Article

Influence of Social Exchange Relationships on Affective Commitment and Innovative Behavior: Role of Perceived Organizational Support

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Abstract: The current study objective is to investigate how and when leader member exchange (LMX), tie strength, and innovative organizational culture influences employee innovative behavior. In particular, this study uses the social exchange theory to analyze that nurses who demonstrate high affective commitment exhibit a higher level of creativity in the workplace. Based on social exchange theory and perceived organizational support (POS) literature, the current study aims to reveal how perceived organizational support (POS) serves as an imperative mediating process between LMX, tie strength, innovative organizational culture, and employee IB. A questionnaire survey was utilized to collect the data from nurses working in public sector hospitals in Jiangsu province China. A total sample size consists of 325 nurses. Structural equation modeling through AMOS 20 was utilized to analyze the survey data. Results from the structural equation modeling (SEM) analysis indicated that LMX, tie strength, and POS are significantly related to affective commitment and employees’ IB. However, innovative organizational culture has a significant influence on POS and IB, but has no impact on affective commitment. This study covers only public sector hospitals and is limited to Jiangsu province, China. The research could be reproduced in other designated areas in different organizational setups with a bigger sample size to further enhance the understanding of the topic. The key understanding of social exchange theory (SET) is that social relationships can be used appropriately to foster an employee’s IB. It also expands research in the area of LMX, tie strength, innovative organizational culture, and POS as antecedents of affective commitment and IB. This study is a remarkable analysis of LMX, POS, organization culture, commitment, and IB in the Chinese organizational context.

Keywords: LMX; tie strength; POS; innovative behavior; IB; employees’ commitment; innovative organizational culture; social exchange theory

1. Introduction

According to West et al. [1], organizations rely on employees innovative behavior to enhance efficiency and productivity, which in turn ensures continuous organizational growth, success, and survival [2–5]. Innovative behavior results in the generation of a new idea, effective multitasking procedures, and increases job-related motivation [6]. Martins & Terblanche [7] argues that organizations invest a significant amount of time and money to enhance the employee innovative behavior. Innovative behavior generates new ideas, including effective multitasking processes and job-related managerial motivation [6]. In order to organize the innovation process, firms take into consideration
the various actors that assist them in the development of employees’ IB [7], and employees are expected to improve their organization’s processes by producing and implementing innovative solutions that enhance both customer satisfaction and services [8]. It is important to understand that employer–employee relationships can be classified as either economic exchange or social exchange. An economic exchange relationship is defined as a proper reward agreement, which endorses the particular amounts to be exchanged and required through legal approvals. Whereas a social exchange relationship has been considered as “one person does another a favor and while there is a general expectation of some future return, its exact nature is definitely not stipulated in advance” [9] and is left to the discretion of the one who makes it.

Organizational culture is always considered a vital aspect influencing the firm’s performance in the healthcare sector [10–17], although many researchers also believe that remarkable efforts have been made to comprehend the link between leadership, organizational culture, employees attitude, and healthcare organization outcomes. Moreover, previous studies have been conducted on cultural transformation as an effective way of increasing firm performance in the healthcare sector [18–20].

The nursing profession in China has been under extreme pressure over the past three decades. Despite having a fast-growing economy and significant political and social reforms in health care, according to World Health Organization and You et al [21,22], there exists a severe shortage of nurses as compared to a number of developed countries. Consequently, now there are two different types of nurses, permanently employed (bianzhi nurses) and contract-based employed (bianwai nurses) working in China [23]. In the Chinese hospitals, the majority of the nurses, about 54%, are temporary or contract-based and it is estimated to rise as China continues its move towards a market-based economy [23]. In recent years, newly employed nurses are contract-based, while permanent positions are kept for those who have political influence or higher qualifications (maintain their status) [24]. Whereas, both types of nurses have the same job descriptions and job responsibilities, permanent nurses receive better salaries and additional benefits. In Chinese health care, the main cause of the shortage of nurses is their low professional and social status and salaries [25]. Cooke & Zhan [24] revealed that in China, nurses have a lack of respect and honor from their senior doctors, administration, and patients, and are being mistreated by patients, doctors, and also their family members.

Thus, nurses in China have a greater level of job stress. Zeng [26] revealed the main factors of job stress, which are the low social status of the nursing profession, the disparity between effort-based rewards, a problem with supervisor relationship, and dealing with patients’ deaths. Especially in China, the majority of nurses are female. Another imperative reason for stress in nurses is the work-life imbalance and stress related to child-raising, which is the responsibility of the mother [27]. The majority of the nurses have left their profession [24–26]. For example, Shanghai alone lost 13% of its nurses from 2006 to 2010 [25], who migrated to developed countries, for example, Canada, Australia, U.K., and USA, and those were well-qualified and easily communicate in English. Nurses are accountable for participating in global health concerns, but from a sustainability perspective, only a few studies have been conducted; consequently, it is essential to conduct significant theoretical and empirical studies [28]. Goodman [29] believes that nursing education must be changed fundamentally to fulfill the current demands of organizational culture and climate change. Moreover, there is a high demand for a “sustainability program” in nursing education.

