

THE IMPACT OF MOTIVATION, JOB CHARACTERISTICS, AND
ORGANIZATIONAL COMMITMENT AFFECTING JOB SATISFACTION IN THE
VEHICLE NETWORKING INDUSTRY OF CHINA



**BANGKOK
UNIVERSITY**
THE CREATIVE UNIVERSITY

This Independent Study Manuscript Presented to
The Graduate School of Bangkok University
in Partial Fulfillment
of the Requirements for the Degree
Master of Business Administration

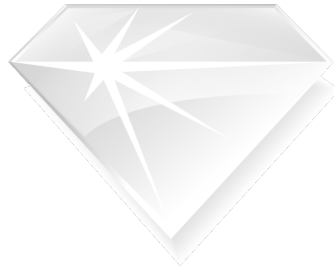
Academic Year 2021

Copyright of Bangkok University

This manuscript has been approved by
the Graduate School
Bangkok University

Title : The Impact of Motivation, Job Characteristics, and Organizational
Commitment Affecting Job Satisfaction in The Vehicle Networking
Industry of China

Author: Xu Bing



Independent Study Committee:

Advisor

**BANGKOK
UNIVERSITY**
THE CREATIVE UNIVERSITY
Dr. Chutimavadee Thongjeen

Field Specialist

Assoc. Prof. Dr. Suthinan Pomsuwan

Xu Bing. Master of Business Administration, March 2023, Graduate School, Bangkok University.

The Impact of Motivation, Job Characteristics, and Organizational Commitment Affecting Job Satisfaction in the Vehicle Networking Industry of China, (69 pp.)

Advisor: Chutimavadee Thongjeen, Ph.D.

ABSTRACT

The aim of this research study was to investigate the impact of motivation, job characteristics, and organizational commitment affecting job satisfaction in the vehicle networking industry of China. The population of this study focuses on the employees who are working in vehicle networking industry. The research questionnaires were spread out to the 400 respondents from selected five enterprises by using convenience sampling method. To analysis of the data, frequency, percentage, mean, standard deviation and multiple linear regression were used.

The results of the study showed that three of the hypothesis factors of motivation, job characteristics, and organizational commitment were statistical significant on the job satisfaction in the vehicle networking industry of China at 0.05 level.

BANGKOK
UNIVERSITY
THE CREATIVE UNIVERSITY

Keywords: Motivation, Job Characteristics, Organizational Commitment, Job Satisfaction

ACKNOWLEDGEMENT

This research would not have been possible without the generous help of many people. First of all, I would like to express my heartfelt thanks to my mentor Dr. Chutimavadee Thongjeen, who always provides valuable advice and guides me in the right way to complete independent study flawlessly with her wisdom, patience and knowledge. I would also like to thank Assoc. Prof Suthinan Pomsuwan is always willing to help and advice all students. I would also like to thank all the lectures, professors and staff at Bangkok University Graduate School for all the information, knowledge and help they provided throughout my studies.

Second, I am grateful to have a family who has been silently encouraging and supporting me.

Third, I would like to thank all my classmates who helped and supported me during my MBA study at Bangkok University.

Xu Bing



**BANGKOK
UNIVERSITY**
THE CREATIVE UNIVERSITY

TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
ACKNOWLEDGEMENT	iv
LIST OF TABLES	vii
LIST OF FIGURES.....	viii
CHAPTER 1: INTRODUCTION	1
1.1 The Importance and Problem of the Study.....	1
1.2 Research Problems	3
1.3 Objectives of the Study.....	3
1.4 Method of Study.....	4
1.5 Tools and Statistics Used	4
1.6 Scope of the Study	4
1.7 Benefits of the Research	6
1.8 Limitation of the Research.....	7
1.9 Definitions of Terms	8
CHAPTER 2: LITERATURE REVIEW.....	9
2.1 The Background of Business Industry.....	9
2.2 Theories/Academic Concepts and Other Relevant Research Articles (Job Satisfaction)	10
2.3 Theories/Academic Concepts and Other Relevant Research Articles (Motivation)	12
2.4 Theories /Academic Concepts and Other Relevant Research Articles (Job Characteristics)	13
2.5 Theories /Academic Concepts and Other Relevant Research Articles (Organizational Commitment)	14
2.6 Previous Researches.....	15
2.7 Hypotheses.....	17
2.8 Conceptual Framework.....	17
2.9 Conclusion.....	18

TABLE OF CONTENTS (Continued)

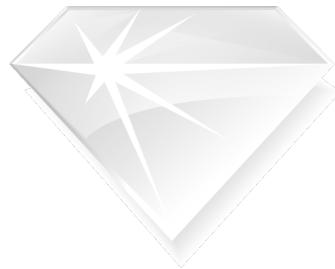
	Page
CHAPTER 3: METHODOLOGY	19
3.1 The Type of Research and Tool	19
3.2 The Research Design	25
3.3 The Quality of Research Tool	26
3.4. The Data Collection.....	27
3.5 The Population and Sample	27
3.6 The Sampling Technique.....	27
3.7 The Research Procedures and Timeline	27
3.8 The Hypotheses Test And Data Analysis	28
CHAPTER 4: ANALYSIS AND FINDINGS	30
4.1 Analysis of Demographic Data.....	31
4.2 Analysis of Motivation Factor	34
4.3 Analysis of Job Characteristics Factor	35
4.4 Analysis of Organizational Commitment Factor	38
4.5 Analysis of Job Satisfaction Factor	39
4.6 Analysis of the Relationship between Motivation, Job Characteristics, Organizational Commitment and Job Satisfaction.....	42
4.7 Result of Hypothesis Testing.....	46
CHAPTER 5: SUMMARY, CONCLUSION, AND DISCUSSION	47
5.1 Summary and Conclusion	47
5.2 Discussion	49
5.3 Recommendation for Implications	50
5.4 Recommendations for Future Research.....	52
BIBLIOGRAPHY	53
APPENDIX.....	59
BIODATA.....	68

LIST OF TABLES

	Page
Table 3.1: The questions of Motivation Factor.....	20
Table 3.2: The questions of Job Characteristic.....	20
Table 3.3: The questions of Organizational Commitment.....	22
Table 3.4: The questions of Job Satisfaction.....	23
Table 3.5: The Range of Mean Interpretation.....	25
Table 3.6: The Reliability Test Results	26
Table 4.1: Demographics Data of respondents.....	31
Table 4.2: Motivation.....	34
Table 4.3: Job Characteristics.....	35
Table 4.4: Organizational Commitment	38
Table 4.5: Job Satisfaction	39
Table 4.6: Model Summary	42
Table 4.7: Anova.....	43
Table 4.8: Correlation.....	43
Table 4.9: Coefficients.....	44
Table 4.10: The Result of Hypothesis Testing.....	46

LIST OF FIGURES

	Page
Figure 1.1: Employees increasingly under stress.....	2
Figure 1.2: Yamane’s Table for Sample Size	6
Figure 2.1: The Conceptual Framework.....	17



**BANGKOK
UNIVERSITY**
THE CREATIVE UNIVERSITY

CHAPTER 1

INTRODUCTION

This chapter presents the research plan of this study, outlining its significance and problems, study objectives, background data on all variables, study scope, and explains the benefits of the study, dependent variable/population and sample) limitations and definitions of study terms.

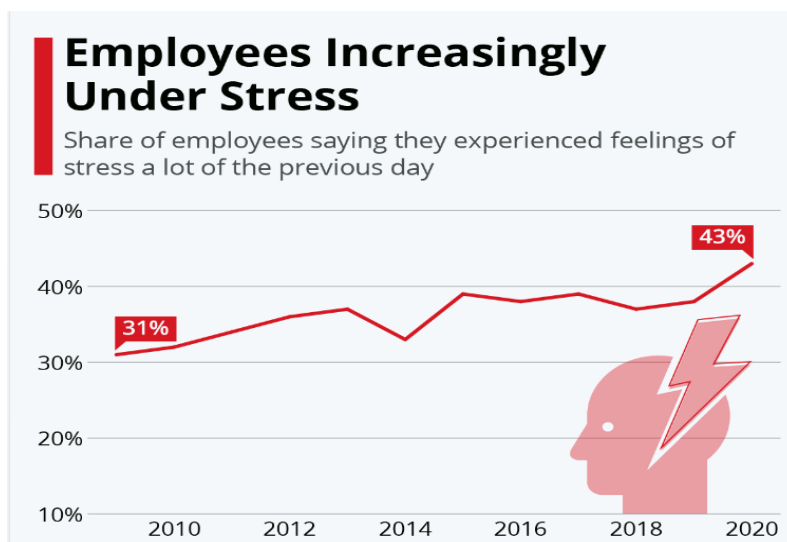
1.1 The Importance and Problem of the Study

Today's organizations are characterized by work that is becoming more complex, changing quickly, and taking place in increasingly competitive business environments (Cascio, 1998). Therefore, the organizations have been competing against one another in order to be the last survivor to become the market leader. In the past, winning depended on factors like product technology and process, readily available capital sources, etc. However, at the moment, these types of resources are insufficient to outperform rivals (Pfeffer, 1994). The most valuable and necessary component for organizations to run smoothly, effectively, and efficiently is human resource (Mosadragh, 2003). In other words, the success of organizations was significantly influenced by human resources.

Job satisfaction is critical because most people spend the majority of their time at the work place. The employee's dissatisfaction will influence their commitment to work and cause them to physically or mentally leave the company (Pathak, 2012). The less satisfied an employee is with his or her job, the more likely it is that he or she will leave the company. More satisfied and happy employees in the work place would be stick with the organization for a long time. Christopher et al. (2002) suggests that It customers can be satisfied by satisfied employees. Would be extremely difficult for a company to satisfy customers if its employees were dissatisfied with their jobs. Employees are both directly and indirectly interact with customers and there are many options out there in the market for the customers to choose from. Therefore, to survive the business for a long term and achieve the organization goals, the companies must have satisfied employees who can fulfill the customers' satisfaction.

Each year, the employees experienced feeling of stress a lot as follows:

Figure 1.1: Employees increasingly under stress



Source: Armstrong, M. (2021, December 8). *Employees Increasingly Under Stress*. Retrieved from <https://www.statista.com/chart/26363/share-employees-feeling-stress-timeline/>

The above figure shows that due to global border closures, workplace closures and job cuts, workers' daily stress reached a record high and experience stress for much of the previous day.

There are multiple factors that increase the job satisfaction. Rao (2005) in his study discussed that a person's motivation to work is based on their level of job satisfaction. Ogunrombi & Elogie (2015) also mentioned that Motivation is defined as anything that is required to push employees to perform by gratifying or satisfying their needs. Motivation is one of the main issues in behavioral sciences and based on the crucial position and significant role of human resources in achieving organizational objectives (ShaemiBarzoki, A., 2008). Therefore, organization need to consider employees as a valuable asset and how employees' motivation can drive the efficient organization.

Job Characteristics is also another factor for satisfying the employees in the organization. When job tasks are enjoyable and meaningful, employees will enjoy their work and be motivated to do it well (Spector, 1997). According to Bontis and Serenko (2007) stated that job characteristics influence employee satisfaction, which

in turn affects organizational effectiveness and customer focus. That's why job characteristic is one of the important factors that need to be considered.

Finally, Commitment has been found as one of the crucial factor that can contribute towards the organizational efficiency. The concept of commitment has been followed by different approaches. One of the major models of organizational commitment is that developed by Meyer & Allen (1991), organizational commitment in terms of three distinct dimensions: affective, continuance, and normative.

The reason of conducted to Vehicle Networking industry in China is that connected vehicles and vehicular networks have been identified as an essential technology to improve traffic safety and transportation effectiveness (Zhang, T. et al, 2014; Yang, J. and Fei, Z., 2013). Vehicle network infrastructure integration technology has received a lot of attention in recent years. It also has immeasurable economic value and will be crucial for the development of the next generation of intelligent transportation systems and communication networks (Shanzhi Chen et al, 2014). Thus, this study concentrates on the Chinese Vehicle Networking industry to reduce the work place stress to identify how to improve and enhance the performance and competitiveness of this industry by implementing human resource management practices and business strategies.

The purpose of this study is to add insight into assessing the effects of motivation, job characteristics and expectancy on job satisfaction. This research contributes significantly to the vehicle networking industry in better understanding the satisfaction level of employees and can motivate them to improve the work performance.

1.2 Research Problems

1.2.1 Does motivation, job characteristics and organizational commitment have an influence on job satisfaction?

1.2.2 Which one of motivation, job characteristics and organizational commitment affect the most to job satisfaction?

1.3 Objectives of the Study

1.3.1 To analysis the relationship between motivation factor and job satisfaction of employees in the vehicle networking industry of China

1.3.2 To examine the effect of job characteristics on the job satisfaction of employees at vehicle networking industry in China

1.3.3. To study the impact of commitment of employees towards job satisfaction in the vehicle networking industry of China.

