## RESEARCH ARTICLE

# The impact of employee-oriented social responsibility on enterprise resilience mediated by employee psychological capital among small and medium enterprises

ISSN: 2424-8975 (O)

2424-7979 (P)

Yangyang<sup>1,2,\*</sup>, Ali Khatibi<sup>2</sup>, Jacquline Tham<sup>2</sup>

#### **ABSTRACT**

In recent years, people have become increasingly interested in paying attention to employees' corporate social responsibility, while the resilience of enterprises, especially small and medium-sized enterprises, has also received increasing attention. The purpose of this study is to explore the impact of employee oriented social responsibility initiatives on enterprise resilience, as well as the mediating role of employee psychological capital. To achieve this goal, we collected data from employees of small and medium-sized enterprises. The article collected a total of 826 valid samples and conducted impact analysis using SPSS and AMOS software. The results showed that employee-oriented social responsibility enhances enterprise resilience for small and medium-sized enterprises, and employee psychological capital plays a mediating role between employee-oriented social responsibility and enterprises resilience

Keywords: employees; social responsibility; enterprise resilience; psychological capital

### 1. Introduction

With the deepening of globalization, international connections are becoming increasingly close. However, tensions and instability are also increasing globally. The world is experiencing an unprecedented period of rapid and unpredictable change<sup>[1]</sup>. Enterprises not only have to face unpredictable small probability "black swan" crises, but also face the ubiquitous, difficult to detect but extremely harmful "gray rhino" test<sup>[2]</sup>. Enterprises will have different reactions when facing crises, and resilient enterprises can perceive environmental changes in a timely manner and adapt quickly The most ideal outcome of enterprise resilience(ER) recognized in existing literature is for companies to maintain outstanding performance over the long term in a constantly changing business environment<sup>[3]</sup>.

Corporate social responsibility (CSR) is very important for enterprise, and enterprise that participate in CSR practices can promote more sustainable development. Enterprise that invest in CSR are gaining more economic profits<sup>[4]</sup>. Harjoto&Laksmana (2018) found through research that CSR helps enterprises perceive

#### ARTICLE INFO

Received: 18 March 2025 | Accepted: 16 April 2025 | Available online: 26 April 2025

#### CITATION

Yang Y, Khatibi A, Tham J.The Impact of Employee-Oriented Social Responsibility on Enterprise Resilience Mediated by Employee Psychological Capital Among Small and Medium Enterprises. *Environment and Social Psychology* 2025; 10(4): 3647. doi:10.59429/esp.v10i4.3647

#### COPYRIGHT

Copyright © 2025 by author(s). Environment and Social Psychology is published by Arts and Science Press Pte. Ltd. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (https://creativecommons.org/licenses/by/4.0/), permitting distribution and reproduction in any medium, provided the original work is cited.

<sup>&</sup>lt;sup>1</sup> Hefei Technology College, Hefei, 230012, China

<sup>&</sup>lt;sup>2</sup> Post Graduate Centre, Management and Science University, Shah Alam, 40100, Malaysia

<sup>\*</sup> Corresponding author: Yang Yang, yanghfzy1986@163.com

external risks in a timely manner, effectively manage risks, and enhance enterprise value<sup>[5]</sup>.

Although more and more literature has shown the promoting effect of CSR on ER<sup>[6]</sup>. However, there are some research gaps in the micro level study of CSR, especially limited research on the stakeholder groups of employees, who are important resources for promoting enterprise performance and ultimately determining the long-term survival of the enterprise<sup>[7]</sup>. Many suggestions for future research mention increasing micro level research on CSR<sup>[8]</sup>.

According to stakeholder theory, CSR has many components, including society, community, and environment, as well as employees and shareholders.CSR influences on performance are mediated by stakeholders' attitudinal and behavioral responses to CSR actions<sup>[9]</sup>.Wang et al. (2016) argue that "although customers have traditionally been considered the key driving force behind CSR, employees are at least as important, or even more important, than customers in driving sustainable development initiatives for enterprises<sup>[10]</sup>." As the most important and valuable factor of production, people deserve comprehensive attention. Employees are seen as implementers of top-down sustainable development policies, with 93% of employees believing that their work contributes to the success of the enterprise<sup>[11]</sup>.

In developed countries, Employee-oriented social responsibility(EMOSR) focuses on relatively higher-level issues such as work life balance, fair employment, enriching job content, and occupational health<sup>[12]</sup>. However, in developing countries such as China,EOSR is more focused on their basic rights and interests, such as improving working conditions, providing competitive benefits and compensation, offering training and promotion opportunities, and soliciting employees' opinions when making decisions<sup>[13]</sup>.

EMOSR can benefit them economically and spiritually through better compensation and respect, and encourage their external role behavior<sup>[14]</sup>, further improve innovation performance. EMOSR activities can improve customer retention and business continuity<sup>[15]</sup>. Employees play an important role in the structure and processes of company management and decision-making control. If an enterprise maintains poor employee relations, it may not only lead to a decrease in morale, but also problems with productivity, creativity, and loyalty. Employees are concerned about their wages and working conditions, as well as how the enterprise 's strategy will affect them. The better the enterprise does (through the efforts of employees, etc.), the more benefits the employees themselves<sup>[16]</sup>.

Numerous studies have shown that investing in employee benefits can have a beneficial impact on internal control, finance, and operational performance. However, these welfare measures do not fully reflect EMOSR. Implementing good EOSR is not only about employee benefits, but also about attracting key skilled talents, reducing the turnover rate of valuable employees, enhancing employee dedication and loyalty, and improving employee productivity<sup>[17]</sup>. But there is little evidence to suggest whether and how EMOSR promotes ER. Therefore, as an integral part of CSR activities, we need to quantitatively measure EMOSR to study its impact on ER.

