

Correlation Study of Burnout with Stress and Psychological Resilience Among Employees of Internet Enterprises

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Abstract: The purpose of this study is to understand the situation and characteristics of burnout among current Internet employees, and to further explore the correlation between burnout and stress and psychological resilience. The study was conducted from May 2024 to July 2024, adopting the General Information Questionnaire, Burnout Scale, Perceived Stress Scale (PSS) and Psychological Resilience (CD-RISC) to investigate and analyze the employees of Internet enterprises. The results show that the employees of Internet enterprises in the three dimensions of Emotional Exhaustion (EE), Depersonalization (DP), and Personal Achievement (PA) are at a high level of burnout, accounting for 20.80%, 16.81%, and 58.40% respectively, and at a moderate level of burnout, accounting for 53.28%, 14.25%, and 22.79% respectively; and that stress and psychological elasticity are the influencing factors of burnout. Nowadays, the overall situation of employee burnout in Internet enterprises is more prominent, and it is necessary to pay great attention to the problem of Internet employee burnout, and take corresponding measures to actively intervene.

1 INTRODUCTION

In the context of rapid socio-economic development, the development of the Internet and artificial intelligence technology, it can be said that the situation is changing rapidly, a large number of Internet companies are actively mastering artificial intelligence, big data, cloud computing and other advanced technologies, trying to improve and improve their own industrial system, the competition between different types of enterprises is becoming increasingly heated, and the requirements for Internet employees are becoming increasingly stringent, which leads to the fact that employees . As a result, the pressure on employees is increasing every day, which causes a number of problems related to

employee burnout. "Burnout", also known as job burnout, is a concept put forward by Freudenberger, a famous American psychologist, in 1974. According to him, burnout occurs when employees are overloaded with work to the point that it becomes unbearable for them. Burnout is a negative cognitive and emotional reaction that occurs when a person is under prolonged work stress, which not only affects the employee's physical and mental health, but also reduces his or her work efficiency and quality of work (Chen, Wang, 2019). Perceived stress refers to various stimuli and negative events in life or work that cause physical and mental suffering to a person, which in turn causes physical and mental discomfort and tension (Strizhitskaya, 2019). Psychological resilience is the process of an individual adapting well

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in the face of adversity, trauma, tragedy, threat, or severe stress (Guseltseva, 2023), and is believed to be a key factor in an individual adapting well to stress.

Excessive burnout will cause physiological and psychological imbalance in employees, and some may even engage in radical behavior, which will have a serious negative impact on their own healthy growth and the sustainable development of the enterprise organization. In recent years, burnout research has focused mainly on service personnel, but there are fewer studies on the current situation of burnout and the factors affecting it in the Internet industry.

The purpose of this study is to understand the current situation of employee burnout in the Internet industry, analyze the relationship between perceived stress, psychological flexibility and burnout, and help Internet company managers and employees take targeted measures to reduce burnout, improve work performance and maintain physical and mental health.

Object of the study. Employees of Internet companies

2 MATERIALS AND METHODS

From March to July 2024, the questionnaire was edited online using Google and a random sample of employees engaged in online work was interviewed. A total of 358 questionnaires were issued, 358 questionnaires were recovered, excluding questionnaires with missing answers or answers that were obviously regular, 351 valid questionnaires were recovered, and the effective recovery rate was 98.04%.

The random sample questionnaire questions included four sections:

The first part is basic information containing gender, age, marital status, level of education, working hours per week and length of service of the respondents;

The second part is the Maslach Burnout Inventory,

MBI /PI, consisting of 22 items in three dimensions: emotional exhaustion (EE), depersonalization (DP), and reduced professional achievement (PA). A score of 0 means “never” and a score of 6 means “every day”. EE consists of 9 items with a total score of 0-54, of which 9-26 are moderate burnout and >26 are severe; DP consists of 5 items with a total score of 0-30, of which 6-9 are moderate burnout and >9 is severe; and PA consists of 8 items with a total score of 0-48, of which 34-39 are moderate anxiety and <34 is severe burnout. The higher the scores on EE and DP and the lower the score on PA, the more severe the burnout.

