Does Power Distance Necessarily Hinder Individual Innovation? A Moderated-Mediation Model

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Abstract: Individual innovation behavior is the driving force for enterprise sustainable development and can be affected by many factors, among which power distance is important. To explore the mediating mechanism and boundary conditions of power distance on individual innovation behavior, this paper constructed a moderated mediation model with task characteristics as the moderator and voice behavior as the mediator from the two-dimensional perspective of individual innovation behavior (innovative idea generation and implementation). Responses to 336 valid questionnaires from 133 technological innovation enterprises in China revealed that power distance has a negative effect on innovative idea generation, but a positive effect on innovative idea implementation. In this process, task characteristics only play a moderating effect in the relationship between power distance and innovative idea implementation, but fail to moderate the relationship between power distance and innovative idea generation. In addition, it was found that voice behavior mediates the relationship between power distance and individual innovation behavior. This study provides useful insight on the mechanism of organizational culture on individual innovation behavior, and suggests leaders take effective measures to improve the enterprise sustainable development ability.

Keywords: power distance; individual innovation behavior; task characteristics; voice behavior

1. Introduction

Innovation behavior is an important enterprise function as an enterprise assembly of industrial clusters innovation and is considered to be one of the important means in which to improve the ability of enterprise sustainable development [1]. Innovation behavior includes organizational innovation behavior and individual innovation behavior. Individual innovation behavior is the basic component of organizational innovation behavior and is considered to play a pivotal role in enterprise development and innovation [2]. Individual innovation behavior refers to the behavior of group members who intentionally create, introduce, and implement innovative ideas in the work process to improve work performance [3]. At the time of “rapid changes in products and business models”, research on how to improve individual innovation behavior has become a leading topic in the research of enterprise sustainability.

Individual innovation behavior includes a range of actions including innovative idea generation and seeking support for innovative results [4], and is affected by individual factors, environmental factors, and the interaction of these factors. Among them, individual factors include personal characteristics [5], cognitive style [6], personal intellectual capital [7], psychological empowerment [8], entrepreneurship perception of innovative organizational culture [9], and self-efficacy [10]. Environmental factors include the “doctrine of the mean” [11],
humble leadership [2], supportive human resources [12], ethnic conflict [13], and organizational structure [14]. Interaction factors include critical thinking and innovative climate [15], the organizational desire for employee innovation behavior together with employee proactivity [7], social network with individual orientations [16], individual goal orientation and team learning behavior [17], self-efficacy, and organizational learning climate [18]. However, there have been a few studies on individual innovation behavior from the perspective of organizational culture among the environmental factors. In fact, individual innovation behavior is highly dependent on organizational culture [19] because organizational culture is not only an important factor in enterprise sustainability, but is also an important factor in the work innovation process [20,21]. Moreover, organizational culture holds a key position in individual cognition and can have a lasting effect on people’s behavioral patterns [20]. Organizational culture includes power distance, individualism/collectivism, uncertainty avoidance, masculinity/femininity, and long-term orientation/short-term orientation. As a refinement of organizational culture, power distance refers to the extent to which individuals accept and expect the unequal distribution of power in an organization [22] and is an important factor affecting individual innovation behavior as it can directly affect individual roles and communication modes as well as individual behavior patterns [23]. In addition, according to the theory of the consistency of attitude and behavior, the power distance can change individual attitudes, which inevitably determines the corresponding behavior [24]. Thus, power distance should have an important effect on individual innovation behavior. Erez and Nouri directly pointed out that power distance can affect individual innovation behavior [25].

Most previous studies have agreed that power distance is related negatively to individual innovation behavior [25–28]. In contrast, some studies have indicated that the power distance is not related to individual innovation behavior [26,29], and even positively affects individual innovation behavior [30]. Matusitz and Musambira also believed that countries with different power distance do not display systematic differences in individual innovation behavior [31]. Thus, power distance does not necessarily inhibit individual innovation behavior and it implies that it could be influenced by situational factors [32]. Hofstede and Minkov believed that countries with a different power distance might be good at different tasks and further noted that countries with high power distances are good at handling tasks with strict discipline [32]. Strict discipline means that team tasks are deterministic, as long as the task can be completed according to the established process, which is one feature of task characteristics [33]. Therefore, the influence of power distance on individual innovation behavior may be affected by task characteristics. Furthermore, relevant studies have pointed out that task characteristics are important situational variables of innovation behavior [34,35]. In addition, it has been found that the negative effect of power distance on individual innovation behavior often refers to innovative idea generation. Individual innovation behavior includes the process of the generation and implementation of innovative ideas [36]. However, studies have shown that the effects of power distance on the generation and implementation of individual innovative ideas differ [37,38]. Although power distance can inhibit innovative idea generation, it can also promote innovative idea implementation and transform innovative idea generation into innovative idea implementation [37]. While contemporary studies have emphasized the negative correlation between power distance and innovative idea generation, there is a paucity of studies that have focused on the effect of power distance on innovative idea implementation. If individual innovation behavior is divided into innovative idea generation and innovative idea implementation, the relationship between power distance and individual innovation behavior should be re-determined, that is to say, the research on the relationship between power distance and individual innovation behavior needs to be further examined. Therefore, to better understand the effect of power distance on individual innovation behavior, this paper will discuss their relationship in the situation of task characteristics from the two-dimensional perspective of individual innovation behavior (innovative idea generation and implementation).