However, the focus of research on CSR especially stakeholders' views on c CSR, has largely been on large corporate<sup>[18]</sup>. Small and medium-sized enterprises(SMEs) are not familiar with the concept of CSR. CSR is crucial for all types of businesses, but SMEs in particular benefit from CSR measures as it ensures their innovation, long-term survival, and adaptation to new world scenarios<sup>[19]</sup>.

For SMEs, employees are a very prominent stakeholder group, and may even be more important than large companies<sup>[18]</sup>. For SMEs, due to the fact that their human resource management is far less standardized and regulated than that of large corporate, this problem is even more serious<sup>[20]</sup>. Internal stakeholders composed of employees are often overlooked in CSR plans because the CSR activities implemented by small

and medium-sized enterprises are not employee centric. Additionally, SMEs owners often do not consult with employees before making external CSR implementation decisions, which is not an ideal approach; Although business owners and managers have initiated the implementation of CSR, employees are the driving force behind this process<sup>[21]</sup>.

Compared to large corporate, the characteristics of stakeholder relationships in SMEs may be more trust, informal foundations, and individual involvement<sup>[22]</sup>, SMEs may take responsible actions because their legitimacy with direct stakeholders such as employees and customers is more direct and personal than their relationship with large corporates<sup>[23]</sup>, The essence of CSR for SMEs is mainly implicit and informal<sup>[24]</sup>, Employees of SMEs are key stakeholders of this group of enterprises, with higher levels of participation and easier access to practices, values, and organizational culture than employees of large corporate<sup>[25]</sup>.

In addition, the psychological impact of CSR on internal stakeholders has not been fully studied. Especially employees, as one of the most important stakeholder groups in a company, have implicit knowledge about the enterprise and a better understanding of the motivations behind CSR than other stakeholders<sup>[26]</sup>.

Therefore, the ways in which employees are psychologically influenced by CSR activities deserve close attention from researchers and managers, as these psychological influences may have a positive impact on productivity<sup>[27]</sup>. Research has found that CSR can enhance employees' psychological capital, especially during times of crisis<sup>[28]</sup>. SMEs should consider CSR as a necessary component of enhancing employees' psychological capital(EPC)<sup>[29]</sup>. This study proposes that EPC plays a mediating role between EMOSR and ER, which has been less discussed in previous literature on the mediating role of CSR. Therefore, this study clarifies the relationship between CSR and ER through an intermediary model framework, which is a supplement to the literature.

Due to a lack of research on developing markets. This study mainly focuses on SMEs in Anhui Province, China. In order to investigate the relationship between EMOSR and ER in SMEs, and the mediating role of EPC in the relationship between EMOSR and ER, this study explores three themes: (1) The relationship between EMOSR and EPC. (2) The relationship between EPC and ER. (3) The relationship between EMOSR and ER. (4) The mediating effect of EMOSR on ER through the EPC.

# 2. Literature review and hypothesis development

# 2.1. EMOSR and ER

CSR is considered a management strategy tool and practice used by SMEs during crises. This helps alleviate crisis damage<sup>[30]</sup>, gain emotional support from employees, and achieve sustainable development. Cornell&Shapiro (1987) proposed that there are differences in the relationships between enterprises and various stakeholders, with explicit contracts between enterprises and investors and implicit contracts between enterprises and non investors<sup>[31]</sup>. He believed that stakeholders outside of investors are also important for the implementation and performance of an enterprise's strategy EMOSR refers to the responsibility that enterprises should undertake towards their employees in the CSR system based on stakeholder theory. CSR for employees includes occupational health and safety production (HSP), training and development (TDE), compensation and benefits (SBE), and employee communication and care (CCA)<sup>[32]</sup>. This is also the dimension adopted in this paper.

ER is the comprehensive result of organizational ability and individuals' response to external events under specific situational conditions. Enterprises effectively absorb and formulate response measures for

specific situations, and ultimately participate in change activities, even utilizing the survival ability of organizational threat factors "[33].

Jones&Kato (1995) documented an employee friendly policy in the form of an employee stock ownership plan, which resulted in a 4-5% increase in productivity<sup>[34]</sup>. Rodr í guez et al. (2019) studied the effect of fulfilling employee social responsibility on ER, and the empirical results showed that the better the employee's social responsibility performance, the stronger the ER<sup>[35]</sup>. Liu (2022) found through research that in terms of long-term growth, the social EMOSR has the most significant effect on corporate resilience<sup>[36]</sup>. Fulfilling shareholder and EMOSR can increase ER the most. Employees, as internal stakeholders of the enterprise, directly affect the production efficiency of the enterprise. By providing employees with a comfortable working environment, higher wages and benefits, timely care and commitment, enterprises can enhance their sense of responsibility, enthusiasm, and satisfaction, and bring competitive advantages to the enterprise.

Low&Bu (2021) focuses on internal CSR, employee motivation, and resilience, and points out that internal CSR practices can encourage employees to flexibly respond to changes in the external environment, stimulate their work enthusiasm and innovation in business processes, promote innovation and performance improvement, and enhance the flexibility of enterprises to respond to crises<sup>[37]</sup>. The empirical results reveal the ways for enterprises to cultivate resilience in turbulent environments. Therefore, the study recommends the following hypothesis:

Hypothesis 1. EMOSR has a positive effect on the ER.

#### 2.2. EMOSR and EPC

Psychological capital originates from positive psychology. It focuses on how individuals can successfully utilize their strengths by paying attention to the positive aspects of their surrounding environment<sup>[38]</sup>.EPC is considered a valuable asset of an organization, referring to an individual's positive developmental state characterized by self-efficacy, optimism, hope, and resilience<sup>[39]</sup>.

CSR activities encourage employees to find meaning in their work, which contributes to their mental health <sup>[40]</sup>. In many cases, enterprises are not interested in their employees' social responsibility. It is evident that CSR behavior is generally viewed as an external activity, even if experts consider their employees to be part of the stakeholders of CSR. Most private enterprises only focus on enterprise interests and ignore the interests of their employees <sup>[41]</sup>. However, CSR practices provide learning resources for employees, which helps them to creatively engage in activities. It also reflects the enterprise's concern for employee well-being and personal development <sup>[42]</sup>, and conveys to employees the message that they are cared for and valued.

