal relevance to things". Relationship involvement, a combination of relationship and involvement, is defined as the degree at which a partner in an organization wants to establish a close relationship with others. The higher the involvement is, the more the partner wants to establish a close relationship; the lower the involvement is, the less the partner wants to establish a close relationship (Bensaou, 1999).

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Every member in an organization has a different relationship and interaction with others. Mutual relationship can be maintained more transparently if trust is established with benign elements on the basis of an inter-organizational partnership. This is helpful to create constructive consensus, increase the acceptance of the other party's behavior, solve problems via consultation and functional conflicts, and reduce conflicts.

Different relationship styles exist among members in an organization, which are reflected in the term "human emotion" in Taiwanese culture. It has the following meanings: (1) possible emotional response of an individual to various life situations encountered; (2) a resource that can be used for social exchange among people; (3) social norms that govern how people get along with each other in Chinese culture and society. Based on the above description, this study analyzes the relationship style between the employee, supervisor, colleague and organization from the viewpoint of employees.

Relationship between employees and supervisors

Graen and his colleagues (1976) found that a supervisor develops different interpersonal relationships with employees. According to the leader-member exchange (LMX) theory, supervisors offer more resources and rewards to employees and they work harder in return if there is a better interpersonal exchange relationship quality between them. And supervisors develop a better leader-member exchange relationship quality with the subordinates who have high competence when they have higher job satisfaction (Dockery and Steiner, 1990).

Relationship between employees and colleagues

Chao et al. (1994) found that employees played a very important role in the adjustment and learning process of organizational socialization, and the organizational knowledge and skills that they have learned during the socialization had a great effect on their performance in the organization. Find a suitable person and learn knowledge about the organization, work group and work.

Relationship between employees and organization

Chatman (1989) investigated the relationship of person-organization fit in the organizational selection and socialization process. He found that a newcomer whose values were more consistent with the values of the organization had higher adaptation capability, and the fitter the personal and organizational values were, the higher the organizational commitment a member made to the organization and the lower the possibility to quit

became. Organizational socialization is realized in the following processes:

1. Getting familiar with new tasks.
2. Developing and establishing interpersonal relationship with supervisors and colleagues.
3. Defining and clarifying the role that an individual plays in the organization.
4. Assessing the progress of an individual in the organizational socialization.

The higher the socialization of a member in an organization is, the higher his/her job satisfaction is. As a result, the higher the recognition a member shows toward the organizational culture, the closer the relationship between the member and the organization will be.

In addition to the process in which employees adapt themselves to the organization, it is possible for the organization to encounter conflicts between working groups and employees. The organization must have measures to ease the conflicts such as external life conflicts and internal conflicts (Feldman, 1976). A highly cohesive network relationship allows development of its externality to enhance external interaction with other organizations. Hence, an organization has the capability of increasing its visibility and facilitating exchange of internal resources and sharing of knowledge (Lin, 2008).

Innovation performance

Before defining "innovation performance", we need to know what "innovation" is. Knight (1967) analyzed innovations from the perspectives of different disciplines. According to his study, the innovation that psychologists emphasize is the creation and change of personal attitudes and convictions. What economists emphasize is the diffusion rate of a new development, and what socialists emphasize is the change within an organization. However, for all disciplines, innovation is the adoption of new approaches for an organization and suitable environment. Drucker (1993) thought that innovation was not only a process, but a combination of all innovation elements as well. The main elements of innovation were inconsistency in environmental requirements, requirements for production processes, changes of industries and markets, changes in the components of population statistics, and changes of consumer's perception with respect to products or services. Hence, the difference between "innovation" and "innovation performance" is that innovation is the adoption of new approaches for an organization, and innovation performance is a measurement of the performance of an adopted new approach or a new measuring criterion to measure organizational performance.

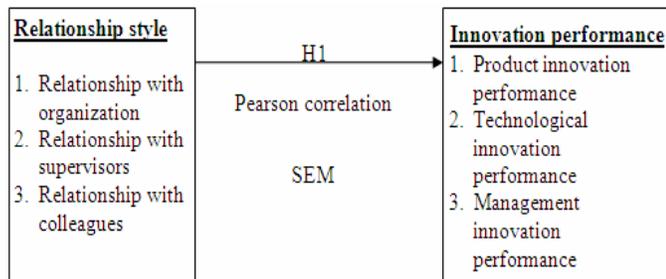


Figure 1. Research structure.

Innovation

Damanpour and Evan (1984) pointed out that innovation was a widely used and diversified concept that reflected unique requirements and features. Afuah (1998) gave innovation an explicit definition. He thought that innovation was the manipulation of new knowledge to provide consumers with new products and services they need. He incorporated technology, knowledge, backend products, and service into the definition of innovation and found that innovation provided new products and services for consumers by manipulating new technology and knowledge. What the products presented was low-cost, progressive, and not introduced or existing in the market. Some studies indicate that the speed of innovation is in direct proportion to the performance of products (Kessler and Bierly, 2002).