The effect of organizational culture on innovation behavior is mainly based on its impact on individual attitudes or related behaviors [39]. Therefore, to understand the relationship between
power distance and individual innovation behavior accurately, it is necessary to analyze its process mechanism. According to the present studies, the relationship between power distance and individual innovation behavior is mediated by organizational commitment [40], the individual cognitive task involvement, and impression management motivation [41]. The scholarly discussion on its process mechanism is relatively limited. As innovation behavior must effectively gather individual wisdom and integrate different perspectives, it requires individuals to voice [42]. As a kind of extra-role behavior, voice behavior refers to the constructive suggestions regarding organizational development based on individual observations and understanding about the organization [43], which is often affected by organizational power distance [44,45]. Therefore, power distance may influence individual innovation behavior based on the mediating effect of voice behavior.

In summary, this paper needs to solve three key problems: (1) The effect of power distance on innovative idea generation and implementation, respectively; (2) whether the effect of power distance on individual innovation behavior will be moderated by task characteristics; (3) whether voice behavior plays a mediating effect in the relationship between power distance and individual innovation behavior.

2. Literature Review and Research Hypothesis

2.1. Power Distance and Individual Innovation Behavior

When power distance is proposed as a cross-cultural concept, it refers to the extent to which people can accept the unequal distribution of power in a nation. At the individual level, it refers to the extent to which individuals accept the unequal distribution of power in an organization [22]. Specifically, individuals with a high power distance believe that power in the organization should be controlled by the supervisor and that the inequality of power distribution is a normal phenomenon. Individuals with a low power distance believe that power should not be concentrated in one person and that they should also have certain power to exert influence on the organization. Power distance has been found to exert an important effect on individual innovation behavior [46]. Individual innovation behavior refers to the generation of new and useful ideas about products, practices, services, or procedures [47]. KleySen and Street divided it into innovative idea generation and innovative idea implementation [36]. Innovative idea generation refers to individual search for innovation opportunities to improve products, technologies, work processes, and organization services, and to generate ideas or solutions for these opportunities; innovative idea implementation occurs when individuals allocate resources, persuade others to support innovation, and integrate innovation activities into enterprise daily operations [36,48]. The effects of power distance on innovative idea generation and innovative idea implementation differ. Due to status difference, power distance can interfere with the communication models among group members [49], and it can also create a psychological distance among group members and prejudice toward external groups [50], making it difficult for group members to establish intimate contact with each other or to combine their own ideas with each other. This environment will reduce the level of information sharing among group members [51,52], which is not conducive to innovative idea generation. Some studies have pointed out that innovative idea generation depends on divergent thinking [53], which requires effective interaction among group members; that is, only through effective interaction can stimulate individual innovative ideas [28]. However, in the culture of high power distance, restricted by strict hierarchy, the interaction within the group is relatively weak [54], which will limit innovative idea generation. In addition, innovative idea generation requires individuals to immerse themselves completely in innovation tasks [55]. However, the high interpersonal risk and low psychological security caused by high power distance can interfere with this process [51]. It has also been pointed out that in the culture of high power distance, the internal communication within organizations relies more on formal rules and processes and does not require the exertion of individual autonomy or discussion among members, so it is difficult to stimulate individual innovative thinking in this environment [27]. In contrast, the lower the power distance, the more democratic it is, and the more convenient and frequent information exchange and communication...
are within the organization, and the more various and convenient ways are for individuals to express their opinions. In this environment, the fewer constraints to which individuals are subject, the more innovative ideas are generated [56].

Although power distance is negatively related to innovative idea generation, it can nonetheless promote innovative idea implementation and turn individual innovative ideas into reality [57]. Innovative idea implementation needs to focus and allocate organizational resources, then ensure that innovative ideas are put into practice quickly and transformed into new products. In this process, only high power distance can promote the completion of this process [58]. In addition, in organizations with high power distance, the hierarchy is clear, and leaders have absolute authority and hold the most organizational resources. After the innovative ideas are confirmed and accepted by the organization, the organization can quickly create a unified order from top to bottom and make the best use of the organizational resources to transform the innovative ideas into actual products [26]. Based on the above analysis, the following assumptions are proposed.

