THE EFFECT OF JOB AUTONOMY ON JOB REDESIGN BEHAVIOR: 
THE MEDIATING ROLE OF PSYCHOLOGICAL CAPITAL

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This study, based on self-determination theory and psychological capital theory, aims to explore the relationship between job autonomy, psychological capital, and job crafting behavior among white-collar employees in Chinese enterprises during the VUCA era. Additionally, it examines the mediating role of psychological capital in this context. A questionnaire survey was conducted among 518 Chinese white-collar employees, covering variables related to job autonomy, psychological capital, and job crafting behavior. Hypotheses were formulated based on self-determination theory and psychological capital theory, and statistical analysis was employed to validate the relationships between these hypotheses.

The study revealed a positive relationship between job autonomy and job crafting behavior. Job autonomy exhibited a positive influence on psychological capital. Psychological capital also had a positive impact on job crafting behavior. Furthermore, psychological capital is a mediator between job autonomy and job crafting behavior. Based on their research findings, providing recommendations to enhance employees' autonomy in their work contributes to the strengthening of their psychological capital, thereby fostering a greater display of work redesign behaviors. Therefore, organizational managers should prioritize and create a work environment conducive to the development of employee autonomy, aiming to elevate their levels of psychological capital. This, in turn, enables employees to better adapt to and cope with the challenges of the VUCA era.

Keywords: job autonomy; psychological capital; job redesign behavior

Introduction

The technological revolution, artificial intelligence, economic crisis, regional conflicts, and globalization have brought huge challenges to entire societies. Enterprises are in an environment of volatility, uncertainty, complexity, and ambiguity, which is called the VUCA era (Horney et al., 2010).
In particular, the COVID-19 epidemic in early 2020 accelerated the global digitalization process, and significant changes occurred in the way employees work and the way organizations operate (Bach & Sulcová, 2021).

Organizations and employees need to maintain a high level of flexibility to respond to changing work demands and market conditions. Many employees use spontaneous behaviors to redefine and craft work content, optimize interpersonal relationships, and improve their job perceptions, which may lead to higher satisfaction and flexibility (Roczniewska et al., 2023).

In recent years, job crafting has received widespread attention from managers and academics as a proactive behavior in the workplace. Many studies confirm the positive impact of job crafting on employees and organizations. Employees can improve work engagement and performance by constantly adjusting themselves to better fit their jobs and the organization. Employees will feel more motivated and happy at work because of job crafting (Van Wingerden et al., 2017).

Organizations can maintain the stability of their workforce, enhance their ability to cope with uncertainty, and increase innovation. Personal traits, motivational orientation, promotion focus, task characteristics, social capital, and leadership behavior have been proven to be significantly related to the occurrence of employee job-creating behavior. However, the underlying mechanisms of these factors remain somewhat controversial, especially in today's VUCA environment characterized by volatility, uncertainty, complexity, and ambiguity (VUCA is an abbreviation of four words representing four states; they are: volatile (unstable), uncertain (uncertain), complex (complex), and ambiguous (ambiguous)). Job-creating behavior is an individual’s initiative to redesign work in an organization, which is a bottom-up effort aimed at changing one’s performance in the workplace (Petrou et al., 2017).

According to the job demands-resources theory, job resources stimulate employees' work potential and produce high levels of work engagement. Job resources are the initiators of the motivation process and can significantly predict positive employee behavior and job performance.

When individuals perceive higher job control, they are likely to have a high sense of responsibility, which leads to a positive attitude when facing opportunities and adjustments. Employees can acquire new skills and abilities autonomously through work, which also provides opportunities for personal growth (Jankelová, 2022).

Work autonomy refers to an individual's degree of autonomous decision-making and control at work, which has an important impact on their work motivation, work engagement, and work performance (Jankelová, 2022).

Bulińska-Stangrecka & Bagieńska (2021) research shows that there is a positive relationship between individual work autonomy and job crafting behavior, but the relationship mechanism between work autonomy and job crafting has not been fully revealed. Work autonomy can satisfy an individual's intrinsic need for achievement and recognition. Individuals with a high sense of work meaning are more likely to experience joy from the work itself, even in the face of work stressors such as role ambiguity or role conflict (Lavy, 2022).

