THE EFFECT OF WORKPLACE FUN AND ORGANIZATIONAL IDENTIFICATION ON EMPLOYEE INNOVATION BEHAVIOR IN IT COMPANIES

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Abstract

This study explores how workplace fun, organizational identification, and demographic factors influence employee innovative behavior (EIB) in Chinese IT companies. Based on Social Exchange Theory and Affective Events Theory, the research collected 400 valid responses through a questionnaire survey. It analyzed the data using linear regression, t-tests, and Analysis of Variance (ANOVA). The results indicate that both workplace fun and organizational identification have a positive impact on employee innovative behavior. Additionally, demographic factors such as age, education level, work experience, and position significantly influence employee innovative behavior, while gender does not. This study finds that workplace fun provides employees with positive emotional experiences, enhancing their intrinsic motivation and willingness to innovate. Organizational identification fosters a sense of belonging and alignment with organizational goals, further stimulating innovative behavior. Furthermore, older employees who are more educated, have longer work experiences and hold technical/R&D positions demonstrate higher levels of innovative behavior. This research offers valuable insights for IT companies. It suggests that managers should create a fun workplace environment and promote organizational identification to enhance employee innovation capability, helping companies maintain a competitive edge in the fiercely competitive market.

Keywords: *Workplace fun, Organizational identification, Employee innovation behavior, IT companies.*

INTRODUCTION

With over 1.067 billion Internet users and a 75.6% penetration rate in China as of 2022, IT companies are rapidly expanding, presenting both opportunities and challenges. Innovation, driven by employees, has become critical for IT companies to stand out in a competitive market (Chesbrough, 2003). However, the industry faces severe brain drain and insufficient employee-driven innovation due to high job mobility, unmet psychological needs, and intense work pressures (Teece, 2010; Meng, 2017). Addressing these challenges, many IT companies are integrating "workplace fun" into their management practices, creating engaging environments to enhance job satisfaction and inspire creativity (Amabile, 2011; Cheng, 2022). Additionally, organizational identification has been shown to significantly impact employee innovation behavior by fostering a sense of belonging, aligning employees' goals with organizational objectives, and enhancing their

willingness to engage in innovative activities (Ashforth & Mael, 1989; Wang & Hsieh, 2013). Examples like Google's innovative office designs and 360's "Pumpkin House" showcase how workplace fun fosters collaboration, reduces stress, and promotes innovation. This aligns with findings from Amabile (2011) and Wang & Hsieh (2013), which highlight workplace fun and organizational identification as critical drivers of innovative behaviors. Studying these factors is essential for IT companies to retain talent, boost creativity, and achieve sustainable development in a competitive landscape.

This study employs social exchange theory and affective event theory to explore how workplace fun and organizational identification influence employee innovation behavior (EIB) in IT companies. Workplace fun, as a psychological reward, enhances engagement, enjoyment, and positive emotional experiences, fostering intrinsic motivation and innovation (Amabile, 2011; Cropanzano & Mitchell, 2005). Social exchange theory highlights the reciprocal relationship between fun and contributions, while affective event theory emphasizes the role of positive emotions in driving creativity (Fredrickson, 2001; George & Zhou, 2001). Additionally, organizational identification aligns personal and organizational goals, fostering belonging and loyalty, which further motivate innovation (Ashforth & Mael, 1989; Wang & Hsieh, 2013). The analysis also considers demographic variables such as gender, age, education, years of service, and job position, which influence EIB. These factors create a supportive foundation for employees to innovate, increasing satisfaction, commitment, and experimentation. This study addresses gaps with three key questions: (1) Does workplace fun influence EIB? (2) Does organizational identification influence EIB? (3) How do demographic variables affect EIB?

The cross-cultural applicability of workplace fun and organizational identification in influencing EIB within the Chinese context is a key focus of this research. By refining theoretical boundaries, the study highlights how these factors foster positive work environments and align employee goals with organizational objectives. Practically, the findings guide IT companies in leveraging workplace fun to enhance job satisfaction, team cohesion, and innovation, driving competitiveness and sustainable growth. Managers are encouraged to implement strategies such as team-building and flexible arrangements to boost creativity and organizational performance.

Theoretical Framework

Social Exchange Theory

Social exchange theory explains individual relationship behaviors by evaluating the trade-off between expected rewards and input costs. Employees invest resources like time, skills, and

labor in employee-organization relationships, while organizations provide rewards such as pay, benefits, and career opportunities. This reciprocal exchange influences employee attitudes and behaviors, including loyalty, commitment, and turnover. Employees assess the balance between inputs and rewards and compare alternative opportunities to decide whether to sustain the relationship (Blau, 1964; Homans, 1958; Emerson, 1976). Disproportionate rewards may lead to reduced input or turnover, affecting organizational performance. Reciprocity fosters positive relationships, emphasizing the mutual reinforcement of organizational and employee contributions.

Affective Event Theory

Affective events theory highlights how emotional experiences triggered by events within organizations influence employee behavior and organizational effectiveness. Affective events, such as leadership behaviors, coworker interactions, and the work environment, impact employees' emotions, work attitudes, performance, and commitment. The theory focuses on three key aspects: affective transmission, emotional labor, and affective cognition. Affective transmission involves the spread of emotions in organizations, where leaders' emotional expressions influence employees' attitudes and performance (Ashkanasy et al., 2002). Emotional labor requires employees to display emotions inconsistent with their true feelings, potentially causing emotional fatigue and job stress (Hochschild, 1983). Affective cognition emphasizes employees' perceptions of organizational events, such as fairness, which shape their emotional responses and work motivation (Cropanzano & Mitchell, 2005).

