

# Empowering leadership, psychological capital and knowledge management: Basis for employee service innovation behaviors' framework

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## ***Abstract***

Enterprise innovation is an inevitable choice in the era of knowledge economy and globalized competition, and employee service innovation behavior that plays a crucial role in the overall innovation of enterprises. How to effectively stimulate employee service innovation behavior has always been a hot topic of concern for researchers and enterprise managers. This study aimed to determine the empowering leadership, psychological capital and knowledge sharing in logistics companies in China. Specifically it aimed to assess the empowering leadership of the officers in logistics companies in view of participatory decision-making, decentralization and performance feedback; describe the employees' psychological capital in the aspects of self-efficacy, toughness optimism; determine the knowledge management in logistics companies terms knowledge contribution, knowledge absorption, knowledge transfer and creation; test the significant relationship among empowering leadership, psychological capital, and knowledge and knowledge management; and develop a framework that will aid improve employee service innovation behavior. This study used the descriptive type of research. To further explore the interrelationships among variables, it designed a survey questionnaire conducted to logistics enterprise employees; and it used statistical analysis software to conduct descriptive statistics. It was found out that the participants moderately agreed on the empowering leadership of the officers in logistics companies in view of participatory decision-making, decentralization and performance feedback; and on the employees psychological capital in the aspects of self-efficacy, toughness, optimism. There is also moderately assessment on the knowledge management in logistics companies in terms knowledge contribution, knowledge absorption, knowledge transfer and creation. There is a highly significant relationship among empowering leadership, psychological capital, and knowledge and knowledge management and a framework for employee Service Innovation was proposed based from the results of the study.

***Keywords:*** empowering leadership, psychological capital, knowledge management, employee service innovation behavior

## **Empowering leadership, psychological capital and knowledge management: Basis for employee service innovation behaviors' framework**

### **1. Introduction**

The arrival of the era of economic globalization has brought enormous development opportunities and severe challenges to enterprises. In today's fiercely competitive business environment, innovation is increasingly important for the survival and development of enterprises. Only enterprises that adhere to the path of innovative development can flexibly and effectively respond to the ever-changing market environment. For service-oriented enterprises, the driving force for their development is shifting from resource driven to knowledge and service innovation driven. Therefore, the service innovation strength of enterprises has become a key factor for them to gain competitive advantages and seek long-term survival. How to improve the service innovation ability of enterprises has gradually become a controversial issue in the academic community and enterprise management practice. The leaders play a crucial role in the process of enterprise service innovation, and leadership behavior is closely related to the service innovation ability of enterprise employees. Leaders with different styles have different decision-making and behavioral styles, and their impact on organizational innovation varies. Empowered leadership empowers employees by clarifying their work meaning, instilling confidence in them, giving them autonomy, enthusiastically involving them in the decision-making process, and providing guidance and development opportunities. This supportive leadership style may play an important role in promoting employee service innovation behavior.

Secondly, employee service innovation behavior will be influenced by individual level characteristics. In recent years, scholars have realized that psychological states that are easily influenced by external factors at the individual level, such as motivation, emotions, and emotions, are easily stimulated and play a crucial role in the creativity of individuals. As a positive psychological state, psychological capital has become increasingly prominent in disciplines such as management and organizational behavior, and has gradually become a focus of attention for scholars.