1.4 Method of Study

The population of this study is on employees of Vehicle Networking Industry of China. The descriptive and inferential statistic methods are used in this study and the primary data is collected through directly to employees numbering about 400 who are working at Vehicle networking industry in Shanghai, which is the heart of China. The reason for choosing Shanghai as the target population is that it is an integral part of the core of the entire Chinese economy. As the most developed city in China, excellent talents from all over the country are gathered here. This research study towards Management and non-Management staff from Vehicle networking industry in Shanghai. Online survey is best suited for this study at this time, as there are several restrictions currently in China due to the on-going pandemic of COVID-19.

1.5 Tools and Statistics Used

Data collection was done through an online questionnaire using a closed-ended questionnaire, and the measurement scale used to evaluate the questionnaire was a Likert scale to obtain demographic data and information on motivation, job characteristics, and organizational commitment. Statistical analysis is performed quantitatively by using two common statistical methods: descriptive statistics and inferential statistics (multiple linear regression). Data have been processed using computerized software.

1.6 Scope of the Study

1.6.1 Variables

Independent Variables:

1. Motivation

1.1 Power

1.2 Affiliation

1.3 Achievement

2. Job Characteristics

2.1 Skill Variety

2.2 Task identity

2.3 Task Significance

2.4 Autonomy

2.5 Feedback

3. Organizational Commitment

3.1 Affective Commitment

3.2 Continuance Commitment

3.3 Normative Commitment

Dependent Variables: Job Satisfaction in the Vehicle Networking Industry of China

1.6.2 Population and Sample:

The population in this study is the employees of the Vehicle Networking industry in China. The questionnaires distributed directly to employees by using the convenience sampling method. Survey questionnaires were conducted from top Management level, middle management level and non-management level employees from Vehicle networking industry in Shanghai, China. Shanghai has a total population of 28.517 million, according to the report "Shanghai, China's Metropolitan Area Population 1950-2022". As can be seen from the table, 400 samples need to be collected at an overall scale of more than 100,000, and the accuracy level is $\pm 5\%$.

Figure 1.2: Yamane's Table for Sample Size

Size of Population (N)	Sample Size (n) for Precision (E) of:			
	±3%	±5%	±7%	±10%
500	A	222	145	83
600	A	240	152	86
700	A	255	158	88
800	A	267	163	89
900	A	277	166	90
1,000	A	286	169	91
2,000	714	333	185	95
3,000	811	353	191	97
4,000	870	364	194	98
5,000	909	370	196	98
6,000	938	375	197	98
7,000	959	378	198	99
8,000	976	381	199	99
9,000	989	383	200	99
10,000	1,000	385	200	99
15,000	1,034	390	201	99
20,000	1,053	392	204	100
25,000	1,064	394	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100
>100,000	1,111	400	204	100

A = Assumption of normal population is poor (Yamane, 1967). The en

THE CREATIVE UNIVERSITY

Source: Yamane, T. (1967). *Statistics: An introductory analysis*. New York: Harper and Row.

1.7 Benefits of the Research

The main purpose of the research is to provide theoretical information and scientific data to further develop the research field through the review of classical literature and theoretical research, taking the industry in Shanghai as an example.

In addition, research analysis is a key part of research to explore existing case studies and future cases. It can deepen the understanding of topics or concepts. In order to find key cases and find distance in existing cases, researchers have the ability to build a solid foundation, whether they agree or disagree with previous research.

In this study, the author explored the well-known concept of job satisfaction,

and conducted this study in Shanghai to make people aware of job satisfaction and the factors that affect job satisfaction. This paper is supposed to have a further understanding of job satisfaction and its influencing factors.

1.7.1 Researchers and academicians

This study can be used as a reference material for further research on related topics and is helpful for educational purposes. Through reading this study, researchers will have a deep understanding of what key factors can improve job satisfaction.

1.7.2 Company and organization

This research has provided important help to the management and employers, enabling them to maintain their commitment to success, build a sustainable workforce, and enable employees to achieve their self-worthwhile better fulfilling corporate goals.

1.7.3 Supervisors and Line Managers

Supervisors can also practice in their work according to the independent variables mentioned in this article. According to their own enterprise characteristics, they can set more reasonable work goals, establish scientific and effective work processes, and make better organizational commitments for employees to meet their best work environment. A deep understanding of job satisfaction will help employers and line managers better motivate employees to achieve their best performance in the organization.

1.7.4 Employees

Through this study, employees can also compare their own working environment through learning the articles, in order to improve their working conditions and better realize their self-worth. Communication with direct superiors and even enterprises, expressing their own feelings and expectations for the enterprise, and timely feedback on the shortcomings or improvement plans of the enterprise in management are important for the organization to achieve its goals.

1.8 Limitations of the Research

This study will only focus on the vehicle networking industry in Shanghai, China due to inadequate resource and time issues therefore this can limit the generalizability of the findings. The data were collected using an online questionnaire

therefore some subjective bias may be present in the results. Nonetheless, this limitation is inevitable during the short time period that the COVID-19 situation and it can be take time to receive the questionnaire back from respondents because of their busy lives, which may possibly interfere in the willingness to participate in the study. The survey questions were written in English therefore some employees might have been hesitant to respond.

1.9 Definition of Terms

Job Satisfaction: Job satisfaction is the degree to which employees derive pleasure from their efforts in the workplace (Fogarty, 1994).

Motivation: Motivation is an action or process that provides a reason for a person to do a job in a particular way, or clarifies repeated actions, needs, and desires (Andrew J. Elliot, 1999).

Job Characteristics: Job characteristics refers to the specific aspects of a job such as knowledge and skills, mental and physical demands, and working conditions that can be recognized, defined, and assessed (Naude, 2010; Schuurman, 2011).

Organizational Commitment: Organizational commitment is defined as employees of an organization believing that they belong to the organization (or parts of the organization) and have a sense of belonging to the organization (Meyer, Kam, Goldenberg, & Bremner, 2013).

CHAPTER 2

LITERATURE REVIEW

This chapter summarizes the literature related to the research project and identifies gaps in the literature and how this study can help fill those gaps. In the research project entitled "The Impact of Motivation, Job Characteristics and organizational Commitment on job Satisfaction in China's Vehicle Networking Industry", it can be divided into eight elements. The details are as follows:

2.1 The Background of Business Industry

2.2 Theories/Academic Concepts and Other Relevant Research Articles of

Job Satisfaction

2.3 Theories/ Academic Concepts and Other Relevant Research Articles of

Motivation

2.4 Theories Academic Concepts and Other Relevant Research Articles of **Job**

Characteristics

2.5 Theories Academic Concepts and Other Relevant Research Articles of

Organizational Commitment

2.6 Hypotheses

2.7 Conceptual Framework

2.8 Conclusion

2.1 The Background of Business Industry

Internet of Things (IoT), it will create a vast network of billions or trillions of "things" communicating with each other and is facing many technical and application challenges. China needs to harness new technologies such as the Internet of Things to tackle the growing traffic congestion in urban areas (Shanzhi Chen et al., 2014).

China's Ministry of Transport has announced a plan to have connected vehicle systems installed and used across the country by 2020. The government will invest about Rmb4tn in China's networking vehicle industry over the next 10 years. China's networking vehicle system is developing and maintaining high growth rate (Chen Shanzhi et al., 2014). The market of China's urban Internet of Vehicles control system is developing rapidly. Its application scope includes electronic police, surveillance

traffic video, information-based urban public transportation, intelligent control traffic signals, and intelligent taxi service management. (Shanzhi Chen et al., 2014).

The installation of Internet of Things infrastructure in ITS connected vehicle system of smart city will be the support of basic technology. Networking vehicles and vehicle networks have been identified as key technologies to improve road safety and transport efficiency (Yang, J and fei, Z., 2013) (Zhang, T. Et al., 2014). In recent years, vehicle network infrastructure integration technology has attracted much attention. In addition, it has great economic potential and will play an irreplaceable role in the development of future vehicles networking systems and communication networks (Chen Shanzhi et al., 2014).

2.2 Theories / Academic Concepts and Other Relevant Research Articles of Job Satisfaction

Job satisfaction has been widely studied as an individual's perception (Rayton, 2006). Researchers divided into two groups used several theories to describe the concept of job satisfaction. The causes of job satisfaction and job dissatisfaction have been identified in content theories such as Maslow's Hierarchy of Needs (1954), Herzberg's "Two-Factor Theory" (1959) and McGregor's "X and Theory Y" (1960), while in process theory an attempt was made to show the connection of variables in relation to job satisfaction. Accepted labels for these theories include inter-researcher expectations theory, goal-setting theory, and equity theory. satisfied. Job satisfaction is linked to performance, which is achieved during a wide variety of work-related practical activities. Engaged and Satisfied Employees tend to perform better and contribute to increasing institutional productivity (Nawab et al., 2011; Irfanuallah Khan et al., 2013).

Lambert (2003) have find out that a collection of personal attributes and job characteristics effect on job satisfaction. Such as the gender, age, autonomy, colleague relationship relationships, teamwork and supervisors, salary level, job diversity, in similar the studies pointed out that Great job stress can reduce employee job satisfaction such as Volkwein & Zhou (2003) and Lambert & Hogan (2009).

Factors affecting Job Satisfaction

Pay

Pay is a leading predictor of job satisfaction. This is the salary employees are expected to receive in exchange for the services they provide to the organization (Saifuddin et al., 2012; Irfanullah Khan et al., 2013). When rewards are elevated as a result of the improved presentation and are perceived as reasonable and fair, employee satisfaction rises (Khan., 2011).

Supervision

The authoritative direction for the work of subordinates is supervision. It is a function of coordinating, directing, and leading the work of others to achieve desired outcomes (Sattar et al., 2011). The supervisor's job performance seriously affected the individual's response to difficult situations. Employees who perceived their supervisors to be more accessible and responsive were reportedly more likely to voice their concerns (Aydogdu et al., 2011). Supervision, one of the other important factors in job satisfaction, refers to the function of guiding, conformity, and leading others in their efforts to reach the established goals.

Promotion

Promotions include offering opportunities for advancement. If individuals believe that they will not have many opportunities for advancement, this will have a negative impact on the whole (Aydogdu et al., 2011). Fair job promotion possibilities based on staff skills and abilities Make employees more loyal to their jobs and become the basis for employees' related work capabilities (Irfanuallah Khan et al., 2013).

Working Conditions

Working conditions are defined as the perceived totality of non-economic fundamentals that surround an academic's job (Sturges et al., 2000). Organizations can increase employees' commitment to their cause by improving working conditions and job satisfaction (Nawab et al., 2011). Good working environment, such as a tidy office environment and attractive working atmosphere, make it easier for employees to complete their tasks and are thus expected to positively effect on OC and JS (Mangi et al., 2011; Irfanuallah Khan et al., 2013).

Work Itself

Employees favour works that have chance to apply their skills and abilities along with various responsibilities, feedback, and the freedom to measure how their performance is (Sattar et al., 2011). Employees may like works that offer them the opportunity to take advantage of their professional skills and expertise and offer some variety of responsibility, feedback, and autonomy. If they choose this career out of personal interest, they are more satisfied than if they were asked to do so (Saifuddin et al., 2012). The job itself refers to the extent to which workers like their jobs or not. It sheds light on whether employees are job-satisfactory (Irfanuallah Khan et al., 2013).

2.3 Theories / Academic Concepts and Other Relevant Research Articles of Motivation

In 1958, McClelland depicted human motivation in the chapter "Methods of Measuring Human Motivation" in Atkinson's book *Fantasy, Action, and Motivation in Society*. At that time, McClelland described human motivations related to achievement motivation, affiliation motivation, sexual motivation, and power motivation. In his later book, *The Achieving Society* (McClelland, 1961), however, McClelland focused on the need for achievement, the need for affiliation, and the need for power. Essentially, McClelland's theory posits that people are driven to varying degrees by the need for achievement, power, and affiliation, all of which are acquired during a person's whole life (Daft, 2008; Lussier & Achua, 2007 Year). That is to say, most people have all three needs and show them all at the same time. Thus, needs for power, needs for affiliation, and needs for achievement all apply to motivation independent variables.

2.3.1 Need for power

McClelland (1961) defined the need for power as "a concern for 'control over the means of influencing a person'". Lussier and Achua (2007) define the unconscious desire to exert influence and seek positions of authority as the need for power. Likewise, Daft (2008) defines "the desire to influence or control others, to be accountable to others, and to have authority over others" in terms of the need for power. People who display a need for power are eager to sway others and exert influence.

2.3.2 Need for Affiliation

In defining the need for affinity, McClelland (1961) stated that " Affiliation...is the establishment, maintenance, or restoration of positive emotional relationships with others. The word friendship is the most appropriate expression for this relationship.". Thus, "the need for affiliation is an unconscious need, which is about developing, keeping, and improving intimate human relationships" (Lussier & Achua, 2007). Daft (2008) defines the need for affiliation as "the desire to develop inmate personal relationships, forbear conflict, and form close friendships." Individuals who exhibit a need for affiliation are seeking to interact with others.