Costello et al [30] discussed that the World Health Organization (WHO) has the capability to ensure better health, and healthcare organizations should handle climate change and its effects seriously. Thus, it is important to work towards sustainable development for health care and overall society. We can discuss that in the nursing profession, the sustainability concept is vague, undiscoverable, and has not been speculated. It is necessary for nurses to perform their job in such a way that the environment should be kept safe, secure, and preserved. Climate change and its subsequent environmental concerns should be included in contemporary healthcare management. In this effort, nurses’ contribution is imperative. Furthermore, nurses should promote the understanding of health issues related to climate change and also evaluate the ensuing health risks [28].
Moreover, nurses require access to knowledge resources for waste in healthcare organizations. The sustainability in healthcare organizations can be increased through the social relationships of supervisor–subordinate and with colleagues. This could be because of social desirability (nurses need to be recognized as being sustainable). Consequently, this could boost the understanding of their sustainability behavior in the hospitals and healthcare organization through social interaction and organizational support. It is vital to make sure that healthcare professional and nurses should be familiar with the effect of healthcare delivery on the environment, and in contrast, the influence of climate change and the paucity of resources on overall health.

In this study, we intend to utilize the social exchange theory (SET) for investigating IB, LMX, POS, affective commitment, and innovative organizational culture. According to SET, when employees and managers/supervisors create positive relationships at the workplace to create mutual understanding, which provides a working environment that is beneficial for both employees and their employer [31]. In general, under perfect working conditions, employees perceive themselves to be supported and encouraged; consequently, they will be more likely to pay back their organization through embedding extra effort in the form of IB and affective commitment. Cropanzano & Mitchell [32] proposed that such a perfect situation can only be created when individuals in a workplace follow the rules and regulations of exchange. Researchers studying the healthcare sector argue that important job attitudes are significantly associated with employees behavioral outcomes, for example, task performance and employee retention within the organization.

Affective commitment and employees’ IB have been studied for quite some time now. Researchers studying the healthcare sector argue that due to an important job attitude that has been significantly associated with employee’s behavioral outcomes, for example, task performance and employee retention within the organization. In this research, we examine whether LMX relationships and tie strengths between colleagues affects employee’s affective commitment and IB through organizational support (POS). The presence of POS as a mediator provides us an opportunity to examine the applicability of the social exchange theory in the Chinese context. POS refers to the degree to which employees perceive that their organization cares about their welfare and values their contribution and should also boost employee’s willingness to respond in the shape of positive attitudes towards their organization [33]. Consequently, POS can motivate employees to be entirely devoted and put their extra effort to participate in organizational innovation activities [34]. It is argued that if employees perceive that their organizations are providing high organizational support, this will not only increase the affective commitment but also foster their IB. Employees can support and contribute toward their organization development by implementing innovative ideas [34]. Specifically, this paper contributes to increase the understanding about nurses IB and their commitment and also provide managers and leaders an opportunity to understand the role of organizational factors that may increase their creativity and commitment.

In the current competitive business environment, organizations have taken some actions to boost employee innovative behavior through selecting employees with creativity features, engaging employees in the decision-making process, developing criteria for job performance, and providing constructive feedback, but some other factors hindered employees’ creativeness in the organization. Organizational culture might be a facilitating factor to promote creativity in the organization [7,35–37]. There is a lack of empirical research exploring the relationship between organizational culture, LMX, POS, employee commitment, and IB. This paper adds to these variables based on the idea that, there is very little evidence as to how organizational culture plays out in the localized/provincialized context, as most of the research on it is carried out in the Western cultural context. This research is empirical in nature and has two research questions. First, are LMX, tie strength, and POS ideas from the western cultural context effective in the Chinese cultural context? Second, this paper investigates the relationship between innovative organizational culture, tie strength, POS, affective commitment, and employees’ IB. Employee IB is an important construct that not only ensures long-term survival and knowledge creation within the organization, but also has implications for
short-term organizational performance [38]. The main purpose of this study is to reveal the similarities and differences in the scopes of supervisor–subordinate relationship, organizational culture, and its relationship with IB and affective commitment in the Chinese organizational context, thus, proposing practical managerial recommendations for research and practice. Researchers have argued that culture may have a minor impact on methods chosen to determine results; however, it has a significant impact on the way in which these methods are executed [39,40].

2. Literature Review and Hypothesis Development

2.1. IB and Affective Commitment

Organizations rely on its human resources for achieving and sustaining its competitive advantage and are considered to be one of the imperative strategic resources that an organization can foster [41]. Numerous empirical and theoretical studies identified human resource management (HRM) as an important influence on employees’ psychological and behavioral outcomes [42,43]. Furthermore, currently in a highly competitive business environment, innovation could help in achieving competitive advantage. McLean [44] defines IB as the creation of novel solutions and valuable ideas in different fields, while innovation refers to the effective execution of these novel solutions in the organization [44]. In other words, IB is known as the process of providing novel ideas to solve problems in organizational practice [45,46]. Jafri [46] proposes that knowledge can be utilized to stimulate novel ideas, which may, in turn, be applied to deliver enhanced customer service and solve problems creatively. It is argued that individual IB and the collective capacity of knowledge workers boosts innovation in organizations [47].

IB involves an improved way of performing tasks through a combination of new notions, processes, products, and services that are (a) unique, and (b) beneficial for the organization [6,48,49]. Such creative ideas can come from employees at any level or in any job within the organization and not only those jobs that usually demand IB [50,51]. Innovative behavior results in enhancing efficiency and effectiveness of employees and is generally considered to be an outcome of the interaction between innovative workers.

