

อิทธิพลของภาวะผู้นำและการสนับสนุนความเป็นอิสระในการทำงาน และความท้าทายต่อการประเมินเชิงบวกในอุตสาหกรรมซอฟต์แวร์

THE INFLUENCE OF LEADERSHIP AND SUPPORT, WORK AUTONOMY AND CHALLENGE ON POSITIVE EVALUATION IN THE SOFTWARE INDUSTRY

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งานวิจัยนี้มีวัตถุประสงค์เพื่อสำรวจข้อมูลสำหรับการดำเนินงานด้านภาวะผู้นำและการสนับสนุนความเป็นอิสระในการทำงาน และความท้าทายต่อการประเมินเชิงบวกในอุตสาหกรรมซอฟต์แวร์และบริการด้านเทคโนโลยีเป็นอย่างไร การศึกษานี้มุ่งเน้นไปที่ผู้เชี่ยวชาญที่ทำงานในกลุ่มอุตสาหกรรมซอฟต์แวร์และเทคโนโลยีของจีน โดยใช้วิธีการวิจัยเชิงปริมาณ ผ่านการเก็บข้อมูลด้วยแบบสอบถามจำนวน 613 ราย ทั้ง 6 เมืองและมณฑล ประกอบไปด้วย ปักกิ่ง กวางตุ้ง เซี่ยงไฮ้ เจียงซู เจ้อเจียง และช้อชวน คิดเป็น 65.5% ของแรงงานในกลุ่มอุตสาหกรรมนี้ ผลการศึกษาพบว่า ภาวะผู้นำและการสนับสนุน ความเป็นอิสระในการทำงาน และความท้าทายมีอิทธิพลและมีความสำคัญต่อการประเมินเชิงบวกของพนักงานในองค์กรสำหรับกลุ่มอุตสาหกรรมซอฟต์แวร์นอกจากนี้ ยังมีความแตกต่างบางประการสำหรับผลกระทบระหว่างภาวะผู้นำและการสนับสนุน ความเป็นอิสระในการทำงาน และความท้าทาย จากผลลัพธ์ที่ได้ทำให้ทราบว่าความเป็นภาวะผู้นำในกลุ่มอุตสาหกรรมนี้ สามารถใช้มาตรการการปรับปรุงการประเมินเชิงบวกของพนักงานในองค์กร ด้วยวิธีการกระตุ้นการมีส่วนร่วมของทีมพนักงานหรือการมีส่วนร่วมในการพัฒนาองค์กร

คำสำคัญ: ภาวะผู้นำและการสนับสนุน การทำงานอัตโนมัติและความท้าทาย การประเมินเชิงบวก

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Abstract

The purpose of this research is to explore, within the software and information technology services industry, how leadership and support, work autonomy and challenge can influence employees' positive evaluation of the organization. To achieve this objective, the study focused on professionals employed in the Chinese software and information technology services industry. Employing a quantitative research approach, data were collected from 613 survey responses in six cities and provinces, namely Beijing, Guangdong, Shanghai, Jiangsu, Zhejiang, and Sichuan, which constitute 65.5% of the workforce in this industry. The statistical results indicate that in this industry, leadership and support, work autonomy and challenge have a positive and significant impact on employees' positive evaluation of the organization. Moreover, there are certain differences in the impact effects between leadership and support, work autonomy and challenge. The findings provide insights for industry leaders to take measures to enhance employees' positive evaluation of the organization, thereby promoting employee team or organizational engagement and contributing to organizational development.

Keywords: Leadership and Support, Work Autonomy and Challenge, Positive Evaluation

Introduction

In the past few decades, there have been significant changes in the pace of competition, the composition of the workforce, and the development of information and communication technology. These remarkable improvements have reshaped our conventional way of doing things, ultimately leading to the competitive warfare of technology (Abstein et al., 2014; Fan, 2017; Azim, 2019). For businesses, all technological competition ultimately boils down to the competition for talent. Indeed, Cesario, et al. (2017) and Khan et al. (2022) conclude that employees play a crucial role in achieving organizational goals. Employees' positive evaluation of the organization largely determine organizational performance and sustainable development.

