# Formation Mechanism of Pro-organizational Rule-breaking Behavior from the Perspective of Digitalization Transformation

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**Abstract:** Pro-organizational Rule-breaking Behavior (PORB) is a negative organizational behavior which seems conceptually harmful to organizations. However, PORB can both be beneficial to organizations from the perspective of organizational value, and helpful to the facilitation of organizational performance or organizational innovation. PORB is actually acquiesced and encouraged by organizations in a way. In the context of digitalization transformation, due to the turbulent VUCA environment and competitive pressure, PORB even has a tendency to increase. Therefore, the correlative research questions as follows are put forward naturally. How to evaluate PORB objectively? Why do employees know that the behavior violates the organizational rules but still commit it? Is it essentially an individual problem of the employees or a problem of the organizational rules? What are the causes and mechanisms of PORB? There have been many researches on Unethical Pro-organizational Behavior and Pro-social Rule-breaking Behavior, which are closely related to PORB. However, there is neither systematically theoretical support nor efficient guiding measures on PORB for enterprise practice for the time being. Our research aims to study the formation mechanism of PORB in the context of digitalization transformation, which can not only develop the elementary theory of PORB, but also broaden the theories of Pro-social Rule-breaking Behavior and Unethical Pro-organizational Behavior. In practice, the results of our research can promote both the organizational management and governance of PORB.

**Keywords:** Pro-organizational Rule-breaking Behavior; Unethical Pro-organizational Behavior; Pro-social Rule-breaking Behavior; Formation Mechanism; Digitalization Transformation

## 1 Introduction

Pro-organizational Rule-breaking Behavior (PORB) is very common in enterprise practice, which is characterized by two seemingly contradictory characteristics, among which one is pro-organizational and the other is rule-breaking. Why are employees pro-organizational and rule-breaking at the same time?

From the organizational level, as a kind of non-self-interested organizational behaviors, pro-organizational behavior is regarded as a moral behavior, which is conducive to the formation of a good organizational climate and interpersonal reciprocity, thus promoting the organizational performance and interests.

From the individual perspective, pro-organizational employees are easier to integrate into the workplace and be recognized by leaders and colleagues, so that they may achieve better individual job performance, job satisfaction and promotion space. In the name of "pro-organizational", when employees believe that some of the existing rules and regulations or norms (to a large extent) affect the organizational performance, out of the sake of the organizational performance and interests, employees will be involved in the mechanism of moral detachment and break the existing organizational norms, so that rule-breaking comes into being at this moment [1, 2, 4-6, 12]. Therefore, PORB is an intentional behavior that safeguards the interests of organizations. On the one hand, in practice, many PORBs are beneficial to organizations, which have positive and deviant innovation value. They can break through the outdated old inertia of organizations and form new conventions and regulations. On the other hand, in the long run, PORB will affect or even destroy the organizational rules and regulations, leading to "non-compliance and non-prohibition", and even bring heavy losses or catastrophic disasters to the enterprises in serious cases [1, 12, 13]. How to objectively evaluate PORB? Why do employees knowingly commit violations? Is it an individual problem or an organizational problem? How exactly does PORB happen? What is the formation mechanism of PORB? How to govern the PORB in organizations? These questions are worth further studying.

Since 2020, due to the severe survival crisis and development pressure caused by the COVID-19 pandemic and economic downturn, enterprises and employees have become a closely linked community with a shared future. Employees' PORBs have a significant upward trend and present increasingly obvious digital characteristics (especially in digital enterprises) [17, 20]. For example, in order to improve the sales performance of the organization or team, employees intentionally exaggerate the efficacy of the products or even provide false information in online promotion. Nevertheless, in order to successfully win the order contracts or avoid losing major customers, the salesmen took over the online orders without their leaders' permissions (especially in case he/she could not get in touch with his/her leader by phone in time), and so on.

