

Information Technology Employees Intention to Leave in Small and Medium Enterprises in Kunming City, People's Republic of China

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Abstract. *Employees' intention to leave is a very common phenomenon of the high wastage of employees in enterprises, especially in the small and medium-sized enterprises (SMEs) of the IT industry, which has seriously endangered the survival and development of these enterprises. In this study, a quantitative research approach was employed. The researcher used questionnaires to obtain data on the current employees' intention to leave; descriptive statistics, such as means and standard deviations were used for the data analysis. The participants of this study were current IT industry employees in Kunming City, China. The total population was about 270 people, including the employees and HR managers. Random sampling was used to identify the sample of the study. The total number of the sample was at least 159 people, according Krejcie and Morgan's (1970) criteria. Questionnaires were used to collect the data of intention to leave in SMEs. The results revealed that employees less than 20 years old, with an education lower than a bachelor's degree and who had worked for 6 months to 3 years had a higher intention to leave. Among environmental factors, enterprise factors and individual factors, the individual factors showed the highest mean of intention to leave. The individual factors included the salary factor, benefits factor and career growth, with these three factors playing an important role in employees' intention to leave.*

INTRODUCTION

With the gradual improvement of the employee market, there is more and more freedom for modern enterprises of the IT industry in attracting and developing employees. At the same time, the question of how to retain employees has also raised significant challenges for them. Employees are the most important human capital; the loss of employees means the employers have to pay huge compensation costs, which also means a loss of assets. Employees' intention to leave not only brings tangible and intangible benefit losses, but also it will benefit more powerful competitors. Nowadays, a lot of enterprises, especially small and medium sized enterprises (SMEs) in the IT industry, have paid a huge price.

Intention to leave is one's behavioral intention to quit. Tett and Meyer (1993) and Rumery (1994) stated the intention to leave refers to the conscious plan of the workers to leave the organization. Intention to leave is more serious in small organizations. The loss of employees can have a particularly damaging impact on small organizations.

RESEARCH OBJECTIVES

This study had four objectives:

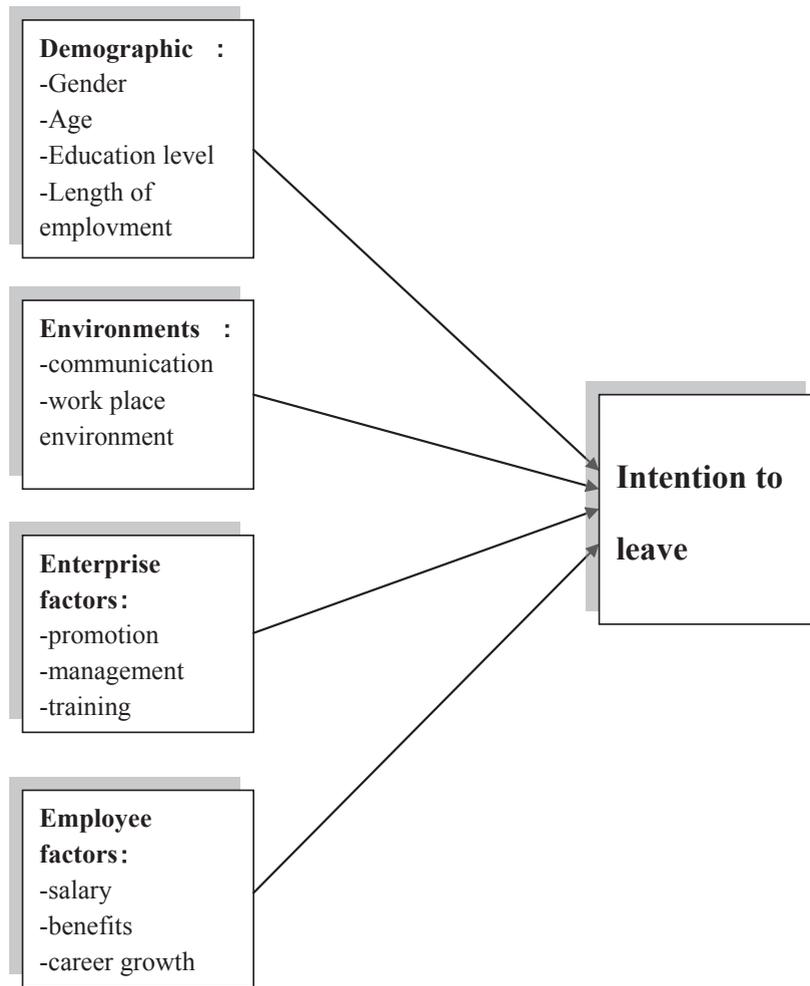
1. To analyze the relationship of demographic factors on intention to leave factors of IT employees;
2. To analyze the relationship of environmental factors on intention to leave factors of IT employees;
3. To analyze the relationship of enterprise factors on intention to leave factors of IT employees; and