2.3.3 Need for Achievement

Lussier and Achua (2007) pointed out that the unconscious desire for excellence in individual accomplishments is known as the need for achievement. Analogously, Daft (2008) described the need for Achievement is "the desire to achieve a hard goal, reach a challenging success, master a challenging task, and outperform others. "Individuals who desire the need for Achievement try to achieve realistic but difficult goals.

2.4 Theories / Academic Concepts and Other Relevant Research Articles of Job Characteristics

A better understanding of job characteristics can be achieved using the Job Characteristics Model created by Richard Hackman and Greg Oldham (1980). The model made up of five distinct elements, namely skill variety, task identity, task significance, autonomy, and feedback. McShane (2013) states that these psychological states related employees' higher levels of intrinsic work motivation, job satisfaction, and productivity. When these characteristics of the job are more obvious, employees, under the right circumstances, are more motivated and satisfied (McShane, 2013).

2. 4. 1 Skill variety

Skill diversity refers to the extent to which a job requires a variety of different activities in performing the job, involving the application of people's diverse skills and talents (Hackman and Oldham 1976).

2. 4. 2 Task identity

The degree to which a job requires "complete" and identifiable work to be done, that is, the degree to which a job is completed from start to finish with visible results is called task identity (Hackman & Oldham, 1980).

2. 4. 3 Task significance

According to Hackman and Oldham (1974), task significance is defined as the degree to which a piece of work has a significant effect on life or work of others, either inside or outside the organization.

2. 4. 4 Autonomy

Hackman and Oldham (1974) further explain that the degree of freedom, independence, and discretion that employees have in arranging work and determining procedures for getting it done is called autonomy. It is a vertical extension of responsibility that allows the number of decisions and independence that employees make. Coelho and Augusto (2010) pointed out that employees who with autonomy are more willing to try new things, learn from failures, and apply expertise in their field of work.

2. 4. 5 Feedback

According to Hackman and Oldham (1974), feedback is the degree to which work activities required to perform a job result in employees receiving information about the effectiveness of their performance. Top management need to actively feedback to the employee therefore employees understand where improvement is needed, which gives them a better understanding of the nature of their work (Coelho & Augusto, 2010).

2.5 Theories / Academic Concepts and Other Relevant Research Articles of Organizational Commitment

Organizational commitment is defined as an employee's desire to belong to the organization and the willingness to go above and beyond for the benefit of the organization (Sani, 2013). According to Meyer and Allen (1997), a loyal employee is someone who sticks with the company through thick and thin, comes to work regularly, works a full day (and possibly more), protects company assets, and shares company goals. Engaged employees benefit the firm as they are more valuable in

terms of higher performance, greater efficiency, and willingness to stay with the current firm (Scholl, 1981). Meyer and Allen (1991) identified three basic commitment philosophies, namely, emotional and spiritual attachment, costs of leaving the organization and employees' sense of organizational value or responsibility. According to these, affective, normative and continuance lies under the Organizational Commitment.

2.5.1 Affective Commitment

Meyer & Allen (1991) believed that employees' emotional connection, identification and participation in the company are called affective commitment. Due to the presence of a strong emotional commitment, employees will be willing to remain employed by the organization.

2.5.2 Continuance Commitment

According to Becker's (1960) definition of continuing commitment, continuing commitment is a tendency to engage in consistent activities due to an individual's assessment of the price of stop an activity. The costs of leaving the company will also rise if an employee lacks transferable job skills and knowledge because it will be more difficult for them to find another position that matches their qualifications (Becker, 1960).

2.5.3 Normative Commitment

Normative commitment is a sense of obligation, one that makes people feel that it is his duty to stay in the organization. Staffs are more willing to stay in the organization if they perceive members who remain in the organization to be morally and legally right (Muhammad, Afridi, Ali, Shah, & Alasan, 2021).

2.6 Previous Researches

Motivation

Adelina da Cruz Carvalho et al. (2020) examine the impact of motivation on job satisfaction and employee performance. The population in this study is 505 Cooperativa Café Timor employees in East Timor, by identifying a saturated sample of 6 company locations, namely NT Factory, Comoros, Manleuana, Railaco, Tibar and Head Office up to 202. This study uses a quantitative approach using data collection methods of interviews and questionnaires. Collected and validated data are

analyzed using descriptive analysis techniques using variance-based or component-based methods and partial least squares (PLS) analysis tools. The results show that motivation has a significant positive effect on job satisfaction and employee performance.

H₁: Motivation affect to job satisfaction in vehicle networking industry of Shanghai, China.

Job characteristics

Adhe Rachman Sulisty, I. U. et al (2019) aimed to ascertain the extent to which job characteristics, perceived organizational support, and self-efficacy affect job satisfaction, with job engagement as an intervention variable. Respondents for this study were 101 staff members of Arts and Culture Educators and Center for Educational Personnel Development and Empowerment (P4TK) in Yogyakarta. Data were collected through questionnaires. The data were analyzed quantitatively and qualitatively. The quantitative analysis techniques used in this study include t test, F test, multiple regression analysis and path analysis. Research has yielded some results. First, job characteristics and self-efficacy have a significant impact on job engagement, perceived organizational support has no significant impact on job engagement, but they together have a significant impact on job engagement. Second, job characteristics and perceived organizational support have a significant effect on job satisfaction, while self-efficacy has no significant effect on job satisfaction, but both have a significant effect on job satisfaction.

H₂: Job characteristics affect to job satisfaction in vehicle networking industry of Shanghai, China.

Organizational commitment

Lorena Candelario and others. (2018) Chares examines the relationship between organizational commitment and job satisfaction of government employees. The respondents for this study were 50 employees of a government agency in the northern Philippines. It turns out that highly loyal employees are highly satisfied with

their jobs, and vice versa. The study concluded that government employees are highly loyal to their organizations and highly satisfied with their jobs. More importantly, their high job satisfaction is due to their high commitment to the organization and vice versa.

H₃: Organizational Commitment affect to job satisfaction in vehicle networking industry of Shanghai, China.

2.7 Hypotheses

The researcher research and make hypothesis to analyze the motivation, job characteristics and organizational commitment affecting job satisfaction in vehicle networking industry of Shanghai in China or not.

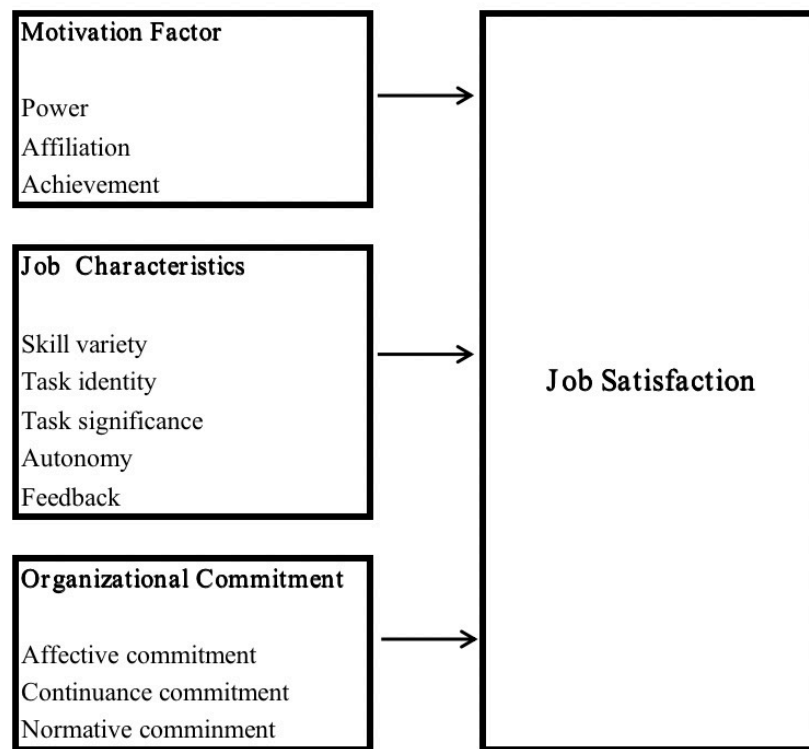
Hypothesis 1: Motivation affect to job satisfaction in vehicle networking industry of Shanghai, China.

Hypothesis 2: Job characteristics affect to job satisfaction in vehicle networking industry of Shanghai, China.

Hypothesis 3: Organizational commitment affect to job satisfaction in vehicle networking industry of Shanghai, China.

2.8 Conceptual Framework

Figure 2.1: Conceptual Framework



UNIVERSITY
THE CREATIVE UNIVERSITY

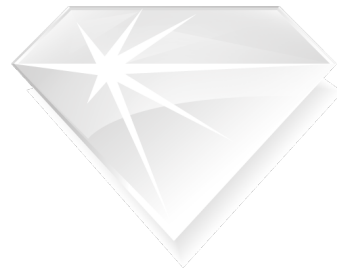
2.9 Conclusion

According to McClelland's theory (1961), which focus on satisfying existing needs rather than creating or developing needs. This dominant motivator depends on our culture and life experiences. The three motivators are achievement, affiliation, and power. These three needs motivates someone to perform and how to satisfy the needs of the employee.

According to the job characteristics' theory of Hackman and Oldham (1980), the five aspects of the work proposed by Hackman and Oldham are : Skill variety, Task identity, Task significance, Autonomy, and Feedback, which causes a person to strive and capture some accomplishment just because their work is worth doing and brings them a sense of satisfaction.

According to Meyer and Allen (1997) model of organisational commitment, this model conceptualise organisational commitment in three dimensions namely,

affective, continuance, and normative commitments. These dimensions describe the different ways of organisational commitment development and the implications for employees' behaviour and satisfaction.



**BANGKOK
UNIVERSITY**
THE CREATIVE UNIVERSITY

CHAPTER 3

METHODOLOGY

The primary components of this chapter will include descriptions of the research design and rationale for the research, the methodology that will be used in the study.

Additionally, threats to content validity and reliability test will be considered for the study.

Therefore, this part will describe into 8 elements. They are as follows:

- 3.1 The Type of Research and Tool
- 3.2 The Research Design
- 3.3 The Quality of the Research Tool
- 3.4 The Data Collection
- 3.5 The Population and Sample
- 3.6 The Sampling Technique
- 3.7 The Research Procedure and Timeline
- 3.8 The Hypotheses Test and Data Analysis

3.1 The Type of Research and Tool

This study is the survey research, which uses the closed-ended questionnaire to be a tool to collect the data. This questionnaire has 5 parts: the demographic data question (9 questions), Motivation (6 questions), Job Characteristics (16 questions), Organizational Commitment (10 questions), and Job Satisfaction (17 questions). The total question is 58 questions. This survey has 5point Likert scale such as Scale 5- Completely Agree, Scale 4- Mostly Agree, Scale 3 – Moderate Agree, Scale2 – Slightly Agree, Scale 1 – Least Agree therefore respondents have to mark according to their attitudes and opinions.

Part 1: Demographic Data (10 questions)

This section includes questions about the demographic and general information of the interviewees, such as gender, age, marital status, educational background, current job position, monthly income, total working years, management level, and type of employee.

Part 2: Motivation (6 questions)

This part includes the analysis of the motivation. This part has three sub variables: power, affiliation and achievement. The questions are as follows.

Table 3.1: The questions of Motivation Factor

No	Variable	Item	Reference
1	Power	1. I enjoy having the power to give commands when working in a team. 2. I want to have control over the events around me at work.	(LL Yee et al, 2022)
2	Affiliation	1. I would like to have good relationship with coworkers. 2. I enjoy collaborating with others at work.	
3	Achievement	1. At work, I always try to perform better than others. 2. I prefer to work very hard to get ahead.	

Part 3: Job Characteristic (16 questions)

This part consists of questions about the analysis of the respondents relating with job characteristic. There are 5 sub variables in this part fairness, skill variety, task identity, task significance, autonomy and feedback. The questions are as below.

Table 3.2: The questions of Job Characteristic

No	Variable	Items	Reference
1	Skill Variety	1. I prefer jobs that require innovation. 2. I prefer to work on jobs that are not simple and repetitive.	(Thida Aung, 2019)

(Continued)

Table 3.2 (Continued): The questions of Job Characteristic

Part 4: Organizational Commitment (10 questions)

No	Variable	Items	Reference
2	Task Identity	<ol style="list-style-type: none"> 1. I like doing remarkable work. 2. I want to have chances to show my performance at work. 3. I prefer to be able to work on my own. 4. I'd rather have chance to work on projects through final completion. 	(Thida Aung, 2019)
3	Task Significance	<ol style="list-style-type: none"> 1. I want my work to have an effects on other people. 2. I want my work to have broadly significant and important scheme things. 	
4	Autonomy	<ol style="list-style-type: none"> 1. I am satisfied with the job of having the opportunity to think and act independently. 2. I really enjoy the work that can provide great decision-making autonomy. 3. I feel satisfied that I can decide how to work. 4. Work that gives me great opportunities for independence and freedom, improves my satisfaction with work. 	
5	Feedback	<ol style="list-style-type: none"> 1. I can receive feedback on my performance at work, which enables me to enjoy my work better. 2. I enjoy the job itself provides information about my performance. 3. I like a job which can give me clues about performing well or not. 4. The work activity itself provides me with the effectiveness of my work performance, which enables me to work better. 	