Research Hypotheses

Research on workplace fun highlights its influence on employees' innovation behavior through various individual and organizational mechanisms, with social exchange theory providing the theoretical foundations for this relationship. Workplace fun, shaped by individual and organizational factors, has significant implications for employee attitudes and behaviors. At the individual level, personality traits such as optimism, extroversion, and attitudes toward fun influence employees' experiences of workplace fun (Ford et al., 2003; Karl et al., 2007; Menzifang, 2013). At the organizational level, workplace fun is shaped by company type and trust. Private firms often focus on entertainment activities, while state-owned enterprises emphasize fostering communication and team-building (Zhang, 2012). Trust between employees and leaders is also

critical, as high trust promotes active participation in fun activities, while low trust limits engagement (Gong, 2021).

Grounded in social exchange theory, workplace fun fosters a reciprocal relationship between employees and organizations. Employees perceive workplace fun as a form of organizational support and, in return, feel motivated to contribute greater effort and creativity to their roles (Shi, 2016). Fun activities create positive emotional experiences that strengthen the psychological bond between employees and the organization, motivating innovative efforts (Fluegge et al., 2014; Tews et al., 2014). Positive emotions generated through workplace fun further catalyze intrinsic motivation, informal learning, and job satisfaction, encouraging employees to take on challenging and creative tasks (Qu et al., 2019; Shi et al., 2019). However, excessive emphasis on fun can lead to unintended consequences, such as employee resistance and productivity declines, highlighting the need for balance in implementing fun activities (Yu, 2021; Plester, 2016). Based on these findings, this study proposes the hypothesis:

H1: Workplace fun positively influences employees' innovation behavior.

Organizational identification, shaped by both organizational and individual factors, plays a significant role in influencing employee innovation behavior. At the organizational level, factors such as organizational reputation, supportive climates, and perceived organizational support foster identification by strengthening employees' sense of pride and belonging (Ashforth & Mael, 1989; Smidts et al., 2001; Eisenberger et al., 1986). Supportive organizational cultures and climates create environments where employees feel connected to the organization, whereas bureaucratic or competitive environments weaken this sense of connection (Mael & Ashforth, 1992; Chatman & Jehn, 1994). At the individual level, positive emotions and psychological capital further reinforce organizational identification, promoting a sense of purpose and alignment with organizational goals (Rhoades & Eisenberger, 2002; Luthans et al., 2007).

Drawing on affective events theory, workplace events such as leadership behavior, peer recognition, and team successes trigger emotional responses that shape organizational identification and, in turn, influence employee innovation behavior (Weiss & Cropanzano, 1996). Positive emotional events strengthen organizational identification by fostering feelings of belonging, pride, and happiness, encouraging employees to engage in creative and innovative tasks (Li Y, 2020; Riketta, 2005; Zibo Li, 2022). Conversely, adverse emotional events, such as unmet expectations, trust violations, or leadership failures, weaken identification, leading to resistance, burnout, and reduced innovation performance (Luo Can, 2015; Wang Shiaotong, 2022). Empirical studies further demonstrate that organizational identification mediates relationships between

leadership practices, high-performance systems, and innovation behavior (Zhao, 2022; Xiong et al., 2023). Transformational leadership and work happiness are key factors that strengthen identification, enhancing job performance and creativity (Lu, 2013; Zhan, 2011; Yang, 2013). Based on these findings, this study proposes the hypothesis:

H2: Organizational identification positively influences employees' innovation behavior.

This study also explores the influence of demographic factors on employee innovation behavior alongside workplace fun. Age positively correlates with innovation behavior, as older employees have more experience and problem-solving abilities (Chen, 2018). Higher educational backgrounds promote innovation by enhancing observation, problem-solving, and creativity skills (Wang, 2019). Additionally, research suggests that women's sensitivity to workplace dynamics and attention to detail can facilitate innovation behavior (Liu, 2020). These factors highlight the role of demographic differences in shaping innovation outcomes.Based on these findings, the hypothesis proposed is:

H3: Demographic factors (gender, age, educational background, and years of service) significantly affect employee innovation behavior.

Building on the above research and hypotheses, the conceptual model of this study (Figure 1) explores these relationships comprehensively, offering valuable insights for IT companies seeking sustainable growth.