4. To analyze the relationship of individual factors on intention to leave factors of IT employees.

Research Questions

- Based on the objectives, there were four research questions:
- What is the relationship of demographic variables on intention to leave?
- What is the relationship of environment factors on intention to leave?
- What is the relationship of enterprise factors on intention to leave?
- What is the relationship of individual factors on intention to leave?

Conceptual Framework of the Study



THEORETICAL FRAMEWORKS

Price and Mueller's model from 1986 analyzes the causal determinants of intention to leave (Price, 2001). Determinants of voluntary intention to leave are based on empirical research which has produced a model that offers a comprehensive list of determinants, such as generic factors (e.g., salary), benefits and job satisfaction. Exogenous variables, which are independent from the states of other variables in the model, are subdivided into three major groups: Environmental, individual and structural groups (Price, 2001). Endogenous variables are values which are determined by the states of other variables

LITERATURE REVIEW

Demographic factors that have been found to have a stable relationship with turnover intention in past research include age, tenure, level of education, level of income and job category. Several studies have reported a negative relationship between turnover intention and three demographic factors: age, tenure, and income level (Arnold & Feldman, 1982; Cotton & Tuttle, 1986; Gerhart, 1990; Mobley, 1977).

Wai and Robinson (1998) and Price and Mueller (1986) found that non-managerial employees are more likely to quit than managerial employees. Cotton and Tuttle (1986) found that females are more likely to leave than males,

Debrah (1993) noted that a supervisor with poor interpersonal skills who is also inflexible quickly drives employees away. He emphasized the critical role of supervision in retaining employees in Singapore companies.

Aquino *et al.* (1997) found the interpersonal context; especially between the supervisor and employees has a large effect on employees' intentions to quit. Thus, the following hypotheses are discussed:

Based on personal experiences and innumerable anecdotes, salary is considered one of the most important factors in employee turnovers (Campbell & Campbell, 1997). Indications are that employees are more likely to stay when there is a predictable work environment and *vice versa* (Zuber, 2001). In organizations where there was a high level of inefficiency, there was also a high level of staff turnover (Alexander *et al.*, 1994).

Therefore, when organizations are not stable employees tend to quit and look for stable organizations. Adopting a cost-oriented approach to employment costs increases labor turnover (Booth & Hamer, 2007).

Organizations with strong communication systems enjoyed lower turnover of staff (Labov, 1997). Employees feel comfortable to stay longer, in positions where they are involved in some level of the decision-making process. That is, employees should fully understand about issues that affect their working atmosphere (Magner *et al.*, 1996).

RESEARCH METHODOLOGY

A quantitative research approach was employed. The researcher used questionnaires to obtain data on the employees' current intention to leave situation; descriptive statistics, such as means and standard deviations, and the relationships between the variables were investigated. The target population of this research was the employees and HR managers who work in SMEs of IT enterprises in Kunming, China.

Questionnaires were used to collect the data of intention to leave which includes employees' departures in SMEs. In this study, one objective was to suggest a framework to conceptualize the phenomenon of employee turnover. So, the study planned to collect relevant data and information, which were utilized to compare, summarize, conclude and evaluate its research objectives.