Hypothesis 1 (H1). Power distance is negatively related to innovative idea generation.

Hypothesis 2 (H2). Power distance is positively related to innovative idea implementation.

2.2. Voice Behavior as A Mediator

Hirschman first proposed the concept of voice behavior. He believed that voice behavior was a kind of behavioral reaction that individuals uses when they wished to change the present dissatisfied organizational situation. Lepine and Van Dyne believed that voice behavior was proposed to bring organizational change or to put forward solutions for existing problems [43]. It is a proactive behavior for organizational interests, rather than for individual dissatisfaction [43]. Later, scholars pointed out that voice behavior is the action intended to change the present work situation and solve existing problems by freely expressing their opinions to others and the organization [59,60]. This opinion is being widely adopted. It has been shown that as an extra-role behavior, voice behavior is closely related to power distance [44,45]. Leaders with a high power distance orientation tend to maintain their authority in an autocratic way, rarely communicating with employees or accepting their suggestions [61]. Employees, moreover, do not like to question and challenge authority and tend to passively accept the leaders’ decisions rather than express their opinions in this situation [62]. At the same time, in the culture of high power distance, leaders tend to be self-centered and view employee opinions as worthless [63], striving to maintain their own authority and the compliance of their subordinates, thereby weakening the employees’ perceived right to speak [64]. Moreover, voice behavior more or less contains criticism of the present situation or even criticism of relevant leaders [65]. Due to these characteristics, employees are more likely to be cautious in exercising their voice due to the interpersonal risks and lower sense of psychological security in a high power-distance culture. In particular, within the cultural value orientation of “power” in China, employees abide by their humble status, exaggerate the influence of leaders’ privileges, and fear that they will experience retaliation for their voice behavior, so they will “know but not speak”.

Voice behavior occurs when individuals express their opinions, suggestions, and ideas to improve organizational effectiveness [66]. Before individuals voice their opinions, they usually summarize the present situation of their organization, actively think about how to improve the organizational efficiency, and communicate with colleagues or leaders. These individual behaviors are conducive to innovative idea generation [67]. Furthermore, voice behavior is the action of giving suggestions for the organizational impropriety [45]. Before giving suggestions, individuals will take the initiative to investigate and find problems, actively analyze problems, and explore solutions for problems [68]. In addition, as a kind of proactive self-management behavior, voice behavior can promote individual
foresight and have a beneficial influence on individuals. This foresight can help individuals think more consciously and stimulate individuals to create new ideas and innovative idea modes [3].

Ng and Feldman pointed out that voice behavior will lead to higher work performance and innovation evaluation [68]. These improvements will drive organizations to implement individual innovative ideas. Whiting et al. also pointed out that voice behavior can improve individual performance evaluation [69]. Due to these enhancements, voice behavior can thus obtain resource support from leaders, which is helpful for innovative idea implementation. In addition, according to the “Pygmalion Effect”, when individuals demonstrate a certain positive behavior, it will improve their sense of self-worth and enhance their self-confidence and self-esteem; furthermore, it sends positive signals urging individuals to make efforts to meet others’ expectations to maintain this kind of social support. When individuals put forward innovative ideas to improve organizational efficiency or eliminate existing problems in the organizational development process, this kind of positive behavior will make individuals more confident. If suggestions are trusted or adopted, individuals may maintain the continuity of such social support in their future work and will find ways to obtain the conditions for the transformation of innovative idea generation into innovative idea implementation. Based on the above analysis, the following assumptions are proposed.

Hypothesis 3 (H3). Voice behavior plays a mediating role in the relationship between power distance and innovative idea generation.

Hypothesis 4 (H4). Voice behavior plays a mediating role in the relationship between power distance and innovative idea implementation.

2.3. Task Characteristics as Moderator

Task characteristics refer to the objective attributes related to job tasks such as job environment, required skills, sense of completeness, feedback, autonomy, challenge, interpersonal relationship, salary and welfare, inherent rewards of the job task, etc. [70]. Task characteristics usually exhibit complexity [71], interdependence [72], variability [73], and convention [74]. In most cases, task complexity is used to represent task characteristics, and task complexity is highly related to the strict discipline proposed by Hofstede and Minkov, so this paper also used task complexity to represent task characteristics. Task complexity refers to the degree of dedicated resources that team members put into completing tasks [71], which is largely determined by the objective attributes of the tasks. Specifically, it includes three factors: the multiplicity of task processes, the multiplicity of task results, and the unknown elements of task processes and results. Tasks with high complexity contain many unstructured problems with indescribable characteristics, and there are many alternative paths and competing information in the process of completing tasks [75]. It can clearly describe the relevant information in tasks with low complexity, and the alternative solutions to fulfill tasks are abundant, and only need to follow strict standard procedures and the routine workflow for completing tasks [76]. Previous studies have shown that task complexity is an important moderating variable that affects individual innovation performance [77].