Finally, in the era of knowledge economy, knowledge, as the most creative strategic resource of enterprises, has become the source of employee innovation behavior. However, organizational members cannot master all the knowledge and skills required for innovation. Therefore, knowledge needs to be continuously transmitted among individuals to obtain new knowledge, and knowledge sharing is a key link for the smooth implementation of employee innovation behavior. Knowledge sharing can achieve exponential growth in organizational knowledge stock, but the necessary prerequisite for the success of knowledge sharing is whether employees have the willingness to share knowledge with others (Hsu, et. al., 2007). Knowledge sharing willingness is a prerequisite for achieving employee innovative behavior. Not all members of an organization are willing to share their personal knowledge with others. Perceived organizational support, as an employee's perception of their closeness to the organization, is an important psychological factor that affects employee attitudes and behavior. It not only promotes employee knowledge sharing willingness, but also influences employee innovative behavior. Thus, this study perceived organizational support stimulates employees' innovative behavior by influencing their willingness to share knowledge, that is, the willingness to share knowledge plays a "bridge" role in the relationship between perceived organizational support and employees' innovative behavior. From this, it can be seen that facing the increasingly complex and dynamic economic situation and global market environment, the survival and development of enterprises need to encourage employees to engage in innovative activities, while increasing emphasis on leadership behavior. This article focuses on the mechanisms through which authorized leadership ultimately promotes employee innovation behavior. From the perspective of individual psychological states, it studies the psychological capital of employees in enterprises and the relationship among their various dimensions and innovation behavior. From the perspectives of social psychology and organizational behavior,

knowledge sharing is an important component of enterprise knowledge management theory. Effective knowledge sharing is conducive to mutual cooperation among employees within organizations and the integration of departmental functions, which is a key factor in innovation. Therefore, based on the study of empowering leadership, employee psychological capital, knowledge sharing, and the relationship between service innovation behavior, this study delves into the specific mechanisms that influence employee service innovation behavior.

**Objectives of the Study** - This study aimed to determine the empowering leadership, psychological capital and knowledge sharing in logistics companies in China. Specifically, it aimed to assess the empowering leadership of the officers in logistics companies in view of participatory decision-making, decentralization and performance feedback; describe the employees' psychological capital in the aspects of self-efficacy, toughness optimism; determine the knowledge management in logistics companies terms knowledge contribution, knowledge absorption, knowledge transfer and creation; test the significant relationship among empowering leadership, psychological capital, and knowledge and knowledge management; and develop a framework that will aid employee service innovation behavior

## 2. Methods

**Research Design** - Descriptive research design was used in this study. It is a scientific technique that requires describing the behavior of participants without attempting to influence them in any way. Researchers attempted to collect information by providing questionnaires and distributing them to respondents. This descriptive study helps to effectively collect data from respondents. This study used the descriptive type of research to ensure the comprehensiveness, rationality, and feasibility of the study, this study extensively searched, mined, and processed relevant research literature on empowering leadership, knowledge sharing, psychological capital, and employee service innovation behavior to obtain theoretical support, and to identify shortcomings in previous research. After completing these tasks, the research framework of this study was constructed. After completing the construction of the theoretical model, this article started from the questionnaire preparation work by drawing on existing research. Then, by conducting in-depth research on logistics enterprises and distributing online questionnaires to target units and objects, raw statistical data were collected. This also used empirical analysis method and the data analysis software to conduct reliability and validity analysis on the data, and after completing the validity testing of the questionnaire, started the correlation analysis between variables.

**Participants of the Study** - The research participants of this study were employees of service-oriented enterprises, especially those engaged in the logistics industry. Researchers distributed survey questionnaires to industries with different service types. From the perspective of personnel composition, it mainly included grassroots employees and middle-level managers of logistics companies. In terms of enterprise selection for service types, the logistics industry mainly included China Logistics, Shentong Express, and Cainiao Network Technology Co., Ltd. This study collected sample data from a total of 400 respondents. Based on preliminary manual and software analysis, 4 questionnaires that did not meet the research needs were removed, and considered 396 valid questionnaires for use in the study, with an effectiveness rate of 99%.

**Data Gathering Instrument** - This paper aimed to explore the influencing factors of employee service innovation behavior. As the necessary basic data for this study cannot be obtained through current publicly available research results or literature, it is necessary to obtain research data through questionnaire surveys. Through extensive literature review and referring to the research scales of numerous scholars both domestically and internationally, researcher used existing mature scales related to variables such as empowering leadership, psychological capital, and knowledge sharing to form a preliminary questionnaire. Then, the preliminary questionnaire was pre tested on a small scale, and revised based on feedback from the participants to prevent issues that may affect the reliability and validity of the questionnaire, such as unclear items. After revision, a formal survey questionnaire was finalized.