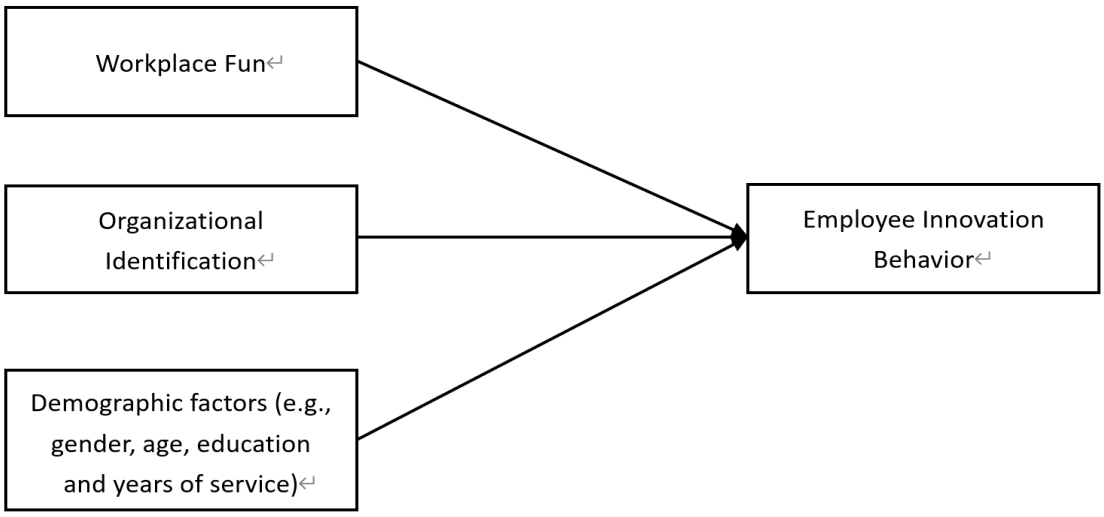

Figure 1 Conceptual Model

RESEARCH METHODS

Using a quantitative questionnaire method, this study investigates the influence of workplace fun and organizational identification on employee innovation behavior. A random sample of 400 employees from IT companies in Yunnan Province will be selected, ensuring

representation across various demographics and job roles. The questionnaire, distributed online via www.wjx.cn, comprises validated scales: the Workplace Fun Scale (19 items; Tang et al., 2015), the Organizational Identification Scale (6 items; Ashforth et al., 1992), and the Employee Innovation Behavior Scale (6 items; Scott et al., 1994). Invalid responses—such as incomplete questionnaires or inconsistent answers—will be excluded to ensure data reliability. Data will be analyzed using SPSS for descriptive statistics, correlation, regression, and ANOVA to explore direct and indirect effects. Ethical principles will guide the research, ensuring voluntary participation, informed consent, and data confidentiality. Results aim to provide actionable insights for enhancing innovation in IT companies.

This study ensures the reliability and validity of the scales used to measure workplace fun, organizational identification, and employee innovation behavior through rigorous testing. The Cronbach's alpha coefficient, calculated using SPSS, will verify internal consistency with a reliability threshold 0.7. Content validity is supported by the adoption of well-established scales, including the Workplace Fun Scale (Tang et al., 2015), the Organizational Identification Scale (Ashforth et al., 1992), and the Employee Innovation Behavior Scale (Scott & Bruce, 1994), all of which are grounded in theoretical and practical research. Data analysis includes descriptive statistics (mean, standard deviation, frequency, and percentage) to profile respondents' demographics (e.g., gender, age, education, and service years). Inferential statistics will test hypotheses at a significance level of 0.05.

RESULTS AND DISCUSSION

This paper thoroughly analyzed the collected data using data analysis software such as SPSS 25.0. Firstly, the researcher strictly screened the collected questionnaire data and eliminated invalid responses to ensure the accuracy and representativeness of the data to screen out valid data. Then, the valid data were organized and analyzed, focusing on descriptive statistics of the participants' basic information, laying a solid foundation for subsequent in-depth analysis. A total of 400 valid questionnaires were selected for this survey. The sample statistics are shown in Table 1 below.

Table 1: Analysis of the Sample

Name	Option	Freq.	%	Cum.%
Gender	Male	190	47.5	47.5
	Female	210	52.5	100
Age	18-25	94	23.5	23.5
	26-35	134	33.5	57
	36-45	103	25.75	82.75

	45	69	17.25	100
Education	High school or below	61	15.25	15.25
	Associate	94	23.5	38.75
	Bachelor	176	44	82.75
	Master or above	69	17.25	100
Working Experience	<1 year	68	17	17
	1-3 years	100	25	42
	4-6 years	133	33.25	75.25
	6 years	99	24.75	100
Job Position	Tech/R&D	99	24.75	24.75
	Product/Project	73	18.25	43
	Marketing/Sales	60	15	58
	Customer Service	68	17	75
	HR/Admin/Finance	100	25	100
Total		400	100	100

This paper used Cronbach's Alpha coefficient to test the collected data's reliability to ensure the scale's internal consistency. The main variables in this paper are Workplace Fun (WF), Organizational identification (OI), and Employee Innovation Behavior (EIB)—their reliability test results are shown in Table 2.

Table 2: Variable Reliability Test Results

Variables	Item	Alpha
WF	19	0.966
OI	6	0.897
EIB	6	0.917

The reliability analysis confirms high internal consistency for all scales used in this study. The Cronbach's alpha coefficient for workplace fun is 0.966, organizational identification is 0.897, and employee innovation behavior is 0.917—all exceeding the threshold of 0.7 and demonstrating strong correlations among scale items. These values indicate that the scales are reliable and can accurately measure their respective variables, meeting the study's requirements for robust data analysis.

Discriminant validity assesses a scale's ability to distinguish between different variables. This study was tested by comparing the Average Variance Extracted (AVE) square root for each variable with the correlation coefficients between that variable and others. Discriminant validity is confirmed when the square root of the AVE exceeds the correlation coefficients, ensuring that the scale effectively differentiates between constructs. Analyze the results shown in Table 3.