There were four main parts in the questionnaires. The first part was demographic profile of the participants. Part two measured the environments of the SMEs, which referred to the factors of communication and workplace environment. Part three measured enterprises factors of promotion, management and training. The last part was employee factors, including salary, benefits and career growth.

Research Population and Sample

According to the definition of SMEs, the researcher found that there were six kinds of companies in Kunming. The population of this study was 270 IT employees in six companies. So, the sample size of at least 159 people was selected by stratified random sampling, as specified by Krejcie and Morgan (1970).

The instrument

The instrument used for data collection in this study was a questionnaire, developed by the researcher, on employees' intention to leave, based on previous questionnaires of various studies. The researcher constructed a series of questions, and then asked six experts to check their content validity. The next step was to follow their guidance to revise the questionnaire. After that, the researcher requested a formal letter from the International HRD Center of the Faculty of Education at Burapha University. Then, the researcher connected with the six IT companies which had already been selected and visited these companies. The final step was to request participation of the employees of these six companies for data collection.

DATA ANALYSIS

The data were analyzed by using the Statistical Package for Social Science Program (SPSS 13.0). Although many kinds of ways could be used to analyze the data, the researcher focused on the means, percentages, and standard deviation. The data in parts two, three and four of the questionnaire were analyzed using interval scales.

Determining the rank for the means was dependent on the Interpretation Criterion of Mean (Hinkle, 1998), as follows:

4.50-5.00 = most

3.50-4.49= more

2.50-3.49=average

1.50-2.49= few

1.00-1.49 = the least

According to the first research question, "What is the relationship of demographic variables on intention to leave?", the following tables provide supportive evidence to answer this question.

Table 1.1 Comparison of gender with all factors

GENDER		Environment factors	Rank	Enterprise factor	Rank	Individual factors	Rank
MALE	\bar{X}	4.22	2	4.19	2	4.31	2
	SD	0.33		0.25		0.30	
FEMALE	\bar{X}	4.24	1	4.20	1	4.35	1
	SD	0.29		0.27		0.29	
Total average	\bar{X}	4.20		4.21		4.33	
	SD	0.31		0.26		0.29	

As seen in Table 1.1, comparing gender with all factors found that the mean of females (4.27) is slightly higher than the mean of males (4.24). This means that employee gender does play a small role in the influence of employees' intention to leave.

Table 1.2 Comparison of gender with Environment factors, Enterprise factors and Individual factors

GENDER		Environment factors	Rank	Enterprise factor	Rank	Individual factors	Rank
MALE	\bar{X}	4.22	2	4.19	2	4.31	2
	SD	0.33		0.25		0.30	
FEMALE	\bar{X}	4.24	1	4.20	1	4.35	1
	SD	0.29		0.27		0.29	
Total average	\bar{X}	4.20		4.21		4.33	
	SD	0.31		0.26		0.29	

As seen in Table 1.2, in the environment factors, the mean of males was 4.22 and the mean of females was 4.24. In comparing the means, the researcher found that females care slightly more about environment factors than males. In the enterprise factors, the mean of males was 4.19 and the mean of females was 4.21. In comparing these two means, it was found that females cared slightly more about enterprise factors than males. In the individual factors, the mean of males was 4.31, while the mean of females was 4.35. Thus, the researcher concluded that females cared slightly more about individual factors than males.

In summary, females cared slightly more about environment factors, enterprise factors and individual factors than males.

Table 1.3 Comparison of age with all factors

AGE		All factors	Level of intention to leave	Rank
<20	\bar{X}	4.33	High	1
	SD	0.17		
21-30	\bar{X}	4.24	High	4
	SD	0.19		
31-40	\bar{X}	4.20	High	5
	SD	0.14		
41-50	\bar{X}	4.29	High	3
	SD	0.17		
51-60	\bar{X}	4.33	High	2
	SD	0.06		
>60	\bar{X}	4.17	High	6
	SD	0.08		
Total average	\bar{X}	4.25	High	
	SD	0.17		

As seen in Table 1.3, comparing age levels with all factors, the researcher found that the highest mean of age levels (4.33) was less than 20 years old. The mean of less than 60 years old (4.17) was the lowest of all age categories.