The digital characteristics of PORB in recent years can largely be attributed to the significant opportunities and challenges brought by the impact of the COVID-19 pandemic on the digitalization transformation of enterprises, which is fundamentally changing the existing organizational management mode and organizational behavior mode [20]. This is because digital technologies have played an important role in supporting the fight against the pandemic and restoring production and life since the COVID-19 pandemic. The COVID-19 pandemic acts as a strong digital accelerator, which further promotes the digitalization transformation of enterprises. In the post-pandemic era, in order to adapt to the changes in the VUCA environment, more and more enterprises have joined the team of digitalization transformation. Many small and medium-sized private enterprises which neglected the digitalization transformation in the past are also accelerating their steps to catch up. Enterprise telecommuting, online conference, online research and development design, online marketing, online after-sales and online services, and other online and digital business management activities are becoming increasingly normal. In fact, digitalization is an inevitable trend of the development of enterprises in the era of digital economy and has become China's national strategy. At the same time of restructuring the business model of enterprises, digitalization has also brought about the transformation of organization and management mode, which makes enterprises change from the conventional bureaucratic management mode to the brand-new grid one [17], thus leading to the new changes in organizational behaviors of employees. In other words, the enterprise digitalization transformation is not a simple technique or management issue, but an issue of adaptive change of organizational management via restructuring the organizational operation mode and ways of value creation with digital technologies [17]. However, the traditional organizational behavior theory cannot effectively explain, predict and direct the new organization behaviors management practice under the situation of digitalization transformation [8, 20]. Therefore, it is urgent to study the organizational behaviors of employees, especially the negative organizational behaviors (including PORB), from the micro level of enterprise and under the new situation of enterprise digitalization transformation, so as to construct a new knowledge system and a new theory of organizational behavior suitable for enterprise digitalization transformation. As a consequence, our research is expected to reveal the causes and formation mechanism of PORB, and develop the PORB theory.

# 2 Literature Research and Theoretical Basis

Our research takes employees' PORB as our topic. As mentioned above, PORB is a unique new construct with distinct characteristics (both pro-organizational and rule-breaking). This construct is put forward by our group based on Unethical Pro-organizational Behavior (UPB) [3, 10, 21] and Pro-social Rule-breaking Behavior (PSRB) [11-16], which integrates the characteristics of UPB and PSRB (see Table 1). In terms of denotation, PORB has two paradoxical features. On the one hand, it has the characteristic of "pro-organizational", which is a form of pro-organizational behavior, and it is beneficial to organizations. On the other hand, it has the characteristic of "rule-breaking", which is a kind of organizational rule-breaking behaviors, and it is harmful to organizations

to a certain extent. However, from the perspective of connotation, "pro-organizational" emphasizes focusing on the interests of organizations, while "rule-breaking" emphasizes the violation of organizational regulations or norms. Both characteristics focus on and reflect different points, and there is essentially no absolute connotation conflict. In other words, the formation of PORB is precisely out of the interests or motives of organizations, even at the cost of actively violating the organizational policies, rules or bans. It is a kind of intentional and proactive behaviors of employees. PORB can be defined as a pro-social rule-breaking behavior which does good to organizations with the definition method of genus plus specific difference. Importantly, it should be emphasized that PORB integrates the dual characteristics of UPB and PSRB, but there are fundamental differences in connotation.

Table 1 Difference between PORB and related behaviors

|  | Rules Violation | Beneficiary of benefit | Body of loss of interest | Main characteristics |
|---|---|---|---|---|
| Unethical Pro-organizational Behavior (UPB) | Violate the social norms | An organization or an individual within an organization | Society or external organizational stakeholders (Social unethical) | Pro-organizational and unethical |
| Pro-Social Rule-breaking Behavior (PSRB) | Violate the organizational formal rules | Society or social stakeholders | Organization (Organizational rule-breaking) | Pro-organizational and rule-breaking |
| Pro-organizational Rule-breaking Behavior (PORB) | Violate the organizational formal rules | An organization or an individual within an organization | Organization (Organizational rule-breaking) | Pro-organizational and rule-breaking |
| Note: This table is compiled from this study. | | | | |

According to the researches of He et al and Morrison [9, 15], PSRB can be classified into four categories, namely, organizational benefit orientation, internal stakeholder orientation, external stakeholder orientation and social responsibility orientation. After in-depth analysis of these categories, we believe that it can be further merged and distinguished. That is, in the strict sense, the first two categories of PSRB are merged into PORB, while the last two categories of PSRB are strictly PSRB. Although PORB is currently placed in the research category of PSRB, it is necessary to separate PORB from PSRB due to their particular connotation (especially reflected in its "pro-organizational" characteristics). From the perspective of logical analysis, such distinction narrows or limits the denotation of the initial PSRB, and thus avoids the conceptual ambiguity of PSRB, and hence helps to dig more deeply (in a strict sense) the connotation of different types of PSRB and their formation mechanism, and all above will result in more appropriate targeted management countermeasures to governance

PSRB.