The questionnaire survey designed in this study is divided into four parts: the first part is to conduct a survey

on the basic information of the respondents, which is necessary information about the personal situation of employees in the survey questionnaire for questionnaire identification and screening; The second part is the measurement of empowering leadership variables, which mainly includes three dimensions: participatory decision-making, delegation of power, and conveying confidence in performance; The third part measures the psychological capital of employees, which mainly includes three dimensions: self-efficacy, resilience, and optimism; The fourth part measures employee knowledge sharing, mainly including three dimensions: knowledge contribution, knowledge absorption, knowledge transfer, and creation. Except for the first part where the basic personal information of employees was directly filled out for statistics, the measurement of other parts was carried out using the Level 4 Likert scale: 1 represents "completely disagree"; 2 represents "disagree"; 3 represents "agree"; 4 represents "complete agreement".

**Data Gathering Procedure** - This paper utilized the scales developed by relevant scholars for variable measurement, but whether the scales can be reliably and effectively applied to service-oriented enterprise employees still need further testing. To ensure the scientificity of the formal survey, this article conducted a small-scale pre survey on the questionnaire and adjusted it based on the test results to ensure the validity and reliability of the data sample. Before the topic selection of the paper and the distribution of the survey questionnaire, the paper proposal had already been approved by the Graduate School of Laisim College, Batangas University, Philippines, to collect a small sample of over 30 respondents and less than 100 respondents. This preliminary survey focused on employees of service-oriented logistics enterprises, and with the help of enterprise managers, 30 questionnaires were distributed through QuestionStar. In order to ensure the validity of the questionnaire, 21 valid questionnaires were filled in and recovered on site, with an effective recovery rate of 70%. In order to ensure the effectiveness of the questionnaire and the effect of the survey after the questionnaire was issued, a pre-test was conducted on the questionnaire, and the reliability and validity of small sample data were pre-analyzed to ensure the rationality and accuracy of the questionnaire structure. After revising the questionnaire, variables, and dimensions, researcher determined the final research variables and questionnaire content to ensure the feasibility of empirical analysis and the significance of the survey.

Reliability is an indicator of the reliability of a questionnaire, which is manifested in the consistency and consistency of test results, as well as the stability and reproducibility of measurement results. The consistency coefficient of the questionnaire with good reliability is relatively high, and the questionnaire results tend to be more stable, which can ensure the robustness of the research results. Reliability is an important technical indicator for measuring the questionnaire, which indicates the consistency between the scores of each item in the scale. Based on empirical experience, scholars have pointed out that research results are reliable only when the reliability coefficient is greater than 0.7. When the number of items in the equivalent table is less than 6, the reliability coefficient needs to be greater than 0.6 to ensure the accuracy of the results. In exploratory analysis, a reliability coefficient value greater than 0.5 is necessary to ensure that the data are acceptable. With the approval of the director of the research institute, the researchers conducted a preliminary questionnaire survey and obtained the reliability of the survey. Through reliability testing, the reliability results showed that Particle Decision making (0.867), Decentralization (0.807), Conveying Confidence in Performance (0.715), Self Efficiency (0.839), Resilience (0.835), Optimistic (0.735), Knowledge Contribution (0.893), Knowledge Absorption (0.783), Knowledge Transfer and Creation (0.899), as shown in the above table, Cronbach's Alpha coefficients are all above 0.7. This indicates that the reliability of the survey questionnaire is high, there is a high degree of internal consistency, and the measurement results are reliable and stable. This also verifies that the questionnaire design is reasonable and can be distributed on a large scale for subsequent questionnaire analysis.