Papacharalamopous&Papadimitriou (2021) found through research that employees who have a positive impression of CSR activities tend to experience higher levels of psychological capital<sup>[43]</sup>. When employees participate in organizational CSR activities, they seem to form a positive view of the organization's CSR. By enhancing self-efficacy, hope, and optimism, they establish a more positive self-concept and greater psychological capital, which in turn leads to a greater attachment to the organization. At the same time, an employee friendly workplace can help improve employees' self-efficacy, hope, optimism, and resilience to overcome setbacks and negative situations, and to persist in pursuing achievement <sup>[17]</sup>. In short, SMEs should consider CSR as a necessary component of enhancing EPC<sup>[29]</sup>. Therefore, the study recommends the following hypothesis:

Hypothesis 2: EMOSR has a significant impact on EPC.

### 2.3. EPC and ER

Coutu's (2002) article proposes the importance of employee competence in building ER<sup>[44]</sup>. EMOSR demonstrates the enterprise's care for its employees. In line with the logic of social theory, employees are cared for and respected by organizations, and are enthusiastic about putting in more effort to repay the enterprise. Their natural choice is to take on more responsibilities than the job requirements and create more value for the enterprise. Psychological capital and other human resource practices enable employees to be morally loyal to the enterprise<sup>[45]</sup>. Positive psychological states of employees can improve organizational productivity and profitability, while making it more sustainable<sup>[46]</sup>. Employees have good psychological capital, which will make the ER and better able to cope with crises <sup>[47]</sup>. Previous literature has shown that employees, as important human resources for the enterprise, can stimulate their work efficiency and creativity when the enterprise faces unfavorable situations, thereby enhancing the ER <sup>[48]</sup>. These employees can find many opportunities to improve workflow in their work, and they can also identify abnormal problems that arise in departments, organizations, and markets, and propose effective solutions to these problems<sup>[49]</sup>. Therefore, the research recommends the following hypothesis:

Hypothesis 3. EPC has a significant impact on ER.

### 2.4. EMOSR, ER, and EPC

Employees are crucial in the deployment of CSR strategies. Employees play a central role in CSR. On the one hand, as stakeholders, they are strongly influenced by the organization's CSR activities. On the other hand, employees have a significant impact on the success of an organization's CSR and sustainability CSR initiatives help attract more talented and qualified employees, increase their effort and motivation, or use non monetary tools to generate higher quality output <sup>[50]</sup>. Enterprises not only pursue profit maximization, but also meet the physical and safety needs of their employees. Labor force is one of the key factors for the development of enterprises. Only in a safe working environment can companies retain and expand their business <sup>[51]</sup>. Enterprises value the personal needs and social welfare of their employees in order to have good development.

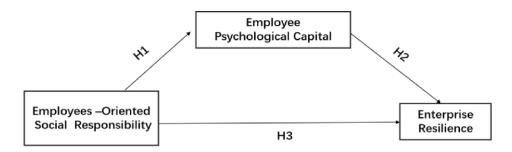
Huang et al. (2020) found that the value bonds established between enterprises and stakeholders at all levels have a good maintenance effect on the survival and development of enterprises, helping them quickly recover from losses caused by emergencies<sup>[6]</sup>. Employees are important stakeholders of enterprises, and they care about the enterprise's CSR and resilience, as this directly affects their work environment, welfare, and career development.

This study suggests that EPC is a mediating factor in the impact of EMOSR on ER. Further research on how CSR affects psychological capital is not only beneficial for employees' coping abilities, but also for restoring a normal environment<sup>[52]</sup>. Thus, the following hypothesis is proposed:

Hypothesis 4. EPC mediates the relationship between EMOSR and ER.

### 2.5. Conceptual framework

In this study, based on the above discussion, we developed a conceptual model (see Fig. 1).where EMOSR consists of four dimensions, namely occupational health and safety production (HSP), training and development (TDE), salary and benefits (SBE), and employee communication and care (CCA), EPC consists of three dimensions, namely self-effiency (SEF), optimism (OPT), (HOP), resilience (REL), and ER consists of three dimensions, namely adaptability (ADA), anticipation (ANT), and situational awareness (SAW).



H4:Employees-Oriented Social Responsibility —→ Employee Psychological Capital —→ Enterprise resilience

Figure 1. Conceptual framework.

# 3. Methodology

### 3.1. Sampling and data

This study collected data through a questionnaire survey, using both self-administered and online questionnaires. Before analyzing data, it is necessary to filter the data to ensure the accuracy of the input data for statistical software. This study mainly used the Wenjuanxing online questionnaire to reduce the occurrence of data loss during the questionnaire collection process. If there are missing items during the distribution process, the questionnaire cannot be submitted. At the same time, for the offline distribution of questionnaires, each questionnaire was carefully reviewed after the meeting, and any missing items were promptly reminded and completed. Therefore, there were no samples of missing items in the questionnaires collected in this survey.

Meanwhile, in this study, participants were not asked to mention their own names. In addition, each respondent received a questionnaire statement stating that the researchers will ensure the confidentiality of the data provided. The researchers themselves described the purpose of the study and informed them that their participation in the survey was entirely voluntary, and they could withdraw from the study at any time if they had any questions.

In this study, researchers collected sample data from SMEs, in Anhui Province, China, involving multiple employees from different industries. During the questionnaire distribution process, 14 colleagues or friends had long-term communication and assisted the researchers in collecting relevant data. In preliminary data analysis, the collected data is encoded, inputted, edited, classified, and formatted into tables to prepare for further analysis.

Ultimately, the participants of this study were employees of SMEs, and the data was collected from inservice employees of SMEs ,throughout Anhui Province. 1250 questionnaires were randomly distributed, and 1180 questionnaires were collected, with a response rate of 94.4%. During the questionnaire collection process, the obtained data was selectively processed, and some unreasonable values were screened. Among them, questionnaires that continuously made the same options or had a response time of less than 3 minutes were excluded. A total of 826 valid questionnaires were obtained, with an effective rate of 70%.