However, Subramaniam & Youndt [52] emphasized that innovation is a management process that requires both managerial and organizational support. Similarly, Scott & Bruce [3] propose that IB requires a conducive organizational environment that consists of appropriate supervision and social relations at the workplace. These arguments are consistent with the characteristics of social exchange theory (SET). SET proposes that none of this can take place without the appropriate organizational support when employees recognize that their organization and supervisor are fair and supportive that ultimately develops an organizational culture, which supports and enhances IB [32,53,54].

According to Landry, Steers et al. & Nazir et al., [55–58], organizational commitment is the psychological state that characterizes the relationship between employees and employers. Extensive research has been carried out on employees’ commitment, which also suggests how employees can become more affectively committed to their organization [59,60]. Recent studies suggest that affective commitment has a negative relationship with employee turnover and a positive relationship with job performance [60,61], and is rooted in the concept of exchange [57]. If employees perceive that their work experience is positive, they will probably want to stay in the organization and will be more willing to utilize their efforts in the interest of the organization.

Moreover, Rhoades et al. [62] indicated that workers who have a greater commitment towards the organization are generally found to be more dedicated and loyal towards the organization. Affective commitment fosters a sense of belonging and is generally related to an employee who is emotionally attached to the organization. Such individuals exhibit greater capabilities to be involved in the activities of an organization and are always ready to put in extra effort beyond their duty towards the achievement of the organization’s goals. Moreover, individuals who prefer to stay in the organization will be more motivated than those who are forced in some way to be with the organization [59]. Consequently, It has been observed that employees who have a greater level
of commitment towards their organization always come up with creative solutions to work-based problems, and as such, demonstrate a greater tendency towards IB [46]. Based on the discussion above, we propose that:

**Hypothesis 1 (H1).** Affective commitment will be positively related to the innovative behavior of nursing employees.

### 2.2. Perceived Organizational Support, Commitment, and Innovative Behavior

Perceived organizational support (POS) is described as the degree to which employees observed that how much organization values their contributions and take care of their overall welfare, which fulfills an employee’s socio-emotional needs [63]. Generally, organizations strive to represent themselves as an imperative symbol in the heart of their workers through social exchange processes [64]. Employees create relationships focused around social exchange with their organizations, which are generally based on the perception of an employee commitment and recognition they receive from their organization. Taking the perceived support as a benchmark, employees then decide their own commitment towards their organization [65], which is in line with the standard of exchange [66].

However, Xerri and Eisenberger et al., [47,67] revealed that perceived organizational support has a positive impact on employees IB, whereas Xerri and Yuan & Woodman, [47,68] found that LMX positively influences the employees’ IB. Furthermore, Karin et al., [69] argued that specific human resource practices intervened between LMX and employees IB in the Western cultural context. As argued earlier, it is very hard to encourage innovation because there is risk involved in all type of innovation [3,70]. Subsequently, employees need to get the support and recognition from their supervisor as well as from the organization to explore innovative solutions for work-based problems [71]. The response can take the form where employees involve in practices which are away from their expected responsibilities and that give perks either their employing organization or coworkers [72,73]. Based on the discussion above, we propose that:

**Hypothesis 2a (H2a).** POS will be positively related to the organizational affective commitment of nursing employees.

**Hypothesis 2b (H2b).** POS will be positively related to the innovative behavior of nursing employees.

### 2.3. Leader-Member Exchange, Commitment, and Innovative Behavior

The supervisor–subordinate relationships are normally examined by employing the concept of leader–member exchange (LMX). In particular, LMX can be used to examine the strength of the social relationship between supervisor and subordinates at the workplace [74]. LMX theory describes how managers build good quality and positive relationships with their subordinates at work [75]. Previous studies recommended that relationships in LMX improve rapidly and remain long-lasting [76]. According to social exchange theory, the nature of LMX relies on the support, perceived value, and quality mutual social relationships in the working environment [77].

Effective leaders can boost employees’ rational thinking, which enable them to think creatively [78]. Moreover, thinking creatively transfers a greater vision towards their firms, and employees could turn out to be more committed to achieving the vision successfully [79]. Therefore, leaders motivate employees to be creative in achieving organizational goals [80,81]. In organizations that are based on innovation, supervisors continuously require employees to develop problem-solving skills and performance appraisal methods [82], which will ultimately boost employees’ IB. According to LMX theory, excellent supervisor–subordinate relationships have a positive influence on employees’ performance, supervisor support, creativity, and commitment [32,66,83,84]. It is broadly recognized
that supervisors have the authority to impact workers and so they are capable of assisting or inspiring knowledge transfer, accurate information, support, and valuable resources [85].

Additionally, competent leaders make their employees able and increase their skill of problem identification, generation of novel ideas, and solutions for work-based problems. Farr-Wharton et al., [86] discovered that LMX was associated with significant information and help, which employees needed to provide an excellent customer service. Additionally, Wayne et al., [87] proposed that when employees feel that they have extensive POS, they will probably look for good quality exchange relationships with their immediate supervisors. Consequently, previous literature discussed that it was assumed that LMX would impact employees affective commitment and IB [68,69], and LMX would influence POS [66]. Based on the discussion above, we propose that:

**Hypothesis 3a (H3a).** LMX will be positively related to the POS of nursing employees.

**Hypothesis 3b (H3b).** LMX will be positively related to the organizational affective commitment of nursing employees.

**Hypothesis 3c (H3c).** LMX will be positively related to the innovative behavior of nursing employees.

### 2.4. Tie Strength, Commitment, and Innovative Behavior

Tie strength refers to the “combination of the amount of time, the emotional intensity, the intimacy (mutual understanding), and reciprocal services that characterize the tie” [88] (p. 1361). Previous research revealed that weak ties could be suitable for enhancing employees IB [89]. For example, it has been assumed that weak ties are valuable for increasing innovativeness at work since they give new information to networks for supporting innovations. Meanwhile, strong ties are also essential as they create networks, which are useful for problem-solving and disseminating complex information. Accordingly, [88] contended that successful and efficient networks have a combination of both strong as well as weak ties.