They will have more psychological capital to cope with the negative work consequences. Job autonomy is an important positive resource in the organization that can
stimulate employees' enthusiasm for work. Psychological capital can enhance their ability to cope with job demands under time or cost constraints (Talpur et al., 2013).

Psychological capital includes dimensions such as optimism, hope, tenacity, and self-discipline, which can enhance employees' ability to cope with work demands and challenges. When employees feel satisfied and happy in an environment with work autonomy, they tend to be more confident and motivated to accumulate Psychological capital, the accumulation of this kind of psychological capital makes employees more capable of proactively coping with changes and challenges at work, making it easier to show positive work behaviors. However, how to explain how job autonomy indirectly affects job crafting behavior through psychological capital still requires more in-depth research.

Although job crafting has received extensive attention in management practice and academic research, there are still some unresolved issues that require further exploration. First of all, current research on job crafting mainly focuses on the behaviors and results of individuals actively adjusting their work, but the understanding of the influencing factors of job crafting is still limited. Especially in the current complex, changing, and uncertain work environment, how employees proactively carry out job reinvention when facing challenges, as well as the motivations, mechanisms, and influencing factors of job reinvention, require more in-depth research.

Therefore, this study aims to explore the relationship between employees' work autonomy, psychological capital, and job crafting behavior and further study the mediating role of psychological capital between work autonomy and job crafting behavior.

**Objectives**

This study aims to understand whether there is a relationship between job autonomy and employees' autonomy to change the work environment to adapt to employees' needs and preferences. This has significant implications for organizations and can help them understand the impact of job autonomy on employee behavior. This, in turn, allows organizations to better meet the expectations and needs of their employees (Debus et al., 2020).

Therefore, research purpose 1 is proposed: to explore the relationship between job autonomy and job-creating behavior.

Employees' emotional well-being and job performance closely correlate with psychological capital (Bhatnagar & Aggarwal, 2020). Studying work autonomy and psychological capital helps to understand the impact of work autonomy on employees' psychological capital, thereby providing organizations with ways to improve employees' mental health and performance (Martela et al., 2021).

Therefore, we propose research purpose 2, which is to explore the relationship between work autonomy and psychological capital.

Psychological capital can enhance employees' self-determination and stress tolerance, which may influence whether they engage in job-creating behaviors (Petrou et al., 2017).

Studying the relationship between psychological capital and job-creating behavior helps to understand the role of psychological capital in employee behavior, especially in terms of autonomy in the work environment (Asbari et al., 2021).

Therefore, research purpose 3 is proposed: to explore the relationship between psychological capital and job-creating behavior.
Literature review

Review of relevant literature on the measurement dimensions of work autonomy

Hackman & Oldham's (1977) job design theory provides an important theoretical foundation for job autonomy, which they define as the degree of control or decision-making power that employees have over their work methods, arrangements, and work standards. This conceptualization not only emphasizes employees’ decision-making authority in their jobs but also points out that this autonomy has a direct impact on employee motivation, satisfaction, and productivity.

Then, Breaugh (1985) further explained the concept of work autonomy based on Hackman & Oldham's (1977) theory. He pointed out that work autonomy can be understood in three dimensions: autonomy in work methods, autonomy in work scheduling, and autonomy in work goals. These three dimensions together constitute employees’ experience of autonomy in the workplace, providing us with a more detailed and comprehensive understanding framework.

Sekiguchi et al. (2017) emphasized that although job autonomy gives employees greater decision-making power, it does not mean that employees have unlimited freedom. In fact, job autonomy gives employees the right to make reasonable judgments and choices about their work tasks within the goals and framework of the organization. The granting of this right takes into account the needs of the organization as well as the personal development and job satisfaction of employees.

Related research on job-creating behavior

Kim et al. (2020) research shows that employees with higher levels of job autonomy can choose how to change the work environment to meet their needs, have more autonomy and decision-making power, and are more likely to perform their work. Reinvention, for example, shows a significant positive relationship between employees' job autonomy and their propensity to change work tasks and work relationships. Employees with high work engagement are more likely to engage in job crafting because they are more committed to their work and motivated to improve the work environment.