#### 3.2. Measurement of variables

The data collection for this study utilized an adapted questionnaire from earlier research, aiming to examine the impact of EMOSR on ER through the mediating role of EPC in relationships. These questions are rated on a 5-point Likert scale, with 1 point indicating 'strongly disagree' and 5 points indicating 'strongly agree'. These issues have been adjusted for ease of measurement.

The questions were modified to measure the influence of Employee-related CSR from Magrizos et al. <sup>[53]</sup>,Lechuga et al. (2021) and Global Reporting Initiative<sup>[54]</sup>.The items to measure employees psychological capital (self-effiency,optimism,hope,resilience) were modified from Pathak&Joshi<sup>[55]</sup>.To measure the mediating effect of Enterprise Resilience, questions were modified from zhang&Teng<sup>[56]</sup>.

In the process of modifying the questionnaire, targeted settings were made based on the characteristics of SMEs,. For example, in employee benefits, the original questions would ask about employee stock ownership plans or employee stock subscription plans. However, after multiple consultations and verifications, it was found that small and medium-sized enterprises have very little implementation in this area, and only provide some social insurance. Therefore, revisions were made according to this situation. For language issues, the research team also invited professional translators to ensure the accuracy and rigor of the language, while ensuring that the questionnaire content directly corresponds to the core assumptions. After expert evaluation and pre-testing. Finally, a formal questionnaire was formed.

### 3.3. Statistical analysis

Use structural equation modeling (SEM) to analyze data and evaluate hypotheses. The maximum likelihood method in SEM is used to evaluate structures and measurement models. Use confirmatory factor analysis (CFA) to test the convergence validity and causal relationship between the correction term and the measurement model variables. On the other hand, structural models are used to examine the relationship between exogenous and endogenous factors.

# 4. Results

### 4.1. Demographic characteristics

This study conducted a survey of 826 employees from SMEs in Anhui Province. The background of the survey subjects was statistically analyzed based on the survey items (gender, age, education level, income level, etc.), and the results are shown in **Table 1**.

| Category          | Option   | Frequency   | Percent | Valid<br>Percent | Cumulative<br>Percent |  |
|-------------------|--|---|---------|------------------|-----------------------|--|
| Candan            | Female   | 130   | 43.2    | 43.2             | 43.2                  |  |
| Gender            | Male   | 171   | 56.8    | 56.8             | 100                   |  |
|                   | 20 years old and below   | 22  | 7.3     | 7.3              | 7.3                   |  |
|                   | 21–30 years old  | 118   | 39.2    | 39.2             | 46.5                  |  |
| Age               | 31-40 years old  | 94  | 31.2    | 31.2             | 77.7                  |  |
|                   | 41–50 years old  | 61  | 20.3    | 20.3             | 98                    |  |
|                   | 51–60 years old  | 6   | 2       | 2                | 100                   |  |
|                   | Junior high school and below   | 49  | 16.3    | 16.3             | 16.3                  |  |
| Education         | High school, vocational school, vocational school or technical school  | 37  | 12.3    | 12.3             | 28.6                  |  |
| Level             | Junior college   | vocational school,<br>hool or technical school 37 12.3 12.3 | 82.7    |                  |                       |  |
|                   | Undergraduate course   | 43  | 14.3    | 14.3             | 97                    |  |
|                   | Master's degree  | 9   | 3       | 3                | 100                   |  |
|                   | Less than RMB 3,000  | 49  | 16.3    | 16.3             | 16.3                  |  |
|                   | RMB3001-RMB 6,000  | 145   | 48.2    | 48.2             | 64.5                  |  |
| Monthly<br>Income | 41–50 years old 61 20.3 20.3 51–60 years old 6 2 2  Junior high school and below 49 16.3 16.3  High school, vocational school, vocational school or technical school  Junior college 163 54.2 54.2  Undergraduate course 43 14.3 14.3  Master's degree 9 3 3 3  Less than RMB 3,000 49 16.3 16.3 | 85  |         |                  |                       |  |
| income            | RMB9,001-RMB 12,000  | 25  | 8.3     | 8.3              | 93.4                  |  |
|                   | RMB12,001-RMB 15,000   | 5   | 1.7     | 1.7              | 95                    |  |

**Table 1.** Demographic profile of respondents.

| Category         | Option                        | Frequency | Percent | Valid<br>Percent | Cumulative<br>Percent |
|------------------|-------------------------------|-----------|---------|------------------|-----------------------|
|                  | More than RMB 15,000          | 15        | 5       | 5                | 100                   |
|                  | Frontline employees           | 170       | 56.5    | 56.5             | 56.5                  |
| Position held in | First-line manager            | 93        | 30.9    | 30.9             | 87.4                  |
| the enterprise   | Middle manager                | 25        | 8.3     | 8.3              | 95.7                  |
|                  | Senior manager                | 13        | 4.3     | 4.3              | 100                   |
|                  | Information and communication | 14        | 4.7     | 4.7              | 4.7                   |
|                  | Mechanical manufacturing      | 22        | 7.3     | 7.3              | 12                    |
|                  | Education Research Institute  | 10        | 3.3     | 3.3              | 15.3                  |
|                  | Fast consumption              | 12        | 4       | 4                | 19.3                  |
|                  | Biopharmaceutical Engineering | 2         | 0.7     | 0.7              | 19.9                  |
| Industry         | Construction engineering      | 25        | 8.3     | 8.3              | 28.2                  |
|                  | Tourism services              | 35        | 11.6    | 11.6             | 39.9                  |
|                  | Transportation                | 21        | 7       | 7                | 46.8                  |
|                  | Energy and chemical industry  | 6         | 2       | 2                | 48.8                  |
|                  | Financial service             | 15        | 5       | 5                | 53.8                  |
|                  | Others                        | 139       | 46.2    | 46.2             | 100                   |
|                  | Less than a year              | 51        | 16.9    | 16.9             | 16.9                  |
|                  | 1 – 5 years old               | 128       | 42.5    | 42.5             | 59.5                  |
| Years of         | 6 – 10 years old              | 51        | 16.9    | 16.9             | 76.4                  |
| service          | 11 – 15 years old             | 39        | 13      | 13               | 89.4                  |
|                  | 16 – 20 years old             | 14        | 4.7     | 4.7              | 94                    |
|                  | 21 years or above             | 18        | 6       | 6                | 100                   |

