

MOTIVATIONAL AND HYGIENE FACTORS AFFECTING EMPLOYEE PERFORMANCE AT LENOVO (BEIJING) CO., LTD.

Shouhua Liu¹ and Chitralada Trisakhon^{2*}

¹Student in Master Business Administration, Faculty of Business Administration, Thongsook College

²Lecturer, Faculty of Business Administration, Thongsook College

*Corresponding author E-mail: ap.chitralada@thongsook.ac.th

Received 12 October 2025

Revised 30 October 2025

Accepted 2 November 2025

Abstract

The objectives of this study were (1) to examine the influence of motivational factors on employee performance and (2) to investigate the impact of hygiene factors on employee performance at Lenovo (Beijing) Co., Ltd. The population consisted of 5,627 employees across various departments within the organization. Based on Hair et al. (2017), the sample size was determined using the criterion of 20 times the number of observed variables, resulting in 320 respondents. Data were collected using a structured questionnaire divided into five parts, measuring motivational factors, hygiene factors, and employee performance using a five-point Likert scale. The questionnaire's content validity was verified by three experts, yielding an Index of Item-Objective Congruence (IOC) above 0.60, while the reliability test from a pilot group of 30 participants produced Cronbach's Alpha values exceeding 0.70, confirming internal consistency. Data analysis employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the hypothesized. The results indicated that both motivational and hygiene factors had a statistically significant positive influence on employee performance at the .01 and .001 levels, jointly explaining 74.3% of the variance. Among the two, hygiene factors exerted a stronger influence than motivational factors.

Keyword: Motivational Factors, Hygiene Factors, Employee Performance

Introduction

In the era of globalization and rapid technological change, organizations around the world must adapt to compete in terms of economy and innovation. Human resources have therefore become a “strategic asset” of immense value, especially in rapidly growing modern technology industries such as cloud computing, artificial intelligence, and IoT. Thus, creating appropriate motivation and an efficient working environment are crucial factors in enhancing employee performance, which leading IT organizations around the world emphasize.

The concept of motivation and job satisfaction based on Herzberg’s Two-Factor Theory has been consistently proven to be a reasonable framework for analyzing various elements that affect employee work behavior. It is divided into Motivational Factors, which generate intrinsic motivation, and Hygiene Factors, which reduce dissatisfaction (Alshmemri et al., 2017). Modern research has also found that both groups of factors influence employee performance across various industries, including in the contexts of educational institutions, government organizations, and private businesses (Rai et al., 2021; Alrawahi et al., 2020; Miah & Hasan, 2022). However, in-depth studies that examine both Motivational and Hygiene Factors simultaneously, especially in global technology organizations in developing countries, remain limited, particularly in China, which is home to Lenovo (Beijing) Co., Ltd., a company with unique characteristics in terms of technical structure, organizational design, and pressure to retain employee talent. Empirical evidence from China confirms the applicability of Herzberg’s Two-Factor Theory in explaining employee performance. Ce et al. (2025) found that both financial and non-financial motivators significantly improved the job performance of university staff, consistent with Herzberg’s view that intrinsic motivators sustain long-term performance. Similarly, Tan et al. (2023) also demonstrated that both hygiene and motivator factors drove voluntary overtime behavior among Chinese employees, reflecting strong work engagement linked to higher performance.

Lenovo (Beijing) Co., Ltd. was founded in 1992 and is a global leader in the production of computers, communications, and electronic devices. With registered and paid-in capital amounting to several billion Hong Kong dollars and holding numerous technology patents, the company has a strong demand for high-quality technical personnel, particularly in research and development (R&D). Notably, employees' ability to adapt to change (Adaptive Performance) and contextual support in the workplace (Contextual Performance) clearly impact productivity, internal coordination, and multidimensional innovation (Ju, 2021). However, this organization still lacks empirical research that clearly identifies which Motivational Factors, or which aspects of Hygiene Factors significantly influence various dimensions of employee performance, such as adaptation to new technologies, going beyond job duties, and achieving work targets. This creates a research gap that remains unaddressed in the context of high-level technology in China.