One study found a positive correlation between work engagement and employees changing work tasks, seeking resources, and pursuing challenges. Relationship (Asbaria et al., 2021). This finding is consistent with the positive impact of job autonomy on job-creating behavior. Job autonomy provides employees with opportunities for autonomous decision-making and control, making them more motivated to improve the work environment, such as by changing work tasks and work relationships. Satisfying personal needs supports this paper's research question regarding the relationship between job autonomy and job-creating behaviors.

Employees with high self-efficacy are more likely to engage in job-creating behaviors because they believe their efforts will produce positive results. Stratman & Youssef-Morgan (2019) found that self-efficacy is related to employees seeking more challenging jobs. There is a positive relationship between tasks and the willingness to proactively change the work environment.

Hope and optimism are part of employees' psychological capital, and they are related to job-reshaping behavior. Employees with high hopes and optimism are more likely to take the initiative to change the work environment because they are confident in the future and
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willing to pursue a better work experience. Employees' willingness to pursue challenges, seek resources, and change work boundaries positively correlates with their hope and optimism (Petrou et al., 2017).

There is a positive correlation between employees' job satisfaction and their job-creating behavior (Zhang & Parker, 2019). Employees with higher satisfaction are more willing to autonomously change the work environment to make it more consistent with their needs and expectations. Employees who are highly engaged at work are usually more proactive and are willing to improve the work environment, pursue challenges, and seek resources, which emphasizes the role of work engagement as a potential mediating variable that may mediate the relationship between work autonomy, psychological capital, and job-creating behaviors. play a key role.

Review of relevant research literature on psychological capital

Social support, as an important pre-variable for the development of psychological capital, has a profound impact on individual mental health and work performance. Research by Poots & Cassidy (2020) shows that emotional support, information support, and substantive support can significantly improve an individual's psychological capital level. Emotional support improves an individual's self-confidence and optimism by enhancing their sense of belonging and acceptance.

Information support helps individuals recognize and solve problems more effectively and enhances hope and solution-seeking. Substantive support directly provides resources and assistance to make individuals feel more capable and supported when facing challenges, thereby enhancing resilience and self-efficacy.

Shah et al. (2019) found a positive correlation between psychological capital and job satisfaction, career achievement, work engagement, and career success. This means that individuals with higher psychological capital show higher positivity and stronger motivation in the workplace, have higher job satisfaction, and are more likely to achieve professional achievement and career success.

Kun & Gadanez (2022) pointed out that these individuals are able to cope with challenges and pressures at work more effectively due to their higher self-confidence and optimism, thus promoting positive emotional experiences and a sense of personal accomplishment.

At the organizational level, psychological capital is also positively related to employees' organizational commitment, organizational citizenship behavior, and job performance.

To sum up, psychological capital, which is an individual's inherent positive psychological resources, has a positive impact on individual and organizational outcome variables. The formation and development of psychological capital are affected by an individual's personality traits, educational background, work experience, social support, and other antecedent variables. In practice, individuals and organizations can promote individual career development and organizational performance by cultivating and enhancing psychological capital.

Therefore, the study of psychological capital has important theoretical significance and practical application value and is of great significance for promoting individual mental health and work performance and improving the competitiveness and sustainable development of organizations.
Conceptual framework

Based on the self-determination theory (Deci & Ryan, 1985), this article believes that work autonomy can satisfy the individual’s intrinsic motivation and autonomy needs. In an autonomous work environment, individuals feel more control and autonomy and are thus more inclined to At the same time, self-determination theory believes that satisfying intrinsic motivation and autonomy needs can enhance individual job satisfaction and motivation and further promote the performance of job-creating behavior.

Psychological capital theory (Luthans & Youseff, 2004) further points out that psychological capital, as an intermediary variable, can explain the relationship between work autonomy and job-creating behavior. Work autonomy can promote the active cultivation of individual psychological capital. These psychological capitals can improve an individual's cognitive and emotional abilities and increase their positive attitude and ability towards job-reshaping behavior.