Although, some misunderstanding still exists regarding the importance of strong ties at work [89,90]. According to Hensen [89] strong ties at work just contributes repetitive information to employees; as a result, it is concluded that strong ties could not be applicable for transmitting fresh information at work, but these are more applicable for complex knowledge. Furthermore, Krackhardt [91] recommends that strong ties provide a superior inspiration to give support. Subsequently, clusters of strong ties that are linked through the organization using weak ties give a useful problem-solving, and those networks are particularly imperative in organizations that work in a fast-changing and dubious environment.

For example, IB includes problem identification and the development and implementation of the problem solution [45]. In this manner, to boost IB, weak ties are necessary to contribute fresh information to identify the problems and generation of unique concepts, and strong ties are also essential to spread complex information and provide help to recognize problem solutions. Nonetheless, previously only a few studies have examined the relationship between tie strength, perceived organizational support, employees’ innovative behavior and commitment. Thus, it can be contributed to the literature by analyzing the general strength of ties and try to find out its effect on employee perceptions and performance within a Chinese context.

**Hypothesis 4a (H4a).** Tie strength will be positively related to the POS of nursing employees.

**Hypothesis 4b (H4b).** Tie strength will be positively related to the organizational affective commitment of nursing employees.

**Hypothesis 4c (H4c).** Tie strength will be positively related to the innovative behavior of nursing employees.
2.5. Innovative Organizational Culture, Commitment and Innovative Behavior

Obstfeld [92] proposes that the employee’s knowledge of organizational culture would affect the productivity and effectiveness of the social exchange network in the workplace. Fundamentally, for the creation of IB, it is important to develop an organizational culture that supports innovation at work. In this manner, it is imperative to figure out which rules and regulations, organization values, and management practices will foster and support the improvement of workplace relationships and IB [53]. Moreover, previous literature on the SET generally recommends that trust must be established in the workplace before social exchange relationships can be developed [95]. It is generally argued by researchers that a supportive organizational culture empowers employees’ IB, which, in turn, creates positive economic effects. These economic effects might incorporate greater employee commitment, and improve IB and its eventual manifestation into innovation that makes the organization perform more efficiently and effectively [94]. The ineffective effects of cultural mediation and policies have been connected with unclear policies, ineffective communication, and unsuccessful leadership [95].

It is proposed that key components of organizational culture, i.e., beliefs, shared values, and employees’ behavior in an organization, impact IB [7]. In this manner, if management can synchronize the organization’s culture with organization goals and employees are paying attention to how they should perform, then employees are expected to show behavior in accordance with organizational objectives, so as to be compensated for such behavior [96]. The rewards related to organizational culture should affect an employee’s observation regarding organizational support. There is a lack of research analyzing the impact of innovative organizational culture and POS. In spite of this fact, it is anticipated that when individuals adapted into the organizational culture and accept the rules and regulations of the exchange, they will possibly be capable of gaining the resources needed to finish their regular jobs efficiently [97,98]. Furthermore, these workers are more likely to be entitled to rewards, because they are showing behavior encouraged by the organization and employees recognize this as organizational support [96]. Additionally, in order to boost innovative behavior in the workplace, a promising, supportive, and inspiring organizational culture is needed. Consequently, an organizational culture that is associated with organizational objectives can positively affect organizational functions. On the other hand, a poor organizational culture can have the inverse impact and significantly diminishes the efficiency and effectiveness of the organization [7]. Based on the discussion and theorization above, the following hypotheses are proposed:

Hypothesis 5a (H5a). Innovative organizational culture will be positively related to the POS of nursing employees.

Hypothesis 5b (H5b). Innovative organizational culture will be positively related to the organizational affective commitment of nursing employees.

Hypothesis 5c (H5c). Innovative organizational culture will be positively related to the innovative behavior of nursing employees.

2.6. Research Methodology

2.6.1. Procedure

For this research, data were collected from employees in China, a non-Western culture. As pointed out earlier, most of the research on LMX, tie strength, innovative organizational culture, affective commitment, and IB has been conducted in Western countries. The main purpose of this study is to analyze employees’ perceptions of POS, commitment and IB in a non-Western context, specifically in China. Earlier research in the area has shown that in comparison to small local organizations, multinational organizations are more likely to implement a system of HRM [99]. The data we collected
comes from a major public sector hospital operating within the territorial limits of Jiangsu province. The original questionnaire, proposed by Brislin [100], was translated from English to Chinese and back to English by two different bilingual experts and researchers. The questionnaires were delivered personally and respondents were given one day to fill in the questionnaire and return it to the distributing team the next day. To encourage respondents’ participation, they were informed about confidentiality, and anonymity was ensured to protect their identity. A total of 600 questionnaires were distributed to full-time nurses, 325 questionnaires were returned, thus resulting in a response rate of 54%.

2.6.2. Measures

In this study, all items were measured on a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

To measure LMX, a seven-item scale, developed in [101], was used. This measure of LMX is extensively utilized and is also considered a highly reliable instrument [47,86,102–105]. A sample item is: “My supervisor is satisfied with my work.” The Cronbach’s alpha value of this scale was 0.90.