Currently, there have been a large amount of domestic and foreign researches concerning of the formation mechanism of PORB-related UPB and PSRB, among which antecedent analysis mainly focuses on four influence factors: work, individual, leadership and organization, especially the leadership behaviors and organizational cognition among them. These studies were based on the theories of Social Exchange, Social Cognition and Social Identity. Mediation analysis was mainly carried out from the perspectives of psychological mediation or behavioral mediation, cognitive mediation or emotional mediation. All above these researches lay a foundation for the research on the mechanism of PORB and provide references for our research. However, the existing researches still cannot reveal or explain the PORB phenomenon and its formation mechanism from the theoretical level, and cannot effectively explain, predict and guide the organizational behaviors especially in the context of digitalization transformation, which

cannot keep up with the demand of enterprise digitalization transformation. In fact, by reshaping work patterns (flexible working, telecommuting, online conferencing, online R&D, etc.), the digitalization transformation of enterprise has induced a series of new issues concerning of behaviors, efficiency, and ethics in the workplace. Hence, research from the micro level of enterprise is of urgent necessity.

In short, in order to make up for the limitation of current researches, our research intends to integrate the two constructs of UPB and PSRB to propose a new construct of PORB. Besides, based on the new context of enterprise digitalization transformation, our research will propose the scientific issues from the perspective of "leadership style to leadership contagion effect" and "single factor to multi-factors and multi-antecedents". Based on these, we come up with the characteristics and innovation of our research. We intend to reveal the causes and formation mechanism of PORB. The results will not only help develop PORB theory, but also expand the theory of pro-organizational behavior and the theory of rule-breaking behavior. In practice, the results can provide

theoretical basis and support for governing PORB of employees under the background of digitalization transformation, promoting effectively governing the PORB of enterprise.

# 3 Research Model and Content

Our research model (namely the formation mechanism model) is shown in Figure 1. Firstly, we shall analyze the new changes, new features and new modes of PORB from the perspective of digitalization transformation. Then, the driving factors of PORB will be studied, and the endogenous as well as exogenous causes of PORB will be distinguished. What's more, we will explore the formation mechanism of PORB, and study the mediation and moderation effects of PORB with employees' psychological cognitive tendency (including pro-leader and pro-organizational tendency) as the starting point, and reveal the psychological cognitive mechanism and boundary conditions of PORB. Finally, we shall discuss and give the governance strategies of PORB.
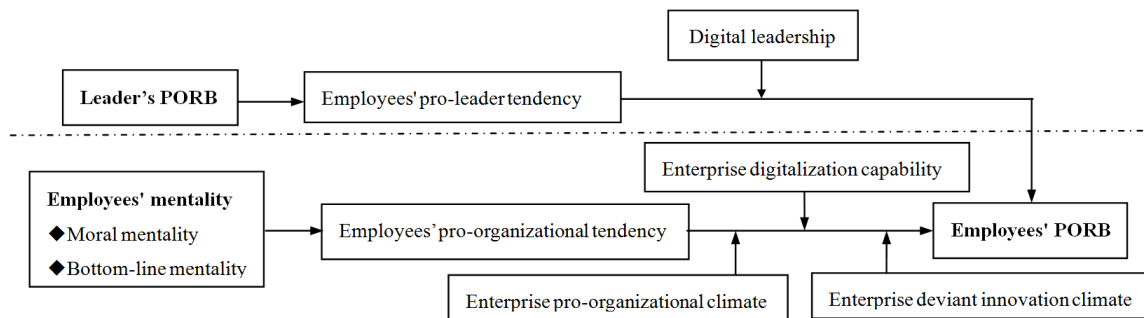