**Data Analysis** - This study designed three variables to study employee service innovation behavior and adopted indicators of different dimensions to achieve the research objectives. In terms of data processing, the corresponding research conclusions were mainly obtained by processing questionnaire data. The study adopted the statistical analysis method to quantitatively analyze the collected data. The statistical analysis method used mainly include descriptive statistical analysis and inferential statistical analysis. The specific data analysis plan is as follows:

Firstly, conduct a survey on the basic information of the respondents in the first part of the questionnaire, collect personal information of employees, and use it for questionnaire identification and screening; then delete unqualified questionnaires and leave valid ones after which, frequency statistical analysis was conducted on the age, education level, years of work, industry, and position of the respondents. Secondly, reliability and validity tests were conducted on the data. Before testing the theoretical hypotheses, exploratory factor analysis was conducted on empowering leadership, psychological capital, and knowledge sharing to test the reliability of the scale. At the same time, confirmatory factor analysis was employed to measure the validity of the scale. In order to further analyze the relationship among empowering leadership, psychological capital, knowledge sharing, and employee service innovation, a regression model was constructed using inferential statistical methods, and a theoretical relationship model was also constructed to achieve the ultimate analysis of the research.

**Ethical Considerations** - During the research process, ethical considerations were applied, and the content and logical validity of this study, as well as the questionnaire survey, were reviewed and approved by the researchers, lecturers of the Graduate School before the start of the study. Researcher sought the consensus of participants to voluntarily and truthfully accomplish the questionnaires and assured them that all information gathered would be solely used for this study only. In order to protect privacy, anonymous surveys were conducted without forcing anyone to fill out questionnaires, ensuring that questionnaire information would be kept confidential, protecting the security of personal information and related content, and preventing illegal infringement and threats.

### 3. Results and discussion

**Table 1**

*Summary Table on Empowering Leadership*

| Key Result Areas                    | Composite Mean | VI    | Rank |
|-------------------------------------|----------------|-------|------|
| Participatory Decision-making       | 3.18           | Agree | 2    |
| Decentralization                    | 3.17           | Agree | 3    |
| Conveying Confidence in Performance | 3.20           | Agree | 1    |
| Grand Composite Mean                | 3.18           | Agree |      |

*Legend: 3.50-4.00 = Strongly Agree; 2.50-3.49 = Agree; 1.50-2.49 = Disagree; 1.00-1.49 = Strongly Disagree*

Table 1 is a summary table of the evaluation of empowering leadership styles, which shows a grand composite mean of 3.18, indicating consistency among the three dimensions cited in empowering leadership styles which can significantly promote their employees' service innovation behavior. This allows employees feel involved in decision-making (consistent with empowering leadership principles (Malik, et. al., 2023), have the authority to make improvements (**Decentralization**), and perceive their supervisor trusts their abilities (**Conveying Confidence in Performance**). This leadership style, fostering participation, delegation, and trust, can lead to increased employee motivation and engagement (Malik, et. al., 2023), improved problem-solving through psychological safety (Kim, et. al., 2023), and potentially better decision-making for the organization (Malik, et. al., 2023).

**Table 2**

*Summary Table on Psychological Capital*

| Key Result Areas     | Composite Mean | VI    | Rank |
|----------------------|----------------|-------|------|
| Self-efficacy        | 3.18           | Agree | 3    |
| Resilience           | 3.20           | Agree | 1    |
| Optimistic           | 3.19           | Agree | 2    |
| Grand Composite Mean | 3.19           | Agree |      |

*Legend: 3.50-4.00 = Strongly Agree; 2.50-3.49 = Agree; 1.50-2.49 = Disagree; 1.00-1.49 = Strongly Disagree*

Table 2 is the evaluation of psychological capital, which shows a grand composite mean of of 3.19, indicating consistency among the three dimensions cited in psychological capital. It can be seen that "resilience" ranks first, with the highest composite mean of 3.20. This indicates that among the three dimensions, resilience

best reflects psychological capital factors and is also the most effective means of motivating employees to innovate in services. The optimistic factor ranks second with a composite mean of 3.19, and the self-efficacy factor ranks third with a composite mean of 3.18. Psychological capital can reflect employees' positive self-efficacy, optimistic and positive attitude towards work, and the ability to actively find solutions when facing difficulties. This is a very important factor for innovation. The process of innovation is full of unknowns and challenges, and the good psychological capital of employees can help promote the implementation of innovative behavior.