Low task complexity means that all task results are predictable. Individuals need only to implement simple and regular work methods to complete tasks, without extra effort [78]. With such task characteristics, it is more conducive for individuals with high power distance orientation to directly accept the leaders’ decisions, without taking their own initiative, as long as they communicate and operate according to the formal rules and processes, to strengthen the relationship between power distance and innovative idea implementation. Additionally, low-complexity tasks have the characteristics of repeatability, simplicity, and certainty. Individuals only need to follow standardized operation processes to achieve the goal, and the coordination between individuals is inessential [79]. This situation is more conducive to leaders with a high power distance orientation, giving unified
instructions and gathering organizational resources to promote innovative idea implementation. Although the task complexity is low, the organizational equality in low power-distance situations often means that too much time is spent on decision making, or the culture is indecisive, which is not conducive to innovative idea implementation. Hofstede et al. found that for tasks requiring strict discipline, the procedural operations are very clear, leaders do not need to offer additional explanations, and high power distance can improve efficiency [32]. When the task complexity is high, task requirements change frequently, more unique solutions are needed, unpredictable and fuzzy task results will be shown [80], and higher cognitive levels of individual knowledge and skills are also needed, which requires individuals to immerse themselves in thinking about different solutions [81]. Such complexity worsens the organizational internal environment in the culture of high power distance and is more unfavorable to innovative idea generation. In addition, the higher the task complexity, the weaker the interaction and the more passive the emotions caused by high power distance [82]. Liu et al. believed that weak interaction and passive emotions could result in the loss of individual enthusiasm for work, reduce their initiative behavior, and eventually inhibit the generation of innovative ideas [66].

**Hypothesis 5 (H5).** *Task characteristics play a moderating role between power distance and innovative idea generation and strengthen the relationship between them.*

**Hypothesis 6 (H6).** *Task characteristics play a moderating role between power distance and innovative idea implementation and weaken the relationship between them.*

Based on the above discussion, the research model as shown in Figure 1 is proposed:

![Research model](image)

**Figure 1.** Research model.

3. **Method**

3.1. **Sample and Data Collection**

The samples are from the R & D department employees of 133 technological innovation enterprises in Zhejiang and Jiangsu Province, China. Questionnaire distribution has been strongly supported by the leaders of the abovementioned enterprises, and the on-site issuance and recovery method was adopted. A total of 425 questionnaires were sent out, of which 388 were recovered, and 336 questionnaires were valid, for an effective recovery rate of 79.06%. The details of the sample distribution are shown in Table 1.
Table 1. Sample distribution (N = 336).

<table>
<thead>
<tr>
<th>Items</th>
<th>Frequency</th>
<th>Percent</th>
<th>Items</th>
<th>Frequency</th>
<th>Percent</th>
<th>Items</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td>Education</td>
<td></td>
<td></td>
<td>Seniority (year)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>258</td>
<td>76.79%</td>
<td>Master</td>
<td>138</td>
<td>41.07%</td>
<td>≥5</td>
<td>29</td>
<td>8.63%</td>
</tr>
<tr>
<td>Female</td>
<td>78</td>
<td>23.21%</td>
<td>Bachelor</td>
<td>169</td>
<td>50.30%</td>
<td>2–5</td>
<td>146</td>
<td>43.45%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Junior</td>
<td>29</td>
<td>8.63%</td>
<td>&lt;2</td>
<td>161</td>
<td>47.92%</td>
</tr>
</tbody>
</table>

3.2. Measures

Due to some scales in this paper were from foreign literatures, so the Chinese-English translation method was used. Six students with PHD were selected, three of them translated the English scales into Chinese scales, and the other translated the corresponding Chinese scales into English scales to ensure that the meaning of Chinese and English is consistent. In this study, Likert 5-point scale was used.

**Power distance:** The scale developed by Clugston et al. [83] was used to measure power distance. This instrument has a total of 6 items, for example, “frequency of decision consultation”, “frequency of power use”, “amateur contact between leaders and employees”, “support degree of employees for decision making”. The Cronbach’s alpha of this instrument is 0.823.

**Voice behavior:** The scale developed by Lepine and Van Dyne [43] was adopted. This instrument has a total of 6 items, for example, “developments and makes recommendations concerning issues that affect this work group”, “speeches up and resources others in this group to get involved in issues that affect the group”, “communications his/her opinions about work issues to others in this group even if his/her opinion is different and Others in the group disagree with him/her”, “keeps well informed about issues where his/her opinion might be useful to this work group”, “gets involved in issues that affect the quality of work life here in this group”, “speaks up in this group with ideas for new projects or changes in procedures”. The voice behaviour scale was evaluated by organizational leaders. The Cronbach’s alpha of this instrument is 0.793.

