THE INFLUENCING FACTORS OF INNOVATION PERFORMANCE OF CHINESE MSMEs IN THE INTERNET INDUSTRY BASED ON AMO THEORY MODEL - A CASE STUDY OF HENAN PROVINCE*

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Abstract

This research article aims to explore factors influencing innovation performance in China's Internet MSMEs, focusing on Henan Province. A random online survey of 401 grassroots employees in Henan's Internet MSMEs reveals key insights: employee innovation motivation and ability significantly impact enterprise innovation performance, with enhanced ability boosting motivation. An organizational innovation atmosphere moderates the relationship between employee ability and enterprise performance, highlighting employees' central role in innovation. Findings confirm that leveraging employee-side factors motivation, ability, and innovation atmospheres offers theoretical and practical guidance for MSMEs. By focusing on these elements under resource constraints, Internet MSMEs can achieve breakthroughs in competitive markets through targeted innovative reforms.

Keywords: Internet industry, MSMEs, innovation performance

Introduction

Since reform and opening, China's low-labor-cost economy faces "middle-income trap" risks amid rising wages (Wang et al., 2021). The Internet industry, a key driver, saw a 1.1% revenue decline in 2022 (China Internet Network Information Center, 2023), highlighting growth challenges. MSMEs, contributing over 60% of GDP and 79% of jobs OECD. (2022). are vital for innovation. This study focuses on Henan's Internet MSMEs, an inland province with the 5th-largest

* Received 4 May 2025; Revised 2 July 2025; Accepted 5 July 2025

GDP but 14th-ranked innovation capability in 2021 (Liu Yanan, 2022). Its industrial transfer risks mirror national trends, and existing research lacks regional MSMEs focus. The study explores innovative performance factors to bridge gaps and inform sustainable upgrading.

Objectives

1) Explore how employee innovation motivation/ability impact innovation performance, examining interactions and the AMO model's contributions.

2) Investigate if organizational innovation atmospheres moderate the link between employee ability and enterprise performance, identifying strategies to boost ability-to-performance conversion via innovation atmospheres.

3) Assess the innovation status of Henan's Internet MSMEs through a research model, diagnose challenges, and propose targeted solutions for sustainable innovation.

Literature Review

AMO Theory Model

Blumberg & Pringle (1982) identified motivation, ability, and opportunity as core drivers of enterprise performance, noting improved incentives and work environments enhance efficiency highlights the AMO model’s focus on expectation management: fair salaries and clear promotions align employee and organizational goals. This paper uses these insights to explore the theory’s role in enhancing innovation performance.

Employee Innovation Motivation

In competitive markets, sustainable innovation is crucial for enterprise advantage, as isolated employee innovations cannot build value chains Szuper & Wolooszyn (2020) stress sustained innovation requires proactive motivation; Ryan & Deci (2000) highlight motivation driven by internal/external factors as essential for engaged behavior, with Shirai & Tanaka (2011) framing it as a bridge between environments and creativity.

Employee Innovation Ability

From the result-oriented dimension, Terziovski (2010) defines innovation performance as quantifiable metrics, including innovative product/service counts

and direct cost/profit impacts from innovation. Tang et al. (2020) stress measuring performance through integrating an enterprise's innovation capability and foundational resources. Given evaluation complexity, this paper uses Yu & Cai (2014) innovation performance maturity scale for multi-perspective measurement.

The Influence of Employee Innovation Motivation on Enterprise Innovation Performance, driving higher innovation output through resource allocation. Lorenz & Schmutzler (2017) highlight intrinsic motivation: work-derived goal satisfaction fosters proactive innovation via intrinsic value realization. Externally. Collectively, these perspectives underscore that activating employee innovation motivation is critical for enhancing enterprise innovation performance, forming the basis for this paper's assumptions.

H1: Employee innovation motivation has a significant positive impact on Firm innovation performance.

The Influence of Employee innovation Ability on Enterprise Innovation Performance

Employee innovation ability is a critical driver of enterprise innovation Jia et al. (2023) connect this ability to accelerate technological iteration, refreshing products and underlying technologies for consumers., while Simpson et al. (2007) show positive atmospheres increase communication, facilitating the effective display of innovative capabilities. These insights form the basis for the paper's proposed hypothesis.

H2: Employee innovation ability has a significant positive impact on firm innovation performance.

The Influence of Employee Innovation Ability on Employee Innovation Motivation

Employee innovation ability reflects deep cognitive understanding and problem-solving efficiency in target fields. Islam & Ismail (2008) argue it helps employees define innovation path milestones and build confidence to complete tasks. Palin & Kaartemo (2016) highlight that leveraging this ability during innovative work fosters self-efficacy when tackling challenges. These insights form the basis for the paper's proposed hypotheses.