Bass and Riggio (2006) pointed out that leadership and support have always been considered as one of the key drivers of organizational success. Bhate (2013a) argues that solid leadership support improves the quality of a person's self, which is related to improving optimal employee performance. Mutalib et al. (2023) believe that leadership support contributes to encouraging teachers' enthusiasm and motivation in fulfilling their duties, consequently creating working conditions that enhance student achievement. Avolio et al. (2009) believe that excellent leaders can establish a positive organizational climate by inspiring employee motivation through caring about their development and well-being. Eisenbeiss et al. (2008) indicate that leadership support is not only manifested in the intimacy of individual relationships but also in how leaders foster teamwork and drive the achievement of

organizational goals. Strong teamwork enhances employees' identification and positive evaluations of the team or organization. The realization of organizational goals also contributes to employees' sense of accomplishment and satisfaction, reinforcing their positive evaluations of the organization.

Grant & Parker (2009) believe that work autonomy refers to providing employees with more decision-making power and opportunities for self-management in their work, enabling them to respond more flexibly to work tasks. It involves employees taking control of work processes, progress, and methods, as well as having the autonomy to address problems encountered in their work. This concept reflects the organization's trust in and respect for its employees, fostering their engagement and creativity in the workplace. Research by Bakker et al. (2019) reveals a significant positive correlation between work autonomy and employees' work satisfaction, work engagement, and organizational commitment. Moreover, challenging work tasks not only stimulate employees' interest in their work and enhance their work motivation but also cultivate their innovation and problem-solving skills. The research findings suggest that the greater the challenges employees face, the higher their engagement in their work and in their positive evaluation of the organization.

Sixue (2019) pointed out that the software and information technology services industry, due to its rapid development, high returns, and robust economic driving force, has become a crucial pillar for governments worldwide to promote economic growth. Therefore, in common with other countries, China has taken proactive measures in terms of national policies, funding allocation, and talent development to facilitate the growth of the software and information technology services industry. With this support, not only does it promote the development of this industry, but it also propels growth across various sectors in China. National Bureau of Statistics of China (2022b) published the Chinese software and information technology services industry has also encountered tremendous opportunities for growth, and it is one of the rapidly developing and significant economic sectors in recent years. National Bureau of Statistics of China (2022a) and Ministry of Industry and information Technology of the People's Republic of China (2023) published the main economic revenue of China's software and information technology services industry has risen from 18848.99 billion yuan in 2011 to 108126 billion yuan in 2022, and 110446.98 billion yuan in the period from January to November 2023. Meanwhile Ministry of Industry and information Technology of the People's Republic of China (2023) pointed the number of people employed in the information transmission, software, and information technology services industry in China increased from 2.128 million people in 2011 to 5.292 million people in 2022, representing a growth rate of 148.68%. But Cheng et al. (2017) suggests that output and input in the Chinese software and information technology services industry are not directly proportional. As a result, leaders in various enterprises continually refine their management approaches, aiming to enhance

employees' positive evaluations of their organizations and, consequently, foster the development of their companies.

From an academic perspective, scholars are also intensifying theoretical research on the software and information technology services industry. They hope to provide theoretical guidance for the industry's development. Some scholars focus on leadership style (Yan, 2021), employee innovation behavior (Wang, 2021), employees' work engagement (Tang, 2021), and so on. However, no studies have been found in the literature regarding leadership and support, work autonomy and challenge, and employees' positive evaluation of the organization in the Chinese software and information technology services industry. Therefore, in this study, professionals in Chinese software and information technology industry are chosen as the subjects. aiming to address the following issue:

Q1: Does leadership and support influence the positive evaluation made by professionals employed in the software and information technology industry?

Q2: Does work autonomy and challenge influence the positive evaluation made by professionals employed in the software and information technology industry?