**Task characteristics:** This paper primarily used task complexity to represent task characteristics. To measure task complexity, mainly referring to the research results of Stock [75] and Joshi et al. [84], five items were extracted dealing with the aspects of repeatability, decomposability, and possible paths affecting task performance, which included “task includes many changes”, “the main work is to solve complex problems”, “It is difficult to regularize the work”, “a lot of information or alternatives are needed”, and “many different elements are included”. The Cronbach’s alpha of this instrument was 0.868.

**Individual innovation behavior:** The scale of individual innovation behavior was used by Chinese scholars Lu et al. [85], which was improved on the basis of Kleysen and Street [36], and was divided into two dimensions of “innovative idea generation” and “innovative idea implementation”. However, before the large sample survey, the author further revised the scale of individual innovation behavior to adapt the application in technological innovation enterprises through a pre-survey of 62 individuals. According to the results of the pre-survey, 13 items of the final scale were selected after eliminating the items with a factor loading less than 0.5. Among them, the scale of innovative idea generation included “in the work, I will actively seek to apply new technology, new procedures, new methods or new services”, “I will find opportunities to make my work better than others”, “I will pay attention to the unusual problems in the work, department, company or market”, “in the work, I often have some innovative ideas or new solutions”, “when encountering problems, I will think about from different perspectives”, “I will try new ideas or new methods”, “through trying, I will check whether the new methods are wrong”, a total of seven items. The Cronbach’s alpha was 0.801. Innovative idea implementation included “I will try to convince others of the importance of new ideas or new ways”, “I will take the initiative to introduce new methods to others and promote new methods so that they have opportunities to be implemented”, “I have taken risks to support new ideas or new methods”, “I have tried to make changes that may bring benefits”, “when new methods are applied to
products, technologies or services, I will correct the problems caused by new methods”, and “I have applied new ideas and methods to daily work to improve work procedures, products, technologies or services”, a total of six items. The Cronbach’s alpha was 0.789.

4. Results

4.1. Confirmatory Factor Analysis

Confirmatory factor analysis is a research method used to determine whether the corresponding relationship between measurement factors and measurement items is consistent with the researcher’s prediction. This study involves five variables: power distance, voice behavior, task characteristics, innovative idea generation, and innovative idea implementation. The results of confirmatory factor analysis are shown in Table 2, and the five-factor model has good goodness of fit ($\chi^2/df = 1.31$, RMSEA = 0.04, NNFI = 0.91, CFI = 0.92, IFI = 0.92, where $\chi^2/df$ is an index to test the similarity degree between the sample covariance matrix and the estimated variance matrix, and its theoretical value is 1; RMSEA is root-mean-square error of approximation, closer to 0 means better fit; NNFI is non-normed fit index, closer to 1 means better fit; CFI is comparative fit index, closer to 1 means better fit; and IFI is the incremental fit index, closer to 1 means better fit). The other four alternative models had poor fit. These results indicate that there is good discriminant validity among variables.

<table>
<thead>
<tr>
<th>Models</th>
<th>$\chi^2/df$</th>
<th>RMSEA</th>
<th>NNFI</th>
<th>CFI</th>
<th>IFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD; VB; TC; IG; II</td>
<td>1.31</td>
<td>0.04</td>
<td>0.91</td>
<td>0.92</td>
<td>0.92</td>
</tr>
<tr>
<td>PD; VB; TC; IG + II</td>
<td>1.65</td>
<td>0.10</td>
<td>0.83</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>PD; VB; TC + IG + II</td>
<td>2.76</td>
<td>0.13</td>
<td>0.74</td>
<td>0.76</td>
<td>0.77</td>
</tr>
<tr>
<td>PD; VB + TC+ IG + II</td>
<td>3.43</td>
<td>0.17</td>
<td>0.66</td>
<td>0.68</td>
<td>0.69</td>
</tr>
<tr>
<td>PD + VB + TC + IG + II</td>
<td>5.69</td>
<td>0.21</td>
<td>0.52</td>
<td>0.57</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Note: PD = power distance; VB = voice behavior; TC = task characteristics; IG = innovative idea generation; II = innovative ideas implementation.

