Can Human Resource Management Stimulate Innovative Behavior? A Literature Review of the Influence of Strength of Human Resource Management on Employee Innovation Behavior

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Abstract. Innovation-driven development is China's national strategy, and innovation behavior is the foundation of organizational innovation. Empirical research shows that human resource management affects innovative behavior, but most domestic research focuses on content-oriented human resource management, while ignoring the effect of actual implementation, that is, the intensity of human resource management. This paper reviews the research on the strength of human resource management and innovation behavior. From the perspective of social cognition, this paper examines the mechanism of human resource management's action on innovative behavior, explores the role of organizational innovation atmosphere and psychological state in the two, builds an integrated model, and looks forward to the future research direction.

Introduction

In the new era, China's national economy has changed from factor-input-driven to innovation-driven. The importance of innovation to enterprise development has become the consensus of scholars at home and abroad [1]. The essence of innovation-driven development is talent-driven, and it is necessary to fully stimulate and mobilize the innovation enthusiasm of “people” [2]. Employee Innovation Behavior (EIB) is a key component of an organization's ability to innovate [3], which effectively improves the quality of products and services, expands new customers and markets, improves the market position of the company, and promotes organization Performance. However, most employees in the enterprise are afraid of the limelight, fear of making mistakes, fear of failure, and just work in accordance with the rules. Only a small number of employees have no such concerns at all and are boldly engaged in innovation activities [4]. Why is this happening? What factors affect the EIB?

The impact of Human Resource Management (HRM) on EIB has received substantial empirical support in developed countries [5]. For example, Mansouri and Goher (2016) research show that effective HRM practices help employees generate more innovative behavior [6]. However, the existing research mainly focuses on content orientation, that is, the impact of specific HRM measures on EIB, but less on the actual effect of HRM. Bowen and Ostroff (2004) proposed the concept of Human Resource Management Strength (HRMS) [7], which analyzes the impact on employee behavior from the perspective of HRM actual effect, which provides the possibility for further reveal the effects of HRM on the EIB.

This paper combs the related research of HRMS and EIB, constructs the research integration model, and looks forward to the future direction of the relationship research between the two.
HRMS Related Research Review

HRMS Overview
Since the 1990s, research on the relationship between HRM and corporate performance has received extensive attention from scholars at home and abroad. Because these studies lack the analysis of the actual effect of HRM from the perspective of employees, it leads to the inconsistency of scholars' research conclusions. In 2004, Bowen and Ostroff first proposed the concept of HRMS. It focused on the real effect of HRM implementation, emphasized the active position and role of employees in the HRM process [8], and explored the impact of human resource management on corporate performance from the perspective of employee effective perception. Cunha (2004) argue that HRMS is a combination of a series of “meta-features” of HRM systems that help employees to achieve a consistent understanding of corporate goals [9]. Qadeer (2013) pointed out that HRMS refers to the ability of the HRM system to form a strong organizational atmosphere in which all employees have a common understanding of the employee behavior expected by the company [10].

In this study, HRMS is the extent to which employees understand and accept organizational HRM policies and measures, and thus form a consensus and consistency on the behavior expected by the organization, which helps organizations to form unique competitiveness about employee behavior.

HRMS Antecedent Variable Related Research Review
Since the concept of "HRMS" was put forward, it has attracted the attention of scholars in developed countries in the West. Research mainly focus on the impact of situational factors on HRMS, including strategic factors, leadership factors, organizational relationships, and management methods.

(1) Strategic factors. The realization of corporate goals comes from the implementation of corporate strategic planning, and the formal human resources strategy strengthens the implementation of HRM. A study suggests that strategic management orientation will positively impact HRMS, and that HRMS will also enhance when innovation is a strategic element [9]. (2) Leadership factors. The creation of a strong situation in an enterprise is inseparable from the efforts of the leader. CEOs of companies can create a unique human resources system and enable the company's top management team to agree on HRM within the company [11]. Consensus at multi-level manager's is key to creating a strong HRM system [12]. (3) Organizational relationship. The membership in the organization not only affects the effective convey of HRM policy measures, but also plays an important role in the implementation of subsequent policy measures. Studies have shown that the relationship between supervisors and subordinates, employers and employees significantly affects HRMS [13]. (4) Management methods. Li Pengcheng (2018) pointed out that full authorization makes employees more aware of the ownership. Enterprise decentralized management can effectively unify the starting point of the interests of employees and company managers, which is a key factor for enterprises to improve HRMS [14].