Therefore, this study aims to address practical needs essential to the organization, including the design of motivation policies and working conditions that are appropriate to the actual employee context, helping to reduce turnover and sustainably improve organizational commitment. At the same time, from an academic perspective, data from a technology organization such as Lenovo Beijing will contribute to the body of knowledge in organizational behavior and can be significantly utilized for future cross-cultural comparative research.

Research Objective

1. To examine the Motivational Factors that influence Employee Performance at Lenovo (Beijing) Co., Ltd.
2. To examine the Hygiene Factors that influence Employee Performance at Lenovo (Beijing) Co., Ltd.

Research Hypothesis

H1: Motivational factors have a positive influence on employee performance at Lenovo (Beijing) Co., Ltd.

H2: Hygiene factors have a positive influence on employee performance at Lenovo (Beijing) Co., Ltd.

Conceptual Framework

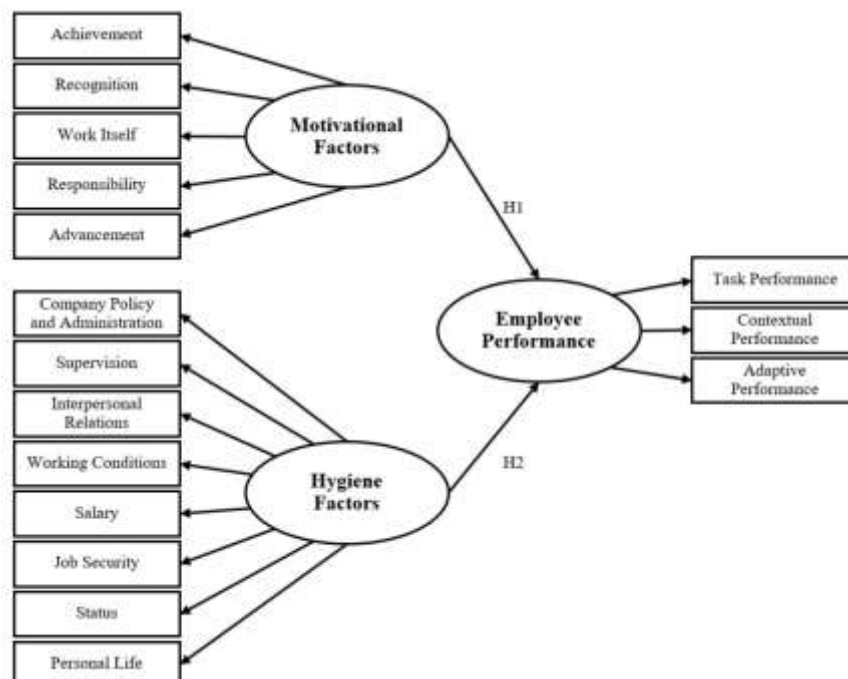


Figure 1 Conceptual framework

Literature Review

Concepts and theories related to Motivational Factors

In the context of psychological and organizational behavior studies, motivation derives from the Latin word *movere*, which means "to move," and is considered an internal drive that leads to action or behavior aimed at achieving specific goals. However, modern research has expanded the concept of motivation to be a "set of internal and external forces" that drive work-related behavior, including its direction, intensity, and duration (Vo et al., 2022). The Two-Factor Theory was developed by Frederick Herzberg between 1950–1959 and during the early 1960s. This theory explains the factors that influence employee motivation at work by categorizing what makes individuals want or not want to work into 2 groups: Motivation Factors and Hygiene Factors.

Concepts and theories related to Employee Performance

Employee Performance refers to the efficiency of employees in executing their work. It is a concept that encompasses the abilities, knowledge, skills, and behaviors exhibited by individuals within an organization to achieve specified goals. It emphasizes task performance and contextual performance, including extra-role behaviors and adaptive behaviors (Luitel & Poudel, 2024). A systematic review by Vuong and Nguyen (2022) stated that effective performance consists of 5 main components: quality, cost, timeliness, method, and quantity. These elements help organizations produce goods and services that meet demand at appropriate costs. From a performance management perspective, the research also found that performance appraisal and performance management systems have a positive effect on employee motivation and performance. They help employees systematically identify their strengths and weaknesses and improve themselves.