To measure POS, an eight-item scale, developed in [63], was used. This measure of POS is extensively utilized and is also considered a highly reliable instrument [47,102,106–108]. A sample item is: “This organization really cares about my well-being.” The Cronbach’s alpha value of this scale was 0.86.

To measure Tie strength, a three-item scale, developed in [90], was used. This measure of tie strength is extensively utilized and is also considered a highly reliable instrument [109–111]. A sample item is: “The working relationships with my colleagues and myself are close.” The Cronbach’s alpha value of scale was 0.81.

The role of innovative organizational culture in fostering employees’ IB was measured using a modified version of a five-item scale developed in [112]. In this research, an innovative sub-scale of organization culture was used to mainly analyze the risk-taking related to individual innovative behavior and develop an environment that is helpful for supporting the nursing innovative behavior. This measure of organizational culture is extensively utilized and is also considered a highly reliable instrument [95,113]. A sample item is: “This organization gives me support, information, training, and knowledge to be innovative.” The Cronbach’s alpha value of this combined scale was 0.80.

To measure affective commitment, a six-item scale, developed in [59], was used. This measure of organizational culture is extensively utilized and is also considered a highly reliable instrument [58,103,106,114,115]. A sample item is: “I would be happy to spend the rest of my career with this organization,” and the Cronbach’s alpha value of this scale was 0.91.

To measure innovative behavior, a six-item scale, developed in [3], was used to measure individual IB, in line with past research [45,47,68,106,115–118] carried out on the construct. A sample item is: “I create new ideas for difficult issues.” The Cronbach’s alpha for this scale was 0.85.

Control variables: Respondent demographics, gender (0 = male and 1 = female), age (1 = 18–25, 2 = 26–40, and 3 = 41–60), education (1 = college diploma, 2 = bachelor’s and master’s degree, and 5 = master’s degree and above), and tenure (1 = 1–2 years, 2 = 3–5 years, 3 = 6–10 years, and 4 = above 10 years) were used as a control variable in this current research because these variables play a substantial role in fostering employees IB [119]. Summary of the respondents participated in this study are given in Table 1.
Table 1. Demographic information of the participants.

<table>
<thead>
<tr>
<th>Demographics</th>
<th>N</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>9</td>
<td>2.8</td>
</tr>
<tr>
<td>Female</td>
<td>316</td>
<td>97.2</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–25 years</td>
<td>177</td>
<td>54</td>
</tr>
<tr>
<td>26–40 years</td>
<td>64</td>
<td>20</td>
</tr>
<tr>
<td>41–60 years</td>
<td>84</td>
<td>26</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Level</td>
<td>60</td>
<td>18.5</td>
</tr>
<tr>
<td>Bachelor/Master</td>
<td>265</td>
<td>81.5</td>
</tr>
<tr>
<td>Tenure in the organization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1–2 years</td>
<td>81</td>
<td>25</td>
</tr>
<tr>
<td>3–5 years</td>
<td>112</td>
<td>34.5</td>
</tr>
<tr>
<td>6–10 years</td>
<td>74</td>
<td>22.7</td>
</tr>
<tr>
<td>Over 10 years</td>
<td>58</td>
<td>17.8</td>
</tr>
</tbody>
</table>

The means, standard deviations, correlations for employees IB, commitment, tie strength, POS, and LMX are exhibited in Table 2. However, its essential to observe the correlations, as path testing requires that constructs should be correlated [120].

Table 2. Means, standard deviations, and correlations between variables (n = 325).

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>CR</th>
<th>AVE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>4.78</td>
<td>0.703</td>
<td>0.914</td>
<td>0.731</td>
<td>(0.90)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POS</td>
<td>5.51</td>
<td>0.471</td>
<td>0.775</td>
<td>0.552</td>
<td>0.342**</td>
<td>(0.86)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tie Strength</td>
<td>5.89</td>
<td>0.635</td>
<td>0.851</td>
<td>0.632</td>
<td>0.198*</td>
<td>0.317**</td>
<td>(0.81)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational culture</td>
<td>5.99</td>
<td>0.502</td>
<td>0.925</td>
<td>0.714</td>
<td>0.575**</td>
<td>0.405**</td>
<td>0.446**</td>
<td>(0.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affective commitment</td>
<td>6.21</td>
<td>0.729</td>
<td>0.839</td>
<td>0.547</td>
<td>0.425**</td>
<td>0.044</td>
<td>0.195*</td>
<td>0.417**</td>
<td>(0.91)</td>
<td></td>
</tr>
<tr>
<td>Innovative behavior</td>
<td>5.71</td>
<td>0.773</td>
<td>0.872</td>
<td>0.669</td>
<td>0.398**</td>
<td>0.212*</td>
<td>0.231*</td>
<td>0.324**</td>
<td>0.380**</td>
<td>(0.85)</td>
</tr>
</tbody>
</table>

Note: * Significant at the 5% level; ** significant at the 1% level. Numbers in parentheses are Cronbach’s alphas.