4.2. Descriptive Statistics

Table 3 shows the means, standard deviations, and correlation coefficients of eight variables including the control variables in this study. As shown in Table 3, there is a significant negative correlation between power distance and innovative idea generation ($r = -0.319, p < 0.01$); a significant positive correlation between power distance and innovative idea implementation ($r = 0.382, p < 0.01$); a significant negative correlation between power distance and voice behavior ($r = -0.407, p < 0.01$); a significant positive correlation between voice behavior and innovative idea generation ($r = 0.453, p < 0.01$); and a significant positive correlation between voice behavior and innovative idea implementation ($r = 0.415, p < 0.01$). In addition, innovative idea generation is not related to innovative idea implementation ($r = 0.036, p < 0.05$).
power distance. Power distance had a significant negative effect on innovative idea generation (H3 is supported). The regression result of M1, the independent variable power distance was added for further regression, and M2 and M7 were obtained, respectively. According to the regression results of M2 and M7 in Table 4, power distance had a significant negative effect on innovative idea generation (β = –0.379, p < 0.01) and had a significant positive effect on innovative idea implementation (β = 0.401, p < 0.01). Therefore, H1 and H2 are supported.

4.3. Hypothesis Testing

4.3.1. The Direct Effect of Power Distance on Individual Innovative Behavior

First, regression analysis of innovative idea generation on the control variables (gender, education, seniority) was carried out to obtain M1. The result confirmed that the effect of the control variables on innovative idea generation was weak from M1. Second, M6 was obtained by regression analysis of innovative idea implementation on the control variables. The result confirms that the effect of the control variables on innovative idea implementation was also weak from M6. Then, based on M1 and M6, the independent variable power distance was added for further regression, and M2 and M7 were obtained, respectively. According to the regression results of M2 and M7 in Table 4, power distance had a significant negative effect on innovative idea generation (β = –0.379, p < 0.01) and had a significant positive effect on innovative idea implementation (β = 0.401, p < 0.01). Therefore, H1 and H2 are supported.

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>Gender</th>
<th>Education</th>
<th>Seniority</th>
<th>PD</th>
<th>VB</th>
<th>TC</th>
<th>IG</th>
<th>II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>1.230</td>
<td>0.423</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Education</td>
<td>2.320</td>
<td>0.627</td>
<td>–0.071</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seniority</td>
<td>1.610</td>
<td>0.642</td>
<td>–0.070</td>
<td>0.028</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PD</td>
<td>2.807</td>
<td>0.538</td>
<td>0.069</td>
<td>0.008</td>
<td>0.032</td>
<td>1.000</td>
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<tr>
<td>VB</td>
<td>3.079</td>
<td>0.601</td>
<td>0.003</td>
<td>–0.031</td>
<td>–0.042</td>
<td>–0.407 **</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TC</td>
<td>3.732</td>
<td>0.618</td>
<td>–0.001</td>
<td>0.045</td>
<td>–0.091</td>
<td>0.163 *</td>
<td>–0.324 **</td>
<td>1.000</td>
<td></td>
<td></td>
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<tr>
<td>IG</td>
<td>2.826</td>
<td>0.461</td>
<td>–0.057</td>
<td>–0.015</td>
<td>0.007</td>
<td>–0.319 **</td>
<td>0.453 **</td>
<td>–0.082</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>3.795</td>
<td>0.573</td>
<td>0.029</td>
<td>0.068</td>
<td>–0.012</td>
<td>0.382 **</td>
<td>0.415 **</td>
<td>–0.190 **</td>
<td>0.036</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note: * = p < 0.05; ** = p < 0.01; PD = power distance; VB = voice behavior; TC = task characteristics; IG = innovative idea generation; II = innovative ideas implementation.

4.3.2. The Mediating Effect of Voice Behavior

The method proposed by Baron and Kenny (1986) was used to test the mediating effect of voice behavior. M11 was obtained by regression analysis of voice behavior on the control variables and power distance. Power distance had a significant negative effect on voice behavior (β = –0.358, p < 0.01). Then, based on M2 and M7, voice behavior was added and regressed simultaneously to obtain M3 and M8, respectively. The regression result of M3 indicates that voice behavior is positively related to innovative idea generation (β = 0.349, p < 0.01), and power distance is still significant to innovative idea generation (β = –0.288, p < 0.01). Therefore, voice behavior plays a partial mediating role in the relationship between power distance and innovative idea generation. In other words, H3 is supported. The regression result of M8 reflects that voice behavior was positively significant to innovative idea implementation (β = 0.214, p < 0.01), and power distance was still also significant to

Table 3. The results of the descriptive statistics.

Table 4. Model summary.
innovative idea implementation ($\beta = 0.257, p < 0.01$). Therefore, voice behavior plays a mediating role in the relationship between power distance and innovative idea implementation. Therefore, H4 is also supported. However, power distance weakens innovative idea implementation through voice behavior, which is opposite to the direct positive effect of power distance on innovative idea implementation. According to the concept of suppressing effect [86], the mediating effect of voice behavior in the relationship between power distance and innovative idea implementation is a suppressing effect, a special mediating effect.