Table 1. (Continued)

### **4.2.** Normality statistics

The most critical assumption in SEM is the multivariate normality test, where variables with skewness and kurtosis values within±3 are considered appropriately distributed. The statistical values of skewness and kurtosis for each construct were calculated in this research and are listed in **Table 2**. The absolute values of skewness and kurtosis of each variable measurement item are less than 1 and 2, respectively, indicating a normal distribution. Meets the general requirements for samples and variables in the field of empirical research.

Table 2. Descriptive statistics.

| Variables | Mean  | Std. Dev | Skewness | Kurtosis |
|-----------|-------|----------|----------|----------|
| HSP       | 4.050 | 0.841    | -0.623   | 0.048    |
| TDE       | 3.998 | 0.785    | -0.242   | -0.804   |
| SBE       | 4.027 | 0.793    | -0.441   | -0.307   |
| CCA       | 3.925 | 0.842    | -0.309   | -0.702   |
| EMOSR     | 3.996 | 0.743    | -0.161   | -0.901   |
| SEF       | 4.044 | 0.761    | -0.286   | -0.693   |
| OPT       | 4.032 | 0.768    | -0.387   | -0.402   |
| HOP       | 3.979 | 0.767    | -0.098   | -1.072   |
| REL       | 3.818 | 0.833    | -0.012   | -0.920   |
| EPC       | 5.181 | 0.906    | -0.042   | -0.948   |

| Variables | Mean  | Std. Dev | Skewness | Kurtosis |
|-----------|-------|----------|----------|----------|
| ADA       | 3.965 | 0.749    | -0.115   | -0.829   |
| ANT       | 3.904 | 0.821    | -0.220   | -0.557   |
| SAW       | 3.942 | 0.794    | -0.311   | -0.310   |
| ER        | 3.944 | 0.717    | -0.013   | -0.864   |

Table 2. (Continued)

### 4.3. Confirmatory factor analysis via overall measurement model

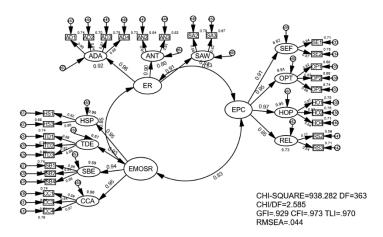


Figure 2. Overall measurement model.

**Figure 2** shows the overall initial measurement model, the results show that all the structures in this study have a very high loading coefficient. It was found that chi square divided by degrees of freedom of the model is 2.585, which is less than 3. RMSEA is 0.044, than 0.08. The value of GFI is 0.929, the value of CFI, TLI are greater than 0.9. Therefore the measurement model becomes suitable. Therefore, these structures can effectively measure the impact of corporate social responsibility on enterprise resilience through employees' psychological capital.

# 4.4. Reliability and validity

Table 3. Reliability analysis results.

| Dimession | Cronbach's Alpha | scale Cronbach's Alpha | Number of item |
|-----------|------------------|------------------------|----------------|
| HSP       | 0.832            |                        | 2              |
| TDE       | 0.884            |                        | 3              |
| SBE       | 0.889            |                        | 3              |
| CCA       | 0.901            |                        | 3              |
| SEF       | 0.845            |                        | 2              |
| OPT       | 0.874            | 0.975                  | 3              |
| HOP       | 0.894            |                        | 3              |
| REL       | 0.784            |                        | 2              |
| ADA       | 0.915            |                        | 4              |
| ANT       | 0.909            |                        | 2              |
| SAW       | 0.843            |                        | 2              |

This study conducted reliability and validity analysis using SPSS, and the reliability analysis results are shown in **Table 2**. According to **Table 2**, All reliability levels are above 0.7, indicating that the scale has good internal consistency and good reliability.

| Variables | ER    | EPC   | EMOSR | CR    | AVE   |
|-----------|-------|-------|-------|-------|-------|
| ER        | 0.922 |       |       | 0.944 | 0.85  |
| EPC       | 0.868 | 0.922 |       | 0.958 | 0.851 |
| EMOSR     | 0.847 | 0.829 | 0.943 | 0.97  | 0.889 |

Table 4. Validity analysis results.

The validity analysis results are shown in **Table 4**, which indicates that the combined reliability CR of all scales is within 0.6 or above, with an average variance extraction (AVE) of 0.5 or above, indicating that each scale has good convergent validity, and the square root of AVE for each variable is higher than the correlation coefficient between that variable and other variables, indicating that each scale has good discriminant validity.

### 4.5 Hypotheses testing

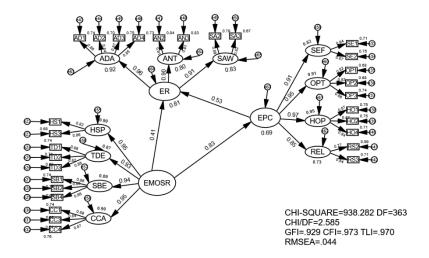


Figure 3. Structural models.