Research Methodology

1. The population of this study consisted of 5,627 employees of Lenovo (Beijing) Co., Ltd., covering multiple departments across the organization. Following the guideline of Hair et al. (2017) for Structural Equation Modeling (SEM), which recommends a sample size of at least 20 times the number of observed variables, the researcher determined an appropriate sample size of 320 respondents based on 16 observed variables under three latent constructs: Motivational Factors (Achievement, Recognition, Work Itself, Responsibility, Advancement), Hygiene Factors (Company Policy, Supervision, Interpersonal Relations, Working Conditions, Salary, Job Security, Status, Personal Life), and Employee Performance (Task, Contextual, Adaptive). The convenience sampling method was employed, with assistance from the company's Human Resources Department to coordinate questionnaire distribution. The sample group included employees with sufficient work experience who could accurately reflect their perspectives on motivational factors, hygiene factors, and job performance within the organization.

2. The primary data collection instrument was a questionnaire developed from relevant theories and prior studies to measure motivational factors, hygiene factors, and employee performance. It comprised five sections: Part 1 contained demographic questions; Part 2 assessed motivational factors across five dimensions; Part 3 examined hygiene factors across eight dimensions; Part 4 evaluated employee performance in three dimensions; and Part 5 included open-ended questions for additional feedback. Each item in Parts 2–4 was rated on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Prior to field use, the questionnaire underwent content validity testing by three experts in organizational behavior and human resource management, with acceptable IOC values exceeding 0.60. A pilot test was conducted with 30 participants to assess reliability, and the results indicated Cronbach's Alpha coefficients above 0.70, confirming that the instrument had strong internal consistency and was suitable for actual data collection.

3. Data analysis was conducted using both descriptive and inferential statistics. Descriptive statistics were used to summarize respondents' demographic characteristics and their opinions on motivational factors, hygiene factors, and employee performance, presented through frequency, percentage, mean, and standard deviation. For inferential analysis, the researcher employed Partial Least Squares Structural Equation Modeling (PLS-SEM) to test the hypothesized causal relationships among latent variables. The analysis process included two main stages: measurement model assessment, where factor loadings, reliability (Cronbach's Alpha, Composite Reliability, ρ_A), and validity (AVE and Fornell-Larcker criteria) were examined; and structural model assessment, where the causal paths between motivational and hygiene factors on employee performance were analyzed through path coefficients, significance testing (p-values), and the model's explanatory power (R^2).

Results

1. The majority of respondents were male, totaling 165 individuals (51.56%), while 140 respondents (43.75%) were under 30 years old. Most held a bachelor's degree (143 individuals, 44.69%) and were married (210 individuals, 65.63%). In terms of income, 135 respondents (42.19%) reported an average monthly salary between 4,000 and 5,000 yuan, and 136 respondents (42.50%) had more than 10 years of work experience.

2. The analysis of respondents' opinions indicated that, overall, participants expressed a high level of agreement toward Motivational Factors, Hygiene Factors, and Employee Performance. Among these, Motivational Factors received the highest level of agreement, followed by Hygiene Factors, while Employee Performance was rated the lowest. The detailed results for each variable are presented in Table 1.