Review of Literature

Leadership and support

Jawad et al. (2022) suggest that leadership support is a special form of social support in the workplace. Mazzetti et al. (2017) defined leadership support as the extent to which employees feel supported by their supervisors. Eisenberger et al. (2002) suggested that measuring the sustained support from both the organization and leadership gauges the extent to which employees value the efforts of their supervisors and perceive how much managers care about their well-being. When employees perceive continuous support, value, and care from both the organization and leadership, they tend to experience positive emotions and, in turn, provide more positive evaluations of both the organization and its leaders. Casper et al. (2011) believes that employees' perception of leadership support may influence how they perceive their efforts in the workplace. When employees feel a strong sense of leadership support, they consider their efforts to be acknowledged and worthwhile. They are likely to provide higher evaluations and responses to both the organization and its leaders.

Work autonomy and challenge

Breaugh (1985) proposed that work autonomy refers to "...the extent to which employees can independently control and decide on work methods, work arrangements, and work standards". Morgeson and Humphrey (2006) suggest that when developing a work design questionnaire, summarize work autonomy as "...the extent to which the organization allows employees the freedom, independence, and autonomy in arranging work, making work decisions, and determining work methods." Kubicek et al. (2017) in combining these various aspects, believed that work autonomy refers to the freedom of employees to exercise

discretion over when, where, in what order, and in what manner tasks are accomplished. In terms of work-related stress, Selye classified stress based on its nature, considering stress with challenges and high levels of responsibility as positive, constructive stress, namely, challenging stress (Yuxin, 2022). Cavanaugh et al. (2000) also formally introduced the concept of challenging work pressure and suggested that based on the differentiation, it is possible to identify whether the faced work pressure is challenging work pressure. On this basis, Webster et al. (2011) put forward that when determined as challenging work pressure, individuals develop a belief that their efforts will be rewarded. They believe that through hard work, tasks can be accomplished, and corresponding feedback can be obtained. While scholars have traditionally studied work autonomy and challenge as two closely related and interlinked aspects, research has found that they are crucial dimensions of employees' careers and integral components of work characteristics. They can be understood as employees having a certain level of independence and freedom in their work to tackle tasks with a certain level of difficulty. Chen and Li (2005) also noted a significant frequency of work autonomy and challenge in current theoretical research both in Western and Eastern contexts. Hu and Mao (2017) study found that challenging and autonomous work acts as a mediator between human resource practices and employees' job satisfaction. Guoxue (2010), in an article on motivating enterprise technical research and development personnel from the perspective of expectancy theory, pointed out that challenging and autonomous work is more likely to motivate research and development personnel.

Positive evaluation

The term "positive evaluation" is widely mentioned and used in psychology and sociology. Cropanzano and Wright (2001) defined positive evaluation as employees' positive attitudes and appraisals towards work, the organization, and colleagues. This definition sets the scope of positive evaluation in the workplace, reflecting employees' emotional and cognitive aspects towards the organization, team, and its members. Seligman (2002) defined positive evaluation as an individual's perception, cognition, and appraisal of positive factors in life. This definition emphasizes the internal feelings and self-awareness of the individual. Fredrickson (2009) suggested that positive evaluation is a psychological state related to positive emotions, including joy, hope, and satisfaction. These definitions of positive evaluation also reflect the fact that scholars not only apply positive evaluation to management studies but also apply it to individuals' personal lives and emotions. Harter (2002) pointed out that the level of positive evaluation can impact employee motivation, subsequently having a positive influence on the overall performance of the organization.