Scholar Le, et al. (2018) also found through research that transformational leadership can influence employees' positive psychological capital, such as enhancing their optimistic effect and self-efficacy, thereby affecting their innovative behavior. Compared with the optimistic effect, self-efficacy has a greater impact on innovation ability. Therefore, innovation is a highly risky attempt behavior. As the four dimensions of employee psychological capital, the higher the self-efficacy of employees, the greater the impact on innovation ability. The more optimistic, hopeful, and resilient one is, the more confident and capable they are to accept risks and challenges, and thus more willing to boldly innovate in the process of solving problems, making it easier to successfully implement service innovation behavior.

**Table 3**

*Summary Table on Knowledge Management*

| Key Result Areas                | Composite Mean | VI    | Rank |
|---------------------------------|----------------|-------|------|
| Knowledge Contribution          | 3.18           | Agree | 2.5  |
| Knowledge Absorption            | 3.18           | Agree | 2.5  |
| Knowledge Transfer and Creation | 3.22           | Agree | 1    |
| Grand Composite Mean            | 3.19           | Agree |      |

*Legend: 3.50-4.00 = Strongly Agree; 2.50-3.49 = Agree; 1.50-2.49 = Disagree; 1.00-1.49 = Strongly Disagree*

Table 3 is a summary table on the evaluation of knowledge sharing behavior, which shows a grand composite mean of 3.19, indicating that all three dimensions referenced in knowledge sharing behavior exhibit consistency. From Table 4, it can be seen that "knowledge transfer and creation" ranks first, with the highest composite mean of 3.22. This indicates that among the three dimensions, knowledge transfer and creation best reflect the impact of knowledge sharing behavior on employee service innovation, and are also the most effective means of motivating employee service innovation. The factors of "knowledge contribution" and "knowledge absorption" rank second, with a composite mean of 3.18, indicating that knowledge contribution and knowledge absorption have the same significant impact on knowledge sharing behavior. From the above research, it can be concluded that the process of mutual interaction between knowledge sharing providers and recipients; Knowledge sharing is the same whole of internalization and externalization, which includes both knowledge learning and internalization absorption, as well as knowledge application and externalization transformation; knowledge sharing is also influenced by organizational contexts, such as organizational atmosphere, leadership behavior, and organizational culture.

In terms of innovation, knowledge sharing helps individuals accumulate knowledge, and knowledge is the foundation of innovation. Therefore, knowledge sharing is an important activity to promote employee innovation, team innovation, and organizational innovation. The study by Jada et al. (2019) suggested that knowledge sharing can promote innovative behavior among employees. Yang et al. (2016) conducted a study on the relationship between knowledge sharing behavior at different levels in a team and team innovation. The study showed that both knowledge sharing behavior at the same level and across levels can promote the improvement of team innovation. Fu et al. (2016) pointed out that knowledge sharing enriches the information structure of employees, thereby enhancing the innovation ability of organizations. In their study exploring the impact of knowledge governance on organizational creativity, Wu et al. (2017) demonstrated the positive impact of knowledge sharing on organizational creativity.

The results of the Shapiro Wilk test indicate that the p-values of all variables are less than 0.05, indicating

that the dataset is not normally distributed. Therefore, Spearman rho was used as part of non parametric testing to determine significant relationships. All analyses were conducted using SPSS version 28.