HRMS result Variable Related Research Review
For enterprises, they pay more attention to what beneficial impact the improvement of HRMS can bring to the development of enterprises. Therefore, a large number of studies focus on the results of HRMS research, and through practice has proved that HRMS has an important impact on employee mental state, behavior and organizational performance.

(1) The psychological state of the employee. Much research has focused on the impact of HRMS on employee emotional commitment, job satisfaction, or turnover intentions. Studies have shown that HRMS has a direct and independent impact on employee emotional commitment [15]. In addition, the significant relationship between HRMS and employee turnover tendencies has been confirmed [16]. (2) Employee work behavior. Ribeiro (2011) found that HRMS directly acts on improvisation behavior of employees' work; culture plays a strong mediator role in the relationship between the them [17]. The improvisation behavior of employees has a significant impact on the innovation performance of employees including innovation intentions, innovative actions and innovation.
achievements [18]. Therefore, some studies have started from the innovative behavior of employees and found that HRMS has a direct and significant impact on employees' innovative behavior [14,19].

(3) Organizational performance. Financial performance and non-financial performance including employee commitment, firm flexibility, etc. are directly or indirectly affected by HRMS [20,21].

**HRMS Moderator Variable Related Research Review**

Studies have shown that organizational factors such as organizational communication, organizational climate, and organizational culture are important moderator variables in HRMS research.

(1) Organizational communication. HRMS is a kind of situational intensity. The mutual communication of employees makes information transfer between different employees, and then the employees' understanding and opinions on a certain problem tend to be consistent, forming a high-intensity "situation". Studies have shown that developing an HRM strategy will improve organizational performance by improving the organization's HRMS, and organizational communication will further promote this positive effect [22].

(2) Organizational atmosphere. Cafferkey (2018) have shown that organizing interpersonal relationships moderates the impact of HRMS on employee emotional commitment [23]. Pereira and Gomes (2012) found that organizational climate moderates the relationship between HRMS and organizational performance [24].

(3) Organizational culture. Bowen and Ostroff (2004) point out that the close integration of collectivist values with HRM helps employees achieve a common understanding of certain behaviors [7]. Farndale and Sanders (2017) have shown that organizational culture plays a moderator role between the HRM system and the attitudes and behaviors of employees [25].

**HRMS Research Model Analysis**

At present, scholars focus on the extensive discussion of the antecedent variables of HRMS in order to obtain a more comprehensive theoretical model. This is because in practice, companies are concerned about how to improve HRMS, and only if you know how to do it can you put it into action. The study of the result variables starts from the individual level and the organizational level, focusing on the deep analysis, in order to get a detailed impact path, and pay attention to the role of some mediators and moderator variables. This detailed path of influence enables companies to understand the changes brought about by the improvement of HRMS, and how the company has developed.

In order to carry out the next analysis, this paper draws the research framework of HRMS (refer with: Fig. 1).

**Figures 1. The research framework of HRMS.**

**EIB Related Research Review**

**EIB Overview**

The most important element of organizational innovation is the individual innovation of employees. Only with the personal innovation of employees can the organization innovate [26]. Scholars have
two definitions of result-oriented and process-oriented for the EIB concept. Results-oriented scholars believe that EIB refers to individuals who generate novel ideas at work and use the resources that organizations can provide to apply new ideas to their work, changing the current situation and improving organizational efficiency [27,28]. Process-oriented scholars believe that EIB is a continuous process involving multiple stages, with different specific activities at different stages. The most representative view is that Scott and Bruce (1994) propose a three-stage EIB, including the creation of new ideas or new problem-solving methods; seeking support for new ideas; and putting new ideas into practice, promotion, and development [29]. In addition, Lu Xiaojun and Zhang Guoliang (2007) combined with the Chinese context proposed EIB It includes two stages of innovation behavior generation and innovation behavior execution [30].

In summary, this study believes that EIB means that employees promote the behavior of innovative ideas from the generation to the implementation process in the relevant activities of the organization [31], that is, the continuous process including the two stages of innovation behavior generation and innovation behavior execution.

EIB Antecedent Variable Related Research Review

HRM is critical to EIB [32]. So, does HRMS also play an important role? Since the result of HRMS is two levels of individual and organization, this paper combs the antecedent variables of EIB from two aspects: individual factors and organizational factors.

(1) Individual factors. Some studies focus on the impact of emotion and job satisfaction on EIB, consistent with the result variables of HRMS. For example, Jafri’s (2010) study shows that emotional commitment in organizational commitment is significantly positively correlated with EIB [33]. Li Yuejia and Wang Shiqiang (2016) research shows that job satisfaction has a significant positive impact on EIB, and the organizational innovation atmosphere plays a moderator role between the two [34].