Figure 1 Research model

From the research model in Figure 1, employees' mentality including the bottom-line mentality [10] and moral mentality comprises the endogenous factors of employees' PORB while leader's PORB acts as the exogenous factor of employees' PORB [12-14]. From Figure 1, it is no difficult to propose the correlative hypothesis system with 4 hypotheses on contagion effect of leader's PORB in the upper part and 6 hypotheses on employees' PORB in the lower part, which are omitted here in detail in order to focus more on the general framework of our research. As for the deductive analysis for above hypotheses, please refer to the correlative researches of He et al and so forth [7, 18, 19]. And the core content of our research has four main parts as follows.

*(1) New changes, new features and new modes of PORB for digital enterprises*

In the digital era, new characteristics such as data-driven, user or consumer centered, and empowered organization, have gradually become an inevitable trend for enterprises (especially digital ones). These new changes in organization mode and management mode will naturally reflect the behaviors of employees and restructure the adaptation of employees' organizational behaviors. Therefore, it is urgent to study the new changes, new characteristics and new modes of enterprise employees' PORB.

*(2) Driving factors of PORB*

At present, the research on the driving factors of organizational behaviors is generally carried out from four

antecedents: work, individual, leadership and organization, and most of them are carried out from one factor or multiple factors of the above four factors, while the combination analysis and comprehensive research of multiple factors and multiple antecedents are still rare due to its difficulty or potential coupling effect. Under the background of digitalization transformation, the new changes, new characteristics and new combinations of the four driving factors should be fully considered when the combination analysis of the four influence factors is conducted. According to previous researches, we intend to regard employee mentality as the first core driving factor of employees' PORB, which constitutes the endogenous cause of employees' PORB. In the meanwhile, the contagion effect of leader's PORB is regarded as the second core driving factor of employees' PORB, which constitutes the exogenous cause of employees' PORB.

*(3) Formation mechanism of PORB*

This part studies the formation mechanism of PORB, explores the mediation and moderation effects of PORB, and reveals the psychological cognitive mechanism and boundary conditions of PORB. One of the difficulties is to choose what kind of research perspective or theoretical logic to define reasonable mediators and moderators. At present, common mediators mainly include psychological mediators or behavioral mediators, cognitive mediators or emotional mediators, etc. Common moderators mainly include organizational climate and external environmental pressure. There are also many theories commonly used in UPB and PSRB researches, mainly including Social Exchange Theory, Social Cognition Theory and Social Identity Theory, etc., which can be used for reference to carry out relevant PORB research. The second difficulty is how to obtain real and reliable research data through enterprise questionnaire survey, enterprise interview and management experiment.

The above research contents are integrated to form the research model as shown in Figure 1. The technical route and methodology of our research are shown in Figure 2, that is, theoretical modeling is carried out from three new perspectives (perspectives of digitalization transformation, leadership contagion effect and multi-antecedents & multi-factors), and the following empirical verification can be carried out on the above basis to obtain corresponding research conclusions.
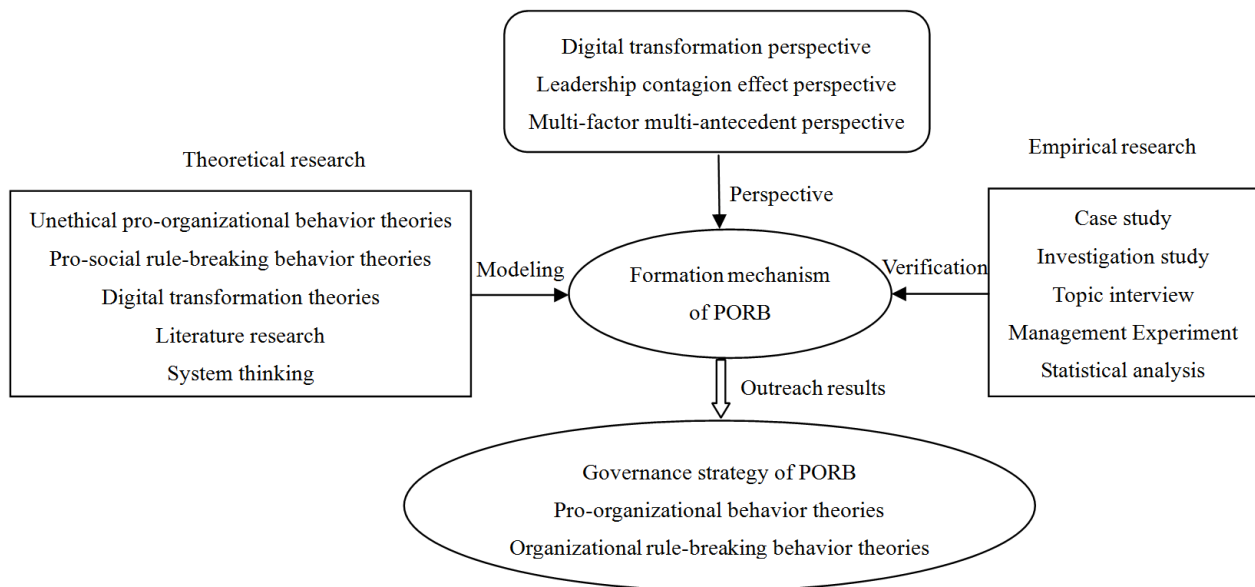