To sum up, this article believes that self-determination theory and psychological capital theory provide a powerful framework for the relationship between work autonomy and job-creating behavior. Autonomy not only helps satisfy intrinsic motivation and autonomy needs but also helps cultivate employees' psychological capital and improve their ability to cope with complex, uncertain, and rapidly changing environments.

**Research hypothesis:**

- H1: Job autonomy has a positive impact on job-creating behavior.
- H2: Work autonomy has a positive impact on psychological capital.
- H3: Psychological capital has a positive impact on job-creating behavior.
- H4: Psychological capital has a mediating effect between work autonomy and job-creating behavior.

**Methodology**

Research objects: According to the characteristics of the VUCA era, this article focuses on white-collar employees of Chinese companies who are not manual workers. We select the Shanghai area for our research, without restricting the industry. Shanghai is China's economic center and international city, with many corporate headquarters and offices covering white-collar employees in multiple industries and fields. Shanghai’s occupational groups have relatively high academic qualifications and professional qualities and are more likely to reflect the challenges and pressures faced by white-collar employees in the VUCA era.

Therefore, selecting the Shanghai area for research can better represent part of China's modern workplace and improve the research's representativeness and generalizability. Secondly, the corporate environment in Shanghai is relatively complex and is greatly affected by the characteristics of the VUCA era, including instability, uncertainty, complexity, and ambiguity.

These characteristics force companies to confront greater challenges and motivate employees to adapt more effectively. It is even more necessary to have positive factors such as autonomy and psychological capital to better adapt to and respond to changes in the environment.
Therefore, choosing Shanghai will help us conduct a more in-depth study of the work characteristics and behaviors of white-collar employees in the context of the VUCA era.

Sampling method: This article adopts the convenience sampling method, mainly considering the practical feasibility of sample acquisition and the cost-effectiveness of the survey. In the VUCA era, the work environment is changing dynamically, and it is necessary to obtain actual feedback from employees in a timely manner. The convenience sampling method allows for quicker and more efficient sample collection, adapting to the rapid changes in the VUCA era. In addition, the Shanghai area has a relatively dense population of white-collar employees, which facilitates the rapid collection of samples through convenience sampling and improves the practical feasibility of the survey.

Minimum sample size: For regional studies, sample sizes range from approximately 500 to 1,000 people. Taking into account the impact of invalid samples, the minimum number of questionnaires for this survey is more than 500. This article initially estimates the distribution of 600 questionnaires to ensure the scientificity and credibility of the research. Such a sample size can not only ensure the representativeness of the data but also reduce the impact of invalid samples to a certain extent, making the research results more convincing and generalizable.

Data collection method: The online questionnaire is an efficient and convenient data collection tool. The scientific distribution method can ensure the enthusiasm of subjects to participate and the quality of the data. This article chooses to create a questionnaire on Questionnaire Star. This article forwards the online questionnaire star link to relatives, colleagues, friends, and classmates to inform them that a workplace survey on white-collar employees in Shanghai is ongoing and that employees in the workplace are required to fill out the questionnaire.

After entrusting employees to fill it out by themselves, they can help complete the questionnaire within their capabilities. Employees share the link with their colleagues and friends at work. Such a chain of communication can broaden the questionnaire's audience and give more workplace employees the opportunity to participate.

In order to increase the participation rate, Questionnaire Star will provide some incentives after filling out the questionnaire, such as draws, gifts, coupons, etc., to increase the enthusiasm of the subjects. During the questionnaire design and distribution process, subjects were clearly informed that the questionnaire data would only be used for research purposes to ensure subjects' privacy and data security.

As a final result, this article collected data from 615 formal questionnaires from November 1 to November 10, 2023. After deducting 34 invalid questionnaires, there were 581 valid questionnaires, with a valid questionnaire rate of 94.47%.

Results

This article collected a total of 581 valid questionnaires and conducted descriptive statistical analysis on the 581 data to understand the structure of the recovered data.