The third part is the perceived stress scale (PSS) by S. Cohen, G. Williamson, which is usually used to measure the subjective level of perceived stress of respondents and includes 14 items. The scale is assessed on a 5-point Likert scale (0-4) in the range from 0 to 56 points, with higher scores indicating a higher level of perceived stress.

The fourth part is the Conners-Davidson Resilience Scale (CD-RISC) (Connor, Davidson, 2003), which includes three dimensions of resilience, strength and optimism, a total of 25 items, assessed on a 5-point Likert scale (0-4) ranging from “never this happens” to “almost always this happens”. The higher the score, the better the psychological resilience.”

The results of the study were analyzed using SPSS 26 to obtain descriptive statistics and significance testing was performed using t-test, with $P < 0.05$ indicating that the difference was statistically significant.

3 RESULTS AND DISCUSSION

From the basic information of the respondents, the sample gender, males accounted for 62.39%, females accounted for 37.61%, the number of men in Internet enterprises is larger than women; age structure, 20-30

years old accounted for 50.14%, 31-40 years old accounted for 39.32%, 41 years old and above accounted for 10.54%, the Internet is a new industry, the replacement is fast, so mostly young employees; by education, Did not receive a bachelor's degree 30.20%, bachelor's degree and above 69.80%. In terms of education, college and below accounted for 30.20%, bachelor's degree and above accounted for 69.80%, from the sample education distribution, we can see that Internet enterprises are more likely to choose talents with bachelor's degree and above; marital status, unmarried accounted for 53.57%,

married accounted for 46.44%, representing about half of the ratio; From the analysis of weekly working time, the weekly working time was From the analysis of weekly working time, the weekly working time of “≤40 hours” was 50.14%, and “>40 hours” was 49.86%; from the analysis of the sample of working years, the working time of <3 years was 54.42%, 3-6 years was 23.36%, 7-10 years was 13.39%, and more than 10 years was 8.83% . Since the Internet industry requires employees to be innovative, it is evident from the sample that young employees with less than 3 years of work experience predominate (Table 1).

Table 1: General information data [n (%)].

Project	Type	Quantity (proportion)
floor	female	132 (37.61)
	man	219 (62.39)
Age	20 ~ 30	176 (50.14)
	31 ~ 40	138 (39.32)
	≥ 41	37 (10.54)
education	Didn't get a bachelor's degree	106 (30.20)
	Bachelor's degree or higher	245 (69.80)
marital status	unmarried	188 (53.57)
	married	163 (46.44)
Number of working hours per week (h)	≤ 40	176 (50.14)
	> 40	175 (49.86)
Working years	< 3	191 (54.42)
	3 ~ 6	82 (23.36)
	7 ~ 10	47 (13.39)
	> 10	31 (8.83)

A t-test was conducted to determine the burnout level and its scores for each dimension among Internet workers of different gender, age, marital status, education level, and length of service, and the results are presented in Table 2. The scores for the

burnout dimensions were not statistically significant across genders ($P > 0.05$). As for education, the higher the education level, the higher the PA score ($P = 0.005$). By marital status, married workers were significantly lower than unmarried workers in the DP

dimension ($P = 0.002$); Internet workers with weekly working hours “ >40 h” had significantly higher EE ($P = 0.009$) and DP ($P = 0.014$) and lower PA ($P = 0.047$) compared to those with “ ≤ 40 h”.

F-test was conducted for burnout scores of employees with different ages and years of service, and it was found that the differences in DP and PA measurements among Internet employees with different ages were statistically significant ($P < 0.05$). The differences in EE, DP and PA measurements were statistically significant ($P < 0.05$) for Internet employees with different years of service. EE was higher in Internet employees with “3 to 6 years of service” than in the other three groups ($P = 0.046$, 0.005 and 0.032). And no significant difference was

found between the groups “ < 3 years”, “7-10 years” and “more 10 years” ($P=0.787$, 0.692, 0.840). Among workers with 4 to 6 years of work experience, DP is higher than in groups of 7 to 10 years and “more than 10 years” ($P<0.001$, $P<0.001$), and the DP value in the “ <3 years” group is higher than in the “more than 10 years” group ($P=0.016$); there is no significant difference between the PA value in the “more than 10 years” groups and “from 7 to 10 years” ($P=0.095$), but it is significantly higher than in the group “ <3 years” ($P=0.006$) and in the “ <3 years” group ($P=0.006$). Employees in the “3-6 years” group ($P<0.001$), while no significant difference was found between employees “ <3 years” and employees “4-6 years” ($P=0.818$).