This part consists of questions about the analysis of the respondents relating with Organizational Commitment. There are 3 sub variables in this part, affective commitment, continuance commitment and normative commitment. The questions are as below.

Table 3.3: The questions of Organizational Commitment

No	Variable	Item	Reference
1	Affective Commitment	1. This organization has a great deal of personal meaning to me. 2. Feeling like part of a family, makes me love this job more.	(Thet Wai Nyein, 2019)
2	Continuance Commitment	1. It would be too costly for me to leave my organization now. 2. I have no other alternative other than this organization. 3. Right now, staying with my organization is a matter of necessity as much as desire. 4. There will be high risk if I decided to leave my organization now.	
3	Normative Commitment	1. I would feel guilty if I left my organization now. 2. I believe in the value of remaining loyal to one organization. 3. I feel a sense of moral obligation to remain in this organization. 4. I feel very loyal to my organization.	

Part 5: Job Satisfaction (17 questions)

This part consists of respondents' performance outcomes. The questions included are Pay, Supervision, Promotion, Working Conditions and Work Itself. The questions are as below.

Table 3.4: The questions of Job Satisfaction

No	Variable	Item	Reference
1	Pay	<ol style="list-style-type: none"> 1. I am satisfied with the salary amount currently received. 2. I am satisfied with salary levels for retaining capable employees. 3. The current salary is incentive, which is satisfactory. 	(Hein Htet, 2019)
2	Supervision	<ol style="list-style-type: none"> 1. I expect my job to include clear instructions and systematic training from my supervisor. 2. I am very pleased that the supervisor provides understanding and mutual respect. 3. I appreciate that employees are free to discuss work issues with their supervisors. 4. I'm pleased that my supervisor provides supportive feedbacks with cooperation and negotiation. 	(Maung Maung Su, 2019)
3	Promotion	<ol style="list-style-type: none"> 1. Fair promotion policy within the organization is satisfactory. 2. No personal bias as regards with promotion is a joy to work with. 3. I appreciate that promotions are based on job qualifications and experience. 4. I am very satisfied that the promotion plan of the factory can motivate me. 	(Hein Htet, 2019)

(Continued)

Table 3.4 (Continued): The questions of Job Satisfaction

No	Variable	Item	Reference
4	Working Conditions	<ol style="list-style-type: none"> 1. A good workplace is an important factor to improve job satisfaction. 2. Providing additional overtime facilities will improve job satisfaction. 	(Nang Sann Sann Aye, 2019)
5	Work Itself	<ol style="list-style-type: none"> 1. I am glad that the management seeks my advice and leadership. 2. I expect my work is in routine but it is not boring. 3. I am glad that my skills, knowledge and experience can contribute to my work. 4. I expect my work has a clear path for career advancement. 	(Nang Sann Sann Aye, 2019)

The purpose of this study is to study the factors of job satisfaction in China's online car industry. Questionnaires are distributed to participants via Google Forms online survey, so respondents can conveniently fill out the questionnaire.

3.2 The Research Design

The online questionnaire will be measured as the following:

1. Part 1: the fact: nominal and ordinal scales
2. Part 2 -4: interval scale (the least agree (1) to the completely agree (5))
3. Part 5: interval scale (the least agree (1) to the completely agree (5))

The class interval scale was used to analyzed the mean score from five to one.

(Best, John W, 1983: 181-184)

Scale 5 – Completely Agree

Scale 4 – Mostly Agree

Scale 3 – Moderate Agree

Scale 2 - Slightly Agree

Scale 1 - Least Agree

The statistics will be used 2 types:

1. Descriptive Statistics: which is included of frequency, mean and standard deviation.
2. Inferential Statistics: which is included of the multiple regression analysis.

For part 2-5 of the questionnaire is made up with five-point Likert scale and the statistical mean range for the interpretation of the mean are calculated below:

$$\text{Range} = (\text{Maximum} - \text{Minimum}) /$$

Scale Level

$$\text{Range} = 5 - 1/5 = 0.80$$

The class interval scale was used to analyzed the mean score from five to one (John W, 1983: 181-184).

Table 3.5: The Range of Mean Interpretation

Range	Interpretation
1.00 - 1.80	Least Agree
1.81 - 2.60	Slightly Agree
2.61 - 3.40	Moderate Agree
3.41 - 4.20	Mostly Agree
4.21 - 5.00	Completely Agree

3.3 The Quality of the Research Tool

The online questionnaire was checked for validity and approved by the advisor Dr. Chutimavadee Thongjeen. The reliability test was conducted with a volunteer sample group of 40 respondents. The data from questionnaires were analyzed by using Cronbach's alpha. The questionnaire would be approved when the alpha value must be 0.7-1.00 (Cronbach, 1951). Therefore, the required value has to equal to greater than

0.70. After analyzed by using Cronbach's Alpha in the statistical software, the Motivation factor Scale is .923, Job Characteristics Scale is .938, Organizational Commitment Scale is .928, Job Satisfaction Scale is .943, with total reliability of .981. According to the result, the questionnaires have accomplished with benchmark and acceptable.

Table 3.6: The Reliability Test Results

Variable	N of Items	Cronbach's Alpha
Motivation	6	.923
Job Characteristics	16	.938
Organizational Commitment	10	.928
Job Satisfaction	17	.943
Total	49	.981

3.4 The Data Collection

As previously mentioned, the necessary data was collected through an online questionnaire to the employees who are working at Vehicle Networking Industry in Shanghai, China. During the processed data collection, China was having COVID-19 pandemic therefore participants could not be reached face to face. Therefore, the survey was conducted online using google forms. Another reason for using online survey to collect data were cost effective, efficient, no time limits for the respondents to answer the questionnaires. Due to the above reasons, online questionnaires were used in this data collection.

3.5 The Population and Sample

The population of this study emphasizes on the employees who are working in the Vehicle Networking Industry in Shanghai, China. Among them, the sample scope selected from the top five private technology companies in the industry such as

hikvision, Sinoiov Information Technology, Sanbao Technology, Lianyin Technology and Ruiming Technology. The questionnaires were distributed to the employees who work for technology companies in China and the sample size are 400 respondents from Yamane that has 95 percent of confidence level and deviation is equal to 5 percent (Yamane, 1967).

3.6 The Sampling Technique

This study uses Convenience sampling method for data collection as this method is also best suited for this study in order to find the answers of employees in this study to get the correct answer and to cover the whole vehicle networking industry.

3.7 The Research Procedure and Timeline

The study began with secondary data such as reports, Internet sites, and previous relevant researchers. After completing the information collection and review, a research questionnaire was generated. The questionnaire is composed of motivation, job characteristics and organizational commitment three influencing factors that affect job satisfaction. To measure the internal consistency and stability of the structure, Cronbach's Alpha coefficient was used. After completing the reliability test with a sample group of 40 people, the result of Alpha is .981. As a result, supervisors approved a survey of 400 employees in the target unit from and distributed the questionnaires online. All questionnaires were organized during for further data processing.

3.8 The Hypotheses Test and Data Analysis Hypotheses:

H₁: Motivation affect to job satisfaction in vehicle networking industry of Shanghai, China.

H₂: Job characteristics affect to job satisfaction in vehicle networking industry of Shanghai, China.

H₃: Organizational Commitment affect to job satisfaction in vehicle networking industry of Shanghai, China.

The questionnaires were distributed online to respondents. After respondents

returned their survey questionnaire, collected data were encoded in the computerized software.

The followings are the statistical tools used for data analysis:

3.8.1 Descriptive Statistics: The class interval scale was used to analyzed the mean score from five to one (John W, 1983: 181-184).

$$\text{Class Interval} = \frac{\text{Maximum} - \text{Minimum}}{\text{Class Number}}$$

$$= \frac{5 - 1}{5} = 0.8$$

Then, the analyze of rating scale can interpret as following:

- 1 = 1.00 – 1.80, means Least Agree
- 2 = 1.81 – 2.60, means Slightly Agree
- 3 = 2.61 – 3.40, means Moderate Agree
- 4 = 3.41 – 4.20, means Mostly Agree
- 5 = 4.21 – 5.00, means Completely Agree

Part 1: Demographic data such as such as gender, age, marital status, educational background, current job position, monthly income, total working years, type of current organization, management level, and type of employee. This demographic information will be analyzed by using percentage and frequency counting.

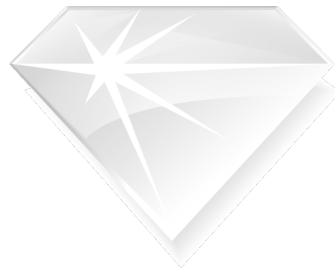
Part 2: The questionnaire is about motivation factors which affect to job satisfaction in the vehicle networking industry of China. The interval scale was used to measure the mean and standard deviation.

Part 3: The questionnaire is about job characteristics affect to job satisfaction in the vehicle networking industry of China. The interval scale was used to measure the mean and standard deviation.

Part 4: The questionnaire is about organizational commitment affect to job satisfaction in the vehicle networking industry of China. The interval scale was used to measure the mean and standard deviation.

Part 5: The questionnaire is about measurements of job satisfaction in the vehicle networking industry of China from. The interval scale was used to measure the mean and standard deviation.

3.8.2 Inferential statistics: These statistics are used to describe the meaning of the data and explain the correlation between the various variables. Multiple regression analysis was applied to test hypotheses and investigate the connection between the independent variable (motivation, job characteristics, organizational commitment) and the dependent variable (Job Satisfaction).



**BANGKOK
UNIVERSITY**
THE CREATIVE UNIVERSITY

CHAPTER 4

ANALYSIS AND FINDINGS

This chapter describes the data analysis and the result of the research by using the statistical software. 400 respondents were participated to analysis of the data based on conceptual framework. The result of the data analysis is presented as below:

4.1: Analysis of Demographic data

4.2: Analysis of Motivation factors

4.3: Analysis of Job Characteristics factors

4.4: Analysis of Organizational Commitment factors

4.5: Analysis of Job Satisfaction

4.6: Analysis of the relationship between perceived motivation, job characteristics, organizational commitment and job satisfaction

4.7: Results of the Hypothesis testing

4.1 Analysis of Demographic Data

The below table represents the 400 participants' personal information such as gender, age, marital status, educational background, current job position, monthly income, total working years, type of current organization, management level, and type of employee. These data were analyzed and presented by frequency and percentage.

Table 4.1: Demographics Data of 400 respondents

Demographic Data	Frequency	Percent(%)
1. Gender:		
Male	230	57.5
Female	170	42.5
Total	400	100
2. Age:		
Under 25 years old	120	30.0

(Continued)

Table 4.1 (Continued): Demographics Data of 400 respondents

Demographic Data	Frequency	Percent(%)
26 -35 years old	151	37.8
36 -45 years old	78	19.5
46 -55 years old	40	10.0
Above 55 years old	11	2.8
Total	400	100
3. Marital Status:		
Single	147	36.8
Married	235	58.8
Separated	12	3.0
Divorced	6	1.5
Total	400	100
4. Educational background:		
Below Bachelor degree	164	41.0
Bachelor degree	191	47.8
Master's degree	33	8.3
Doctoral degree	12	3.0
Total	400	100
5. How many jobs did you have?		
1-2	235	58.8
3-4	144	36.0
5+	21	5.3
Total	400	100
6. Salary:		
Less than 4000 RMB	133	33.3
4001-7000 RMB	167	41.8

(Continued)

Table 4.1 (Continued): Demographics Data of 400 respondents

Demographic Data	Frequency	Percent(%)
7001-11000 RMB	84	21.0
Above 11000 RMB	16	4.0
Total	400	100
7. Total working years:		
Under 1 year	29	7.2
1 to 3 years	91	22.8
4 to 5 years	103	25.8
Above 5 years	177	44.3
Total	400	100
8. Management level		
Top Management	11	2.8
Middle Management	19	4.8
Lower Management	65	16.3
Staff/ Assistant	305	76.3
Total	400	100
9. Type of Employee:		
Full-time	272	68.0
Part-time	52	13.0
Temporary	24	6.0
Freelancer	52	13.0
Total	400	100

According to the table 4.1, it shows the results as follow: For the gender part, the respondents of 230 are male which represents 57.5% and 170 are female representing 42.5% among the 400 respondents. The age of respondents indicates that Under 25 years old by 30% (N=120), the age of 26-35 years old by 37.8% (N=151), the age of 36-45 years old by 19.5% (N=78), the age of 46-55 years old by 10%

(N=40) and above 55 years old are 2.8% (N=11). Therefore, between 26-35 years old are the highest.