Table 1: Mean and Standard Deviation of Respondents' Opinions

Factors/Variables	$\bar{X}$	SD	Level of opinion
Motivational Factors	3.64	.83	High
- Achievement	3.65	.89	High
- Recognition	3.63	1.06	High
- Work Itself	3.62	1.02	High
- Responsibility	3.63	.98	High
- Advancement	3.67	.99	High
Hygiene Factors	3.62	.80	High
- Company Policy and Administration	3.65	.98	High
- Supervision	3.66	1.02	High
- Interpersonal Relations	3.59	1.06	High
- Working Conditions	3.60	1.06	High
- Salary	3.64	1.02	High
- Job Security	3.73	1.01	High
- Status	3.56	1.05	High
- Personal Life	3.56	1.07	High
Employee Performance	3.56	.91	High
- Task Performance	3.57	1.09	High
- Contextual Performance	3.57	1.05	High
- Adaptive Performance	3.53	1.04	High

3. Hypothesis testing

Table 2 Shows the test results for structural integrity and component weight

Factors	Loading	AVE	Dijkstra-Henseler's rho (ρ_A)	Jöreskog's rho (ρ_C)	Cronbach's alpha (α)
Motivational Factors		.704	.906	.922	.894
- Achievement	.914				
- Recognition	.835				
- Work Itself	.787				
- Responsibility	.801				
- Advancement	.853				

Table 2 (Continue)

Factors	Loading	AVE	Dijkstra-Henseler's rho (ρ_A)	Jöreskog's rho (ρ_c)	Cronbach's alpha (α)
Hygiene Factors		.608	.909	.925	.908
- Company Policy and Administration	.787				
- Supervision	.758				
- Interpersonal Relations	.766				
- Working Conditions	.778				
- Salary	.809				
- Job Security	.835				
- Status	.776				
- Personal Life	.726				
Employee Performance		.736	.821	.893	.821
- Task Performance	.868				
- Contextual Performance	.850				
- Adaptive Performance	.856				

From Table 2, it was found that all observed variables in the model have factor loading values greater than .50, ranging from .726 to .914, indicating their reliability in measurement. Dijkstra-Henseler's rho (ρ_A) values range from .821 to .909, Jöreskog's rho (ρ_c) ranges from .893 to .925, and Cronbach's alpha (α) falls within the range of .821 to .908. Importantly, all these values exceed the .70 threshold for reliability. Furthermore, the latent variables demonstrate discriminant validity with AVE values above .50, ranging from .608 to .736. This is in accordance with the established preliminary agreement (Henseler, Hubona, & Ray, 2016).

Table 3: Shows a comparison of discriminant validity according to the Fornell-Larcker criterion

	Motivational Factors	Hygiene Factors	Employee Performance
Motivational Factors	.839		
Hygiene Factors	.771	.780	
Employee Performance	.695	.734	.858

* Note: The values on the diagonal are $\sqrt{AVE}$.

From Table 3, it was found that the model has discriminant validity, as indicated by the square root of the Average Variance Extracted (AVE) being higher than the correlations (r)

of each latent variable. This is consistent with the criteria established by Henseler et al. (2016), which state that each latent variable should not be more strongly correlated with another latent variable than the square root of its AVE.