Conceptual framework

The relationship between Leadership and support and Positive evaluation

Davis (1968) studied supportive patterns within organizations. He found that when an organization establishes a supportive atmosphere to foster employee growth and achievement, employees respond by being more willing to take on responsibilities and have a better experience with the organization. This positive experience leads to employees having a more positive evaluation of the organization. According to Baran et al. (2011), supervisor support positively influences organizational support, and this organizational support positively affects employees' job-related emotions and responses, including employees' positive evaluation of the organization. Bhate (2013b) believes that robust leadership support can enhance the quality of employees' self-perception and, at the same time, strengthen their impression of the organization or team, which is also related to improving employee performance. Fowler (2023) found that leadership support has a significantly positive impact on employee morale. Conversely, employees without morale may experience negative attitudes, distrust, and disobedience towards the company. In other words, leadership support positively influences employee morale, and employee morale positively influences employees' positive evaluations of the company. Therefore, based on the theories proposed by scholars, this study sets up hypothesis 1:

H1: Leadership and support has a positive influence on Positive evaluation.

The relationship between Work autonomy and challenge and Positive evaluation

Enxi (2020) believes that work autonomy not only allows employees to experience innovative work practices but also promotes overall engagement and enthusiasm among employees. Furthermore, Malinowska et al. (2018) believes that granting work autonomy will promote employees' intrinsic motivation, leading to an increase in employees' work engagement. Cenker (2008) pointed out that when individuals experience a fit between their autonomy and the task environment, their performance will be better. So we can expect when work autonomy increases, employees' sense of happiness and satisfaction will also rise accordingly. Indeed, Rydstedt (2006) found that higher autonomy is associated with higher work satisfaction. Moreover, work autonomy has a positive impact on employees' life satisfaction and family satisfaction through a sense of control. Shi et al. (2021) believe that work autonomy positively influences employees' work satisfaction and sense of accomplishment, and is positively correlated with higher situational performance.

Zhang Guiping and Liao Jianqiao believe that challenging pressure can increase employees' work satisfaction and dedication. LePine et al. (2005) point out that challenging pressure, as a motivating resource, encourages employees to invest effort, time, and energy to meet challenging demands, thereby achieving beneficial work outcomes. Xiaofen (2023), in her study, pointed out that Zhang, Parker and Wrzesniewski & Dutton found that challenging pressure can enhance work satisfaction, fulfill self-worth, and increase work happiness. Wang

et al. (2017) suggest that challenging work pressure has a promoting effect on employees' work satisfaction, loyalty, and work engagement.

A comprehensive review of the literature reveals that scholars believe work autonomy and challenges have a positive impact on employees' work satisfaction, and work satisfaction is one of the important factors influencing employees' positive evaluation of the organization. According to Smith and Kendall (2018), when employees experience higher work satisfaction, they are more inclined to express positive evaluations towards the organization. Therefore, building on the research of various scholars, this study puts forward Hypothesis 2:

H2: Work autonomy and challenge has positive influence on Positive evaluation.