Table 2: Comparison of professional burnout results ($\bar{x} \pm s$).

Project	Type	EE Score	DP Score	PA Score
floor	female	16.98 \pm 11.30	4.72 \pm 5.35	29.59 \pm 10.33
	man	14.00 \pm 10.08	4.06 \pm 3.73	30.83 \pm 11.60
	<i>t</i>	1.066	0.504	-0.476
	<i>P</i>	0.287	0.615	0.634
Age	20 ~ 30	18.18 \pm 11.30	5.64 \pm 5.99	27.87 \pm 9.98
	31 ~ 40	15.86 \pm 9.94	4.11 \pm 4.44	30.57 \pm 10.70
	≥ 41	14.11 \pm 10.94	2.35 \pm 3.33	34.73 \pm 9.07
	<i>F</i>	2.884	7.55	7.857
	<i>P</i>	0.057	0.001	< 0.001
education	Didn't get a bachelor's degree	17.64 \pm 12.21	5.01 \pm 5.61	27.28 \pm 10.33
	Bachelor's degree or higher	16.49 \pm 10.82	4.53 \pm 5.14	30.68 \pm 10.25
	<i>t</i>	1.068	0.076	0.024
	<i>P</i>	0.379	0.381	0.005
marital status	unmarried	17.89 \pm 11.94	5.79 \pm 6.18	27.73 \pm 9.70
	married	16.29 \pm 10.86	4.12 \pm 4.67	30.65 \pm 10.59
	<i>t</i>	2.12	10.096	2.239
	<i>P</i>	0.146	0.002	0.136
	≤ 40	15.28 \pm 11.08	4.01 \pm 4.88	30.15 \pm 10.71

Number of working hours per week (h)	> 40	18.42±11.23	5.39±5.59	29.15±10.03
<i>t</i>		-2.634	-2.459	-1.994
<i>P</i>		0.009	0.014	0.047
Working years	< 3	15.09±10.90	4.36±5.95	28.60±10.77
	3 ~ 6	18.71±11.42	5.94±5.63	28.22±10.08
	7 ~ 10	14.54±10.44	3.16±3.90	31.54±10.37
	> 10	14.07±11.15	1.52±1.79	35.13±9.45
<i>F</i>		4.01	10.438	5.356
<i>P</i>		0.008	< 0.001	0.001

Note: Emotional Exhaustion (EE), Depersonalization (DP) and Reduction Professional Achievement (PA)

Burnout, perceived stress and psychological resilience of Internet employees. According to Tables 3 and 4, the burnout assessment results of Internet employees show that the scores of 351 Internet employees on three dimensions of EE, DP and PA are 16.84±11.25, 4.69±5.29 and 29.65±10.38 respectively, the proportion of people with high burnout is 20.80%, 16.81% and 58.40%, and the proportion of people with medium burnout is 53.28%,

14.25% and 22.79% respectively, so it can be said that the proportion of Internet employees with high burnout is high. The number of people with the average burnout level was 53.28%, 14.25% and 22.79% respectively, thus it can be said that the proportion of Internet employees with a high burnout level is high. At the same time, the total score of perceived pressure of Internet employees is 23.07±7.48, which indicates that the perceived pressure of Internet employees is at the general level. The total score of psychological stability is 59.50±15.17, which corresponds to the overall low level.

Table 3: Indicators of professional burnout, perceived stress and psychological ($\bar{x} \pm s$).

Project	Type	Score
professional burnout	EE	16.84±11.25
	DP	4.69±5.29
	PA	29.65±10.38
	Overall score	23.07±7.48
Psychological stability	Overall score	59.50±15.17

Table 4: Professional burnout [n (%), $\bar{x} \pm s$].