Table 3: Discriminant Validity Test Results

Variables	WF	OI	EIB
WF	0.775		
OI	0.547**	0.77	
EIB	0.349**	0.504**	0.807

Note: ***p < 0.001, *p < 0.01, p < 0.05

As shown in Table 3, the data on the diagonal of the table (0.775, 0.77, and 0.807) are the arithmetic square roots of the AVE values of the variables, all of which are greater than the correlation coefficients of the three variables, which is in line with the criteria for determining the discriminant validity of the scales, and indicates that the discriminant validity of the scales is good.

Convergent validity refers to the correlation between individual items within a scale. It is usually assessed by calculating the average variance extracted (AVE) and the combined reliability (CR) values for each question item. Analyze the results shown in Table 4.

Table 4: Convergent Validity Test Results

Variables	Questions	CR	AVE	Std. FL
Workplace Fun	WF_1	0.966	0.601	0.779
	WF_2			0.741
	WF_3			0.78
	WF_4			0.781
	WF_5			0.763
	WF_6			0.725
	WF_7			0.751
	WF_8			0.802
	WF_9			0.751
	WF_10			0.727
	WF_11			0.718
	WF_12			0.752
	WF_13			0.752
	WF_14			0.755
	WF_15			0.772
	WF_16			0.785
	WF_17			0.778
	WF_18			0.748
	WF_19			0.76
Organization Identification	OI_1	0.897	0.592	0.723
	OI_2			0.712
	OI_3			0.749
	OI_4			0.745

	OI_5			0.739
	OI_6			0.78
Employee Innovation Behavior	EIB_1	0.918	0.651	0.821
	EIB_2			0.808
	EIB_3			0.816
	EIB_4			0.814
	EIB_5			0.806
	EIB_6			0.788

The convergent validity of the scales is confirmed, with composite reliability (CR) values ranging from 0.897 to 0.966 (>0.7), average variance extracted (AVE) values from 0.592 to 0.651 (>0.5), and standardized factor loadings between 0.712 and 0.821 (>0.5), meeting all criteria.

Correlation Analysis

In this paper, SPSS 25.0 was used to test the correlation of the variables in the data; the test results are shown in Table 5.

Table 5: Correlation Matrix

	1	2	3	4	5	6	7	8
1	1							
2	.547**	1						
3	.349**	.504**	1					
4	0.083	0.053	-0.045	1				
5	.336**	.485**	.933**	-.099*	1			
6	.204**	.235**	.395**	-0.079	.427**	1		
7	.297**	.475**	.936**	-0.068	.902**	.312**	1	
8	-.260**	-.367**	-.779**	.120*	-.843**	-.134**	-.849**	1

Note：N=400，*p＜0.05，**p＜0.01，***p＜0.001

Correlation analysis reveals significant positive relationships among workplace fun, organizational identification, and employee innovation behavior. Workplace fun positively correlates with employee innovation behavior ($r = 0.349$, $p < 0.01$), indicating that a fun work environment enhances motivation and creativity. Organizational identification also shows a strong positive correlation with employee innovation behavior ($r = 0.504$, $p < 0.01$), highlighting the role of belonging and responsibility in fostering innovation. Additionally, workplace fun positively correlates with organizational identification ($r = 0.547$, $p < 0.01$), suggesting that enjoyable work environments boost employees' loyalty and sense of belonging, further supporting innovation and organizational culture.

Regression Analysis

To test hypotheses H1 and H2, this study conducted linear regression analysis using SPSS 25.0, examining the effects of workplace fun and organizational identification on employee innovation behavior. Dependent variables are employee innovation behavior; independent variables are workplace fun and organizational identification. Regression results, including covariance diagnostics and Durbin-Watson statistics, confirm the relationships in Table 6.

Table 6: Linear Regression Analysis Results

	Regression Coefficient	*t*	*p*	95% CI	Collinearity Diagnosis	
					VIF	Tolerance
Intercept	1.438	10.38	0.000**	1.166 ~ 1.710	-	-
WF	0.094	2.045	0.042*	0.004 ~ 0.184	1.426	0.701
OI	0.395	8.671	0.000**	0.306 ~ 0.484	1.426	0.701
Sample Size	400					
R^2	0.262					
Adjusted R^2	0.258					
F-Statistic	F (2,397)=70.420,p=0.000					

Note：Dependent Variable = Employee Innovative Behavior
D-W Statistic = 1.812

Regression analysis confirms that workplace fun (WF) and organizational identification (OI) significantly influence employee innovation behavior (EIB) in IT companies. OI has a stronger effect ($\beta = 0.395$, $p < 0.01$) compared to WF ($\beta = 0.094$, $p = 0.042$). The model explains 26.2% of EIB variance ($R^2 = 0.262$), with no multicollinearity issues (VIF = 1.426) or residual autocorrelation (Durbin-Watson = 1.812). These results support Hypothesis 1 (WF positively influences EIB) and Hypothesis 2 (OI positively influences EIB), highlighting OI as a key driver of innovation.

Independent t-test and One-way ANOVA

An independent samples t-test examined the relationship between gender, a two-point discrete variable, and Employee Innovation Behavior (EIB)—the analysis is detailed in Table 7.

Table 7: Results of t-test Analysis

	Gender (Mean ± Standard Deviation)		*t*	*p*
	Female(*n*=210)	Male(*n*=190)		
EIB	2.97±0.63	3.03±0.63	-0.897	0.37

* $p<0.05$ ** $p<0.01$

Table 7 shows no significant gender influence on Employee Innovation Behavior (t = -0.897, p = 0.37 > 0.05). While men scored slightly higher than women on average, the difference is not statistically significant, indicating similar innovation performance across genders.