**Table 5.** Analysis of hypothesis testing.

| Hypothesis |     | Pat | h     | Estimate<br>(UE) | Estimate (SE) | S.E.  | C.R.   | P   | Test<br>result |
|------------|-----|-----|-------|------------------|---------------|-------|--------|-----|----------------|
| H1         | ER  | <   | EMOSR | 0.406            | 0.412         | 0.043 | 9.348  | *** | significant    |
| H2         | ER  | <   | EPC   | 0.598            | 0.527         | 0.052 | 11.46  | *** | significant    |
| Н3         | EPC | <   | EMOSR | 0.718            | 0.828         | 0.035 | 20.321 | *** | significant    |

According to the previous test results, the questionnaire results have reliability and validity, and a structural model was established using AMOS tool. The structural model showed consistency (chi square=2.585; GFI=0.929; CFI= 0.973; TLI = 0.970; RMSEA = 0.044), This model has a high degree of adaptability, indicating that the hypothesis model of this study is supported, as shown in **Figure 3** According to the research findings(**Table 5**), the results of the path test indicate that the hypotheses of HI, H2, and H3 are C R. The values are 9.348, 11.46, and 20.321 all greater than 1.96, and the P-values are all less than 0.05, indicating significant results. The three hypotheses of HI, H2, and H3 are all valid, all the test results are significant.

Table 6. Analysis of mediating relationships.

|            |               | neter Effect Estimate |       |         |        | Bias-Corrected |       | percentile |       |
|------------|---------------|-----------------------|-------|---------|--------|----------------|-------|------------|-------|
| Hypothesis | Parameter     |                       | SE    | ${f Z}$ | 95%    | 95%CI          |       | 95%CI      |       |
|            |               |                       |       |         |        | Lower          | Upper | Lower      | Upper |
|            | ER <<br>EMOSR | Total Effect          | 0.836 | 0.039   | 21.436 | 0.765          | 0.913 | 0.762      | 0.910 |
| H4         |               | Indirect Effect       | 0.429 | 0.050   | 8.580  | 0.342          | 0.537 | 0.341      | 0.535 |
|            |               | Direct Effect         | 0.406 | 0.054   | 7.519  | 0.299          | 0.512 | 0.297      | 0.510 |

According to the test results (**Table 6**), the Z-values of the total effects, direct effects, and indirect effects of employee oriented social responsibility on enterprise resilience are 21.426, 8.580, and 7.519, respectively, all greater than 1 96, significant; The confidence interval value of its indirect effect is 0.342-0.537,0. 341-0.535 does not include 0, so employee psychological capital plays a mediating role in the relationship between employee oriented social responsibility and firm resilience. Hypothesis H4 is supported. At the same time, since the direct effect does not include 0, it indicates that the direct effect exists, and the mediating effect is a partial mediation.

### 5. Discussion

This article found through research that enhancing the responsibility of SMEs towards employees can increase their psychological capital and the resilience of the enterprise. The increase in EPC also strengthens the resilience of the enterprise. At the same time, EPC partially mediates the impact of EMOSR on ER. In the future, enterprises can further enhance their resilience by strengthening their responsibility to employees and improving their psychological capital. Employees are the foundation of enterprise development, and internal contracts are the link between employees and the enterprise. Once this contract is terminated, the enterprise will suffer great losses and employees will be lost. Therefore, enterprises should actively assume corresponding social responsibilities towards employees and maintain the relationship established between the enterprise and employees based on the internal contract.

#### 5.1. Theoretical implications

For SMEs, enhancing their resilience is crucial, and this article focuses on the importance of employees. In the research of human resource management, there are abundant research results on employees. As the intellectual capital of the enterprise, employees themselves are a kind of resource. Excellent employees can not only improve their own performance but also indicate the performance of the organization. Employees who identify with the enterprise and have high loyalty will also contribute to the stability and development of the enterprise. SMEs can improve their resilience through appropriate EMOSR policies and practices. In addition to individual efforts, SMEs can also help maintain good psychological capital among employees through CSR practices, thereby further enhancing their resilience. For SMEs, increasing social responsibility towards employees is very important. At the same time, the results of this study provide strong evidence that EPC plays an important supplementary mediating role in the process of EMOSR enhancing ER.

### **5.2. Practical implications**

Employees have made significant contributions to the value-added of the enterprise, and their working environment and the attitude of the enterprise towards employees directly affect their recognition of the enterprise. SMEs must actively undertake EMOSR. EMOSR can enhance the stability, happiness, and pride of enterprise personnel, as well as help them maintain and improve a positive psychological state. Enterprise resilience is something that enterprises must pay attention to, which is related to the survival of the enterprise.

EMOSR activities help employees believe more in their skills and abilities, which makes them more resilient. Enterprises should utilize past data and case studies to provide regular guidance to employees. This will help them think and act in a more meaningful way, understanding their current situation and future.

EPC has a positive impact on the recovery of ER. When employees possess positive psychological capital, even in the face of difficulties, negative news, and various shocks, they can actively respond, seek solutions, work together to overcome various difficulties, and thus enhance the resilience of the enterprise.

At the same time, small and medium-sized enterprises need to encourage employees to participate more in corporate social responsibility activities in order to leverage current trends in corporate social responsibility. This is beneficial for them as it boosts employee morale and also attracts new talent to join the company. A survey shows that future employees will consider CSR implementation as a criterion when choosing a company [57].

Given the above discussion, the results of this study may assist business managers in thinking about how to enhance the resilience of the enterprise and conduct employee management. It is necessary to develop specific EMOSR activities, develop targeted projects to help their businesses withstand these storms, and strategically raise awareness among SMEs and employees.

#### 5.3. Limitations and recommendations

There are many limitations in current research that need to be considered in future studies. Although this study considers employee psychological capital as a moderating variable, it overlooks its mediating effect on the model. It is suggested that future research should include this component. In addition, current research only focuses on three variables and does not consider other aspects that affect enterprise resilience. It is recommended that future research use features other than those included in this study. In addition, current research only focuses on SMEs in Anhui province, neglecting other regions, which means that future research should include a wider range of sectors and countries.

### **Author Contributions**

Yang. contributed to the conception and design. Jacquline and Alik performed research and analyzed the data. All of the authors drafted and revised the manuscript together and approved its final publication.