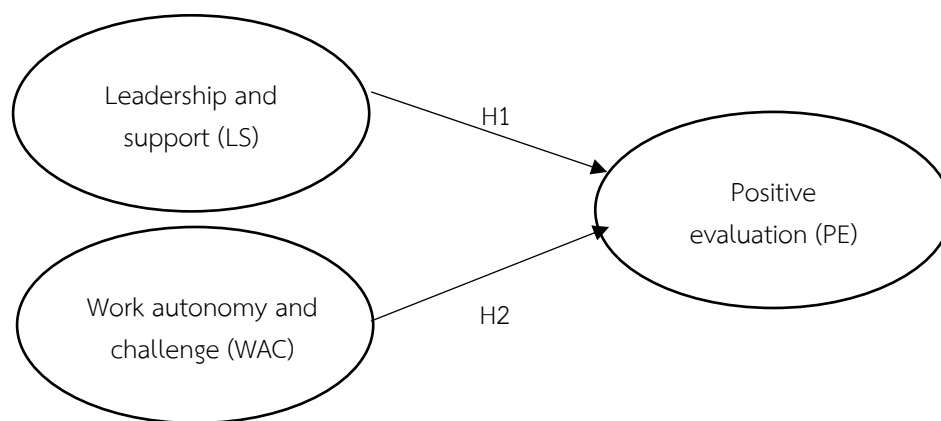


Figure 1 Conceptual framework

Research Methodology

In order to effectively measure the research hypotheses, this study employed a quantitative analysis approach. Modified from mature scales frequently used by domestic and international scholars, nine measurement items were established for the three variables, along with the inclusion of seven demographic questions. A Likert five-point scale was used to set the options for the questions in the following configuration: 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; and 5 = strongly agree. After completing the questionnaire design, three experts were invited to conduct an Item-Objective Consistent (IOC) evaluation on the questionnaire. Based on their evaluation results, revisions were made to the items. Finally, 79 professionals from the software and information technology services industry were invited to participate in a pre-test, which received positive feedback and demonstrated consistent reliability, resulting in the final set of questions.

According to the data published in the 2023 China Statistical Yearbook, as of the end of 2022, the number of employees in the information transmission, software and information technology services industry in China reached 5.292 million, of which Beijing, Guangdong, Shanghai, Jiangsu, Zhejiang, and Sichuan accounted for 65.5% of the total national workforce in this industry. Therefore, this survey primarily focused on employees in these six regions. To

test the conceptual framework and hypotheses, the sample size of practitioners was selected based on the proportion of the working population from the aforementioned six provinces and cities. In order to enhance the representativeness of the sample, the study stipulated that each company should not contribute more than 10 participants. Ultimately, the study collected 613 valid questionnaires. Moreover, the effective recycling rates in each province and city have all reached the expected proportions. Due to the highest number of professionals working in Beijing and Guangdong, the highest number of surveys were distributed there and consequently, the highest number of surveys were also collected from there.

Based on the measurement data, it was found that among the respondents in this survey, males slightly outnumbered females. Additionally, in terms of age, the majority of respondents were between 18 and 40 years old, amounting to 87%, that indicates a generally younger workforce dominates the industry. In terms of departments and positions, there was a higher representation of administrative staff, research and development personnel, and production staff. Looking at the years of work experience, most respondents had less than 10 years of experience. Furthermore, considering the ages, it can be inferred that a significant portion of them are recent graduates or individuals who have recently changed jobs, reflecting the industry's emphasis on a younger and more tech-savvy workforce.

Research Results

Descriptive Statistical Analysis

The mean represents the average level of scores chosen by respondents when filling out the questionnaire. The standard deviation in mean analysis is used to indicate the degree of dispersion within a dataset. A larger standard deviation suggests a greater level of data dispersion. Skewness measures the asymmetry of a probability distribution, indicating the direction and degree to which the distribution's tail deviates from the mean. Kurtosis describes the shape of the tails of a probability distribution from the data and any outliers present in the tails of the distribution. A well-designed questionnaire should exhibit a normal distribution, according to the analysis suggestion by Kline (2023), when the absolute value of skewness is less than 3 and kurtosis of experimental data for observed indicators is less than 10, respectively. However, in practical analysis, we believe that a kurtosis result below 2 better reflects a normal distribution.

As shown in the result, the mean scores for each item in this study range from 3.410 to 3.540. This indicates that respondents chose "neutral" and "agree" options more frequently, while the options "strongly disagree", "disagree," and "strongly agree" were relatively less chosen. The absolute values of skewness for the items range from 0.251 to 0.407, which

are less than 3. The absolute values of kurtosis range from 0.840 to 1.141, which are less than 2. This suggests that the items exhibit a relatively pronounced normal distribution.

Table 1 Descriptive Statistical Analysis

Name of items	Mean	Standard deviation	Skewness	Kurtosis
Leadership and support1	3.540	1.251	-0.407	-0.985
Leadership and support2	3.530	1.24	-0.338	-1.063
Leadership and support3	3.520	1.253	-0.374	-1.008
Work autonomy and challenge1	3.410	1.293	-0.251	-1.141
Work autonomy and challenge2	3.440	1.287	-0.325	-1.070
Work autonomy and challenge3	3.430	1.307	-0.359	-1.052
Positive evaluation1	3.490	1.22	-0.395	-0.840
Positive evaluation2	3.470	1.268	-0.332	-1.011
Positive evaluation3	3.480	1.274	-0.370	-0.987