A one-way ANOVA examined the relationship between age and Employee Innovation Behavior (EIB)—the analysis is detailed in Table 8.

Table 8: Results of Analysis in Age Variance (ANOVA)

	Age (Mean ± Standard Deviation)				*F*	*p*
	18-25(*n*=94)	26-35(*n*=134)	36-45(*n*=103)	45+(*n*=69)		
EIB	2.14±0.34	2.88±0.12	3.31±0.14	3.92±0.25	985.953	0.000**

* $p<0.05$ ** $p<0.01$

Table 8 shows that age significantly influences Employee Innovation Behavior (F = 985.953, p < 0.01). Innovation behavior increases with age, with employees over 45 exhibiting significantly higher innovation levels, likely due to accumulated experience. Given the significant variability in Employee Innovation Behavior across age groups (Table 8), multiple comparisons will be conducted using Tamhane's T2 method to analyze differences between age groups further.

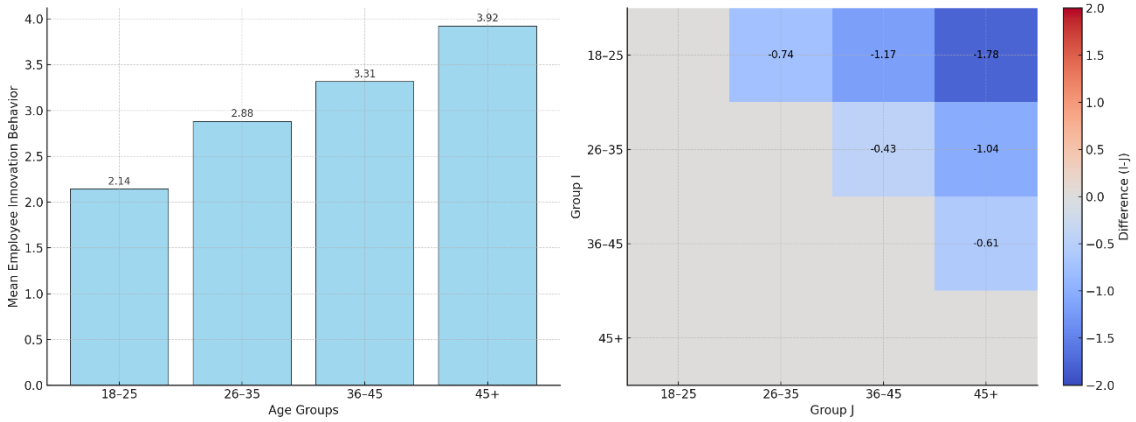

Figure 2: The EIB Across Age Groups and Pairwise Differences

Figure 2 visualizes employee innovation behavior across age groups using a bar chart and heatmap. The bar chart shows a progressive increase in mean innovation behavior with age: 18–25 (2.14), 26–35 (2.88), 36–45 (3.31), and 45+ (3.92), suggesting older employees exhibit higher innovation levels, possibly due to experience or responsibilities. The heatmap highlights pairwise differences between age groups, with the largest disparity (-1.78) between 18–25 and 45+, indicating younger employees consistently score lower. These visualizations confirm that innovation behavior increases significantly with age, particularly for employees aged 45 and above.

Table 9: Results of Analysis in Education Variance (ANOVA)

	Education (Mean ± Standard Deviation)				*F*	*p*
	High School or Below(*n*=61)	Associate(*n*=94)	Bachelor(*n*=176)	Master or Above(*n*=69)		
EIB	3.42±0.08	2.14±0.34	2.95±0.16	3.92±0.25	925.099	0.000**

* $p<0.05$ ** $p<0.01$

Table 9 shows a significant influence of education level on Employee Innovation Behavior ($F = 925.099$, $p < 0.01$). Employees with higher education levels exhibit higher innovation scores, with those holding master's degrees or above performing best, likely due to richer knowledge reserves and more potent innovation abilities. In contrast, employees with junior college education scored lowest, indicating weaker innovation behavior. Given the significant differences across educational groups, Tamhane's T2 method was used for further comparisons, detailed in Figure 3.