4.3.3. The Moderating Effect of Task Characteristics

To investigate the moderating effect of task characteristics in the relationship between power distance and innovative idea generation, first, the variable of task characteristics was added to $M_2$ to obtain $M_4$. Then, the interaction item (power distance $\times$ task characteristics) was added to $M_4$ to obtain $M_5$. According to $M_5$, the regression coefficient of interaction term was not significant ($\beta = 0.023, p < 0.05$). This result shows that task characteristics cannot effectively moderate the relationship between power distance and innovative idea generation, and thus, H5 is not supported.

To investigate the moderating effect of task characteristics in the relationship between power distance and innovative idea implementation, first, the variable of task characteristics was added to $M_7$ to obtain $M_9$. Then, the interaction item (power distance $\times$ task characteristics) was added to $M_9$ to obtain $M_{10}$. According to $M_{10}$, the interaction item had a significant negative correlation with innovative idea implementation ($\beta = -0.265, p < 0.01$), which indicates that task characteristics play a negative moderating effect in the relationship between power distance and innovative idea implementation. In other words, the simpler a task is, the more conducive it is to enhancing the positive effect of high power distance on innovative idea implementation. In contrast, the more complex a task is, the less conducive it is to the effect of power distance on innovative idea implementation. Therefore, H6 is supported.

5. Conclusions and Enlightenment

5.1. Discussion and Conclusions

First, the results in this study provide an interesting finding that power distance is not wholly negatively related to individual innovation behavior. When the individual innovation behavior is divided into two dimensions (innovative idea generation and innovative idea implementation), the direct effect of power distance on them is different. This study used data from Chinese companies and confirmed that power distance has a negative effect on innovative idea generation but a positive effect on innovative idea implementation. High power distance can reduce the level of information sharing and effective interaction among group members [51], and interfere with the immersion level of group members [54], and weaken the autonomy of group members in innovation activities [27], which are not conducive to innovative idea generation. The mediating effect of voice behavior between power distance and innovative idea generation can also support this opinion. However, high power distance can also quickly create unified instructions [26], maximize the allocation and use of organizational resources [37], then implement individual innovative ideas and transform them into actual production. Moreover, the positive effect of power distance on innovative idea implementation will be more significant when the variable of voice behavior is controlled for the suppressing effect.

Second, voice behavior plays a mediating role in the relationship between power distance and individual innovation behavior. To maintain the rigid hierarchy within organizational cultures with high power distance, leaders tend to control employees in an authoritarian way and rare accept employee suggestions [61]. Moreover, in the organizational culture of “supremacy of power”, individuals often lack a sense of psychological security, do not dare to voice opinions rashly, and worry that voice behavior may lead to retaliation [65]. Therefore, power distance has a negative effect on voice behavior. Nonetheless, the action of voice behavior can prompt individuals to find problems
and explore solutions, and stimulate individuals’ conscious thinking [68], which are conducive to innovative idea generation. This shows that voice behavior plays a mediating role in the relationship between power distance and innovative idea generation. In addition, under the influence of voice behavior, individuals can obtain higher work performance [69] and innovation evaluation [68], so as to obtain organizational support resources and promote the transformation of innovative ideas from generation to implementation. Therefore, voice behavior also plays a mediating role in the relationship between power distance and innovative idea implementation. However, power distance weakens innovative idea implementation through the mediating effect of voice behavior, which is opposite to its direct positive effect. According to the concept of the suppressing effect [86], it can be seen that the mediating effect of voice behavior in the relationship between power distance and innovative idea implementation is a suppressing effect, which is a special mediating effect.

Third, task characteristics cannot fully moderate the relationship between power distance and individual innovation behavior. Task characteristics negatively moderate the relationship between power distance and innovative idea implementation. This result is because the lower the task complexity, the clearer the task requirements are, resulting in more predictable results and a more standardized operational process [76]. Individuals only need to take simple and conventional work steps or methods to finish the innovation tasks well [78], which is conducive to leaders with power distance orientation creating unified instructions and gathering organizational resources to promote innovative idea implementation. However, task characteristics do not play a moderating role between power distance and innovative idea generation. On one hand, it may be due to the human capital investment. Faggian and McCann used geographical information systems (GIS) to investigate the interrelationships between human capital and the innovation dynamism of a region, and the results showed that there was a causal relationship between human capital and regional innovation performance in England and Wales [87]. Teixeira and Fortuna regarded human capital as an endogenous factor of innovation behavior, and pointed out that human capital influences innovation behavior by strengthening the knowledge base of innovation personnel, expanding their research vision, and further pointed out that government investment in human capital is the key link [88]. Against a Chinese background, Kuan and Lingyun pointed out that innovation activities were inseparable from the government investment in human capital [89]. In the context of complex tasks, human capital investment can improve individual innovation ability and weaken the negative effect of power distance on innovative idea generation. From the perspective of enterprise management models, Han et al. believed that the humane management with the respect of human personality can encourage human creativity and stimulate human non-linear thinking [90]. Additionally, Lin and Su also pointed out that with the change of management mode from “hierarchical management” to “flat management”, employees can get more equal opportunities to express their opinions with leaders. This practice in the organization enfeebles the power distance [91]. To a certain extent, these practices of enterprises have brought into play the individuals’ subjective initiative and stimulated the individuals’ proactive thinking. Since 1978, with the continuous improvement of Chinese “reform and opening” and economic globalization, there has been increasing attention to the introduction of western enterprise management models, which have promoted the ability of individual innovation.