**Table 4**

*Relationship Between Empowering Leadership and Psychological Capital*

| Variables                                  | Rho     | p-value | Interpretation     |
|--|---------|---------|--------------------|
| <b>Participatory Decision-making</b>       |         |         |                    |
| Self-efficacy                              | 0.687** | <.001   | Highly Significant |
| Resilience                                 | 0.664** | <.001   | Highly Significant |
| Optimistic                                 | 0.648** | <.001   | Highly Significant |
| <b>Decentralization</b>                    |         |         |                    |
| Self-efficacy                              | 0.686** | <.001   | Highly Significant |
| Resilience                                 | 0.700** | <.001   | Highly Significant |
| Optimistic                                 | 0.681** | <.001   | Highly Significant |
| <b>Conveying Confidence in Performance</b> |         |         |                    |
| Self-efficacy                              | 0.695** | <.001   | Highly Significant |
| Resilience                                 | 0.698** | <.001   | Highly Significant |
| Optimistic                                 | 0.684** | <.001   | Highly Significant |

\*\* . Correlation is significant at the 0.01 level

According to the results in Table 4, the calculated rho values range from 0.648 to 0.700, indicating a strong direct relationship between the two sub variables of empowering leadership and psychological capital. Due to the p-value obtained being less than 0.01, there is a statistically significant relationship between authorized leadership and psychological capital. The results indicate a significant positive correlation between authorized leadership style and psychological capital, that is, the greater the decision-making power and freedom granted by managers to employees, the higher their psychological capital, and the higher their self-efficacy, resilience, and optimism.

**Table 5**

*Relationship Between Empowering Leadership and Knowledge Management*

| Variables                                  | rho     | p-value | Interpretation     |
|--|---------|---------|--------------------|
| <b>Participatory Decision-making</b>       |         |         |                    |
| Knowledge Contribution                     | 0.688** | <.001   | Highly Significant |
| Knowledge Absorption                       | 0.695** | <.001   | Highly Significant |
| Knowledge Transfer and Creation            | 0.669** | <.001   | Highly Significant |
| <b>Decentralization</b>                    |         |         |                    |
| Knowledge Contribution                     | 0.687** | <.001   | Highly Significant |
| Knowledge Absorption                       | 0.686** | <.001   | Highly Significant |
| Knowledge Transfer and Creation            | 0.692** | <.001   | Highly Significant |
| <b>Conveying Confidence in Performance</b> |         |         |                    |
| Knowledge Contribution                     | 0.703** | <.001   | Highly Significant |
| Knowledge Absorption                       | 0.715** | <.001   | Highly Significant |
| Knowledge Transfer and Creation            | 0.681** | <.001   | Highly Significant |

\*\* . Correlation is significant at the 0.01 level

According to the results in Table 5, the calculated rho values range from 0.669 to 0.715, indicating a strong direct relationship between the sub variables of authorized leadership and knowledge sharing. There is a statistically significant relationship between authorized leadership and knowledge sharing, as the p-value obtained is less than 0.01. There is a statistically significant relationship between authorized leadership and knowledge sharing. The results indicate a significant positive correlation between authorized leadership style and knowledge sharing, where the greater the decision-making power and freedom granted by managers to employees, the more common and in-depth knowledge sharing behavior becomes. That is, the stronger the willingness of employees to contribute knowledge, the more willing they are to actively acquire knowledge, and at the same time, knowledge is more easily transferred and creatively used.

According to the results in Table 6, the calculated rho values range from 0.663 to 0.724, indicating a strong direct relationship between the sub variables of psychological capital and knowledge management. There is a

statistically significant relationship between psychological capital and knowledge sharing, as the p-value obtained is less than 0.01. There is a statistically significant relationship between psychological capital and knowledge sharing. The results indicate a significant positive correlation between psychological capital and knowledge sharing, that is, the higher the self-efficacy, resilience, and optimism of employees, the easier it is for them to engage in knowledge sharing behavior. That is, the stronger the willingness of employees to contribute knowledge, the more willing they are to actively acquire knowledge, and the easier it is for knowledge to be transferred and creatively used.