Innovation performance

Slater and Narver (1994a) explained organizational performance from the viewpoint of customer retention, sales growth and success of new products. They also took return of assets, sales growth and success of new products as indicators of organizational performance (Slater and Narver, 1994b). Matsuno and Mentzer (2000) measured organizational performance based on relevant sales growth, sales of new products to total sales and return of investment. Pilar and Ana (2006) emphasized in their suggestions that, like the representativeness of sales, market share and profits to the performance of new products, it was important to measure the performance thereof based on the speed of innovation.

As Venkatraman and Ramanujam (1986) pointed out, organizational performance is the field that every company wants to understand most, and company owners or managers can determine sequential strategies according to the performance of their organization. Innovation in a broader sense influences not only the innovation of organizational processes, but also the manufacturing process and service. This may consequently create various economic performances (Mica and James, 2008).

Literature of relationship style and innovation performance

As for potential influence of the relationship strength among organizational members on organizational performance, some foreign scholars point out that the relationship between organizations must be long-lasting and continuous. Hence, whether organizational performance is good or not is the critical factor that must be considered for continuous operation of the partner relationship.

Dickinson and McIntyre (1997) pointed out that teamwork was a process in which organizational members carried out their tasks timely in an integrated mode. This definition implies the mutual influence of performance among team members and that the performance of individuals in an organization is linked together and tightly connected. Harvey and Speier (2000) analyzed the influence of relationship management on an organization and found from the viewpoint of performance that relationship management could encourage consolidation, improve relationship performance and eventually enhance the dynamic capability of the members in an organization to create potentially competitive advantages.

METHODOLOGY

The research structure of this study is developed based on the results in the introduction and literature review (Figure 1).

Research structure and hypotheses

The following hypotheses are developed based on the research structure and purpose of this study:

H₁: Relationship style of employees in the hi-tech industry has a significant effect on the innovation performance of the organization.

H₂: Individual relationship styles of employees in the hi-tech industry have a significant effect on the innovation performance of the organization.

H₂₋₁: Relationship of employees in the hi-tech industry with the organization has a significant effect on the innovation performance of the organization.

H₂₋₂: Relationship of employees in the hi-tech industry with their supervisors has a significant effect on the innovation performance of the organization.

H₂₋₃: Relationship of employees in the hi-tech industry with their colleagues has a significant effect on the innovation performance of the organization.

Design of the scale

Relationship style

The first part of the questionnaire is "relationship style". It is mainly used to measure the intimacy of an employee with the organization, supervisor and colleague. The relationship quality scale of Hsiao (2002) is used for the questionnaire in this study. There are 25 questions distributed among three parts of the scale, in which there

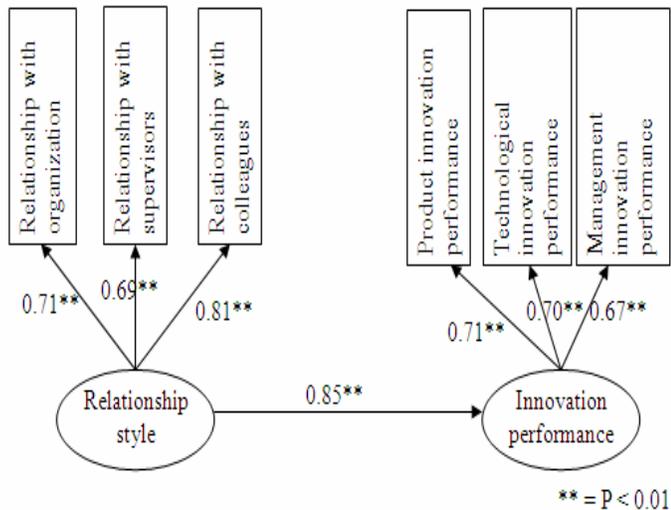


Figure 2. LISREL empirical result analysis.

Table 1. Analysis result of overall goodness-of-fit indicators.

Overall goodness-of-fit indicators	Results	Acceptance of model
χ^2	$p = 0.00$ significant	Inadequate
GFI	0.96	High
RMR	0.064	Acceptable
SRMR	0.043	High
NFI	0.91	High
NNFI	2.07	High
CFI	1.00	High

are 9 for relationship with the organization, 7 for relationship with the supervisor and 9 for relationship with the colleague. Likert's five-point scale is used for the questionnaire in this study.

Innovation performance

The third part of the questionnaire is "innovation performance". This question item is designed with reference to Su (2007). There are 22 questions in this scale, in which 9 for "product innovation performance", 7 for "technological innovation performance" and 6 for "management innovation performance". Likert's five-point scale is used for the questionnaire in this study.