5.2. Theoretical Contributions

First, this paper provides a new perspective for the study of individual innovation behavior based on organizational culture. There are numerous studies on the predictors of individual innovation behavior, primarily including the individual factors, environmental factors, and the interaction of individual and environmental factors. However, such behavior is rarely discussed from the perspective of organizational culture among environmental factors. Based on the current research, this paper discusses the influence mechanisms of individual innovation behavior from an important dimension of organizational culture—power distance. Moreover, based on the former single perspective of individual innovation behavior, this paper explores how power distance affects individual innovation
behavior from the two-dimensional perspective (innovative idea generation and innovative idea implementation). The finding contributes to the research scope of individual innovation behavior.

Second, this paper has extended the theoretical model of individual innovation behavior. First, from the perspective of organizational culture, the different effects of power distance on innovative idea generation and implementation were determined, confirming that power distance may not necessarily hinder individual innovation behavior. Second, from the perspective of voice behavior, this paper analyzed the process mechanism of power distance on individual innovation behavior, and effectively explains the research question of “how power distance affects individual innovation behavior”. Finally, from the perspective of task complexity perception, the moderating effect of task characteristics was explored, and the boundary condition of power distance on individual innovation behavior was determined.

5.3. Practical Contributions

First, the effect of power distance on individual innovation behavior in the research of enterprise sustainability should be identified. Power distance does not have a fully negative effect on individual innovation behavior, as it is only negative for innovative idea generation, but positive for innovative idea implementation. For those innovation tasks with low complexity and predictable results, or tasks that can be completed well through a fixed operation process, high power distance is conducive to obtaining organizational resources to promote innovative idea implementation and overall innovation performance. Therefore, in the face of simple innovation tasks, we should pay attention to the role of power distance and make use of high power distance to obtain organizational resources.

Second, the democratic decision-making mechanism in the discussion of innovation activities should be advocated. It is critical to reduce the effect of organizational power distance for its negative effect on innovative idea generation. In the discussion of innovation activities, organizations can benefit from adopting the democratic decision-making mechanism. With this adoption, employees can have equal opportunities to talk with leaders, and leaders can obtain multiple channels of information feedback from employees. This situation could arouse the employees’ enthusiasm for participation, making employees less distressed with the leadership authority. The long term approach will induce employees to take interpersonal risks to highlight the problems of innovation tasks and reduce the negative effect of power distance on innovative idea generation.

Third, the role of voice behavior should be brought into full play in innovation activities. This paper found that voice behavior not only positively affects innovative idea generation, but also positively affects innovative idea implementation. In innovation activities, leaders should change their management concepts and leadership styles and adopt an encouraging attitude toward the voice behavior of employees. Moreover, it is necessary to provide channels and guarantees for voice behavior, encourage individual participation, offer more support and affirmation to those who participate, enhance individuals’ perception of organizational status, strengthen their organizational citizenship awareness, eliminate the worries behind voice behavior, and enable individuals to freely express their opinions, all of which will ultimately provide more information support for innovative tasks.

5.4. Limitations and Future Research

Although this paper has achieved some reasonable research results, there are still some shortcomings. First, subject to various conditions, this paper only selected 133 technological innovation enterprises in Zhejiang and Jiangsu Provinces, China. In future research, technological innovation enterprises should be selected from multiple regions of China, and the research samples should be increased to improve the accuracy and reliability of research conclusions. Second, this paper tested the moderating effect of task characteristics on the relationship between power distance and individual innovation behavior, but task characteristics also include task interdependence, task variability, and task convention. Therefore, task complexity cannot fully represent task characteristics. In future research, a multidimensional perspective of task characteristics should be considered to fully reflect the
moderating effect of task characteristics. Third, in this paper, it was found that task characteristics do not play a moderating role in the relationship between power distance and innovative idea generation, which may be influenced by other situational factors. Task characteristics as situational variables cannot effectively explain individual innovation behavior within a power distance framework. In future research, other situational variables should be considered such as individual traditions, the individual idea of the “Doctrine of the Mean”, organizational citizenship behavior, etc., which will help to better explain individual innovation behavior in China within a culture of high power distance.

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