Project	Low score		Average score		High score	
	Quantity (proportion)	Score	Quantity (proportion)	Score	Quantity (proportion)	Score

EE	91 (25.93)	4.44±2.63	187 (53.28)	16.24±5.30	73 (20.80)	33.84±6.77
DP	242 (68.95)	1.73±1.65	50 (14.25)	7.52±1.07	59 (16.81)	14.44±4.01
PA	66 (18.80)	43.09±2.62	80 (22.79)	36.64±1.68	205 (58.40)	22.60±7.34

Note: Emotional Exhaustion (EE), Depersonalization (DP) of the employee, the higher the psychological stress. At the same time, Professional Achievement (PA)

Correlation analysis of burnout, perceived stress and psychological stability. The results presented in Table 5 show that perceived stress significantly positively correlates with the parameters of emotional exhaustion (EE) and depersonalization (DP) of burnout and significantly negatively - with personal achievements (DP), and that company managers need to pay timely attention to the situation of burnout and perceived stress in Internet employees, and that the higher the emotional exhaustion (EE) and

the psychological stress. At the same time, psychological stability negatively correlates with emotional exhaustion (EE), depersonalization (DP) and intuitive stress (PSS) and significantly positively correlates with the reduction of professional achievements (PA), so the higher the personal achievements, the higher the psychological stability, and at the same time high psychological stability is associated with milder burnout and perceptual stress, while for low psychological stability the opposite picture is observed.

Table 5: Correlation analysis of professional burnout, perceptual stress and psychological elasticity.

	EE	DP	PA	P.S.S.	CD-RISC
EE	1				
DP	0.632**	1			
PA	-0.129*	-0.290**	1		
P.S.S.	0.538**	0.449**	-0.397**	1	
CD-RISC	-0.329**	-0.308**	0.527**	-0.609**	1

Note: Emotional exhaustion (EE), depersonalization (DP) and reduction in professional achievement (PA), perceived stress (PSS), psychological resilience (CD-RISC).

4 CONCLUSIONS.

The results of the study on the current burnout status among Internet employees show that the burnout situation among Internet employees is very significant, in addition, the degree of depersonalization (DP) among employees aged 20-30 years is significantly higher than other age groups, and this result is consistent with the study of MASLACH et al (Maslach, Schaufeli, Leiter, 2001),

which showed that age is associated with burnout and that the burnout rate is higher among younger employees. In addition, the study found that the higher the education level, the higher the personal accomplishment (PA) score. Emotional exhaustion (EE) and depersonalization (DP) were significantly higher in employees working online >40 hours per week than in the group ≤40 hours, suggesting that high workload and long working hours aggravate burnout in employees working online. At the same time, the study results showed that emotional exhaustion (EE) and depersonalization (DP) were

significantly higher in online employees with 4-6 years of experience than in other groups, which reminds us of the need to pay more attention to employee burnout at this stage.

Perceived stress is an individual's assessment of the degree of stress and their ability to cope with it, and some people will experience varying degrees of physical and psychological reactions when faced with stress, and if they do not adjust in time, they will experience burnout (Strizhitskaya, 2019). The results of this study showed that the perceived stress of Internet employees is moderate, and perceived stress is closely related to emotional exhaustion and depersonalization, which suggests that business leaders need to pay attention to burnout and perceived stress of Internet employees, and regularly conduct training on healthy psychological knowledge to help this part of the population relieve stress wisely and in a timely manner. Related studies have shown that higher psychological flexibility allows employees to positively adapt to the environment and cope with their work more flexibly (Guseltseva, 2023). The results of this study show that psychological resilience is negatively correlated with emotional exhaustion, depersonalization and perceived stress, and positively correlated with personal achievement, so nurses with high psychological resilience have lower burnout and perceived stress, while those with low psychological resilience have the opposite. The overall level of psychological resilience among employees in online companies is moderately low, and managers of online companies need to pay attention to nurturing psychological resilience in employees and improving their ability to adapt and positively perceive pressure.

In summary, burnout is more obvious among employees of Internet companies, which is more significant in the dimensions of emotional exhaustion and personal fulfillment, and should attract the attention of Internet companies. Enterprise managers

can conduct targeted resilience training, cultivate good coping styles and skills for overcoming difficulties, pay attention to mental health, help cope with pressure, etc., so as to effectively prevent and alleviate burnout, and improve work efficiency and quality.

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