H3: Employee innovation ability has a significant positive impact on enterprise innovation motivation.

To sum up, this paper proposes a conceptual model of the factors that affect enterprise innovation performance based on AMO model. The conceptual framework of this article is shown in Figure 1.

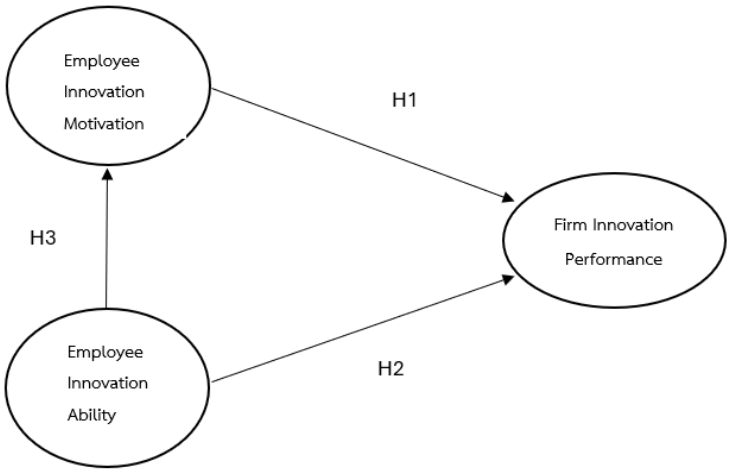

Figure 1

Conceptual Framework

Methodology

Sample, Sampling, and Data Collection

This study targeted employees of Internet MSMEs in Henan Province, China, using a certified questionnaire survey (HREC091/2024) distributed online via an electronic platform with random sampling. Drawing on Liu Yanan's (2022) data (total employee population: 13,827,000), the Yamane formula was applied with a 95% confidence interval and 5% error margin, calculating a required sample size of 399.89 rounded to 400 for analysis. A total of 425 questionnaires were collected, but 24 invalid responses (due to short completion time, repeated answers, or carelessness) were excluded, leaving 401 valid samples for analysis.

Data Analysis Methods

In this study, Structural Equation Modeling (SEM) was employed to analyze the collected data and evaluate the proposed hypotheses. SEM integrates confirmatory factor analysis and path analysis into a unified framework. It is a multivariate statistical technique utilized to estimate a series of interconnected dependent relationships concurrently

Results

In terms of gender, there were 202 male students (50.4%) and 199 female students (49.6%), showing a nearly even distribution. Most respondents were aged 21–40 years, the primary working age group. Educationally, the majority had tertiary or undergraduate qualifications.

The following evaluation criteria are adopted in this article (Scott, 1955) define reliability the Cronbach's alpha values for all constructs exceeded 0.7 The final result shows indicating satisfactory reliability.

Using AMOS 24.0, confirmatory factor analysis (CFA) was conducted, with model fit criteria following Wen Zhonglin et al. (2004). Results showed satisfactory scale fit.

Convergent validity was evaluated using Anderson & Gerbing (1988) criteria, all item factor loads exceeded 0.5.; CR values for IP, IM, IA, IAT were > 0.7.; AVE values for all constructs were > 0.5. Collectively, these results confirm satisfactory convergent validity of the scale. following established statistical criteria (Kim, K. H., 2005).

Table 1 Path analysis

Hypothesis	Path			Std.	S.E.	C.R.	P	Supported
H1	IP	<---	IM	.334	.052	5.617	***	Accepted
H2	IP	<---	IA	.465	.055	7.380	***	Accepted
H3	IM	<---	IA	.141	.060	2.372	***	Accepted

Note 1: *** stands for P<0.001

Note 2: IP=Firm Innovation performance; IM=Employee Innovation motivation; IA=Employee Innovation ability.

Table 1 shows the path analysis results of the five hypotheses set in this study, including the standardized coefficients, standard errors, critical ratios, and P values of the paths. The results show that all hypotheses are accepted, indicating that the impact of each path is significant. The path model diagram is shown in Figure 2.

Hypotheses H1 and H2 explore the Employee Innovation motivation (IM) and Employee Innovation ability (IA) on Firm Innovation performance (IP), respectively. The path analysis results show that both constructs have a significant positive impact on Firm Innovation performance, among which the standardized path coefficient of

Employee Innovation motivation on Firm Innovation performance is .334, and the standardized path coefficient of Employee Innovation ability on Firm Innovation performance is .465. This shows that Building customer satisfaction with Employee Innovation motivation and Employee Innovation ability can significantly enhance their Firm Innovation performance.

Hypothesis H3 explores the impact of Innovation ability on Employee Innovation motivation, and the path coefficient is .141, indicating that the improvement of Employee Innovation ability significantly enhances Employee Innovation motivation. This finding highlights the core role of Employee Innovation ability.