For the marital status, most of the respondents are single that consist of 147 representing 36.8% while married status are 235 which is equal 58.8%, separated are 12 respondents accounted for 3%, divorced are 6 respondents accounted for 1.5% and widow are 0 respondents that amounts to 0%.

For the educational background, below bachelor degree is 164 respondents which is 41%. The bachelor degree of respondents 191 which is 47.8% and 33 respondents are Master's degree which is 8.3%. Doctoral degree by 12 respondents which is 3% of the total of the respondents.

For the question that how many jobs the respondents had, 235 respondents had 1-2 jobs, accounting for 58.8%, 144 respondents had 3-4 jobs, accounting for 36%, 21 respondents had 5+ jobs, accounting for 5.3%.

When it comes to salary, 133 respondents representing 33.3% whose monthly income exists Less than 4000 RMB. The monthly income between 4001-7000 RMB is 167 respondents representing 41.8%, followed by 84 respondents representing 21% whose monthly incomes lies between 7001-11000 RMB. Finally, 16 respondents which accounting for 4% receive above 11000 RMB.

Regarding with the total working years, the 29 respondents have Under 1 year working years which has 7.2%. Between 1 to 3 years' respondents are 91 which is 22.8%. 103 respondents which represented 25.8% have working years between 4 to 5 years and the rest of 177 respondents are above 5 working years accounting for 44.3%.

For the management level, Top Management is 11 respondents which is 2.8%. Middle Management of respondents 19 which is 4.8% and 65 respondents are Lower

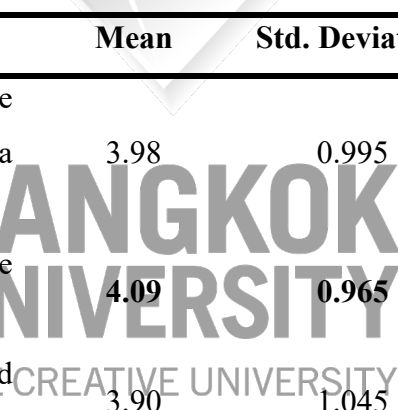
Management which is 16.3%. Staff/ Assistant by 305 respondents which is 76.3% of the total of the respondents.

For the type of Employee, full-time consist of 272 respondents which representing 68% while part-time are 52 which is equal 13%, temporary are 24 respondents accounted for 6%, freelancer are 52 respondents accounted for 13%.

4.2 Analysis of Motivation Factors

The below table describes the analysis of motivation factors. The mean, standard deviation and the mean interpretation are presented in following table 4.2.

Table 4.2: Motivation



Motivation Factors	Mean	Std. Deviation	Interpretation
I enjoy having the power to give commands when working in a team.	3.98	0.995	Mostly Agree
I want to have control over the events around me at work.	4.09	0.965	Mostly Agree
I would like to have good relationship with coworkers.	3.90	1.045	Mostly Agree
I enjoy collaborating with others at work.	3.82	1.033	Mostly Agree
At work, I always try to perform better than others.	4.05	0.995	Mostly Agree
I prefer to work very hard to get ahead.	3.74	1.071	Mostly Agree
Total	3.93	1.017	Mostly Agree

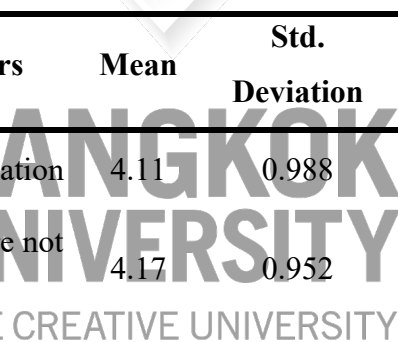
According to Table 4.2, the overall mean of Motion is 3.93 and standard deviation is 1.017. The highest mean value is I want to have control over the events

around me at work (Mean = 4.09, SD = 0.965). However, it is also found that I enjoy having the power to give commands when working in a team (Mean = 3.98, SD = 0.995), I would like to have good relationship with coworkers (Mean = 3.9, SD = 1.045), I enjoy collaborating with others at work (Mean = 3.82, SD = 1.033), At work, I always try to perform better than others (Mean = 4.05, SD = 0.995), I prefer to work very hard to get ahead (Mean = 3.74, SD = 1.071).

4.3 Analysis of Job Characteristics Factors

The below table describes the analysis of Job Characteristics factors. The mean, standard deviation and the mean interpretation are presented in following table 4.3.

Table 4.3: Job Characteristics



Job Characteristics factors	Mean	Std. Deviation	Interpretation
I prefer jobs that require innovation	4.11	0.988	Mostly Agree
I prefer to work on jobs that are not simple and repetitive.	4.17	0.952	Mostly Agree
I like doing remarkable work.	4.08	0.998	Mostly Agree
I want to have chances to show my performance at work.	4.04	0.998	Mostly Agree
I prefer to be able to work on my own.	4.05	1.01	Mostly Agree
I'd rather have chance to work on projects through final completion.	4.09	0.961	Mostly Agree

(Continued)

Table 4.3 (Continued): Job Characteristics

Job Characteristics factors	Mean	Std. Deviation	Interpretation
I want my work to have an effects on other people.	3.95	0.99	Mostly Agree
I want my work to have broadly significant and important scheme things.	4.20	0.97	Completely Agree
I am satisfied with the job of having the opportunity to think and act independently.	4.04	1.047	Mostly Agree
I really enjoy the work that can provide great decision-making autonomy.	4.00	1.03	Mostly Agree
I feel satisfied that I can decide how to work.	3.94	1.034	Mostly Agree
Work that gives me great opportunities for independence and freedom, improves my satisfaction with work.	4.14	0.927	Mostly Agree
I can receive feedback on my performance at work, which enables me to enjoy my work better.	4.18	0.927	Mostly Agree
I enjoy the job itself provides information about my performance.	3.98	1.032	Mostly Agree
I like a job which can give me clues about performing well or not.	4.15	0.959	Mostly Agree

(Continued)

Table 4.3 (Continued): Job Characteristics

Job Characteristics factors	Mean	Std. Deviation	Interpretation
The work activity itself provides me with the effectiveness of my work performance, which enables me	3.96	1.049	Mostly Agree
Total	4.07	0.992	Mostly Agree

Regarding the data presented in the Table 4.3, the overall mean of Job Characteristics is 4.07 and standard deviation is 0.992. The most respondents give high score in the question of I want my work to have broadly significant and important scheme things (Mean = 4.2, SD=0.97). Moreover, I prefer jobs that require innovation (Mean= 4.11, SD=0.988), I prefer to work on jobs that are not simple and repetitive (Mean= 4.17, SD=0.952), I like doing remarkable work (Mean= 4.08, SD=0.998), I want to have chances to show my performance at work (Mean= 4.04, SD=0.998), I prefer to be able to work on my own (Mean= 4.05, SD=1.01), I'd rather have chance to work on projects through final completion (Mean= 4.09, SD=0.961), I want my work to have an effects on other people (Mean= 3.95, SD=0.99), I am satisfied with the job of having the opportunity to think and act independently (Mean= 4.04, SD=1.047), I really enjoy the work that can provide great decision-making autonomy (Mean= 4, SD=1.03), I feel satisfied that I can decide how to work (Mean= 3.94, SD=1.034), Work that gives me great opportunities for independence and freedom, improves my satisfaction with work (Mean= 4.14, SD=0.927), I can receive feedback on my performance at work, which enables me to enjoy my work better (Mean= 4.18, SD=0.927), I enjoy the job itself provides information about my performance (Mean= 3.98, SD=1.032), I like a job which can give me clues about performing well or not (Mean= 4.15, SD=0.959), The work activity itself provides me with the effectiveness of my work performance, which enables me to work better (Mean= 3.96, SD=1.049).

4.4 Analysis of Organizational Commitment factors

The below table describes the analysis of Organizational Commitment factors. The mean, standard deviation and the mean interpretation are presented in following table 4.4.

Table 4.4: Organizational Commitment

Organizational Commitment factors	Mean	Std. Deviation	Interpretation
This organization has a great deal of personal meaning to me.	3.82	0.975	Mostly Agree
Feeling like part of a family, makes me love this job more.	3.92	1.034	Mostly Agree
It would be too costly for me to leave my organization now.	3.74	1.058	Mostly Agree
I have no other alternative other than this organization.	3.7	1.064	Mostly Agree
Right now, staying with my organization is a matter of necessity as much as desire.	3.78	1.03	Mostly Agree
There will be high risk if I decided to leave my organization now.	3.66	1.081	Mostly Agree
I would feel guilty if I left my organization now.	3.57	1.083	Mostly Agree
I believe in the value of remaining loyal to one organization.	3.96	0.982	Mostly Agree
I feel a sense of moral obligation to remain in this organization.	3.88	1.009	Mostly Agree
I feel very loyal to my organization.	3.61	1.117	Mostly Agree
Total	3.76	1.043	Mostly Agree

From Table 4.4, the overall mean of Organizational Commitment is 3.76 and standard deviation is 1.043. The highest mean score is I believe in the value of remaining loyal to one organization (Mean = 3.96, SD= 0.982). Hence, it also found that the question of This organization has a great deal of personal meaning to me (Mean = 3.82, SD= 0.975), Feeling like part of a family, makes me love this job more (Mean = 3.92, SD= 1.034), It would be too costly for me to leave my organization now (Mean = 3.74, SD= 1.058), I have no other alternative other than this organization (Mean = 3.7, SD= 1.064), Right now, staying with my organization is a matter of necessity as much as desire (Mean = 3.78, SD= 1.03), There will be high risk if I decided to leave my organization now (Mean = 3.66, SD= 1.081), I would feel guilty if I left my organization now (Mean = 3.57, SD= 1.083), I feel a sense of moral obligation to remain in this organization (Mean = 3.88, SD= 1.009), I feel very loyal to my organization (Mean = 3.61, SD= 1.117).

4.5 Analysis of Job Satisfaction factors

The below table describes the analysis of Job Satisfaction factors. The mean, standard deviation and the mean interpretation are presented in following table 4.5.

Table 4.5: Job Satisfaction

Job Satisfaction factors	Mean	Std. Deviation	Interpretation
I am satisfied with the salary amount currently received.	3.67	1.187	Mostly Agree
I am satisfied with salary levels for retaining capable employees.	3.72	1.155	Mostly Agree
The current salary is incentive, which is satisfactory.	3.62	1.163	Mostly Agree

(Continued)

Table 4.5 (continued): Job Satisfaction

Job Satisfaction factors	Mean	Std. Deviation	Interpretation
I expect my job to include clear instructions and systematic training from my supervisor.	3.60	1.178	Mostly Agree
I am very pleased that the supervisor provides understanding and mutual respect.	3.63	1.171	Mostly Agree
I appreciate that employees are free to discuss work issues with their supervisors.	3.58	1.182	Mostly Agree
I'm pleased that my supervisor provides supportive feedback with cooperation and negotiation.	3.49	1.204	Mostly Agree
Fair promotion policy within the organization is satisfactory.	3.74	1.144	Mostly Agree
No personal bias as regards with promotion is a joy to work with.	3.65	1.163	Mostly Agree
I appreciate that promotions are based on job qualifications and experience.	3.56	1.153	Mostly Agree
I am very satisfied that the promotion plan of the factory can motivate me.	3.51	1.185	Mostly Agree
A good workplace is an important factor to improve job satisfaction.	3.54	1.165	Mostly Agree
Providing additional overtime facilities will improve job satisfaction.	3.74	1.144	Mostly Agree

(Continued)

Table 4.5 (Continued): Job Satisfaction

Job Satisfaction factors	Mean	Std. Deviation	Interpretation
I am glad that the management seeks my advice and leadership.	3.52	1.195	Mostly Agree
I expect my work is in routine but it is not boring.	3.70	1.173	Mostly Agree
I am glad that my skills, knowledge and experience can contribute to my work.	3.47	1.174	Mostly Agree
I expect my work has a clear path for career advancement.	3.68	1.155	Mostly Agree
Total	3.61	1.170	Mostly Agree

Based on the result above, the overall mean of Job Satisfaction is 3.61 and standard deviation is 1.170. The questions that has the highest mean score are Fair promotion policy within the organization is satisfactory (Mean=3.74, SD=1.144) and Providing additional overtime facilities will improve job satisfaction (Mean=3.74, SD=1.144). Thus, other statements that I am satisfied with the salary amount currently received (Mean=3.67, SD=1.187), I am satisfied with salary levels for retaining capable employees (Mean=3.72, SD=1.155), The current salary is incentive, which is satisfactory (Mean=3.62, SD=1.163), I expect my job to include clear instructions and systematic training from my supervisor (Mean=3.6, SD=1.178), I am very pleased that the supervisor provides understanding and mutual respect (Mean=3.63, SD=1.171), I appreciate that employees are free to discuss work issues with their supervisors (Mean=3.58, SD=1.182), I'm pleased that my supervisor provides supportive feedback with cooperation and negotiation (Mean=3.49, SD=1.204), No personal bias as regards with promotion is a joy to work with (Mean=3.65, SD=1.163), I appreciate that promotions are based on job qualifications and experience (Mean=3.56, SD=1.153), I am very satisfied that the promotion plan of the factory can motivate me (Mean=3.51, SD=1.185), A good workplace is an important

factor to improve job satisfaction (Mean=3.54, SD=1.165), I am glad that the management seeks my advice and leadership. (Mean=3.52, SD=1.195), I expect my work is in routine but it is not boring (Mean=3.7, SD=1.173), I am glad that my skills, knowledge and experience can contribute to my work (Mean=3.47, SD=1.174), I expect my work has a clear path for career advancement (Mean=3.68, SD=1.155).