Then, AMOS 26.0 was used to build a model for each variable to determine the degree of matching between the model of each variable and the data and to determine the convergence of the scale. Validity and discriminant validity, and use correlation and the AVE root value to test the discriminant validity of each variable.
Finally, use the method of structural equations to build a model, test the hypotheses of each path and the hypothesis of mediating effects, and use SPSS 26.0 to construct hierarchical regression. Using the results of the previous test, we aim to test the moderating effect and explore the relationship between job autonomy and job crafting behavior in this article. Empirical analysis found that job autonomy positively affects job-creating behavior.

Research purpose 2: to explore the relationship between work autonomy and psychological capital. Empirical analysis found that work autonomy positively affects psychological capital.

Research purpose 3 is to explore the relationship between psychological capital and job-creating behavior. Empirical analysis found that psychological capital positively affects job-creating behavior.

Research purpose 4: in order to explore the mediating relationship between psychological capital and work autonomy and job crafting behavior, empirical analysis found that psychological capital has a mediating role in the relationship between work autonomy and job crafting behavior.

Tab. 1 displays the results of the hypotheses put forth in this article.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Result</th>
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<tbody>
<tr>
<td>H1 Job autonomy has a positive impact on job crafting behavior</td>
<td>Established</td>
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<tr>
<td>H2 Work autonomy has a positive impact on psychological capital</td>
<td>Established</td>
</tr>
<tr>
<td>H3 Psychological capital has a positive impact on job crafting behavior</td>
<td>Established</td>
</tr>
<tr>
<td>H4 Psychological capital has a mediating effect between work autonomy and job crafting behavior</td>
<td>Established</td>
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Based on the integration of self-determination theory and psychological capital theory, this article explores the impact of job autonomy on job-creating behavior and emphasizes the mediating role of psychological capital in this relationship.

The framework of this article explains that job autonomy can have a significant impact on employee behavior and attitudes. Research shows that job autonomy has a positive impact on job crafting behavior, which is consistent with the view of autonomy needs and intrinsic motivation in self-determination theory, and supports the view of self-determination theory that autonomy promotes individual behavioral positivity.

At the same time, the research also confirmed the positive impact of work autonomy on psychological capital, which is consistent with the cultivation of self-confidence, optimism, and resilience in psychological capital theory and is consistent with the assertion in psychological capital theory that autonomy cultivates positive psychological resources. In addition, research also shows that psychological capital has a positive impact on job-creating behavior, indicating that psychological capital can promote individuals' positive performance at work.

And found the mediating role of psychological capital between work autonomy and job-creating behavior. Work autonomy can affect job-creating behavior by affecting psychological capital.

These results jointly support the explanatory framework of self-determination theory and psychological capital theory between job autonomy and job-creating behavior.
Conclusion

This article's empirical analysis, in response to the research questions posed, reveals that employees, when confronted with work challenges, experience an impact from job autonomy, leading them to proactively reshape their roles. Employees with higher job autonomy are more likely to face challenges. And adopt proactive job-creating behaviors to adapt to and solve problems and difficulties at work.

Work autonomy has a positive impact on employees' psychological capital. Work autonomy can stimulate employees' positive mentality, increase their investment and motivation for work, and thereby enhance their level of psychological capital.

Psychological capital positively affects employees' job-reshaping behavior. Employees with higher levels of psychological capital are more capable of coping with challenges. They can more flexibly adjust their working methods and strategies to better adapt to changes in the work environment.

Therefore, psychological capital can not only help employees’ better face problems at work but also encourage them to reshape their jobs more proactively to improve their adaptability and coping abilities. Psychological capital plays a partial mediating role between job autonomy and job crafting behavior, which means that job autonomy indirectly affects employees’ job crafting behavior by improving their psychological capital levels, and psychological capital plays a role in this process. The bridge between job autonomy and job crafting strengthens the correlation between the two.

Taken together, the findings of this article reveal the complex relationship between job autonomy, psychological capital, and job crafting. In the modern workplace, improving employees’ work autonomy and cultivating their psychological capital levels will help motivate employees to face work challenges more proactively and improve their adaptability and innovation capabilities through job reshaping.

This has positive implications for the joint development of the organization and its employees.

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