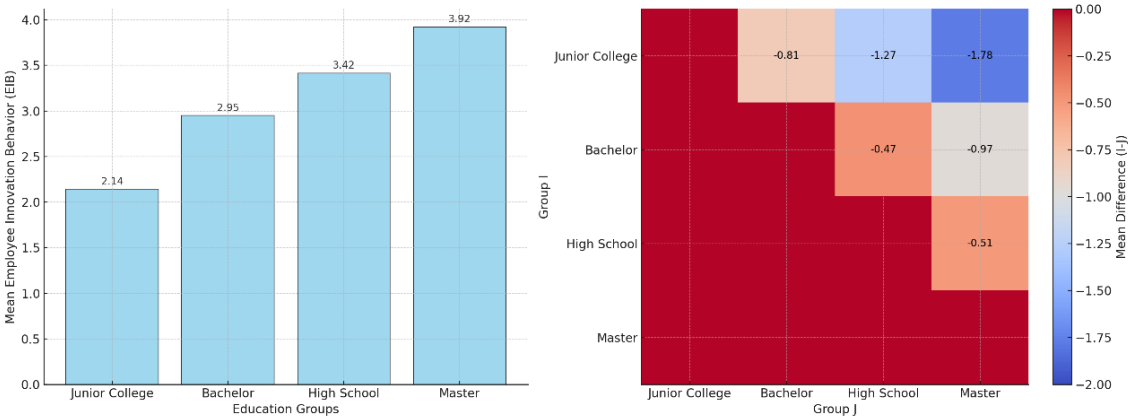

Figure 3: The EIB Across Education Groups and Pairwise Differences

Using a bar chart and heatmap, figure 3 illustrates the relationship between education levels and Employee Innovation Behavior (EIB). The bar chart shows a positive trend, with higher education levels correlating with higher EIB: Junior college (2.14), Bachelor (2.95), High School (3.42), and Master (3.92). The heatmap highlights pairwise differences, with the largest gap (-1.78) between Junior college and Master groups. These visualizations confirm that education significantly impacts EIB, with higher education fostering greater innovation offering actionable insights for enhancing organizational innovation strategies.

Table 10: Results of Analysis in Years of Service Variance (ANOVA)

	Years of Service (Mean ± Standard Deviation)				*F*	*p*
	<1 Year(*n*=68)	1-3 Years(*n*=100)	4-6 Years(*n*=133)	6+ Years(*n*=99)		
EIB	2.00±0.30	2.71±0.14	3.13±0.13	3.79±0.28	1015.514	0.000**

* p<0.05 ** p<0.01

Table 10 shows that Employee Innovation Behavior (EIB) significantly increases with years of service (F = 1015.514, p < 0.01). Employees with over six years of service scored highest, suggesting that accumulated experience enhances creativity and access to resources for innovation. Significant differences in EIB across all service groups warrant further analysis using Tamhane's T2 method, with results detailed in Figure 4.

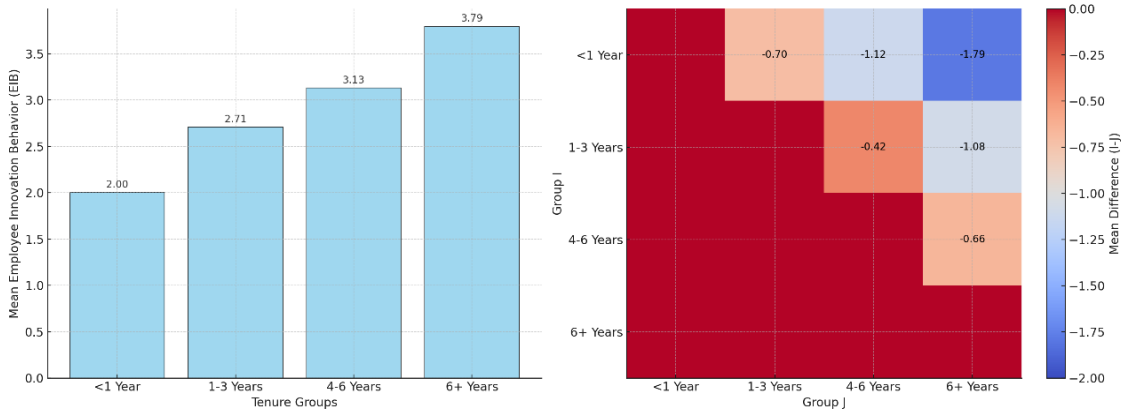

Figure 4: The EIB Across Years of Service Groups and Pairwise Differences

Figure 4 illustrates the relationship between years of service and Employee Innovation Behavior (EIB) through a bar chart and heatmap. The bar chart shows a positive trend, with more extended service correlating to higher EIB: <1 Year (2.00), 1-3 Years (2.71), 4-6 Years (3.13), and 6+ Years (3.79). The heatmap highlights pairwise differences, with the most significant gap (-1.79) between <1 Year and 6+ Years. These visualizations confirm that longer tenure significantly enhances innovation behavior, likely due to accumulated experience and opportunities.

Table 11: Results of Analysis in Job Position Variance (ANOVA)

	Job Position (Mean ± Standard Deviation)					F	p
	Tech/R&D(n=99)	Prod/Proj(n=73)	Mkt/Sales(n=60)	Cust Serv(n=68)	Func Dept(n=100)		
EIB	3.79±0.28	3.24±0.08	3.00±0.00	2.00±0.30	2.71±0.14	856.856	0.000**

* p<0.05 ** p<0.01

Table 11 shows significant differences in Employee Innovation Behavior (EIB) across job positions (F = 856.856, p < 0.01). Technology/R&D positions scored highest, likely due to their innovation-driven nature, while customer service scored lowest, reflecting fewer opportunities for innovation. Product/Project and Marketing/Sales positions showed moderate EIB, with functional

roles slightly lower. These findings highlight the significant influence of job roles on EIB. Tamhane's T2 method was used to analyze the differences further, and the results are detailed in Figure 5.