Reliability Analysis

Questionnaire reliability refers to the stability and consistency of the questionnaire's measurement results when it is repeatedly administered to the same or different respondents. Bernstein (1994) pointed out that Cronbach's alpha greater than 0.70 indicates high reliability, while 0.50 is the lowest acceptable reliability level. So, Cronbach's alpha greater than 0.7 is considered an acceptable reliability standard in this study. From the result, it indicates that the Cronbach's alpha for leadership and support is 0.826, for work autonomy and challenge is 0.844, for positive evaluation is 0.833 with all 3 results greater than 0.7. This suggests that the item related to the variables exhibits strong reliability.

Table 2 Reliability Test Result for Supportive Organizational Climate

Variable	Number of Items	Cronbach's alpha
Leadership and support	3	0.826
Work Autonomy and challenge	3	0.844
Positive evaluation	3	0.833

Validity Analysis

Validity refers to whether a measurement tool, such as a questionnaire, test, experiment, etc., can accurately and effectively measure or assess the concept or trait it intends to measure. This study used a mature scale adapted from previous scholars, so it mainly conducted confirmatory factor analysis (CFA) to assess the convergent and discriminant validity of the variables.

KMO test

Prior to factor analyses, this study conducted the Kaiser-Meyer-Olkin (KMO) test. KMO is a metric in statistics used to assess the correlation among variables. KMO measures the commonality among observed variables in a dataset, indicating the degree of correlation between variables. It is typically employed in the preliminary stages of multivariate analyses such as factor analysis to ensure the dataset is suitable for such analyses. The KMO value ranges between 0 and 1, with values closer to 1 indicating higher commonality between variables, making it suitable for factor analysis. Generally, a KMO value above 0.6 is considered acceptable, while a value above 0.8 is deemed very good. In this study, the result of KMO is 0.813, and being greater than 0.8, it indicates that the data is suitable for factor analysis.

Table 3 Kaiser-Meyer-Olkin (KMO) test

KMO and Bartlett's Test

KMO sampling adequacy statistic.		0.813
Bartlett's sphericity test	Approximate Chi-Square	2354.168
	Degrees of Freedom	36
	Significance	0.000

Goodness of Fit Indices Test

During the confirmatory factor analysis, this study examined the fit indices of the data, and the results showed that χ^2 is 19.978, df is 24, P-value is 0.698, χ^2/df is 0.832, GFI is 0.993, AGFI is 0.986, IFI is 1.002, TLI is 1.003, CFI is 1.000, RMR is 0.026, and RMSEA is 0.000. From the fit indices, it can be observed that IFI, TLI, and CFI are greater than 1, indicating overfitting of the model. Therefore, the study adjusted the fit model, establishing correlations between e_1 and e_3 , e_4 and e_6 , e_9 and e_8/e_7 . After the adjustment, although the TLI index was still greater than 1, it decreased from 1.003 to 1.001, IFI decreased from 1.002 to 1.000, and P-value decreased from 0.698 to 0.526. This suggests that the model fit has reached an acceptable level, making the adjusted model acceptable.

The Convergent Validity Test

Convergent Validity refers to the degree of consistency among different observations or indicators obtained by a measurement tool or method when measuring the same concept or construct. In convergent validity testing, based on the analysis of data by Hair et al. (1998), it is recommended that factor loading greater than 0.5 is a significant level. However, in confirmatory factor analysis, it is widely accepted that standard factor loading should be greater than 0.6, and according to Bagozzi and Phillips (1991) study, in the test of convergent validity, the acceptable level of CR and AVE is above 0.7 and 0.5. In this study, it can be seen that all the items' standardized factor loadings are from 0.731 to 0.827, greater than 0.6, CR are from 0.813 to 0.845, greater than 0.7, AVE are from .592 to .645, greater than 0.5. This indicates that the supportive organizational climate has convergent validity.