**Table 6***Relationship Between Psychological Capital and Knowledge Management*

| Variables                       | rho     | p-value | Interpretation     |
|---------------------------------|---------|---------|--------------------|
| <b>Self-efficacy</b>            |         |         |                    |
| Knowledge Contribution          | 0.722** | <.001   | Highly Significant |
| Knowledge Absorption            | 0.695** | <.001   | Highly Significant |
| Knowledge Transfer and Creation | 0.663** | <.001   | Highly Significant |
| <b>Resilience</b>               |         |         |                    |
| Knowledge Contribution          | 0.724** | <.001   | Highly Significant |
| Knowledge Absorption            | 0.710** | <.001   | Highly Significant |
| Knowledge Transfer and Creation | 0.675** | <.001   | Highly Significant |
| <b>Optimistic</b>               |         |         |                    |
| Knowledge Contribution          | 0.714** | <.001   | Highly Significant |
| Knowledge Absorption            | 0.703** | <.001   | Highly Significant |
| Knowledge Transfer and Creation | 0.703** | <.001   | Highly Significant |

\*\**. Correlation is significant at the 0.01 level*

According to the results in Table 7, it can be seen that there is a Spearman correlation coefficient between authorized leadership style, psychological capital, and knowledge sharing. From the data, it can be seen that the correlation coefficient between authorized leadership style and psychological capital is 0.668, the correlation coefficient between authorized leadership style and knowledge sharing is 0.703, and the correlation coefficient between psychological capital and knowledge sharing is 0.722. The above correlation coefficients are all greater than 0.5, And all the sig values in the table are less than 0.05, indicating a strong correlation among authorized leadership style, psychological capital, and knowledge sharing.

In order to better analyze the relationship between the three variables, a Q-Q diagram is used to further analyze the relationship between the three variables. The QQ diagram provides a powerful visual evaluation function, which can accurately locate the deviation between distributions and determine the data points that cause the deviation. When comparing a sample with a probability distribution, this graph is usually used in conjunction with distribution tests such as normality tests to validate statistical hypotheses. The most common use of QQ charts is to determine whether sample data follows a specific probability distribution, which is usually a normal distribution. Q-Q charts are used to indicate whether the data follow a normal distribution by predicting the degree of overlap between scatter points and normal distributions using the straight-line method.

**Table 7***Correlations*

|                |               |                         | Leadership | Psychological | Management |
|----------------|---------------|-------------------------|------------|---------------|------------|
| Spearman's rho | Leadership    | Correlation Coefficient | 1.000      | .668**        | .703**     |
|                |               | Sig. (2-tailed)         | .          | .000          | .000       |
|                |               | N                       | 396        | 396           | 396        |
|                | Psychological | Correlation Coefficient | .668**     | 1.000         | .722**     |
|                |               | Sig. (2-tailed)         | .000       | .             | .000       |
|                |               | N                       | 396        | 396           | 396        |
|                | Management    | Correlation Coefficient | .703**     | .722**        | 1.000      |
|                |               | Sig. (2-tailed)         | .000       | .000          | .          |
|                |               | N                       | 396        | 396           | 396        |

\*\**. Correlation is significant at the 0.01 level*



### Proposed Customer Relationship Management Model

This study proposes a management model that effectively enhances the service innovation ability of enterprise employees, namely the mechanism model of "authorized leadership style - psychological capital - knowledge sharing - employee innovation behavior", as shown in Figure 1.