Figure 2 Research technical route and methodology

*(4) Governance strategies of PORB*

In form, PORB is a kind of negative organizational behaviors, which is harmful to organizations. Efforts should be made to avoid and prevent PORB, because it is organizational rule-breaking. However, from the perspective of organizational value, many PORB are beneficial to organizations, conducive to organizational performance or innovation, and even acquiesced and encouraged by enterprises. Then, how can we systematically evaluate the benefits and harm of organizational PORB? Among them, which are good in the short term and bad in the long run? And which are partly beneficial and wholly harmful? Besides, how can we deal with the PORB that is harmful to organizations

strategically? And how can we systematically govern PORB from the institutional perspective? Based on the research of the previous three parts, this part will put forward the governance countermeasures of PORB from the perspective of strategy and system.

In order to achieve the above research objectives, we should focus on the following three scientific problems: (i) The measurement of moral mentality, i.e., the content structure and measurement of moral mentality; (ii) The cross-level effect of digital leadership, i.e., analyzing the influence of digital leadership on PORB of employees; (iii) The mediation effect and moderation effect on the formation of PORB.

The main research ideas of our study are summarized in Table 2.

Table 2 Main points of the study

| | Core idea | Subdivide views |
|---|---|---|
| 1 | PORB is a new construct of organizational behavior | (1) PORB has the dual characteristics of "pro-organizational" and "rule-breaking " (or organizational violation);<br>(2) PORB has the dual characteristics of UPB and PSRB, but it is fundamentally different from them in connotation. |
| 2 | Digitalization transformation has an important impact on employee PORB | (1) Enterprise digital capability and digital leadership play an important role in moderating the formation of PORB;<br>(2) Enterprise digital capability and digital leadership reflect enterprise digitalization transformation capability or digitalization transformation level to a certain extent. |
| 3 | The formation of PORB is affected by multiple factors and antecedents | (1) The individual mentality of employees is the endogenous cause of PORB, and the contagion effect of leaders' PORB is the exogenous cause of employee PORB. They are the two core causes of PORB;<br>(2) The above two core causes respectively mediate the formation of employees' PORB through the psychological cognitive mechanism (i.e., pro-leader tendency and pro-organizational tendency);<br>(3) Enterprise pro-organizational climate and deviant innovation climate, as organizational environmental factors, have a moderating effect on the formation of PORB. |
| 4 | Manage PORB reasonably | (1) As negative behavior of organization, PORB has both a negative side ("rule-breaking"), which is harmful to the organization, and a positive side ("pro-organizational"), which is beneficial to the organization;<br>(2) The governance of PORB requires the "wisdom" of the management in a proper balance. |

# 4 Governance Strategies of PORB

The governance strategies of PORB can be extracted from the management level according to the above discussion.