Table 4 The Convergent Validity Test Results

Indicator Relationship			Standard factor loading	R ²	AVE	CR
Leadership and support1	<---	Leadership and support	0.792	0.628	0.621	0.831
Leadership and support2	<---	Leadership and support	0.759	0.576		
Leadership and support3	<---	Leadership and support	0.813	0.661		
Work Autonomy and challenge1	<---	Work Autonomy and challenge	0.827	0.684	0.645	0.845
Work Autonomy and challenge2	<---	Work Autonomy and challenge	0.801	0.641		
Work Autonomy and challenge3	<---	Work Autonomy and challenge	0.780	0.608		
Positive evaluation1	<---	Positive evaluation	0.819	0.671	0.592	0.813
Positive evaluation2	<---	Positive evaluation	0.755	0.570		
Positive evaluation3	<---	Positive evaluation	0.731	0.534		

Discriminant Validity Test

Discriminant validity refers to whether a measurement tool can effectively distinguish between different concepts or variables, ensuring that the measurement tool captures distinct constructs rather than confusing or overlapping concepts. In discriminant validity testing, Hair et al. (2014) suggest that the square root of the average variance extracted (AVE) for each construct should be greater than the correlation coefficients between the respective pairs of variables, demonstrating discriminant validity among constructs. From the result, it can be observed that the square root of the Average Variance Extracted (AVE) for each observed variable is greater than the correlation between that variable and its paired variables. This indicates that the three variables have discriminant validity.

Table 5 The Discriminant Validity Test Result

	Positive evaluation	Work Autonomy and challenge	Leadership and support
Positive evaluation	0.769		
Work Autonomy and challenge	0.313	0.803	
Leadership and support	0.281	0.576	0.788

Note: Bold font indicates the square root of AVE.

Analysis of Hypothesis Test

There are two hypotheses of this study: H1: Leadership and support will influence employees' positive evaluation of the organization; H2: work autonomy and challenge will influence employees' positive evaluation of the organization. To test the validity of these hypotheses, this study conducted an analysis of the effects between variables using AMOS 26.0. Additionally, for each hypothesis, the T-value, P-value, and standard estimate were tested. If T-value ≥ 1.96 , and P-value $< .05$, then the study is considered to be significant.

Table 6 Direct effects for pairs of variables.

Path Relationships			T-value	P-value	Beta	Sig.	Support
Positive evaluation	<---	Leadership and support	2.543	.011	.159	Significant	H1 Support
Positive evaluation	<---	Work Autonomy and challenge	3.345	***	.208	Significant	H2 Support

Note: "***" means $p\text{-value} < .001$ (statistical significance at .001 level), Beta is the standard estimate.

From Table 5, it can be observed that the T-value is 2.543 for the relationship between leadership and support and positive evaluation, which is greater than 1.96, while the P-value is .011, which is less than .05; these results indicate that leadership and support has a significantly positive impact on positive evaluation, and H1 is supported. The standard estimate of the influence for leadership and support on positive evaluation is .159. This indicates that when leadership and support increases by one standard deviation, positive evaluation will increase by .159 standard deviations.

The T-value is 3.345 for the relationship between work autonomy and challenge and positive evaluation, which is greater than 1.96, while the P-value is ***, which is less than .001; these results indicate that work autonomy and challenge has a significantly positive impact on positive evaluation, and H2 is supported the standard estimate of the influence for work autonomy and challenge on positive evaluation is .208. This indicates that when work autonomy and challenge increases by one standard deviation, positive evaluation will increase by .208 standard deviations.

Discussion and Conclusions

Research Conclusions

This study aims to explore the relationships between leadership and support, and employees' positive evaluation of the organization in the Chinese software and information technology services industry. Additionally, it investigates the relationships between work

autonomy and challenge, and employees' positive evaluation of the organization. The research findings indicate a significant relationship between leadership and support, and employees' positive evaluation of the organization, with a T-value of 2.543, a P-value of .011 (less than .05), and a standardized estimate of .159. Similarly, there is a significant relationship between work autonomy and challenge, and employees' positive evaluation of the organization, with a T-value of 3.345, a P-value of <.001, and a standardized estimate of .208.