So, it was concluded that employees who were under 20 years old had a higher intention to leave than the other age levels of employees.

Table 1.4 Comparison of age with Environment factors, Enterprise factors and Individual factors

AGE		Environment factors	Rank	Enterprise factor	Rank	Individual factors	Rank
<20	\bar{X}	4.35	2	4.05	6	4.38	2
	SD	0.23		0.25		0.29	
21-30	\bar{X}	4.18	5	4.24	3	4.50	1
	SD	0.35		0.25		0.31	
31-40	\bar{X}	4.23	4	4.27	2	4.31	5
	SD	0.27		0.26		0.25	
41-50	\bar{X}	4.25	3	4.27	1	4.36	3
	SD	0.30		0.23		0.36	
51-60	\bar{X}	4.43	1	4.23	4	4.34	4
	SD	0.27		0.28		0.32	
>60	\bar{X}	3.94	6	4.08	5	4.31	6
	SD	0.09		0.06		0.32	
Total average	\bar{X}	4.23		4.20		4.33	
	SD	0.31		0.26		0.29	

As seen in Table 1.4, in the environment factors, the highest mean of age levels was 51-60 years old (4.43) and the lowest mean of age levels is more than 60 years old (3.94). In the enterprise factors, the highest mean of age levels was 41-50 years old (4.27) and the lowest mean of age levels was less than 20 years old (4.05). In the individual factors, the highest mean of age levels was 21-30 years old (4.50) and the lowest mean of age levels is more than 60 years old (4.31).

In short, in the environment factors, 51 to 60 years old employees cared more about environment factors compared with other age levels of employees. In the enterprise factors, 41 to 50 years old employees cared more about enterprise factors compared with other age levels of employees. In the individual factors, from 21 to 30 year old employees cared more about enterprise factors compared with other age levels of employees.

Table 1.5 Comparison of educational levels with all factors

Education levels		All factors	Level of intention to leave	Rank
Lower than bachelor's degree	\bar{X}	4.30	High	1
	SD	0.18		
Bachelor's degree	\bar{X}	4.24	High	3
	SD	0.16		
Master's degree	\bar{X}	4.26	High	2
	SD	0.18		
Doctoral degree	\bar{X}	4.20	High	4
	SD	0.19		
Total average	\bar{X}	4.25	High	
	SD	0.17		

As seen in Table 1.5, comparing educational levels with all factors it was found that the highest mean of educational levels (4.30) was lower than a bachelor's degree. The mean for those employees

holding a doctoral degree (4.20) was the lowest of all educational categories. So, employees with lower educational qualifications than a bachelor's degree employees had a higher intention to leave than those with higher educational levels.

Table 1.6 Comparison of educational levels with Environment factors, Enterprise factors and Individual factors

Educational levels	Environment factors	Rank	Enterprise factors	Rank	Individual factors	Rank
Lower than bachelor degree	\bar{X} 4.32 SD 0.22	1	4.05 0.32	4	4.29 0.28	4
Bachelor's degree	\bar{X} 4.21 SD 0.32	3	4.17 0.26	3	4.33 0.26	3
Master's degree	\bar{X} 4.22 SD 0.32	2	4.26 0.22	1	4.36 0.35	2
Doctoral degree	\bar{X} 4.18 SD 0.41	4	4.21 0.26	2	4.38 0.33	1
Total average	\bar{X} 4.23 SD 0.31		4.20 0.26		4.33 0.29	

As seen in Table 1.6, in the environment factors, the highest mean of education levels was lower than a bachelor's degree (4.32) and the lowest mean of education level was doctoral degree (4.18). In the enterprise factors, the highest mean of education levels was a Master's degree (4.26) and the lowest mean of education levels was lower than a bachelor's degree (4.05). In the individual factors, the highest mean of education levels was a doctoral degree (4.38) and the lowest mean of education levels was lower than a bachelor's degree (4.29).