*(1) The management layer should treat employees' PORB dialectically*

According to the above discussion, PORB is a "double-edged sword". In practice, many PORBs are beneficial to organizations, which can break through the outdated organizational old inertia and form new conventions and regulations for organizations. What's more, PORB will also affect or even destroy the rules and regulations of organizations, leading to "non-compliance and non-prohibition", and even bring heavy losses or catastrophic disasters to organizations. Therefore, the organizational management layer should treat the employees' PORB dialectically. The corresponding specific measures are as follows: (i) Appropriately encouraging mild (or low level) PORB and timely discovering the defects and irrationality of organizational rules and regulations; (ii) Reviewing and improving the

current rules and regulations, abandoning some rigid and backward rules and systems, and changing employees' PORB into pro-organizational compliance behavior, so as to better promote the development of organizations; (iii) For the severe (or high level) PORB with certain damage, the management layer should pay attention to the downward communication, even stop it in time, and let the employees understand the rationality and strategic value of organization. At the same time, the management layer should encourage subordinates to actively carry out upward communication, and timely report the situation of unreasonable organizational rules, so as to promote timely the reform of organizational rules and regulations and ensure the orderly development of organizations.

*(2) Strengthen management of employees' PORB*

For mild PORB, the management layer should pay attention to the construction of organizational culture, strengthen employees' identification and improve their moral and bottom-line mentality. Based on the recognition, integration and trust of the organizational culture, employees will promote their ability to adapt to the organizational environment and identify more with the organizational goals, thus producing appropriate PORB.

The management layer should evaluate employee PORB fairly and equitably, listen to their voice, establish a good relationship with them, and encourage them to put forward reasonable suggestions on those rules and regulations that are not conducive to the development of organization. It is found that self-sacrificing leaders have the charm of making subordinates learn and follow because of their quality and the indirect reward power brought by support, encouragement and recommendation. Our research also found that leader's PORB has a great contagion effect on employees' PORB. Therefore, the management layer should set an example, take the lead and try to avoid and prevent the PORB.

*(3) Strengthen the supervision over PORB*

For one thing, from the aspect of culture system, organizations should actively shape and cultivate law-abiding corporate culture, and set up correct corporate social responsibility consciousness. Besides, they ought to improve the organizational rules and regulations, strengthen the organizational rules and consciousness, and strictly implement the relevant legal policies as well as undertake its obligations and responsibilities. Nevertheless, organizations are supposed to integrate the development of the organization into the development of the society, eventually promoting the joint development of the organization and the society. For another thing, from the aspect of information communication, the information communication mechanism should be optimized to encourage employees to participate in the practical social responsibility where the sense of organizational identification and honor of employees could be formed in the process of social responsibility practice, so as to timely correct PORBs (especially harmful ones), form the consistent values between employees and the organization, and promote the sustainable development of the organization.

# 5 Conclusion

Our research proposes a new construct of PORB and aims to study its formation mechanism especially in the context of digitalization transformation. That is, the novelty of our research can be summarized as the following two points:

*(1) Propose and define the new construct of PORB.*

PORB is a common phenomenon in enterprises, but there is still a lack of systematic theoretical research. Based on the previous studies on UPB and PSRB, we propose the new construct of PORB, which has the dual characteristics of UPB and PSRB in terms of denotation but is fundamentally different in terms of connotation.

*(2) Explore the formation mechanism of PORB from a new perspective of digitalization transformation.*

Theoretically, the result not only contributes to the development of PORB theory, but also broadens the theories of Pro-social Rule-breaking Behavior and Unethical Pro-organizational Behavior. In practice, the result can provide a theoretical basis (especially institutional and strategic supports) for PORB governance of enterprises under the background of digitalization transformation, and promote the effective prevention of enterprise PORB.

Moreover, the governance strategies of PORB are proposed in this paper. However, due to the space limitation, the empirical quantitative study is not expanded in our present research, which is needed for further investigation.

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# References

[1]   Babalola M T, Greenbaum R L, Amarnani R K, et al. A business frame perspective on why perceptions of top management's bottom-line mentality result in employees' good and bad behaviors [J]. Personnel Psychology, 2020, 73 (1): 19-41.

[2]   Brenkert G G. Innovation, rule breaking and the ethics of entrepreneurship [J]. Journal of Business Venturing, 2009, 24, 448–464.