This suggests that leaders in software and information technology service enterprises, aiming for more positive evaluations from employees to foster team and organizational development, can focus on the following aspects. Firstly, leaders should provide employees with guidance, especially when completing new or complex tasks, offering direction in work methods and processes. Secondly, organizations should support employees with the resources needed to complete their work, such as team staffing, training, financial support, and assistance with office facilities and supplies. Thirdly, there should be encouragement and support for employees to express their ideas and constructive opinions, thereby fostering a culture where employees feel comfortable sharing different perspectives on work. Fourthly, employees should be given the space and opportunity to autonomously arrange their work content, methods, and processes while ensuring the achievement of organizational goals. Fifthly, providing employees with the space to solve problems within a certain scope enhances their problem-solving abilities. Lastly, assigning challenging tasks can ignite employees' passion and enthusiasm. Therefore, with leadership guidance and support, coupled with autonomy and challenging tasks, employees will have a stronger work drive and enthusiasm. This, in turn, enhances their positive evaluation of the organization, leading to increased efforts in achieving organizational goals and promoting organizational development. These research findings align with those of Fowler (2023), Enxi (2020), Malinowska et al. (2018), Rydstedt (2006), Shi et al. (2021), Xiaofen (2023), Wang et al. (2017), Smith and Kendall (2018) and others.

Research Contributions

This study makes two contributions: First, on a theoretical level, it fills the research gap in the software and information technology services industry regarding leadership and support, work autonomy and challenge, and employees' positive evaluation of the organization. During the literature review, it was observed that despite the rapid development of the software and information technology services industry, which has significantly contributed to China's economic growth and employment, there is a limited amount of research in this field. In particular, studies on leadership and support, work autonomy and challenge, and employees' positive evaluation of the organization are scarce. Therefore, this study focuses on industry professionals, analyzing how leadership and support, as well as work autonomy and challenge, contribute to enhancing employees' positive evaluation of the company or team. This theoretical analysis aims to provide references for promoting

employee team engagement and overall organizational development, thus addressing the research gap.

Secondly, on a practical level, the study provides practical insights for leaders in software and information technology services enterprises to foster positive evaluations from employees. In the current competitive market, to establish a sustainable position and foster continuous development, leaders strive to mobilize employees' work enthusiasm and improve their positive evaluation of the company. The study offers recommendations for industry leaders in six aspects: providing guidance to employees, offering support in terms of resources, encouraging employees to express constructive opinions, granting autonomy in completing tasks, providing opportunities for independent problem-solving, and assigning challenging tasks. Particularly noteworthy is the finding that work autonomy and challenge have a more significant impact on positive evaluation than leadership and support. This suggests that leaders should focus more on the latter three aspects to effectively enhance employee positive evaluation, ignite work enthusiasm, improve work satisfaction, and ultimately contribute to organizational development.

Limitation and directions for future research

Through data analysis, this study proves that leadership and support, work autonomy and challenge in the software and information technology service industry positively influence employees' positive evaluation of the enterprise. However, there are also some limitations: due to resource and time constraints, the research status analysis of leadership and support, work autonomy and challenge, and employees' positive evaluation is not comprehensive and in-depth enough. At the same time, this study selected research subjects as samples from six provinces, which account for 65.5% of the employees in the software and information technology service industry in China, to draw the above conclusions. However, whether this conclusion also applies to personnel in the remaining regions remains to be investigated and studied.

Therefore, future research can conduct a more in-depth and comprehensive analysis of variables to enrich the literature review, such as analyzing the variables' generation process, meanings, dimensions included in the variables, pre- and post-influencing factors of the variables, etc. At the same time, when selecting samples, they can expand the sample size or redistribute the sample numbers from various regions to cover all regions of China, making the sample more representative, and hence the research conclusions more robust in their guidance.

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