In short, in the environment factors, enterprise factors and individual factors, lower than a bachelor's degree employees did not care about these factors in their intention to leave their organization. But employees with a higher level of education, such as employees who held Master's degrees or doctoral degrees cared very much about environment factors, enterprise factors and individual factors.

Table 1.7 Comparison of length of employment with all factors

Working Time	All factors	Level of intention to leave	Rank
6 months – 3 years	\bar{X} 4.30 SD 0.19	High	1
4-6 years	\bar{X} 4.23 SD 0.16	High	4
7-10 years	\bar{X} 4.27 SD 0.17	High	2
More than 10 years	\bar{X} 4.26 SD 0.16	High	3
Total average	\bar{X} 4.25 SD 0.17	High	

As seen in Table 1.7, comparing length of employment with all factors, researcher found that the highest mean length of employment (4.30) was the category of 6 months – 3 years. The mean of 4-6 years (4.23) was the lowest of all categories.

So, the employees who had worked for between 6 months and 3 years had a higher intention to leave than employees with other lengths of employment.

Table 1.8 Comparison of length of employment with Environment factors, Enterprise factors and Individual factors

Working time		Environment factors	Rank	Enterprise factors	Rank	Individual factors	Rank
6months – 3 years	\bar{X}	4.28	2	4.22	2	4.39	1
	SD	0.29		0.24		0.31	
4-6years	\bar{X}	4.20	3	4.19	3	4.28	4
	SD	0.32		0.27		0.28	
7-10 years	\bar{X}	4.28	1	4.17	4	4.34	3
	SD	0.32		0.29		0.28	
More than 10 years	\bar{X}	4.16	4	4.23	1	4.37	2
	SD	0.32		0.24		0.33	
Total average	\bar{X}	4.23		4.20		4.33	
	SD	0.31		0.26		0.29	

As seen in Table 1.8, in the environment factors, the highest mean of length of employment was 7-10 years (4.32) and the lowest mean of length of employment was more than 10 years (4.16). In the enterprise factors, the highest mean of length of employment was more than 10 years (4.23) and the lowest lengths of employment were 7-10 years (4.17). In the individual factors, the highest mean of length of employment was 6 months – 3 years (4.38) and the lowest mean of length of employment was 4-6 years (4.28).

In short, employees with more than 10 years employment cared less about environmental factors than employees with other lengths of employment. Employees with more than 10 years employment cared more about enterprise factors than other employees. Employees with a length of employment of between 6 months and 3 years cared more about individual factors than employees with other lengths of employment.

What is the relationship between environment factors and intention to leave? What is the relationship between enterprise factors and intention to leave? What is the relationship between individual factors and intention to leave? The following tables will provide data to answer these research questions.

Table 1.9 Comparison of Environment factors, Enterprise factors and Individual factors.

All factors	\bar{X}	SD	Level of intention to leave	Rank
1. Environment factors	4.23	0.39	High	2
2. Enterprise factors	4.20	0.35	High	3
3. Individual factors	4.33	0.37	High	1

As seen in Table 1.9, all three elements have different values of mean, with the highest mean being for individual factors at 4.33, and the lowest mean was 4.20 for enterprise factors. . So, it was concluded that individual factors had the highest relationship with intention to leave and enterprise factors had the least effect on departure.

DISCUSSION AND CONCLUSIONS

The main findings of this study were:

1) Female employees had a slightly higher intention to leave their positions in Kunming SMEs compared to male employees.

2) Employees who were less than 20 years old had a higher intention to leave compared to other age levels of employees.

3) Employees who had an educational qualification lower than a bachelor's degree had a higher intention to leave compared to employees with other educational levels.

4) The employees who had worked for between 6 months and 3 years had a higher intention to leave compared to employees with other lengths of employment.

Among the environment factors, enterprise factors and individual factors, the individual factors contributed the most for employees' intention to leave. At the same time, enterprise factors contributed the least towards employees' intention to leave.