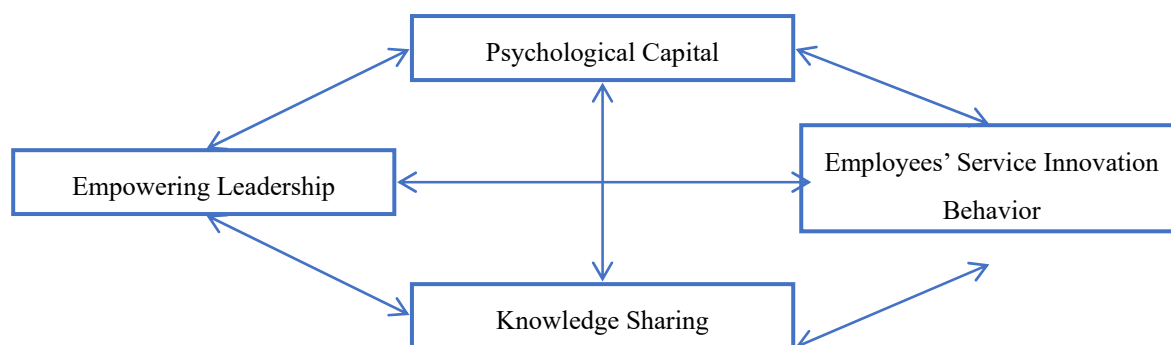


Figure 4. Employee Service Innovation Behavior Model

The specific content of the model is as follows: Based on the empirical analysis of this study, it can be concluded that empowering leadership style, psychological capital, and knowledge sharing all have a significant impact on employee service innovation behavior. Therefore, the research objective of this article is to examine the significant impact of empowering leadership style on employee service innovation ability from the perspectives of participation in decision-making, delegation of power, and transmission of trust in performance; describing from the aspects of self-efficacy, adaptability, optimism, etc., the psychological capital of employees has a significant impact on their service innovation ability; From the perspectives of knowledge contribution, knowledge absorption, knowledge transfer, and knowledge creation, knowledge sharing has a significant impact on employee service innovation. Meanwhile, from the empirical analysis of the relationship between the three variables, it can be seen that there is a significant relationship between empowering leadership and psychological capital, empowering leadership and knowledge sharing, and psychological capital and knowledge sharing. Therefore, empowering leadership has a positive moderating effect on the psychological capital and knowledge sharing behavior of employees within the enterprise, and employee knowledge sharing behavior can promote the development of employee psychological capital. The above municipal analysis ultimately validates the mechanism model of "authorized leadership style - psychological capital - knowledge sharing - employee innovation behavior" constructed in this research.

Meanwhile, research by other scholars has also confirmed the scientific validity of the model constructed in this article. Mao, et. al., (2014) collected a questionnaire survey of knowledge-based employees and used empirical analysis to study the data. They found a significant positive impact between psychological capital and knowledge sharing willingness; Jada et al. (2019) found that empowering leadership can effectively stimulate work innovation behavior by promoting knowledge sharing in Western management contexts; Employees perceive respect and importance, enhance their perceived self-efficacy, and form more positive psychological capital. Sweetman (2011) found that employees with strong resilience traits are able to persevere in dynamic environments when facing pressure or adversity, and this process stimulates their potential for innovation. Sun, et. al., (2013) conducted empirical analysis on the collected data of enterprise R&D personnel, and the results showed that overall psychological capital and its two dimensions - transactional psychological capital and interpersonal psychological capital - were significantly positively correlated with employee innovation behavior.

#### 4. Conclusions and recommendations

The participants moderately agreed on the empowering leadership of the officers in logistics companies in view of participatory decision-making, decentralization and performance feedback. The participants moderately agreed on the employees psychological capital in the aspects of self-efficacy, toughness, optimism. The participants moderately assessed the knowledge management in logistics companies in terms knowledge contribution, knowledge absorption, knowledge transfer and creation. There is a highly significant relationship among empowering leadership, psychological capital, and knowledge and knowledge management. A framework for employee Service Innovation was developed.

The logistics companies may emphasize the cultivation of an empowering leadership style by carrying out specialized training, reduce hierarchical restrictions and create a free and flexible working atmosphere. The logistics companies may give attention to the overall psychological capital level of employees on their innovative behavior. The company may emphasize knowledge sharing and strengthen internal communication within the organization through activities such as quality development and gatherings, creating conditions for knowledge sharing. The Employee Service Innovation Behaviors Framework may be considered for adoption by the logistics companies. For future researcher may conduct parallel study on this areas using other dimensions.

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