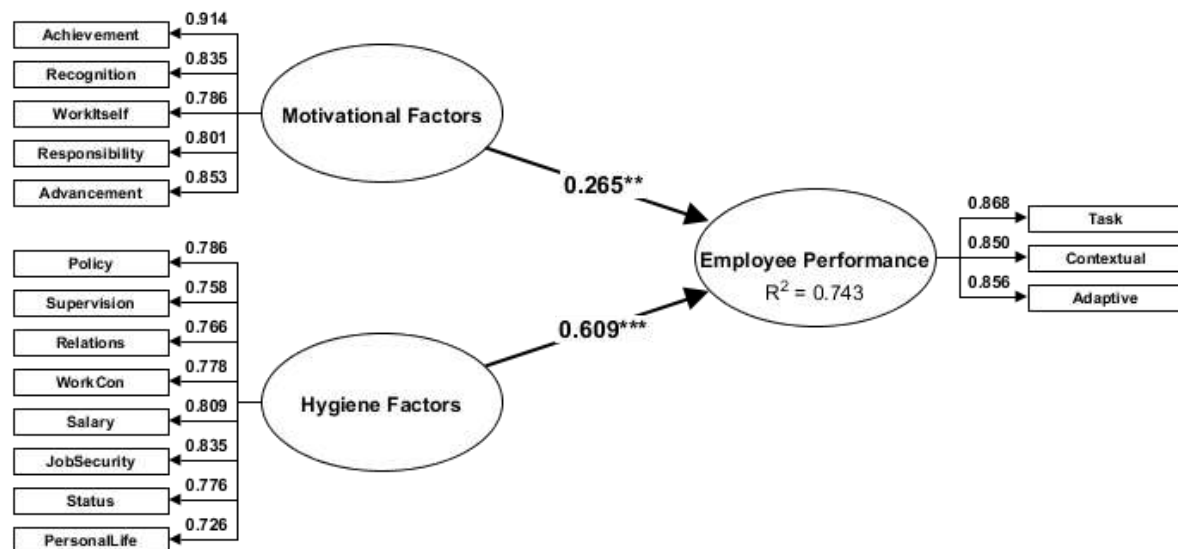


Figure 2 Hypothesis testing

Table 4: Coefficient Values for Hypothesis Testing

Factors	Employee Performance ($R^2 = 0.743$)			
	β	t-test	p-value	Cohen's F^2
Motivational Factors	0.265	2.632**	.004	0.035
Hygiene Factors	0.609	6.584***	.000	0.187

*** Statistical significance at .001 level, ** Statistical significance at .01 level

From Table 4, it was found that Motivational Factors and Hygiene Factors had a direct positive influence on Employee Performance at Lenovo (Beijing) Co., Ltd., with statistical significance at the .01 and .001 levels. Together, these two variables explained 74.3% of the variance in employee performance. Moreover, Hygiene Factors were found to exert a stronger influence on employee performance than Motivational Factors.

Discussion

The research findings revealed that motivational factors and hygiene factors have a direct positive influence on employee performance at Lenovo (Beijing) Co., Ltd., highlighting the significant role both factors play in enhancing productivity within a global technology organization operating in a competitive and rapidly changing environment. These results are consistent with Herzberg et al.'s Two-Factor Theory (1959), which explains that motivational

factors such as achievement, recognition, and advancement serve as intrinsic drivers that generate satisfaction and stimulate employees' internal motivation to perform, while hygiene factors such as salary, company policy, and job security act as fundamental conditions that prevent dissatisfaction and promote consistent work performance. The study further indicates that although both factors positively affect employee performance, hygiene factors exert a stronger influence than motivational factors, which may be attributed to Lenovo's organizational characteristics as a large-scale enterprise in the technology sector, where employees value stability, job security, and comprehensive welfare systems more than emotional motivators. A deeper analysis of the findings shows that within Lenovo's hierarchical and performance-oriented structure, maintaining a stable and supportive work environment directly contributes to sustaining high levels of performance. Employees who perceive fair compensation, transparent company policies, and supportive supervision are more motivated and demonstrate lower turnover intentions. This is consistent with Judge et al. (2017), who found that satisfaction with workplace conditions significantly enhances long-term job performance, and Alrawahi et al. (2020), who demonstrated that effective human resource management addressing employees' needs for stability, relationships, and policy clarity plays a crucial role in strengthening morale and productivity.

Suggestion

Based on the findings that both motivational factors and hygiene factors significantly influence employee performance at Lenovo (Beijing) Co., Ltd., with hygiene factors having a stronger effect, several practical recommendations can be proposed for organizational leaders and human resource managers. First, management should emphasize improving hygiene factors by ensuring fair compensation, transparent company policies, supportive supervision, and a healthy and safe work environment. These elements form the foundation of employee satisfaction and stability, which are essential for maintaining consistent performance levels. Additionally, the organization should develop strategic initiatives to enhance motivational factors, such as providing recognition programs, career advancement opportunities, and job enrichment that allow employees to apply their skills and creativity. Creating an organizational culture that balances both intrinsic and extrinsic motivators will help reinforce long-term commitment and productivity. Moreover, promoting open communication and employee participation in decision-making processes can enhance a sense of belonging and ownership, leading to greater engagement and higher work performance. The combination of a supportive work environment and motivational leadership will not only improve individual performance but also strengthen Lenovo's competitive advantage in the global technology market.