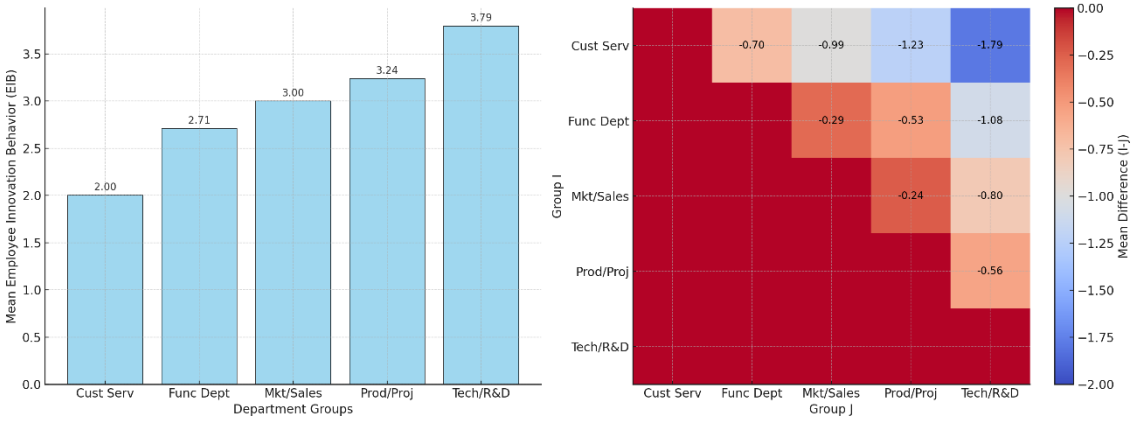

Figure 5: The EIB Across Job Position Groups and Pairwise Differences

Figure 5 illustrates Employee Innovation Behavior (EIB) across job positions using a bar chart and heatmap. The bar chart shows Tech/R&D positions with the highest EIB (3.79), followed by Prod/Proj (3.24), Mkt/Sales (3.00), Func Dept (2.71), and Cust Serv (2.00). The heatmap highlights pairwise differences, with the largest gap (-1.79) between Cust Serv and Tech/R&D. These findings emphasize that innovation behavior is strongly influenced by job roles, with technical and R&D positions fostering significantly higher innovation than customer service roles.

Table 12: Summary of Results of Demographic Factor Analysis

Demographic Factors	Significant Relationship with Employee Innovative Behavior
Gender	No Impact
Age	Significant Impact
Education	Significant Impact
Years of Service	Significant Impact
Job Position	Significant Impact

Note: At a significance level of 0.05

The analysis shows that gender does not significantly influence Employee Innovation Behavior (EIB), indicating similar innovation performance between male and female employees. In contrast, age, education, years of service, and job position significantly influence EIB. Older employees and those with higher education or longer service tend to exhibit greater innovation, likely due to accumulated experience, knowledge, and skills. Job positions also impact EIB, with roles like Technology/R&D requiring more innovation, while customer service shows lower

innovation demands. These findings support Hypothesis 3, suggesting that demographic factors variably influence EIB.

DISCUSSION

This study empirically analyzed the influence of Workplace Fun and Organizational Identification on Employee Innovation Behavior (EIB) in Chinese IT companies using an online questionnaire. The findings confirm that Workplace Fun and Organizational Identification positively impact EIB, with Organizational Identification having a more significant effect. Additionally, the analysis of demographic factors revealed a notable and unexpected finding: employees with different educational backgrounds exhibit significant differences in EIB, highlighting education's critical role in fostering innovation.

Influence of Workplace Fun on Employee Innovation Behavior

This study confirms that workplace fun positively influences Employee Innovation Behavior (EIB) in IT companies, as supported by empirical analysis and previous research. Workplace fun fosters a relaxed, engaging work environment that stimulates creativity and innovation. Shi and Yao (2019) found that workplace fun encourages employees to seek feedback, enhancing their creativity. Meanwhile, Yang et al. (2019) highlighted that active participation in fun activities boosts workplace vitality and generates new ideas. From a social exchange perspective, workplace fun strengthens the reciprocal relationship between employees and organizations. Employees who enjoy their work environment feel a duty to reciprocate by contributing more innovative efforts, creating a virtuous cycle of innovation and organizational support. Managers must recognize the importance of fostering an enjoyable workplace, as neglecting employees' emotional needs can lead to burnout and reduced innovation. However, workplace fun alone is insufficient; it should complement other organizational strategies to maximize its impact on EIB.

Influence of Organizational Identification on Employee Innovation Behavior

Organizational identification (OI) significantly impacts EIB in IT companies, exerting a stronger influence than workplace fun. Liu (2019) noted that OI drives employees' innovative performance by fostering a sense of belonging and alignment with organizational goals. This study uses emotional event theory to explain how workplace experiences influence behavior through the "event-emotion-attitude-behavior" pathway. Positive experiences foster emotional connections, increasing employees' commitment and motivation to innovate. In competitive IT environments, OI is crucial as employees base their motivation on trust and alignment with organizational values,

particularly when facing complex tasks and high collaboration demands. Enhancing OI through transparent management, growth opportunities, and a positive culture can significantly boost innovation. Managers should focus on fostering OI to align employees' personal and organizational goals, thus driving proactive and sustained innovation.

Influence of Demographic Factors on Employee Innovation Behavior

This study explores the impact of gender, age, education, years of service, and job position on Employee Innovation Behavior (EIB) in IT companies. The data indicate that gender does not significantly influence EIB, suggesting that male and female employees perform equally in innovation behavior. Age significantly affects EIB, with older employees demonstrating higher levels of innovation due to accumulated experience, industry insights, and problem-solving skills. Education also plays a critical role, as employees with master's degrees or higher exhibit more assertive innovation behavior, while those with lower educational levels, such as college graduates, show relatively weaker performance, emphasizing the need for targeted innovation training. Years of service positively correlate with EIB; longer-tenured employees benefit from more profound workplace knowledge and greater access to opportunities, while newer employees bring fresh ideas and perspectives. Job roles show marked differences: Technology/R&D positions exhibit the highest EIB due to high innovation demands, whereas customer service roles score lowest, likely due to fewer opportunities for creative contributions. Organizations should leverage experienced employees through mentorship, provide challenging tasks for highly educated staff, and redesign less innovation-oriented roles to foster creativity and growth.