Distribution of questionnaires and sampling

The questionnaire is analyzed based on pilot test data and the result demonstrates that the scale has consistency of high reliability. The survey had been carried out from January 20, 2009 to February 28, 2009. Study samples are mainly distributed to the employees of hi-tech companies at Northern, Central and Southern Taiwan science-based parks respectively. A total of 300

questionnaires were distributed and 192 were returned. After deducting 10 invalid questionnaires, a total of 182 valid samples were returned with a return rate of 61%.

RESULTS

Descriptive analysis

Pearson correlation

Each variable that has undergone Pearson correlation coefficient test demonstrates a significant relationship, and all significant levels reach $p < 0.01$. The coefficient of the "employee-organization relationship" to "product innovation performance", "technology innovation performance" and "management innovation performance" is 0.64 ($P < 0.01$), 0.69 ($P < 0.01$) and 0.72 ($P < 0.01$), respectively, and thus H2-1 is supported. The coefficient of the "employee-supervisor relationship" to "product innovation performance", "technology innovation performance" and "management innovation performance" is 0.72 ($P < 0.01$), 0.60 ($P < 0.01$) and 0.62 ($P < 0.01$), respectively, and thus H2-2 is supported. The coefficient of the "employee-colleague relationship" to "product innovation performance", "technology innovation performance" and "management innovation performance" is 0.52 ($P < 0.01$), 0.56 ($P < 0.01$) and 0.50 ($P < 0.01$), respectively, and thus H2-3 is supported. Since H2-1, H2-2 and H2-3 are supported, H2 is supported.

As the result shows, when an employee has a better interpersonal relationship in the organization and interacts better with the organization, supervisor and colleague, the innovation performance is higher.

Structural equation modeling

Structural equation modeling (SEM) is used in the study to investigate the casual relationship between the relationship style and knowledge sharing. It is also used to verify the overall goodness-of-fit of the model. The measurement indicators of the overall goodness-of-fit of the model are shown in Figure 2 and Table 1.

The measurement indicators of the overall model goodness-of-fit are 122.08 in the study and the P value reaches the significance level of 0.00. However, since the chi-square value varies easily along with the sample and nearly all models are rejected if a large number of samples are used. Hence, in addition to the chi-square value, other measurement indicators of model goodness-of-fit need to be used to determine the goodness-of-fit of the model. Other measurement indicators of overall model goodness-of-fit show the value of GFI = 0.96 (greater than 0.9), RMR = 0.062 (slightly greater than 0.05), SRMR = 0.043 (smaller than 0.05), NFI = 0.91 (greater than 0.9), NNFI = 2.07 (greater than 0.9), CFI = 1.00 (greater than 0.9). Most of them are higher than the

acceptable fit criteria and the overall goodness-of-fit of the model is good.

Conclusions and suggestions

Conclusions

As Figure 2 shows, the path coefficient of the relationship style and innovation performance of the hi-tech industry is 0.85 and reaches the significance level, indicating that the relationship style has a significant positive effect on the innovation performance. Hence, H1 is supported. This proves that the better an employee of a hi-tech company gets along with the organization, supervisor and colleague, the higher the organization's innovation performance due to its high cohesiveness. Hence, a company can affect individual-group emotional connection through organizational culture and company-member interaction modes to ensure good innovation performance in the organization.

Suggestions

Improvement of the intimacy among organizational members can increase the level of innovation performance. Relationship style comprises the relationships of an employee with the organization, supervisor and colleague, and the stronger the relationship is, the higher the intimacy becomes (Chatman, 1989). Practical methods for improvement of the intimacy are described as follows.

Improvement of the relationship between the employee and organization

The investigation regarding the relationship of person-organization fit in the organizational selection and socialization process finds that a newcomer whose values are more consistent with the values of the organization has higher adaptation capability, and the fitter the personal and organizational values is, the higher the organizational commitment a member makes to the organization and the lower the possibility to quit becomes. Hence, practical methods are presented as follows:

1. Recruit talents with values close to the company.
2. Develop measures that can remove conflicts in the organization.
3. Offer a reasonable bonus for employees who achieve the goal of the company.
4. Establish unhindered communication channels as a platform for mutual trust between the company and employee.

Improvement of the relationship between the employee and supervisor

Supervisors offer more resources and rewards to employees and they work harder in return if there is a better interpersonal exchange relationship quality between them. Similarly, when the interpersonal exchange relationship quality between supervisors and employees is better, the employees will be recognized easier and thus have higher job satisfaction. Hence, practical methods are presented as follows:

1. Adopt the mentoring system to carry out tasks.
2. Give the opportunity for employees to participate in the decision-making process.
3. Praise employees in public to increase their fulfillment.

Improvement of the relationship between the employee and colleague

Find a suitable person and learn knowledge about the organization, work group and work. Hence, practical methods are presented as follows:

1. Encourage teamwork opportunities.
2. Develop measures that can remove conflicts in the organization.
3. Establish unhindered communication channels as a platform for mutual trust between the company and employee.

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