Future Research

Future studies should consider expanding the scope of investigation to include employees from various industries and cultural contexts to compare how motivational and hygiene factors influence performance under different organizational environments. Researchers are encouraged to introduce mediating or moderating variables, such as work engagement, job satisfaction, or organizational commitment, to explore deeper mechanisms linking motivation and performance. In addition, longitudinal studies should be conducted to observe how changes in motivation and workplace conditions affect performance over time, especially within rapidly evolving industries such as information technology and digital manufacturing. Future research could also adopt mixed-method approaches, combining quantitative analysis using PLS-SEM with qualitative interviews, to capture employees' emotional and cognitive perspectives on motivation and performance. Such approaches would contribute to a more comprehensive understanding of human resource dynamics and support the development of advanced motivation models tailored to the needs of global technology organizations like Lenovo.

References

- Alrawahi, S., Sellgren, S. F., Altouby, S., Alwahaibi, N., & Brommels, M. (2020). The application of Herzberg's two-factor theory of motivation to job satisfaction in clinical laboratories in Omani hospitals. *Heliyon*, 6(9), e04829. <https://doi.org/10.1016/j.heliyon.2020.e04829>
- Alshmemri, M., Shahwan-Akl, L., & Maude, P. (2017). Herzberg's two-factor theory. *Life Science Journal*, 14(5), 12-16. <https://doi.org/10.7537/marslsj140517.03>
- Ce, Z., Ab-Rahim, R., Siali, F., & Mokhtar, N. (2025). Employee Motivation and Job Performance of Non-Academic Staff in Chinese Universities. *Societies*, 15(8), 227. <https://doi.org/10.3390/soc15080227>
- Hair, J. F., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107-123. <https://doi.org/10.1504/IJMDA.2017.087624>
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*, 116(1), 2-20. <https://doi.org/10.1108/IMDS-09-2015-0382>
- Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation to work*. John Wiley & Sons.
- Judge, T. A., Weiss, H. M., Kammeyer-Mueller, J. D., & Hulin, C. L. (2017). Job attitudes, job satisfaction, and job affect: A century of continuity and of change. *Journal of Applied Psychology*, 102(3), 356–374. <https://psycnet.apa.org/doi/10.1037/apl0000181>

- Luitel, M. K., & Poudel, R. K. (2024). Employees' performance paradigm: A review envisions for behavioral perspectives. *DEPAN*, 6(1), 37-48.
<https://doi.org/10.3126/depan.v6i1.75489>
- Miah, M. T., & Hasan, M. J. (2022). Impact of Herzberg two-factor theory on teachers' job satisfaction: An implication to the private universities of Bangladesh. *International Journal of Business and Management Research*, 10(1), 1-5.
<https://doi.org/10.37391/IJBMR.100101>
- Rai, R., Thekkekara, J. V., & Kanhare, R. (2021). Herzberg's two factor theory: A study on nurses's motivation. *RGUHS Journal of Allied Health Sciences*, 1(1), 13-17.
https://doi.org/10.26463/rjahs.1_1_5
- Tan, J., Zhang, C., & Li, Z. (2023). Why do employees actively work overtime? The motivation of employees' active overtime in China. *Frontiers in Psychology*, 14, 1120758.
<https://doi.org/10.3389/fpsyg.2023.1120758>
- Vo, T. T. D., Tuliao, K. V., & Chen, C. W. (2022). Work motivation: The roles of individual needs and social conditions. *Behavioral Sciences*, 12(2), 49.
<https://doi.org/10.3390/bs12020049>
- Vuong, T. D. N., & Nguyen, L. T. (2022). The key strategies for measuring employee performance in companies: A systematic review. *Sustainability*, 14(21), 14017.
<https://doi.org/10.3390/su142114017>