



How Member Heterogeneity Affects Organizational Innovation: Team Innovation Integration Model

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Abstract: People are the key to the realization of organizational innovation, but most of the existing studies focus on the effectiveness of leaders to organizational innovation, ignoring the innovation ability of grassroots teams. Based on the perspective of conflict transformation, this paper integrates multi-dimensional conceptual categories such as team heterogeneity, team conflict and organizational innovation, and constructs a team innovation integration model with systematic dynamic characteristics. The establishment of the model not only provides a framework for the research of organizational innovation at the team level in the academic field, but also provides practical application value for the improvement of organizational innovation ability.

Keywords: organization innovation, team conflict, team heterogeneity, team innovation integration model

1. Introduction

In the highly volatile external environment and the increasingly heated competition situation, continuous innovation has become the key to the survival and development of enterprises. Scholar Liu Yun summarized more than ten factors affecting organizational innovation climate from the organizational level, team level and work level[1]. With the increasing uncertainty of scientific and technological innovation environment and the complexity of tasks, teams have become an important innovation activity unit in the organization[2]. However, most of the existing researches focus on external factors such as market environment and industry resources, and internal factors[3], with little attention paid to organizational team's research on enterprise innovation.

Because of the uniqueness of individuals, teams formed by individuals naturally bear the universal characteristics of "heterogeneity". There are two conflicting views on the effect of team heterogeneity on organizational innovation performance. The information decision theory holds that the diverse ideas generated by team members of different genders and ages promote organizational innovation in the collision. Social identity theory holds that different ideas will lead to team discord and make it impossible for them to work normally[4]. Instead of exploring which explanation mechanism is more appropriate, it is better to find the unification point of the two as an important breakthrough point.

This study builds a systematic and clear team innovation integration model, and deeply analyzes the internal transmission mechanism. It is hoped that on the basis of the logic of previous studies, this study can supplement the relevant research on organizational innovation at the team level from a comprehensive and new perspective, and provide a new reference for organizations to optimize their internal team structure.

2. Literature review

2.1 Team heterogeneity

Team heterogeneity refers to the differences between team members in demographic characteristics such as age, educational background, values and other aspects. Chinese scholar Zhang Xuemin carried out localization design and innovatively divided team heterogeneity into three dimensional structural categories of social heterogeneity, information heterogeneity and value heterogeneity[5]. Qi Liyun confirmed that the tenure heterogeneity and functional background heterogeneity of senior management teams have a significant promoting effect on green innovation [6]. It can be seen that current researches on team heterogeneity mostly focus on the impact mechanism of the heterogeneity of top management teams on the performance of enterprises in various aspects. However, all scholars did not pay attention to the fact that the heterogeneity of the general project team of an enterprise is directly related to the completion of various tasks of the organization.

2.2 Team conflict

Team conflict is a process of tension between team members due to real or perceived differences. Jehn divides team conflict into two categories: task conflict and relationship conflict[7], and the two transform into each other under certain conditions. The significance of strategic conflict management lies in finding the positive effects of conflicts, analyzing the interest relationship and existing problems behind conflicts through the appearance [8]. In the study of team conflict on organizational performance, current scholars have reached a consistent conclusion that relationship conflict has a negative effect on organizational performance, while task conflict has a positive impact on organizational performance, but the impact is moderated by a variety of factors.

2.3 Organizational innovation

According to Damanpour, innovation for an organization refers to the process of adopting a series of new instruments, systems, policies, programs[9]. Wen 'an Hu found that organizational atmosphere, leadership personality, and individual characteristics of employees all have an impact on the innovation behavior of employees in an organization[10]. Existing literature has conducted in-depth studies on the antecedent variables of organizational innovation and their mechanisms, but most of them focus on external factors, internal strategies and leadership levels. Few studies have divided employees in organizations into project teams to explore their impact on organizational innovation.

3 Model construction

3.1 Matching between team information heterogeneity and task conflict

The information heterogeneity of team members is dominant, it proves that the team has certain complementarity in problem solving. When the information complementarity among team members is only in a static state of self-knowledge, the knowledge among team members only stays at the self-level[11]. Under the mediating effect of team conflict, knowledge cross-interaction and thinking collision occur among team members. The greater the degree of information exchange between teams, the more conducive it is to stimulate potential autonomy and creativity. Matching with the two-dimensional structure of team conflict, team knowledge and information share and complement each other under the transmission mechanism of task conflict, thus enhancing the overall knowledge effectiveness of the team.

3.2 Match between team value heterogeneity and relationship conflict

There are potential interpersonal contradictions among team members, which is not conducive to the smooth development of team work[12]. The theory of similar attraction explains that people are more likely to attract and admire individuals who are similar to their own characteristics and values, while they form a sense of distance and exclusion for individuals who are very different from them, which will increase the difficulty of team cooperation. Therefore, the heterogeneity of team value is manifested through the mediating transmission mechanism of relationship conflict.

3.3 Transmission paths of team heterogeneity, team conflict and organizational innovation

Based on information decision theory, team information heterogeneity can better realize resource pooling in information, knowledge and other aspects, provide more coping strategies for problem solving, and thus promote the improvement of team performance. However, the beneficial effect of team information heterogeneity must be generated in the process of knowledge sharing and collision generated by task conflict. Therefore, when team information heterogeneity dominates, more information, resources and opportunities will be pooled by the transmission intermediary mechanism of task conflict.

The root cause of relationship conflict lies in the inconsistency of emotion and value concept. According to the social identity theory, the higher the team members' recognition of the team, the more effective the team operation efficiency can be improved. When the team value heterogeneity is greater, the focus of the relationship conflict is interpersonal relationship, which is not conducive to the improvement of organizational innovation performance. At the same time, from the perspective of team communication, the existence of team value heterogeneity makes the value dimension and thinking dimension among team members within a large gap, which is not conducive to the judgment and solution of the problem.

4. Research conclusions

4.1 Task conflict and relationship conflict are transformational

Information collision caused by task conflict is essentially team knowledge sharing. Once team members perceive such knowledge interaction and collision as opposing values, task conflict will turn to relationship conflict. The tense interpersonal relationship among team members is bound to hinder the improvement of organizational innovation. On the

contrary, when team members perceive the differences in values and emotional attitudes as complementary knowledge and information, team members will ease interpersonal relations based on the pro-social perspective and focus the conflict on the reasonable solution of project problems. At this time, the relationship conflict will change to the task conflict conducive to organizational innovation.

4.2 There is an inherent matching between team heterogeneity and team conflict

Team heterogeneity emphasizes the degree of differences in all aspects of team members, while team conflict emphasizes the tension between team members. Task conflict is defined as the confrontation between individuals due to differences in knowledge, experience and experience, and its root cause is the existence of heterogeneity of team information. Relationship conflict is defined as the confrontation caused by the differences of emotions and values among team members, and its root cause is consistent with the heterogeneity of team values. Therefore, there are inherent interaction and matching between team information heterogeneity and task conflict, team value heterogeneity and relationship conflict.

4.3 The transmission path is systematic and dynamic

Team information heterogeneity promotes the improvement of organizational innovation under the transmission mechanism of task conflict, while team value heterogeneity hinders the improvement of organizational innovation under the transmission mechanism of relationship conflict. Systematic is based on the comprehensive perspective, the three core indicators of team heterogeneity, team conflict and organizational innovation are integrated, and the two-dimensional structure category of team heterogeneity and team conflict and their inherent interaction and matching relationship are considered in detail. Based on the perspective of dynamic transformation, the research conclusions on the mutual transformation of task conflict and relationship impact in the intermediary transmission mechanism are incorporated into the model construction.

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