[3]   Cheng K, Lin Y H. Unethical pro-organizational behavior: A motivational perspective [J]. Advances in Psychological Science, 2019, 27 (06): 1111-1122.

[4]   Chen M, Liang J. High performance expectation and unethical pro-organizational behavior: Social cognitive perspective [J]. Acta Psychologica Sinica, 2017, 49 (1): 94-105.

[5]   Dahling J J, Mayer D M, Gregory J B. Breaking rules for the right reasons: An investigation of pro-social rule breaking [J]. Journal of Organizational Behavior, 2012, 33 (1): 21-42.

[6]   Du L Y, Duan T G and Li M Z. A Literature Review of Unethical Pro-organizational Behavior [J]. Chinese Human Resource Development, 2016 (07): 50-57.

[7] He B, He Q Q, Muddassar S. Inclusive Leadership and Subordinates' Pro-Social Rule Breaking in the Workplace: Mediating Role of Self-Efficacy and Moderating Role of Employee Relations Climate, Psychology Research and Behavior Management [J]. Psychology Research and Behavior Management, 2021, 14, 1691–1706.

[8] He B, Zhao N, He Q Q, Hu W M. Adaptive Change of Digital Management from the Perspective of Management Model Transformation: A Case Study of Byte Dance Company [J]. Journal of Beijing Jiaotong University Social Science Edition, 2022, 21 (02): 29-36.

[9] He L, Li R, Ling W Q. A Review of the literature of pro-social rule breaking in organization and future prospects [J]. Foreign Economics & Management, 2013, 35 (06): 43-51.

[10] Hu H, Zhu Z, Yang M X, Li Y. Gain and Loss: Influence of Leader Bottom-line Mentality on Employee Unethical Pro-group Behavior. Foreign Economics & Management [J], 2021, 43 (10): 120-13.

[11] Liu X G, Li J Z. Dual effects of managerial pro-social rule breaking on employee behavior in the Chinese context. Revista de Cercetare si Interventie Sociala, 2015, 51, 187–201.

[12] Liu X G, Ma Y O. The Impact of Managerial Pro-social Violations on Employee Innovation [J]. Science& Technology Progress and Policy, 2021, 38 (05): 143-151.

[13] Liu X G, Wang Z H. Influence mechanism of managerial pro-social rule breaking on employee behavior from the perspective of opposition between favor and reason: A cross-levels and longitudinal study [J]. Advances in Psychological Science, 2018, 26 (2): 191–203.

[14] Li Y, Zhang W H, Long L R. How Self-sacrificial Leadership Influences Subordinates' Work Performance: The Mediating Roles of Strategic Orientation and Supervisor Identification [J]. Acta Psychologica Sinica, 2015, 47 (5): 653-662.

[15] Morrison E W. Doing the job well: An investigation of pro-social rule breaking [J]. Journal of Management, 2006, 32, 5–28.

[16] Morrison E W, Robinson S L. When employees feel betrayed: A model of how psychological contract violation develops [J]. Academy of Management Review, 1997, 22, 226–256.

[17] Xiao J H. Cross-system digitalization transformation and Adaptive Changes of Management [J]. Reform, 2020, (04): 37-49.

[18] Zhan X J, Yang W and Lu N. Is It All about the Bottom Line? A review and prospects of bottom-line mentality research in organizational management [J]. Management review, 2021, 33 (08): 224-233.

[19] Zhang Y, He B, Huang Q H, Xie J. Effects of supervisor bottom-line mentality on subordinate unethical pro-organizational behavior [J]. Journal of Managerial Psychology 2020, 35 (5): 419-434.

[20] Zhang Z X, Zhao S M, Shi J Q, Qin Xin, He W., Zhao X Y, Wang Y and Wu G. An academic review of the 254th Shuangqing Forum: Critical scientific issues of organization and management research in the digital economy [J]. Chinese Science Foundation, 2021, 35 (05): 774-781.

[21] Umphress E E, Bingham J B, Mitchell M S. Unethical behavior in the name of the company: The moderating effect of organizational identification and positive reciprocity beliefs on unethical pro-organizational behavior [J]. Journal of Applied Psychology, 2010, 95 (4): 769-780.