4.6 Analysis of the relationship between perceived motivation, job characteristics, organizational commitment and job satisfaction

This part analysis the relationship between the independent variables which are motivation, job characteristic and organizational commitment and the dependent variable, job satisfaction. In this part, multiple linear regression was used for analyzing for such relationships. The findings were presented as below:

Table 4.6: Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.676 ^a	0.456	0.452	0.73

a Predictors: (Constant), Motivation, Job Characteristics, Organization Commitment

Table 4.7: Anova

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	177.142	3	59.047	110.795	.000b
	Residual	211.045	39	0.533		
	Total	388.187	6			
			39			
			9			

a Dependent Variable: Job Satisfaction

b Predictors: (Constant), Motivation, Job Characteristics, Organization
Commitment

Table 4.8: Correlation

Correlations

	Job Satisfaction	Motivation	Job Characteristics	Organization Commitment
Pearson Correlation	1	0.474	0.517	0.466
	Job Satisfaction	1	0.306	0.221
	Motivation	0.474	1	0.302
	Job Characteristics	0.517	0.306	1
	Organization Commitment	0.466	0.221	0.302

Table 4.9: Coefficients

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.067	0.259		-4.114	.000
	Motivation	0.384	0.049	0.306	7.779	.000*
	Job Characteristics	0.432	0.052	0.334	8.309	.000*
	Organization Commitment	0.376	0.05	0.297	7.572	.000*

^a Dependent Variable: Job Satisfaction

Based on the above results, the R square value is .456 which means that the three independent variables can explain 45.6 percent of the variation in dependent variable.

According to the Anova test, F value equal to 177.142 and P value is 0.000 which is less than ($P < 0.05$). Therefore, the independent variables and dependent variable are statistically associated.

Table 4.8 demonstrates the correlation coefficient between motivation, job characteristics, organizational commitment and job satisfaction. Correlation between motivation and job satisfaction $r = .474$; $P < 0.05$. This implies that significant and positive moderate correlation between motivation and job satisfaction. The correlation between job characteristics and job satisfaction $r = .517$, $P < 0.05$. This means that positive moderate correlation and significant between job characteristics and job satisfaction. The correlation between organizational commitment and job satisfaction $r = .466$, $P < 0.05$. Organizational commitment and job satisfaction is significant

moderate positive relationship.

Table 4.9 of Coefficient table displays about the relationship between independent and dependent variables.

The first hypothesis factor of Motivation and Job Satisfaction, it is also found that the value of coefficient B between independent variable (Motivation) and the dependent variable (Job Satisfaction) is .384 and significant level is 0.000 at the 0.05 significant level. It means that an increase in motion by one unit will rise the job satisfaction by .384 units. Therefore, it can be determined that the motivation affect to job satisfaction in vehicle networking industry of Shanghai, China.

The second hypothesis the factor of Job Characteristics and Job Satisfaction, it is found that the value of coefficient B between independent variable (Job Characteristics) and the dependent variable (Job Satisfaction) is .432 and significant level is 0.000 at the 0.05 significant level. It means that if the job characteristics is increased by one unit, the value of job satisfaction will be increase by .432. Therefore, it can be showed that the job characteristics affect to job satisfaction in vehicle networking industry of Shanghai, China.

Lastly, the hypothesis factor of Organizational Commitment and Job Satisfaction, it is found that the value of coefficient B between independent variable (Organizational Commitment) and the dependent variable (Job Satisfaction) is 0.376 and significant level is 0.000 at the 0.05 significant level. It means that if there is increase Organizational Commitment by one unit, it will raise the employee performance by .376. Therefore, it can be showed that the organizational commitment affects to job satisfaction in vehicle networking industry of Shanghai, China.

The results of the above analysis use the equation of the regression as following model:

$$y = a + b_1x_1 + b_2x_2 + b_3x_3$$

Where: y = Job Satisfaction

a = Constant

b = Coefficient

x₁ = Motivation

x₂ = Job Characteristics

x₃ = Organizational Commitment


Job Satisfaction= -1.067 + .384 Motivation + .432 Job Characteristics + .376
Organizational Commitment

To sum up, analyzing the job satisfaction on the relationship between the motivation, job characteristics and organizational commitment, all the explanatory variables are positively influence. Among them, job characteristics is the most influence factor among other two variables.

4.7 Results of the Hypothesis testing

Therefore, it can be concluded that all three hypotheses for this study were accepted as below:

Table 4.10: Summary of the Hypothesis Testing



Hypothesis	Result
1. Motivation affect to job satisfaction in vehicle networking industry of Shanghai, China.	Accepted
2. Job characteristics affect to job satisfaction in vehicle networking industry of Shanghai, China.	Accepted
3. Organizational commitment affect to job satisfaction in vehicle networking industry of Shanghai, China.	Accepted

CHAPTER 5

SUMMARY, CONCLUSION AND DISCUSSION

This chapter has summarized the research findings of “ The impact of motivation, job characteristics, and organizational commitment affecting job satisfaction in the vehicle networking industry of china and the following are the research's guiding principles:

1. To analysis the relationship between motivation factor and job satisfaction of employees in the vehicle networking industry of China
2. To examine the effect of job characteristics on the job satisfaction of employees at vehicle networking industry in China
3. To study the impact of commitment of employees towards job satisfaction in the vehicle networking industry of China

Close-ended and five-point Likert scale questionnaires were employed in this study's quantitative methodology. Due to the Covid 19 epidemic necessary safety precaution, 400 employees from multiple technology companies participated in the survey, which was provided online.

5.1 Summary and conclusion

5.1.1 Demographic

Most of the respondents in this survey are male, between 26 -35 years old, and their marital status is married. The educational background of most interviewees is bachelor degree. By now, most of the employees have had 1-2 jobs, with a total of above 5 working years of employment, with salaries concentrated in 4001-7000 RMB, and most of them are full-time jobs. Most of them are Staff.

5.1.2 Motivation

As per the result, the respondents were most agree for motivation variable.

5.1.3 Job characteristics

As per the result, the respondents were most agree for job characteristics variable.

5.1.4 Organizational commitment

As per the result, organizational commitment variable was at most agree level.

5.1.5 Job satisfaction

As per the result, the respondents were most agree for job satisfaction variable.

5.1.6 Results of hypothesis

H₁: Motivation affect to job satisfaction in vehicle networking industry of Shanghai, China. According to the result, because the respondent has the power to issue orders at work and can control the events around me at work, this power has improved his job satisfaction; in addition, he maintains a good cooperative relationship with his colleagues and a sense of accomplishment through hard work. Respondents feel job satisfaction.

H₂: Job characteristics affect to job satisfaction in vehicle networking industry of Shanghai, China. According to the survey result, it shows that most respondents prefer jobs that require innovation. They are eager to work independently at work, eager to show themselves at work, especially hope that their work will have an impact on others. They value the meaning of the work itself, and at the same time hope to have Large decision-making autonomy, Finally, the respondent wanted to receive feedback on my work performance, saying that if the work activity itself provided me with the effectiveness of my work performance, it would enable the respondent to work better. These characteristics above will provide job satisfaction.

H₃: Organizational commitment affect to job satisfaction in vehicle networking industry of Shanghai, China. According to the survey result, most respondents value the significance of the organization to individuals. Respondents expressed that they like the feeling of being at home at work, and when they leave the organization, they will think about the cost and risk of leaving. In the end, most of them agree that loyalty is the value of an organization, and they also agree that there is a need for a moral obligation in the organization. It is not difficult to see that, whether affective commitment, continuance commitment or normative commitment, these recognition to the organization increase job satisfaction.

5.2 Discussion

The primary focus of this study is on the variables that have an impact on job satisfaction in the vehicle networking industry of China. The findings of the study indicate that:

- (1) Motivation has an influence on job satisfaction
- (2) Job characteristics has an influence on job satisfaction
- (3) Organizational commitment has an influence on job satisfaction

Hypothesis 1: Motivation affect to job satisfaction in vehicle networking industry of Shanghai, China was accepted.

The Achieving Society (McClelland, 1961), however, McClelland focused on the need for achievement, the need for affiliation, and the need for power. Essentially, McClelland's theory posits that people are driven to varying degrees by the need for achievement, power, and affiliation, all of which are acquired during a person's whole life (Daft, 2008; Lussier & Achua, 2007 Year). Adelina da Cruz Carvalho et al. (2020) examine the impact of motivation on job satisfaction and employee performance. The results show that motivation has a significant positive effect on job satisfaction and employee performance. This paper follows the framework of the three needs of McClelland (1961), and also designs a questionnaire through the need for achievement, power, and affiliation, trying to understand the degree of people's desire for the above three needs in the vehicle networking industry of China. The result obtained is that the three needs will affect people's job satisfaction, and the highest score is I want to have control over the events around me at work. It reaches 4.9 points in the 400-point questionnaire, which belongs to the need for power dimension. Secondly, the second highest score is the average score of 4.05. The question is At work, I always try to perform better than others. This is a question belonging to the dimension of need for achievement. Similar to the conclusion drawn by Adelina da Cruz Carvalho et al. (2020), this present study also proves that there is a significant relationship between motivation on job satisfaction. Through the regression equation $\text{Job Satisfaction} = -1.067 + .384 \text{ Motivation} + .432 \text{ Job Characteristics} + .376 \text{ Organizational Commitment}$, we learned that in this article, the correlation coefficient between motivation and job satisfaction is .384, that is, each unit change in motivation will lead to a 38.4% increase in job satisfaction.

Hypothesis 2: Job characteristics affect to job satisfaction in vehicle networking industry of Shanghai, China was accepted.

A better understanding of job characteristics can be achieved using the Job Characteristics Model created by Richard Hackman and Greg Oldham (1980). The model made up of five distinct elements, namely skill variety, task identity, task significance, autonomy, and feedback. McShane (2013) states that these psychological states related employees' higher levels of intrinsic work motivation, job satisfaction, and productivity. When these characteristics of the job are more obvious, employees, under the right circumstances, are more motivated and satisfied (McShane, 2013). Adhe Rachman Sulisty, I. U. et al (2019) aimed to ascertain the extent to which job characteristics, perceived organizational support, and self-efficacy affect job satisfaction, with job engagement as an intervention variable. Research has yielded some results, job characteristics and perceived organizational support have a significant effect on job satisfaction. This article borrows the Job Characteristics Model theory proposed by Richard Hackman and Greg Oldham in 1980, and also designs a questionnaire based on the five requirements of Skill variety, Task identity, Task significance Autonomy and Feedback, Trying to understand the impact of the above five aspects on job satisfaction in the vehicle networking industry of China. The results obtained are consistent with the conclusions of Richard Hackman and Greg Oldham in 1980, these five elements will affect people's job satisfaction, and the highest score is I want my work to have broadly significant and important scheme things. It reached 4.2 points in the 400-point questionnaire, which is a question belonging to the dimension of task significance. Secondly, the second highest score is the average score of 4.18. The problem description is I can receive feedback on my performance at work, which enables me to enjoy my work better. This is a problem that belongs to the dimension of feedback. Compared with the research conclusion of Adhe Rachman Sulisty, I. U. et al (2019), This present study also proves that there is a significant relationship between Job characteristics on job satisfaction. The research of Adhe Rachman Sulisty, I. U. et al (2019) also pointed out that perceived Organizational support has a significant effect on job satisfaction, but this article does not verify it. Finally, through the regression equation $\text{Job Satisfaction} = -1.067 + .384 \text{ Motivation} + .432 \text{ Job Characteristics} + .376 \text{ Organizational Commitment}$, we know

that in this article, the correlation coefficient between job characteristics and job satisfaction is .432, that is, per unit of job characteristics change leads to a 43.2% increase in job satisfaction.

Hypothesis 3: Organizational commitment affect to job satisfaction in vehicle networking industry of Shanghai, China was accepted.