In this study, the data showed that female employees had a slightly higher intention to leave their present positions in SMEs. This may be because female employees typically have more responsibility to take care of some other things more than male employees. This finding is supported by the finding of Bachman, Martinez and Hebl (1996), who also found that female employees had a higher intention to leave their jobs than males.

As for the age factor, the youngest employees had the highest intention to leave their jobs. This may be due to the fact that they are new to work, not settled down, do not know how to work, and still looking for other opportunities. This finding is supported by the finding of Heymann (2010), who found that the youngest employees had the highest intention to leave.

Among environment factors, enterprise factors and individual factors, the individual factors showed the highest mean. The individual factors included the salary factor, benefits factor and career growth. So, these three factors were found to play an important role in employees' intention to leave. This finding is supported by the finding of Rana and Tariq Mehmood (2009), who found that salary directly affects the employee intention to leave, while benefits will satisfy and retain employees. This factor was the most common cause of the employees' intention to leave rate being so high.

Money and benefits are important, but studies show most employees leave for other reasons. Career growth is another important factor. So providing career development is a smart choice for employers. For many people, learning new skills and advancing their career is just as important as the money they make. This finding is supported by the finding of Mosadeghrad, Ferlie and Rosenberg (2005) who found that career development is an external factor that influences an employees' intention to leave.

As to the workplace environment factor, employees who worked in a workplace with poor communications environment had a high intention to leave. This finding may have been due to the fact that poor communications influence their work directly. This finding is supported by the finding of Burnes (2006), who found that managers who have poor communication skills influence their employees to consider leaving their organizations.

As for the enterprise factor, this finding may be contributed to by the fact that poor management will cause employees to experience a lack of hope and trust. This finding is supported by the finding of Choi (2008), who found that ineffective management of diversity decreased employees' intentions to leave their present position.

RECOMMENDATIONS

1. Recommendations for Application

Based on the results of this study, the researcher proposes the following recommendations:

Firstly, building a transparent and reasonable promotion system for the company was considered to be very important to employees. Secondly, from the management aspect, a fair and scientific management system can help employees feel comfortable; it also could make a benign cycle of competition for maintaining team purpose and functionality.

The SMEs should increase the education of their employees, in order to encourage a good sense of cash and kind, and to be able to brainstorm to create value creation and value-added thinking. The SMEs should encourage employees to start and strengthen their self-development and company development consciousness. The SMEs should promote cooperation with other IT companies to establish a corporate practice base to widen their horizon. Employees must understand that business

has been effective, and can effectively improve the income of employees. To fully mobilize the initiative of employees, employers may use their cost savings to reward and encourage employees in order to make all employees feel involved. Full use of their talents, along with cost savings for enterprises to contribute to employee welfare is a better way to provide incentives. If employers fully communicate with employees, then employees can understand the company's intention, and makes them feel integrated with the company's vision and mission. Companies should study and train employees, so that they can improve the quality and good consciousness of employees.

From the three factors investigated in this study, it was found that individual factors contributed the most to the employees' intention to leave, so that reasonable salaries for employees played an important role for life foundation and it was also the foundation for the needs of life. Companies should try their best to support and maintain the employees' basic needs. However, only using salary to motivate employees is a dangerous way to maintain the aspiration for work. Another aspect is to pay more attention to the work benefits. In the traditional way, talking about benefits refers to material things. Actually, it contains many different aspects. For example, a balance between work and family life is a good benefit for employees who are female and have babies, and, therefore, who had heavy burdens in their daily life. The last, but not least factor, was career growth. Salary is a basic need for life, but career growth was a higher demand from employees. Giving employees more opportunities to learn could motivate them to seek higher goals in their life, and also create greater value for the company.

2. Recommendations for Future Research

In this study, the researcher showed that employees' intentions to leave were based on three factors. One is the environment factor, the second is the enterprise factor and last one is employees' individual factor. Future studies are recommended to investigate the details of why each factor influences the employees' intentions to leave and how each factor correlates with each other. So, the researcher suggests that future research investigates what is the human resource department's role in employees' intentions to leave and how its role may be changed to reduce their intention to leave their present position, thereby reducing the costs of resignation and training of new employees.

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