2.7. Data Analysis and Model Estimation

In this study, we performed a confirmatory factor analysis (CFA) through structural equation modeling (SEM) in AMOS 22. Before testing the hypotheses, the discriminant validity of the study variables was established by confirmatory factor analysis, utilizing AMOS 2.0. A six-factor model was discriminated with a sequence of other models developed, as presented in Table 3. The goodness-of-fit of the six-factor model was superior and more resilient than other models ($\chi^2 = 5.27.62$, df = 203, $\chi^2$/df = 2.59, root mean squared error of approximation (RMSEA) = 0.05, Tucker–Lewis index (TLI) = 95, confirmatory fit index (CFI) = 0.97, incremental fit index (IFI) = 0.97, and goodness of fit index = 93), which supports the discriminant and convergent validity of study variables. In addition, Harman’s one-factor analysis was executed to analyze the common method bias. In the test, the six-factor model was compared with a single model, where all items were loaded onto a single factor. The findings revealed that a common method bias was not an issue because the one-factor model was weaker as compared to the six-factor model. In this study, factor loadings of the variables were not less than 0.7 and greater than 1, and the composite reliability (CR) and average variance extracted (AVE) were above 0.7 and 0.5, respectively, as shown in Table 2, which indicated that there was no validity issue encountered in this study [120].
### Table 3. Comparison of measurement models.

<table>
<thead>
<tr>
<th>Model—Variables</th>
<th>( \chi^2/\Delta )</th>
<th>GFI</th>
<th>IFI</th>
<th>CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline Model</td>
<td>2.59</td>
<td>0.93</td>
<td>0.97</td>
<td>0.97</td>
<td>0.95</td>
<td>0.053</td>
</tr>
<tr>
<td>Model 1 combining AC &amp; IB</td>
<td>1.65</td>
<td>0.88</td>
<td>0.90</td>
<td>0.90</td>
<td>0.87</td>
<td>0.091</td>
</tr>
<tr>
<td>Model 2 combining POS, AC &amp; IB</td>
<td>2.79</td>
<td>0.90</td>
<td>0.95</td>
<td>0.95</td>
<td>0.93</td>
<td>0.097</td>
</tr>
<tr>
<td>Model 3 combining LMX &amp; POS</td>
<td>2.54</td>
<td>0.85</td>
<td>0.87</td>
<td>0.87</td>
<td>0.91</td>
<td>0.084</td>
</tr>
<tr>
<td>Model 4 combining IOC &amp; TS</td>
<td>2.98</td>
<td>0.88</td>
<td>0.94</td>
<td>0.94</td>
<td>0.92</td>
<td>0.089</td>
</tr>
</tbody>
</table>

Note: LMX, leader member exchange; IB, innovative behavior; IOC, innovative organizational culture; AC, affective commitment; TS, tie strength; POS, perceived organizational support.

2.8. Test of the Structural Model

In this study, results from the structural equation modeling (see Figure 1 & Table 4) revealed that most of the path coefficients were positive and consistent with the proposed hypotheses. Affective commitment (\( \beta = 0.55, p < 0.001 \)) had a significant effect on IB, supporting hypothesis H1. LMX (\( \beta = 0.34, p < 0.05 \)) and innovative organization culture (\( \beta = 0.26, p < 0.05 \)) had a positive relationship with POS, supporting H3a and H5a. POS was significantly related to affective commitment (\( \beta = 0.47, p < 0.001 \)) and innovative behavior (\( \beta = 0.41, p < 0.001 \)), supporting H2a and H2b. The analysis also indicated that LMX has a significant relationship with affective commitment (\( \beta = 0.56, p < 0.001 \)) and innovative behavior (\( \beta = 0.30, p < 0.05 \)), and tie strength has a positive relationship with affective commitment (\( \beta = 0.29, p < 0.05 \)) and innovative behavior (\( \beta = 0.36, p < 0.001 \)), which supports hypotheses H3b, H3c, H4b, and H4c. It also revealed that POS significantly mediated the relationship of innovative organizational culture with innovative behavior (\( \beta = 0.26, p < 0.05 \)), supporting hypothesis H5c.

### Table 4. Testing the hypotheses.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Path Relationships</th>
<th>Regression ( \beta )</th>
<th>( t ) Value</th>
<th>( p ) Value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>AC ( \rightarrow ) IB</td>
<td>0.55</td>
<td>8.22</td>
<td>**</td>
<td>Supported</td>
</tr>
<tr>
<td>H2a</td>
<td>POS ( \rightarrow ) AC</td>
<td>0.47</td>
<td>6.71</td>
<td>**</td>
<td>Supported</td>
</tr>
<tr>
<td>H2b</td>
<td>POS ( \rightarrow ) IB</td>
<td>0.41</td>
<td>5.39</td>
<td>**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3a</td>
<td>LMX ( \rightarrow ) POS</td>
<td>0.34</td>
<td>2.17</td>
<td>*</td>
<td>Supported</td>
</tr>
<tr>
<td>H3b</td>
<td>LMX ( \rightarrow ) AC</td>
<td>0.56</td>
<td>7.01</td>
<td>**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3c</td>
<td>LMX ( \rightarrow ) IB</td>
<td>0.30</td>
<td>2.05</td>
<td>*</td>
<td>Supported</td>
</tr>
<tr>
<td>H4a</td>
<td>TS ( \rightarrow ) POS</td>
<td>0.07</td>
<td>1.31</td>
<td>0.093</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H4b</td>
<td>TS ( \rightarrow ) AC</td>
<td>0.29</td>
<td>2.40</td>
<td>*</td>
<td>Supported</td>
</tr>
<tr>
<td>H4c</td>
<td>TS ( \rightarrow ) IB</td>
<td>0.36</td>
<td>5.14</td>
<td>**</td>
<td>Supported</td>
</tr>
<tr>
<td>H5a</td>
<td>IOC ( \rightarrow ) POS</td>
<td>0.26</td>
<td>2.28</td>
<td>*</td>
<td>Supported</td>
</tr>
<tr>
<td>H5b</td>
<td>IOC ( \rightarrow ) AC</td>
<td>0.10</td>
<td>1.69</td>
<td>0.074</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H5c</td>
<td>IOC ( \rightarrow ) IB</td>
<td>0.30</td>
<td>4.12</td>
<td>**</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note: POS, perceived organizational support; LMX, leader member exchange; TS, tie strength; IOC, innovative organizational culture; AC, affective commitment and IB, innovative behavior; * \( p < 0.05 \), ** \( p < 0.001 \).