Meyer and Allen (1991) identified three basic commitment philosophies, namely, emotional and spiritual attachment, costs of leaving the organization and employees' sense of organizational value or responsibility. According to these, affective, normative and continuance lies under the Organizational Commitment. Lorena Candelario et al. (2018) cherish studied the relationship between the .organisational commitment, and job satisfaction among government employees The study concluded that government employees are highly loyal to their organizations and highly satisfied with their jobs. More importantly, their high job satisfaction is due to their high commitment to the organization. This article uses the organizational commitment theory proposed by Meyer and Allen in 1991, and designs a questionnaire from three perspectives: Affective Commitment, Continuance Commitment and Normative Commitment, trying to understand the impact of the above three aspects on job satisfaction in the vehicle networking industry of China. The results obtained are consistent with the conclusions of Meyer and Allen in 1991, these three factors will affect people's job satisfaction, among which the highest score is I believe in the value of remaining loyal to one organization. Among 400 questionnaire reached 3.96 points, which is a question belonging to the Normative Commitment dimension. Secondly, the second highest score is the average score of 3.92. The problem description is Feeling like part of a family, makes me love this job more. This is a problem belonging to the dimension of Affective Commitment. Compared with the research conclusion of Lorena Candelario in 2018, compared with the 50 samples of Lorena Candelario, the samples in this article reached 400. Therefore, the conclusions obtained are more realistic and credible. The conclusion is that there is a significant relationship between Organizational commitment on job satisfaction. Finally, through the regression equation $\text{Job Satisfaction} = -1.067 + .384 \text{ Motivation} + .432 \text{ Job Characteristics} + .376 \text{ Organizational Commitment}$, we know that in this article, the correlation coefficient between organizational commitment and

job satisfaction is .376, that is, the change of each unit of organizational commitment will lead to 37.6% of the job satisfaction rises.

5.3 Recommendations of Further Application

Based on the results of the current research study, the following recommendations are meant to improve human resource management and the job satisfaction in vehicle networking industry of Shanghai, China.

Regarding the motion, according to McClelland's theory, employees have three types of needs that need to be met, which are power, achievement and affiliation. Therefore, for employees who want to master power, leaders should focus on training and put them in management positions. For those employees who are good at communication, it is more suitable to adjust to some communication Departments, such as the HR department, serve as a lubricant for internal communication in the company, thereby reducing the communication cost of the company and creating a better corporate atmosphere. For those employees who are eager to succeed in their careers, they are more specialized in research work. In short, fully consider the actual needs of different employees, and realize the mutual matching between positions and employment, which meets the job satisfaction of employees and improves the operational efficiency of the enterprise.

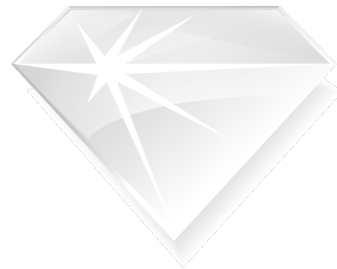
When it comes to job characteristics, based on the five characteristics of job characteristics theory, management should optimize job design through the following methods: first, job expansion, allowing workers to undertake several jobs or shortening the work cycle to redesign job content. It aims to reduce the monotony of work, enhance work motivation and job satisfaction, and improve work efficiency. Secondly, part of the work can be assigned to employees in the form of similar projects, so that they can fully understand the overall picture of their work, and can also be obvious to their own work results; let employees understand the meaning of their work as much as possible during work, and enhance their pride in their work. In the whole work, we must give employees full trust, which is reflected in giving him enough autonomy, and only give corrections when necessary; finally, the management needs to give employees feedback, so employees know what areas need to be improved, which can lead to a better understanding of their working conditions.

Regarding the organizational communication, the first category is emotional commitment: employees want to remain in the organization because of emotional attachment. Therefore, the management should pay full attention to emotional commitment, pay attention to the long-term relationship between employees and the company, set scientific and reasonable corporate goals to achieve the common growth of the company and employees, and constantly revise and establish humanized corporate values to ensure that employees have a strong recognition of the company. The second category is continuing commitment: employees want to stay in the organization because they realize the cost of leaving. Therefore, the salary and benefits of the same industry and different industries are also constantly compared to ensure that the company has a competitive advantage and increase the cost of employee turnover, which can ensure staff stability and improve employee satisfaction. The third category is normative commitment: due to a sense of obligation, they want to continue to be members of the organization, so the management should provide training on the sense of responsibility to the company, so that employees can regard the company as a second family and take the initiative to take responsibility at work.

5.4 Recommendations for Future Research

1. The Vehicle Networking Industry is the only one that the current study's research focuses on five selected technical company, so this may limit the generalizability of the research findings. Therefore, more study should be done in different other industries in China.
2. The current study examined the effects of motivation, job characteristics, and organizational commitment on job satisfaction in the vehicle networking industry of China. To clarify and enlarge their perspective, the future potential researcher should investigate on other variables.
3. This study applied a quantitative approach, but potential researcher may use a qualitative approach to gain a thorough understanding of participants' actions and open-ended processes in future.
4. Data were collected using an online questionnaire, so there may be some subjective bias in the results. After the epidemic is over, future researchers can

interview respondents face-to-face and answer their questions face-to-face to improve the reliability of the data.



**BANGKOK
UNIVERSITY**
THE CREATIVE UNIVERSITY

BIBLIOGRAPHY

- Adelina da Cruz Carvalho, I. G. (2020). Motivation on Job Satisfaction and Employee Performance. *International Research Journal of Management*, 7(5), 13-23.
- Adhe Rachman Sulisty, I. U. (2019). *The Role of Work Engagement in Moderating the Impact of Job Satisfaction*. Master's Thesis, Islamic University of Indonesia.
- Andrew J. Elliot, H. A. (1999). Test Anxiety and the Hierarchical Model of Approach and Avoidance Achievement Motivation. *Journal of Personality and Social Psychology*, 76(4), 628-644.
- Armstrong, M. (2021). *Employees Increasingly Under Stress*. Retrieved from <https://www.statista.com/chart/26363/share-employees-feeling-stress-timeline/>
- Aydogdu, S. & Asikgil, B. (2011). An Empirical Study of the Relationship among Job Satisfaction, Organizational Commitment and Turnover Intention, Turkey. *International Review of Management and Marketing*, 1(3), 43-53.
- Becker, H. S. (1960). 'Notes on concept of commitment. ' *American Journal of Sociology*, 66(1), 32-40.
- Best, John W. (1983). *Research in Education*. New Jersey: Prentice Hall.
- Bontis, N., Booker, L.D. and Serenko, A. (2007). The mediating effect of organizational reputation on customer loyalty and service recommendation in the banking industry, *Management Decision*, 45(9), 1426-1445.
- Cascio, W. F. (1998), *Applied Psychology in Human Resource Management*, Upper Saddle River, NJ: Prentice Hall.
- Christopher, M., Payne, A. & Ballantyne, D. (2002). *Relationship Marketing: Creating Stakeholder Value*. Oxford: Butterworth Heinemann.
- Coelho, F. and Augusto, M. (2010). Job Characteristics and the Creativity of Frontline Service Employees. *Journal of Service Research*, 426-43.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Daft, R. L. (2008). *The leadership experience* (4th ed.). Mason, OH: South Western, Cengage Learning.

- Feinstein A.H. and Vondrasek D. (2001). *A study of relationships between job satisfaction and organizational commitment among restaurant employees. Journal of Hospitality, Tourism, and Leisure Science*. Retrieved from: <http://hotel.unlv.edu/pdf/jobSatisfaction.pdf>
- Fogarty, T. (1994). Public accounting experience: the influence of demographic and organizational attributes. *Managerial Auditing Journal*, 9(7), 12-20.
- Hackman J. R. & Oldham G. R. (1975). Development of the Job Diagnostic Survey. *Journal of Applied Psychology*, 60, 159-170.
- Hackman J. R. & Oldham G. R. (1980). *Work Redesign*. Philippine: Addison, Wesley.
- Hackman, J. R. & Oldham, G. R. (1974). *The job diagnostic survey: An instrument for the diagnosis of jobs and the evaluation of job redesign projects*. Department of Administrative Sciences: Yale University.
- Hackman, J. R. & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16: 250-279.
- Hein Htet. (2019). *Effect of Motivational Factors On Employee Performance In Tristar Tyre Factory*. Master's thesis, Yangon University of Economics, Myanmar.
- Herzberg, F., Mausner, B., & Snydermann B. (1959). *The motivation to work*. New York: Wiley.
- Irfanullah Khan, Dr. Allah Nawaz, Humid Khan, Farhatullah Khan, (2013). Determining the Impact of Demographics on the Intention to Leave of Academicians in HEIs of the DCs like Pakistan. *Global Journal of Management and Business Research*, 13(7), 41- 48.
- Lambert, E. & Hogan, N. 2009. The importance job satisfaction and organizational commitment in shaping turnover intent: a test of a causal model. *Criminal Justice Review*, 34(1),96-118.
- Lambert, E. G. (2003). Justice in corrections: An exploratory study of the impact of organizational justice on correctional staff. *Journal of Criminal Justice*, 31(2),155-168.
- LL Yee., S Johari., D Emang., & PY Thoo. (2022). The Motivation of Female Social Entrepreneurs in Lundu District, Sarawak, Malaysia, *Asian Women*, 38(1), 34-58.

- Lorena Candelarioa., Darin Jan Tindowenb., Marie Jean Mendezabalc., & Pyrene Quilangd, (2020). Organisational Commitment and Job Satisfaction among Government Employees, *International Journal of Innovation, Creativity and Change*, 13(10), 1627-1643.
- Lussier, R. N., & Achua, C. F. (2007). *Leadership: Theory application, skills and development* (3rd ed.). Mason, OH: Thomson South-Western
- Lyman W. Porter, R. M. (1974). "Organizational commitment, job satisfaction, and turnover among psychiatric technicians". *Journal of Applied Psychology*, 59(5), 603-609.
- Mangi, R, A., Soomro, H., J. Ghumro, I. Abidi, A., R. Jalbani, A. A. (2011). A study of Job Satisfaction among Non-Ph.D. faculty in universities. *Australian Journal of Business and Management Research*, 1(7), 83-90.
- Martin, C.L., & Bennett, N. (1996). The role of justice judgments in explaining the relationship between job satisfaction and organisational commitment. *Group and Organisation Management*, 21 (1), 84-105.
- Maslow, A. H. (1954). *Motivation and personality*. New York: Harper and Row.
- Maung Maung Su. (2019). *Employee Satisfaction On Motivational Factors of Ayeyarwaddy Farmers Development Bank*. Master's thesis, Yangon University of Economics, Myanmar.
- McClelland, D. C. (1961). *The achieving society*. New York: Free Press.
- McGregor, D. (1960). *The human side of enterprise*. New York: McGraw-Hill.
- McPhee, S.D., & Townsend, L.J. (1992). A study of organisational commitment and job satisfaction among Air force occupational therapy officers. *Military Medicine*, 153 (3), 117-121.
- McShane, V. G. (2013). *Organizational Behavior*. McGraw-Hill, Singapore.
- Meyer, J. P. & Allen, N. J. (1997). *Commitment in the Workplace: Theory, Research, and Application*. Thousand Oaks: CA: Sage.
- Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 1, 61– 89.
- Meyer, J.P., Kam, C., Goldenberg, I. & Bremner, N.L. (2013) Organizational Commitment in the Military: Application of a Profile Approach. *Military Psychology*, 25(4), 381-401.

- Mosadeghrad, A.M. (2003). *Principles of Health Care Administration*. Tehran: Dibagran Tehran.
- Mowday R., Porter L. and Steers R. (1982). *Employee- organization Linkages: The Psychology of Commitment, Absenteeism, and Turnover*. York, NY: Academic Press.
- Mowday, R. T., Steers, R.M.& Porter, L.W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14 (2), 224-247.
- Muhammad, S., Afridi, F. K., Ali, M. W., Shah, W. U., & Alasan, I. I. (2021). Effect Of Training On Employee Commitment: Mediating Role Of Job Satisfaction. *Pakistan Journal of Society, Education and Language (PJSEL)*, 7(1), 28-37.
- Nang Sann Sann Aye. (2019). *Employee Satisfaction On Motivational Factors of Yoma Bank Limited*. Master's thesis, Yangon University of Economics, Myanmar.
- Naude, O.F. (2010). *Skilled Staff's Job Characteristics, Job Satisfaction and Intentions To Quit in a Petrochemical Company*. Master of Business Administration, North-West University Potchefstroom Campus.
- Nawab, S. & Bhatti, K, K. (2011). Influence of Employee Compensation on Organizational Commitment and Job Satisfaction: A Case Study of Educational Sector of Pakistan. *International Journal of Business and Social Science*, 2(8), 25-35.
- Nick Bontis, A. S. (2007). The moderating role of human capital management practices on employee capabilities. *Journal of Knowledge Management*, 11(3), 31-51.
- Noor Azzah S. & Rudzi M. (2010). *Job Characteristics and Job Satisfaction: A Relationship Study on Supervisors Performance*. ICMIT 2010: International Conference of Management, Information and Technology, Singapore.
- Ogunrombi, S.A., & Elogie, T.A. (2015). *Staff motivation and productivity in John Harris Library*. University of Benin, Benin City, Nigeria.
- Pathak, D. (2012). Role of perceived organizational support on stress-satisfaction relationship: An empirical study. *Asian Journal of Management Research*, 3(1), 153-177.