CONCLUSION

Summary Table of Research Results

Table 13: Table of research results

Hypothesis	Content	Verification Results
H1	Workplace fun positively influence employees' innovative behavior	Established
H2	Organizational recognition positively influence employees' innovative behavior	Established
H3	The impact of demographic factors on employees' innovative behavior	Partially established
	Gender	Not significant
	Age	Significant
	Education	Significant
	Work experience	Significant
	Job position	Significant

From table 13, it can be seen that the hypothesis H1: Workplace fun positively influence Employee Innovation Behavior is valid. This study found that workplace fun does promote Employee Innovation Behavior, probably because the relaxed atmosphere helps to stimulate creativity. H2: Organizational identification positively influence Employee Innovation Behavior is similarly valid, suggesting that when employees are highly attuned to the organization's culture and goals, they are more likely to exhibit innovative behaviors because they are more willing to contribute to the organization's growth and innovation.H3: The Influence of Demographic Factors on Employee Innovation Behavior explores whether demographic factors such as age, gender, and educational attainment have an impact on employees' innovative behavior. The results of the study indicate partial validity, i.e., there are differences in the Influence of different demographic factors on employee innovation behavior, but not every factor significantly influences innovative behavior. The analysis of specific demographic factors shows that gender has no significant Influence on Employee Innovation Behavior, indicating that gender differences have no significant Influence on Innovation Behavior, and that means no significant difference between male and female Employees in terms of innovation performance. The significant influence of age on Employee Innovation Behavior implies that age may Influence innovation behavior, for example, younger employees may be more innovative and energetic, while older employees may be more experienced and stable in innovation performance. Influence of education on Employee Innovation Behavior is significant, suggesting that highly educated employees have more knowledge and skill reserves and can provide theoretical and practical support for innovation. Employee Innovation Behavior is significantly influenced by years of working in the company, suggesting that older employees may know more about the company and thus have an advantage in innovation, while newer employees bring fresh perspectives and thus influence innovation. Influence of job position on innovation behavior is significant. Different jobs may have different requirements and incentives for innovation, leading to differences in the performance of innovative behavior. This suggests that when motivating employees to innovate, organizations should focus on employees' work experience, cultural identity, and also consider individualized management of different demographic factors.

RECOMMENDATION

Based on the data of this paper, the following relevant recommendations are proposed to enhance the organizational performance and market competitiveness of IT companies in China.

Renewed Management Concepts: Creating Workplace Fun

IT companies, known for their high education and technical demands, face challenges such as employee turnover and high-pressure environments. A relaxing workplace has become vital for attracting and retaining talent, especially for younger employees who prioritizing job satisfaction beyond high salaries. Workplace fun, such as providing snacks, relaxation areas, or team activities, enhances employee well-being and creativity. Managers should shift from solely monetary incentives to meeting employees' emotional needs by organizing tailored activities. Examples include building comfortable break rooms, adding leisure facilities, and hosting diverse team events like camping or Frisbee games. These measures alleviate workplace stress and foster a positive organizational culture, motivating employees to contribute creatively to the company's success.

Focusing on Positive Emotions to Enhance Organizational Identification

In IT companies, employee identification with the organization is critical for long-term retention and innovation. However, high workloads and stress can trigger negative emotions, reducing employees' sense of belonging and leading to absenteeism or turnover. Traditional management approaches, which overlook emotional needs, exacerbate this issue. By fostering positive emotions, companies can enhance organizational identification. Managers should create supportive environments, celebrate employee achievements, and offer psychological support. For example, organizing milestone celebrations or providing relaxation areas can boost morale and trust. Positive emotional states inspire creativity and increase commitment, enabling employees to align personal goals with organizational objectives. This approach mitigates work-related stress and promotes sustainable innovation and employee loyalty.

Enhancing Organizational Identification to Stimulate Innovation

Organizational identification significantly drives Employee Innovation Behavior (EIB), especially for younger employees who value individuality and engagement. A lack of organizational identity often leads to low creativity and resistance to innovation. Managers must address this by fostering a sense of belonging and aligning employee goals with organizational objectives. Effective strategies include closely observing employee needs, addressing concerns promptly, and organizing innovative activities. For instance, theme visits for employees facing creative challenges can spark new ideas while reinforcing their connection to the organization. Positive emotions tied to organizational support encourage employees to innovate proactively, helping companies maintain a competitive advantage in the IT sector. Recognizing the role of identity and emotion is key to nurturing a creative and motivated workforce.

Clear Management Direction for Sustainable Development

Sustainable development in IT companies hinges on balancing material rewards with fulfilling employees' spiritual needs. While many companies offer high salaries, employees increasingly value enjoyable and supportive workplaces. Workplace fun—from leisure facilities to team-building activities—stimulates positive emotions, strengthens organizational identification, and motivates EIB. However, practical challenges such as poorly designed activities or unused facilities can limit these efforts. Managers should engage employees through anonymous surveys to understand their needs and preferences, ensuring fun activities are relevant and practical. Focusing on workplace fun boosts innovation and fosters long-term growth by creating an environment where employees feel valued and motivated to contribute to organizational success.

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