2.9. Discussion

In the modern business environment, employees are endeavoring to achieve high goals and innovative behavior in order to be considered capable and professional in a highly competitive work environment [121]. The aim of this research was to evaluate how LMX, organizational culture, and tie strength engender IB and employees’ affective commitment in China, with its own cultural context. We combined the POS, LMX, tie strength, and innovative organizational culture in the literature to describe the motivational sources of organizational commitment and employees’ IB. The findings from this study provide information for human resource managers. Using SET, this study claims that
mutual understanding developed through a good quality working relationship could be advantageous for employees as well as the employer [31,32,122].

Figure 1. Path coefficients of the structural model, * p < 0.05, ** p < 0.001.

This study proposes that organizations in China need to work on improving the employee affective commitment to enhancing employee’s IB [46,115,123]. Thompson & Heron [124] argues that commitment has a positive relationship with employees’ IB. Our results suggest that, if managers want to enhance employees’ commitment, they need to establish a culture of positive relationships at work. According to SET, those employees who respond back towards the organization with a greater level of commitment will be more likely to have a greater intention and use spare effort to be innovative [46]. The results from this study also suggest that employee IB is a continuing process and requires organization/supervisor support to produce it effectively [118,125]. During this process, employees would like monetary or non-monetary support, and a high POS created via a positive work environment will facilitate this stage. We tend to perceive that POS provides a cherished and effective environment to motivate employees to continue their IB. Furthermore, our results support findings from previous empirical research [47,67,126–128], which suggests that POS is positively associated with employees’ IB and affective commitment.

Our findings are in line with Meyer et al. and Loi et al., [60,129], who also proposed that POS was a suitable mechanism to observe different job factors, like LMX, tie strength, affective commitment, and employees’ IB. Therefore, Eisenberger et al. and Liu, [63,72] suggested that when the employees recognize their organization is supportive and take care of them, then they will more likely be committed towards the organization. Furthermore, previous empirical research proposed that POS positively influences employees’ affective commitment and innovative work behavior [47,67,126,127]. Along the lines of SET, a high POS is associated with better mood, self-esteem, behaviors, and positive attitudes; low POS is related to a depressed mood, lower self-esteem, behaviors, and attitudes that are not beneficial for achieving organizational goals [72,130]. Moreover, low POS in a nursing profession context can place further pressure on nurses and definitely have adverse effects on patients’ safety and recovery.

However, it is imperative to emphasize that the supervisors are assumed to play a vital part in boosting employees’ IB and their commitment. Results from the current and previous studies found that the perception of the positive relationship with the supervisor can have a greater impact on employees motivation to be innovative [131,132]. Subsequently, creativity is highly risky because it is a not a regular task, and moreover, employees require extra support from their supervisor. If a supervisor has qualities, such as honesty, loyalty, respect, and fair and balanced decision making [133,134], can encourage employees to boost their IB. Xerri, Yuan & Woodman
and Karin et al., [47,68,69] revealed a positive impact of LMX on employee’s IB and Casimir et al, Maertz et al, Nazir et al & Son et al., [58,126,135,136] discussed employee’s commitment. For example, organizations that intend to create a competitive advantage through modernization should improve good LMX relationships to increase POS and employees’ commitment, which also helps in fostering employees’ innovative behavior. Moreover, findings from this study revealed that complex knowledge, new information, and resources as a tie strength have a positive influence on employees’ IB. Particularly, supervisors can create good-quality LMX relationships at work, where strong and weak ties are shaped, where employees observe that they have fair relationships at work, and employees also observe that their organization is supportive, take care of them, and values their contribution; as such, the organizational framework will be developed to stimulate employees’ affective commitment and IB. This research is consistent with Xerri & Brunetto and Wang et al., [137,138] revealing that tie strength has a positive influence on employees commitment and their IB. Furthermore, employees are involved in innovative behavior (producing innovative solutions or disseminate complex innovative ideas) when they feel the organization will listen to them and give them an equal share in the comprehensive benefit [139,140]. Furthermore, the ties within the studied organizations were generally strong, where strong ties are vital to support IB, as well as the weak ties [88–91,138,141]. It is extensively recognized that supervisors have greater authority to inspire employees as well as the ability to bolster knowledge creation, exchange useful information, and provide resources and support [85].