- Pfeffer, J. (1994). *Competitive Advantage through People: Unleashing the Power of the Workforce*. Boston, MA: Harvard Business School Press.
- Price, J. & Mueller, C. (1986). *Absenteeism and turnover among hospital employees*. Greenwich, CT: JAI Press.
- Rao Subba P. (2005). *Essential of HRM & Industrial Relationships*, 480-482.
- Rayton, B. A. (2006). Examining the interconnection of job satisfaction and organizational commitment: an application of the bivariate probit model, *International Journal of Human Resource Management*, 17(1), 139 – 154.
- Saifuddin, Nawaz, A. Jan, F. (2012). *Predicting Job-Satisfaction among the Academicians of Universities in Kpk, Pakistan*. *Industrial Engineering Letters*. 2(2): 34-45.
- Sani, A. (2013). Role of procedural justice, organizational commitment and job satisfaction on job performance: The mediating effects of organizational citizenship behavior. *International Journal of Business & Management*, 8(15), 57- 67.
- Sattar, A. Khan, S. Nawaz, A & Afaq, Q. (2010). Theories of job-satisfaction: global applications & limitations. *Gomal University Journal of Research*, 26(2), 1-8.
- Sattar, A. Khan. (2011). Predicting the Consequences of Job Satisfaction among District Officers in KPK, Pakistan. *Journal of Current Computer Science and Technology*, 1(5), 228-237.
- Scholl, R. W. (1981). Differentiating Organizational Commitment from Expectancy as a Motivating Force. *Academy of Management of Review*, 6(4), 589-599.
- Schuurman, J. (2011) “*Job Characteristics, Health and Satisfaction, Can Satisfaction with Social Life Overcome Negative Job Traits?*”, MSc Thesis 2011-012, Erasmus University, Rotterdam, Health Economics.
- ShaemiBarzoki, A. (2008). An analysis of factors affecting the employees’ motivation based on Herzberg's hygiene factors theory (The study: Golpayegan City Saipa Corporation industrial complex's staff). *Australian Journal of Basic and Applied Sciences*, 115-123.
- Shanzhi Chen., Hui Xu., Dake Liu., Bo Hu., Hucheng Wang. (2014). A Vision of IoT: Applications, Challenges, and Opportunities With China Perspective. *IEEE Internet of Things Journal*, 1 (1), 349 - 359.

- Shanghai, China Metro Area Population 1950-2022. (2022, December 14). Retrieved from Shanghai, China Metro Area Population 1950-2022: <https://www.macrotrends.net/cities/20656/shanghai/population>
- Spector, P.E (1997). *Job Satisfaction: Application, assessment, causes and consequences*. Thousand Oaks, CA. Sage.
- Sturges, J., Guest, D. & Mackenzie-Davey (2000). Who's in charge? Graduate's attitudes to and experiences of career management and their relationship with organisational commitment. *European Journal of Work and Organizational Psychology*, 9(3), 351- 370.
- Thida Aung. (2019). *Job Characteristics And Job Satisfaction Of Myanmar Andaman Pearl Co., Ltd*. Master's thesis, Yangon University of Economics, Myanmar.
- Thet Wai Nyein. (2019). *The Effect Of Organizational Commitment On Job Performance Of Employees At Msr Company Limited*. Master's thesis, Yangon University of Economics, Myanmar.
- Volkwein, J. F. & Zhou, Y. (2003). Testing a model of administrative job satisfaction. *Research in Higher Education*, 44, 149–171.
- Yamane, T. (1967). *Statistics: An introductory analysis*. New York: Harper and Row.
- Yang, J. and Fei, Z. (2013). Broadcasting with prediction and selective forwarding in vehicular networks, *Int. J. Distrib. Sensor Netw*, 2013, 1–9.
- Zaw Phyoo Oo (2019), *The Effect of Job Design and Reward System on Employee Performance at Loi Hein Group Of Companies (Yangon)*. Master's thesis, Yangon University of Economics, Myanmar.
- Zhang, T. et al. (2014). Defending connected vehicles against malware: Challenges and a solution framework, *IEEE Internet Things J*, 1 (1), 10–21.

APPENDIX
ONLINE QUESTIONNAIRE:

The Impact of Motivation, Job Characteristics, and Organizational Commitment Affecting Job Satisfaction in the Vehicle Networking Industry of China.

I am a MBA candidate from Bangkok University. This survey research was aimed to comprehend the impact of motivation, job characteristics and organizational commitment towards job satisfaction. This study is a part BA715: Independent Study, Graduate School at Bangkok University.

The components of this research will be covered in 5 parts: demographic data questions, measurements of motivation, measurements of job characteristics, measurements of organizational commitment, and measurements of job satisfaction. The information provided will be treated highly confidential and will be used solely for the purpose of academic resources.

Thank you very much for your kind cooperation.

Section (1)

Instructions: Please choose the (✓) the answer that matches your information.

1. Gender:

Male

Female

2. Age:

Under 25 years old

26 -35 years old

36 -45 years old

46 – 55 years old

Above 55 years old

3. Marital Status:

- Single Married Separated
 Divorced Widow

4. Educational background:

- Below Bachelor degree Bachelor degree
 Master's degree Doctoral degree

5. How many jobs did you have?

- 1-2 3-4 5+

6. Salary

- Less than 4000 RMB 4001-7000 RMB
 7001-11000 RMB Above 11000 RMB

7. Total working years:

- Under 1 year 1 to 3 years
 4 to 5 years Above 5 years



8. Management level?

- Top Management Middle Management
 Lower Management Staff/ Assistant

9. Type of Employee:

- Full-time Part-time
 Temporary Freelancer

Section 2:

Instructions: Please rate the following statements by ticking (✓) only to represent your opinion.

(1 = Least Agree, 2 = Slightly Agree, 3 = Moderate Agree, 4 = Mostly Agree, 5 = Completely Agree)

Motivation						
1	I enjoy having the power to give commands when working in a team.	1	2	3	4	5
2	I want to have control over the events around me at work.	1	2	3	4	5
3	I would like to have good relationship with coworkers.	1	2	3	4	5
4	I enjoy collaborating with others at work.	1	2	3	4	5
5	At work, I always try to perform better than others.	1	2	3	4	5
6	I prefer to work very hard to get ahead.	1	2	3	4	5

Section 3:

Instructions: Please rate the following statements by ticking (✓) only to represent your opinion.

(1 = Least Agree, 2 = Slightly Agree, 3 = Moderate Agree, 4 = Mostly Agree, 5 = Completely Agree)

Job Characteristics						
1	I prefer jobs that require innovation	1	2	3	4	5
2	I prefer to work on jobs that are not simple and repetitive.	1	2	3	4	5
3	I like doing remarkable work.	1	2	3	4	5
4	I want to have chances to show my performance at work.	1	2	3	4	5
5	I prefer to be able to work on my own.	1	2	3	4	5
6	I'd rather have chance to work on projects through final completion.	1	2	3	4	5
7	I want my work to have an effects on other people.	1	2	3	4	5
8	I want my work to have broadly significant and important scheme things.	1	2	3	4	5

Job Characteristics						
9	I am satisfied with the job of having the opportunity to think and act independently.	1	2	3	4	5
10	I really enjoy the work that can provide great decision-making autonomy.	1	2	3	4	5
11	I feel satisfied that I can decide how to work.	1	2	3	4	5
12	Work that gives me great opportunities for independence and freedom, improves my satisfaction with work.	1	2	3	4	5
13	I can receive feedback on my performance at work, which enables me to enjoy my work better.	1	2	3	4	5
14	I enjoy the job itself provides information about my performance.	1	2	3	4	5
15	I like a job which can give me clues about performing well or not.	1	2	3	4	5
16	The work activity itself provides me with the effectiveness of my work performance, which enables me to work better.	1	2	3	4	5

Section 4:

Instructions: Please rate the following statements by ticking (✓) only to represent your opinion.

(1 = Least Agree, 2 = Slightly Agree, 3 = Moderate Agree, 4 = Mostly Agree, 5 = Completely Agree)

Organizational Commitment						
1	This organization has a great deal of personal meaning to me.	1	2	3	4	5
2	Feeling like part of a family, makes me love this job more.	1	2	3	4	5
3	It would be too costly for me to leave my organization now.	1	2	3	4	5
4	I have no other alternative other than this organization.	1	2	3	4	5

Organizational Commitment						
5	Right now, staying with my organization is a matter of necessity as much as desire.	1	2	3	4	5
6	There will be high risk if I decided to leave my organization now.	1	2	3	4	5
7	I would feel guilty if I left my organization now.	1	2	3	4	5
8	I believe in the value of remaining loyal to one organization.	1	2	3	4	5
9	I feel a sense of moral obligation to remain in this organization.	1	2	3	4	5
10	I feel very loyal to my organization.	1	2	3	4	5

Section 5:

Instructions: Please rate the following statements by ticking (✓) only to represent your opinion.

(1 = Least Agree, 2 = Slightly Agree, 3 = Moderate Agree, 4 = Mostly Agree, 5 = Completely Agree)

Measurements of Job Satisfaction						
1	I am satisfied with the salary amount currently received.	1	2	3	4	5
2	I am satisfied with salary levels for retaining capable employees.	1	2	3	4	5
3	The current salary is incentive, which is satisfactory.	1	2	3	4	5
4	I expect my job to include clear instructions and systematic training from my supervisor.	1	2	3	4	5
5	I am very pleased that the supervisor provides understanding and mutual respect.	1	2	3	4	5
6	I appreciate that employees are free to discuss work issues with their supervisors.	1	2	3	4	5
7	I'm pleased that my supervisor provides supportive feedback with cooperation and negotiation.	1	2	3	4	5

Measurements of Job						
Satisfaction						
8	Fair promotion policy within the organization is satisfactory.	1	2	3	4	5
9	No personal bias as regards with promotion is a joy to work with.	1	2	3	4	5
10	I appreciate that promotions are based on job qualifications and experience.	1	2	3	4	5
11	I am very satisfied that the promotion plan of the factory can motivate me.	1	2	3	4	5
12	A good workplace is an important factor to improve job satisfaction.	1	2	3	4	5
13	Providing additional overtime facilities will improve job satisfaction.	1	2	3	4	5
14	I am glad that the management seeks my advice and leadership.	1	2	3	4	5
15	I expect my work is in routine but it is not boring.	1	2	3	4	5
16	I am glad that my skills, knowledge and experience can contribute to my work.	1	2	3	4	5
17	I expect my work has a clear path for career advancement.	1	2	3	4	5

Other Comments:

End of Questionnaires

Thank you very much for your participation.

STATISYICAL OUTPUT

Regression

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Sig. F Change	Durbin-Watson
					R Square Change	F Change	df1	df2		
1	.676a	.456	.452	.730	.456	110.795	3	396	.000	2.097

a. Predictors: (Constant), Motion, JC, OC

b. Predictors: (Constant), Motion, JC, OC

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	177.142	3	59.047	110.795	.000b
	Residual	211.045	396	.533		
	Total	388.187	399			

a. Dependent Variable: JS

b. Predictors: (Constant), Motion, JC, OC

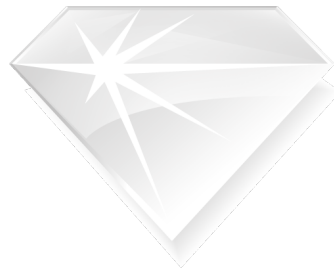
		Correlations			
		JS	Motion	JC	OC
Pearson Correlation	JS	1.000	.474	.517	.466
	Motion	.474	1.000	.306	.221
	JC	.517	.306	1.000	.302
	OC	.466	.221	.302	1.000
Sig. (1-tailed)	JS	.	.000	.000	.000
	Motion	.000	.	.000	.000
	JC	.000	.000	.	.000
	OC	.000	.000	.000	.
N	JS	400	400	400	400
	Motion	400	400	400	400
	JC	400	400	400	400
	OC	400	400	400	400

UNIVERSITY
THE CREATIVE UNIVERSITY

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		Part
		B	Std. Error	Beta			Zero-order	Partial	
1	(Constant)	-1.067	.259		-4.114	.000			
	Motion	.384	.049	.306	7.779	.000	.474	.364	.288
	JC	.432	.052	.334	8.309	.000	.517	.385	.308
	OC	.376	.050	.297	7.572	.000	.466	.356	.281

a. Dependent Variable: JS



**BANGKOK
UNIVERSITY**
THE CREATIVE UNIVERSITY

BIODATA

First Name-Last Name Xu Bing

Email xu.bing@bumail.net

Educational Background High School at Shanghai Zhongshan High School

Bachelor's Degree at Fudan University

Master Degree at Bangkok University

Experience Experience in Human Resource and Management Field

**BANGKOK
UNIVERSITY**

THE CREATIVE UNIVERSITY