Overall, these path analysis results provide insights into understanding employee behavior, especially how employee innovation motivation and ability significantly impact enterprise innovation performance, with enhanced ability boosting motivation

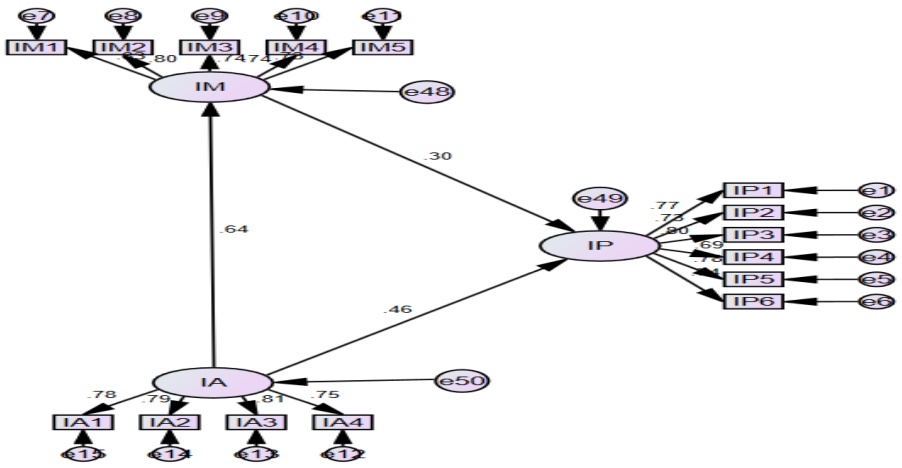

Figure 2 Structural equation model

Discussion

Findings confirm employee innovation motivation significantly enhances enterprise innovation performance (Olshavsky, 1996), as motivated employees drive innovative actions and efficiency, directly boosting organizational outcomes. The main implications of managerial implications include optimizing

job-person fit to leverage strengths, designing personalized training aligning corporate vision with skill development, and adopting laddered evaluations to build confidence and clarify goals. Regular motivation assessments are essential to maintain group innovation efficiency.

Innovative ability also positively impacts performance, with skilled employees driving novel ideas/products and competitiveness. organizational innovation atmospheres moderate this relationship: supportive environments unlock potential by providing resources/support, facilitating ability-to-performance conversion. Enterprises should strengthen dynamic capabilities, promote knowledge sharing, reduce innovation constraints, and expand employee autonomy to accelerate progress, fully utilizing innovation capacity for sustainable growth and breakthroughs Scholar's detail model components: Meuer J (2017) urges post-recruitment ability development via training and career clarity to boost motivation/skills. Mahdy & Alhadi (2021) stress moving beyond basic resources to foster teamwork, trust, and growth opportunities for productivity.

Theoretical Implication

Building on the AMO theoretical model, this study adjusts variables to expand its applicability, demonstrating that in Internet MSMEs, employee innovation motivation and ability positively impact enterprise innovation performance, and that innovation ability directly influences motivation. Organizational innovation atmosphere acts as a moderator, strengthening/weakening the link between ability and performance. The model offers a thinking framework for Internet enterprises: by applying it to cases like Flower Networking, firms can assess their innovation process's effects and flaws. It also enables self-inspection of innovation mechanisms, fostering effective error correction to maintain healthy innovation trajectories Consistent with Smith, Busi & Van Der Meer (2008) defines it as employees' capacity to deliver effective innovative ideas, processes, and products for business activities.

Practical Implication

Unlike most Internet firms focusing on innovation/technical resource input, this study drives innovation through management reform, targeting MSMEs' resource constraints and risk weaknesses. By optimizing employee innovation management, improving work environments, expanding innovation autonomy, establishing positive

interaction mechanisms, and enhancing person-job fit/skill development, it boosts enterprise innovation performance. This employee-centered, asset-light model lowers innovation barriers for Internet MSMEs, offering an effective, scalable framework to enhance competitiveness and facilitate industry participation. Insights from Henan's Internet MSMEs also lay groundwork for future cross-industry innovation performance research. Consistent with Liu & Cui (2012) advocate a comprehensive approach, emphasizing factors like insight, thinking ability, and memory that shape the persistence of innovative behavior.

Recommendation

Future research will address limitations through three directions: expanding the scope from Henan's Internet MSMEs to a nationwide, cross-industry analysis to examine model applicability; integrating employee and management innovation by incorporating managerial roles into a multi-stakeholder framework to reflect interactive enterprise innovation dynamics; and enhancing the evaluation system to adapt to new technologies/business models, addressing traditional framework limitations especially in high-tech sectors. These efforts aim to develop a contemporary, holistic approach for modern enterprise innovation assessment and strategy.

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