# **Funding**

2022 Anhui Province Key Humanities and Social Science Projects (Project Number: 2022AH052219). Provincial Quality Engineering Projects in 2022 (Project Number: 2022tsgsp065). 2024 Anhui Province Key Humanities and Social Science Projects (Project Number: 2024AH053142).2022 Anhui Province Key Humanities and Social Science Projects (Project Number: 2022AH052217).

# **Conflicts of Interest**

The authors declare no conflict of interest.

### References

- 1. Nauck, Fritz, & et al. (2021). The resilience imperative: Succeeding in uncertain times. Risk & Resilience Practice. Note: The title of the specific article within the publication is not provided, so the publication name is used.
- 2. Guo, J., Chen, X., & Zhang, Y. (2022). Predicting and managing megaproject gray rhino risks with IF-ANP and DEMATEL based on panel data. Expert Systems with Applications, 208, 118243.

- 3. Li, L. (2022). Research on the impact of social responsibility on corporate resilience. Henan University of Economics and Law.
- 4. Hategan, C.-D., Sirghi, N., Curea-Pitorac, R.-I., & Hategan, V.-P. (2018). Doing well or doing good: The relationship between corporate social responsibility and profit in Romanian companies. Sustainability, 10(4), 1041.
- 5. Harjoto, M., & Laksmana, I. (2018). The impact of corporate social responsibility on risk taking and firm value. Journal of Business Ethics, 151(2), 353–373.
- 6. Huang, W., Chen, S., & Nguyen, L. T. (2020). Corporate social responsibility and organizational resilience to COVID-19 crisis: An empirical study of Chinese firms. Sustainability, 12(21), 8970.
- 7. De Roeck, K., Marique, G., Stinglhamber, F., & Swaen, V. (2014). Understanding employees' responses to CSR: Mediating roles of overall justice and organizational identification. The International Journal of Human Resource Management, 25(1), 91–112.
- 8. Jones, D. A., Willness, C. R., & Glavas, A. (2017). When corporate social responsibility (CSR) meets organizational psychology: New frontiers in micro-CSR research, and fulfilling a quid pro quo through multilevel insights. Frontiers in Psychology, 8, 1–15.
- 9. McWilliams, A., & Siegel, D. (2011). Creating and capturing value: Strategic corporate social responsibility, resource-based theory, and sustainable competitive advantage. Journal of Management, 37(5), 1480-1495.
- Wang, H., Tong, L., Takeuchi, R., & George, G. (2016). Corporate social responsibility: An overview and new research directions: Thematic issue on corporate social responsibility. Academy of Management journal, 59(2), 534-544.
- 11. Onkila, Tiina, & Sarna, Bhavesh. (2022). A systematic literature review on employee relations with CSR: State of the art and future research agenda. Corporate Social Responsibility and Environmental Management, 29(2), 435-447.
- 12. Liu, Q. L. (2013). A research on the relationship between corporate social responsibility for employees and employee satisfaction. Journal of Management, 31(1), 33–43.
- 13. He, K. (2018). A study of the influence of the enterprise staff's responsibilities on the organizational citizenship behavior of new generation staff. J. Manag, 31, 33-43.
- 14. Yan, A.M., Shan, L. and Xu, T. (2017), "Research on the mechanism of employees' perceived corporate social responsibility on voice behavior", Soft Science, Vol. 31 No. 7, pp. 76-79, 88.
- 15. Le, T. T., Quang, H., Hong, T., & Tran, K. (2021). The contribution of corporate social responsibility on SMEs performance in emerging country. Journal of Cleaner Production, 322, 129103.
- 16. Botha, M. M. (2015). Responsibilities of companies towards employees. Potchefstroom Electronic Law Journal, 18(2), 1–67.
- 17. Liu, B., Sun, P. Y., & Zeng, Y. (2020). Employee-related corporate social responsibilities and corporate innovation: Evidence from China. International Review of Economics & Finance, 70, 357–372.
- 18. Spence, L. J. (2007). CSR and small business in a European policy context: The five "C"s of CSR and small business research agenda 2007. Business and Society Review, 112(4), 533-552.
- 19. Sarfraz, M., Qun, W., Abdullah, M. I., & Alvi, A. T. (2018). Employees' perception of corporate social responsibility impact on employee outcomes: Mediating role of organizational justice for small and medium enterprises (SMEs). Sustainability, 10(8), 2429.
- 20. Harney, B., & Dundon, T. (2006). Capturing complexity: developing an integrated approach to analysing HRM in SMEs. Human resource management journal, 16(1), 48-73.
- 21. Sendlhofer, T. (2019). Decoupling from moral responsibility for CSR: Employees' visionary procrastination at a SME. Journal of Business Ethics. Note: The specific article title within the journal is not provided, so the publication name is used.
- 22. Jenkins, H. (2006). Small business champions for corporate social responsibility. Journal of Business Ethics, 67(3), 241–256.
- 23. Fuller, T., & Tian, Y. (2006). Social and symbolic capital and responsible entrepreneurship: An empirical investigation of SME narratives. Journal of Business Ethics, 67(3), 287–304.
- 24. Fassin, Y. (2008). SMEs and the fallacy of formalising CSR. Business Ethics: A European Review, 17(4), 368–378.
- 25. Panwar, R., Nybakk, E., Hansen, E., & Pinkse, J. (2017). Does the business case matter? The effect of a perceived business case on small firms' social engagement. Journal of Business Ethics, 144(3), 597-608.
- 26. Fryzel, B., & Seppala, N. (2016). The effect of CSR evaluations on affective attachment to CSR in different identity orientation firms. Business Ethics: A European Review, 25(3), 310–326.
- 27. Rodrigo, P., Aqueveque, C. O., & Duran, I. J. (2019). Do employees value strategic CSR? A tale of affective organizational commitment and its underlying mechanisms. Business Ethics: A European Review, 28(4), 459-475.
- 28. Mao, J., He, A. M., Morrison, J., & Coca-Stefaniak, A. (2021). Effects of tourism CSR on employee psychological capital in the COVID-19 crisis: From the perspective of conservation of resources theory. Current Issues in Tourism, 24(19), 2716-2734.