(2) Organizational factors. Scholars have found that organizational climate [35], organizational support [36], and remuneration policy [37] are significantly related to EIB. It can be found that these variables are all related to HRM.

In summary, EIB is not only affected by individual internal motives such as emotional commitment and work attitude, but also influenced by external conditions such as organizational atmosphere and organizational support. This is similar to the HRMS result variable. Lin Xinqi and Ding He (2017) research shows that HRMS is positively affecting employees' willingness to innovate and innovative behavior, and employees' willingness to innovate partially mediator the impact of HRMS on innovation behavior [19].

EIB Result Variable Related Research Review

At present, there are few research on the result variables of EIB, but some studies have shown that there is a significant positive correlation between EIB and organizational performance [38].

EIB Research Model Analysis

Based on the above analysis, this paper draws the research framework of EIB (refer with: Fig. 2). It can be seen that many individual factors are both the antecedent variable of EIB and the result variable of HRMS; situational factors such as organizational innovation atmosphere play an important role in the role path of the EIB.
Integrated Model Building

EIB is affected by the psychological state of employees, and the control of employees' own behavior is affected by external organizational factors and is related to their internal factors. HRMS focuses on employees' understanding of HRM content and plays an important role in employees' internal mental state and external work behavior. Therefore, this paper constructs an integrated model of the relationship between HRMS and EIB (refer with: Fig. 3). Based on Social Cognitive Theory (SCT), the model analyzes the interaction between HRMS and EIB, and points out the mediating role of employees' mental state, and also points out the moderator role of organizational innovation atmosphere between the two.

Cognition refers to the process by which individuals organize, process, and interpret stimuli (perceived information) based on their knowledge, experience, and values. Environmental psychologists Mehrabian and Russell (1974) argue that the environment can influence an individual's internal state, which in turn leads individuals to develop behaviors that approach or evade, and construct a "SOR" model ("stimulus-cognition-response" model) [39]. It can be seen from the research paradigm of "S-O-R" model that external environmental stimuli can affect the internal mental state of knowledge workers and influence their innovation behavior. In the model constructed in this study, "stimulus" refers to HRMS; "cognition" is the psychological state of employees; "reaction" is EIB; organizational innovation atmosphere is environmental factor.

The integration model proposes the following assumptions: (1) HRMS positively affects EIB; (2) HRMS positively affects employee mental state; (3) employee mental state positively affects EIB; (4) employee mental state positively affects EIB; (5) organizational innovation atmosphere plays a moderator role in the process of HRMS affecting EIB.

Among them, the antecedent variables of HRMS are mainly strategic factors, leadership factors, organizational factors and management methods; organizational innovation atmosphere includes innovation strategy, innovation orientation, organizational support, etc.; psychological state includes Emotional commitment, job satisfaction, etc.; EIB includes two dimensions: innovation behavior generation and innovation behavior execution.
Figures 3. Integration model of the relationship between HRMS and EIB.

Research Limitations and Prospects

The research on the relationship between HRMS and EIB is in its infancy. This study only builds an integrated model based on existing research. The model still needs empirical evidence to verify its correctness. In future academic research, scholars should pay attention to the following aspects:

First, studying the relationship between HRMS and EIB has a strong practical significance for the future development of Chinese enterprises. In China's state-owned enterprises, because of the HRM model and talent use constraints, many incentives are difficult to play a role, and management efficiency has not significantly promoted the transformation of technological innovation inputs into the performance of state-owned enterprises [40]. Therefore, it is of great significance to start from HRMS, that is, the employee's recognition of the clear content of HRM, to stimulate employees' innovative behavior and improve corporate performance. Second, construct and test the HRMS theoretical framework and scale in the Chinese context. The HRMS research is still in its infancy in China, and there is no HRMS theoretical framework and assessment tools for the Chinese scenario. In addition, the integration model proposed in this paper mainly draws on the research results of scholars from developed countries in the West, and whether the research results are applicable to the Chinese situation, especially the state-owned enterprises need to be combined with enterprise practice to conduct empirical research. Third, the influencing factors of EIB include two levels of employee individual and organization. These two levels have their own certain factors (such as age, academic background, etc.) and non-deterministic factors (employee cognition level, organization culture, organizational atmosphere, etc.). Future research should consider how to accurately define variables and identify the relationships between variables and the mechanisms of their interactions in order to construct more scientific and rational research models.

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