Although, IB is extensively recognized to enhance organizational efficiency and effectiveness, the greater threat for an individual who adopts a creative approach is normally ignored [85]. In this regard, it suggests that when an organization creates a culture where employees can make some mistakes without any fear of rejection, this can boost their innovative behavior. These employees exhibit greater willingness to take risks and produce more innovative ideas. Thus, it is imperative to investigate whether the organization has shaped an innovative culture that supports and stimulates employees’ IB [113]. Dobni [96] recommends that to foster employee’s IB, the organization must instigate by showing them that they give importance to innovative shared beliefs and values. Those employees who observe their supervisor as being encouraging and helpful could have a superior influence on their job, autonomy, and efficiency in their work; particularly, this observation utilizes employees’ psychological empowerment [142], which also stimulates creativity [143]. Furthermore, professional employees are expected to enhance their knowledge creation to increase their job performance [144,145].

3. Managerial Implications

This study has made a substantial contribution toward examining the employee LMX, tie strength, organization culture, and its effect on POS, affective commitment, and IB in organizations related to a human aspect of organizational sustainability. Current research has practical implications for managers to understand that boosting employees’ IB is particularly useful for HRM practices. It can be recognized that IB positively supports to an individual’s capability to resolve workplace problems [45,85,146]. In this way, HR managers looking to boost employees’ IB will create practices that motivate an employee to be effectively committed towards their organization and are expected to show IB. Subsequently, it has been observed that employees’ IB is imperative for organizational sustainability [121,147].

However, organizations need to consider approaches in which the employee’s affective commitment towards their organization can be improved considering that it seems to be the main factor of the employees’ IB. Moreover, addressing tie strength, LMX, innovative organization culture, and POS can enhance employee’s commitment and IB by boosting social interactions between employees [46,148] and also work-related interactions; as a result, an individual will intentionally consolidate a relationship of specific groups into their social identity when those relationships are important and genuinely significant to them [149]. To achieve the desired goals, organizations could
instigate creating special opportunities for their employees and encourage supervisors to play an active role by interacting with each other outside the workplace [58].

In particular, human resource managers must consider either making or amending HR strategies like innovative culture, organization support, interpersonal relationship, and rewards for IB, which are related to enhancing employee performance as well as organizational performance to build sustainable organizations, for example, those employees who have realistic, unique, and novel ideas, and have a passion for converting those into real products and services. Consequently, organizations might consider offering those employees with exceptional opportunities to boost organizational performance in the long run.

4. Practical Implications

However, in the nursing profession, the shortage requires an emphasis on the significance of boosting the employees’ productivity and efficiency by creating an environment that promotes innovative behavior [150]. Moreover, it has been suggested that generally, nurses do not have enough time to recognize the problem and provide solutions for those problems in the workplace. For resolving such issues, hospital management and leaders should develop effective relationships in the workplace where nurses can get easy access to obtain resources, information, and knowledge to complete their task efficiently. Furthermore, the results from this research reveal that various factors, including LMX, tie strength, innovative organizational culture, and POS directly affect employee’s innovative behavior and affective commitment. Therefore, effective leaders in healthcare organizations should be able to create an environment that aligns the employees’ goals with organizational goals [151], and it should not be allowed to develop an environment that involves some kind of organizational changes because such organizational changes could be a key challenge for healthcare management [152]. Consequently, management should first create an affective commitment in their nursing employees to compel them to embed their extra effort to be innovative.

The findings from this study further focus on several factors that facilitate developing an effective environment that boosts nursing employees’ innovative behavior and affective commitment. Especially, the leaders in the healthcare organization can create good-quality relationships (LMX) with their subordinates at work, where nursing employees observe that they have fair interactions with their supervisor, where they also observe that their organization provides them support and cares about their welfare, where both strong and weak ties are developed; this would help to create an organizational framework to boost nursing employees’ innovative behavior and commitment.

5. Limitation and Future Research

There may be some limitations related to this research that need some attention. First, in this study, we used cross-sectional data; thus, we could not deduce causation relationships between any two variables. A longitudinal data would be suitable for testing causation and give more generalizable results [153]. Thus, the relationships tested in this research should be examined further, including other factors embedded within social exchange theory, such as the influence of LMX, trust, justice dimensions on organizational citizenship behavior (OCB), and employees’ innovative behavior. Second, quantitative data can only be utilized to conclude what the relationship between two different variables is, but this type of data cannot describe why such relationships exist or do not exist [154,155]. In this study, qualitative data could have been helpful for concluding why the association between tie strength and POS, as well as innovative organizational culture and affective commitment, were not significant; consequently, the mixed method could deliver a comprehensive investigation of innovative behavior and organizational commitment of nursing employees in the Chinese context. Furthermore, a third possible limitation was employees self-reported data because nursing employees who contributed to the current research were mainly female; in contrast, male registered nurses were only 10% of the workforce [156].
This study covers only public sector hospitals operating in the Jiangsu province China. Therefore, for future research, other national and international regions might be selected endeavoring to produce a greater sample size. However, this empirical model has shown to be very beneficial and convincing, and future research would include other variables that might have a key influence on employees’ tendency to be innovative, such as leadership style, knowledge sharing, organizational performance, and employees’ voice behavior. Consequently, in the future, more gender-balanced organizations in different sectors, such as hospitality, telecommunication, banking, manufacturing, and information technology would be useful to compare the existing findings. However, it could be very difficult to increase male nurses in any future research because the majority of the nurses’ are female worldwide [157]. Finally, to explain the proposed framework in this study, we applied a social exchange theory, which was developed in a Western cultural context. It has always been a questionable issue in the research regarding whether the theories developed in the Western culture are suitable to a Chinese organizational context. Although, SET has been extensively tested in Chinese organizational contexts, and we accept that this concern could have an influence on the current findings of this study, however it is not believed to have a substantial impact.

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