- 29. Randolph, R. V., Memili, E., Koç, B., Young, S. L., Yildirim-Oktem, Ö., & Sonmez, S. (2022). Innovativeness and corporate social responsibility in hospitality and tourism family firms: The role of family firm psychological capital. International Journal of Hospitality Management, 101, 103128.
- 30. Rim, H., & Ferguson, M. A. T. (2020). Proactive versus reactive CSR in a crisis: An impression management perspective. International Journal of Business Communication, 57(4), 545–568.
- 31. Cornell, B., & Shapiro, A. C. (1987). Corporate stakeholders and corporate finance. Financial Management, 16(1), 5–14.
- 32. Chowdhury, H., Hodgson, A., & Hasan, M. M. (2022). Does a competitive external labour market affect corporate social responsibility? Evidence from industry tournament incentives. Journal of Behavioral and Experimental Finance, 33, 100617.
- 33. Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. Human Resource Management Review, 21(3), 243–255.
- 34. Jones, D., & Kato, T. (1995). The productivity effects of employee stock-ownership plans and bonuses: Evidence from Japanese panel data. The American Economic Review, 85(3), 391–414.
- 35. Rodríguez Sánchez Alma, Guinot Jacob, Chiva Ricardo, & et al. (2019). How to emerge stronger: Antecedents and consequences of organizational resilience. Journal of Management & Organization, 27(3), 1-18.
- 36. Liu, Y. (2022). Research on the impact of social responsibility on corporate resilience. Dongbei University of Finance and Economics.
- 37. Low Mei Peng, & Bu Maoliang. (2021). Examining the impetus for internal CSR practices with digitalization strategy in the service industry during the COVID-19 pandemic. Business Ethics: A European Review, 31(1), 209-223.
- 38. Fang, S., Prayag, G., Ozanne, L. K., & de Vries, H. (2020). Psychological capital, coping mechanisms and organizational resilience: Insights from the 2016 Kaikoura earthquake, New Zealand. Tourism Management Perspectives, 34, 207–218.
- 39. Luthans, F., Youssef, C. M., & Avolio, B. J. (2006). Psychological capital: Developing the human competitive edge. Oxford university press.
- 40. Brammer, S., He, H., & Mellahi, K. (2015). Corporate social responsibility, employee organizational identification, and creative effort: The moderating impact of corporate ability. Group & Organization Management, 40(3), 323-352.
- 41. Ciprian-Dumitru, S. (2013). How to deal with corporate social responsibility related to employees. Annals of the University of Oradea, Economic Science Series, 22(1), 1675–1681.
- 42. Glavas, A., & Kelley, K. (2014). The effects of perceived corporate social responsibility on employee attitudes. Business Ethics Quarterly, 24(2), 165–202.
- 43. [43]Papacharalampous, N., & Papadimitriou, D. (2021). Perceived corporate social responsibility and affective commitment: The mediating role of psychological capital and the impact of employee participation. Human Resource Development Quarterly, 32(3), 251-272.
- 44. Coutu, D. L. (2002). How resilience works. Harvard Business Review, 80(5), 46–55.
- 45. Safavi, H. P., & Bouzari, M. (2020). How can leaders enhance employees' psychological capital? Mediation effect of person-group and person-supervisor fit. Tourism Management Perspectives, 33, 1–12.
- 46. Mishra, P. (2017). Green human resource management: A framework for sustainable organizational development in an emerging economy. International Journal of Organizational Analysis, 25(5), 762-788.
- 47. Rizvi, Yasmeen Shamsi, & Nabi, Asma. (2023). Corporate social responsibility and psychological capital during the COVID-19 pandemic: Perspectives from India. Social Responsibility Journal, 19(8), 1379-1396.
- 48. Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T., & Rockström, J. (2010). Resilience thinking: Integrating resilience, adaptability and transformability. Ecology and Society, 15(3), 253–267.
- 49. Yang, Y., Lee, P. K., & Cheng, T. C. E. (2016). Continuous improvement competence, employee creativity, and new service development performance: A frontline employee perspective. International journal of production economics, 171, 275-288.
- 50. Lu, J., Liang, M., Zhang, C., & et al. (2021). Assessment of corporate social responsibility by addressing sustainable development goals. Corporate Social Responsibility and Environmental Management, 28(2), 686-703.
- 51. Tang, T. L. P., Ibrahim, A. H. S., & West, W. B. (2002). Effects of war-related stress on the satisfaction of human needs: The United States and the Middle East. International Journal of Management Theory and Practices, 3(1), 35-53.
- 52. Mohammed, Abdul Alem, Ferraris, Alberto, & Troise, Ciro. (2022). CSR practices and creativity during the COVID-19 pandemic in the emerging market: Investigating the mediating effect of affective commitment. Management Decision, 60(10), 2669-2693.
- 53. Magrizos, Solon, & et al. (2021). Is CSR the panacea for SMEs? A study of socially responsible SMEs during economic crisis. European Management Journal, 39(2), 291-303.

- 54. Lechuga Sancho, M. P., Larrán Jorge, M., & Herrera Madueño, J. (2021). Design and validation of an instrument of measurement for corporate social responsibility practices in small and medium enterprises. Social Responsibility Journal, 17(8), 1150-1174.
- 55. Pathak, D., & Joshi, G. (2021). Impact of psychological capital and life satisfaction on organizational resilience during COVID-19: Indian tourism insights. Current Issues in Tourism, 24(17), 2398-2415.
- 56. Zhang, X., and Teng, X. (2021). The connotation, dimensions and measurement of organizational resilience. Sci. Technol. Progr. Policy 38, 9–17.
- 57. Waithe, M. (2018). The importance of CSR to small businesses, start-ups. Retrieved December 13, 2018, from https://newsday.co.tt/2018/12/13/the-importance-of-csr-to-small-businesses-start-ups/