



**FACTORS INFLUENCING JOB COMMITMENT OF
OPERATIONAL WORKERS IN ELECTRONIC FACTORIES
WUHAN, CHINA**

RUOXIN YANG

**A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MANAGEMENT IN MANAGEMENT SCIENCE
INSTITUTE OF SCIENCE INNOVATION AND CULTURE
RAJAMANGALA UNIVERSITY OF TECHNOLOGY KRUNGTHEP
ACADEMIC YEAR 2023
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Author	Ruoxin YANG
Major	Master of Management (Management Science)
Advisor	Associate Professor Dr. Daranee Pimchangthong

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ABSTRACT

The objectives of this study were to analyze factors that influence the job commitment of operational workers in electronic factories in Wuhan, China, using Herzberg's two-factor theory. The sample group consisted of 400 operational workers from electronic factories in Wuhan, China. At the statistical significance level of 0.05, descriptive statistics such as frequency, percentage, mean, and standard deviation were employed to analyze data, as were inferential statistics such as Independent Samples t-test, One-way ANOVA, LSD, and Multiple Linear Regression. The results found that most respondents were female, married, had a high school or lower educational background, were operational staff, and had been working for 6 months to one year. The hypotheses found that marital status, educational background, and job position differences affect commitment. The motivation factors, including appreciation, duty, achievement, and possibility of growth, influenced job commitment. The maintenance factors, including pay, status, work safety, interpersonal relationships, and policy and administration, influenced job commitment.

Keywords: motivation factors, maintenance factors, job commitment, operational workers, electronic factories

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CHAPTER I

INTRODUCTION

1.1 Background and Statement of the Problem

With the continuous improvement of China's economic development level, China has become a vital manufacturing country in the world economy, with all kinds of factories and production and manufacturing systems. However, manufacturing enterprises are also faced with the double impact of cost growth caused by increased human and land capital factors, leading to recruitment difficulties and grave employee turnover. In particular, for some basic posts, the loss of essential employees is caused by repetitive work and long working hours. The demographic structure of the manufacturing industry is mainly operational workers. However, their high turnover rate often becomes the biggest headache for the human resources department of manufacturing enterprises, and the peak of turnover is around the Spring Festival and the summer vacation every year (Lu et al., 2023).

The report from 51Job.com showed that employees' yearly overall turnover rate in 2021 was 18.8%, and the voluntary turnover rate reached 14.1%. The high-tech industry has the highest voluntary yearly turnover rate of 15.9%. The ideal turnover rate of most companies is 5%-10% (51 Job [Human Resource], 2022).

Zhao and Deng (2023) found that the monthly turnover rate of operational workers in some large manufacturing enterprises reached 7.5%, and that of some small and medium-sized manufacturing enterprises reached 12% in Wuhan. That means some small and medium-sized manufacturing enterprises lose operational workers within a year and rely on many recruits to maintain their operations. In this context, it can be seen that the loss of operational workers in the development of manufacturing enterprises is one of the most critical problems facing them. Lu et al. (2023) find that

the frequent turnover of operational workers in manufacturing enterprises affects the average production and manufacturing of products and is not conducive to long-term training of talents and the accumulation of technologies. From the perspective of operational workers, the current social and economic development is rapid. However, in some manufacturing factories, there is no scientific and reasonable salary system, and the welfare of operational workers and related position protection is not perfect, so they choose to quit under this background. It is vital to solve the problem of operational worker turnover in manufacturing enterprises during the process of our manufacturing power, which is also an essential direction for the development of transformation and upgrading in manufacturing enterprises.

Herzberg's two-factor theory, often known as the motivation-maintenance factor hypothesis, has played an essential role in understanding workplace employee motivation. According to the idea, two significant elements influence employee motivation: job satisfaction and dissatisfaction (Herzberg, 1968). These elements are not always mutually exclusive, as they might occur in the workplace concurrently and independently.

Because it acknowledges that job pleasure and dissatisfaction are two different but related aspects that affect employee motivation, so Herzberg's two-factor theory is significant. This idea has gained widespread acceptance and is applied in studies on job satisfaction and in creating staff retention and motivation plans inside businesses (Lee et al., 2022).

Herzberg's two-factor theory provides a valuable framework for understanding employee motivation in the workplace. By recognizing the distinct roles of job satisfaction and job dissatisfaction in shaping employee motivation, organizations can develop targeted strategies to improve job satisfaction, increase motivation, and enhance employee performance. As such, this theory remains a critical concept in human resource management and organizational behavior.

In Wuhan's electronic factories, the loss of operational workers is a growing concern. Many talented and skilled operational workers leave their jobs and seek better employment opportunities elsewhere. The commitment of these employees to their jobs plays a crucial role in the success and sustainability of these factories. Therefore, understanding the factors that influence job commitment among operational workers is of great significance for both the individual workers and the overall productivity of the electronic industry in Wuhan.

1.2 Research Questions

1.2.1 What motivation factors influence the job commitment of operational workers in electronic factories in Wuhan, China?

1.2.2 What maintenance factors influence the job commitment of operational workers in electronic factories in Wuhan, China?

1.3 Research Hypotheses

H₁: The difference in demographic factors affects different job commitments of operational workers in electronic factories.

H₂: Motivation factors have influenced the job commitment of operational workers in electronic factories.

H₃: Maintenance factors have influenced the job commitment of operational workers in electronic factories.

1.4 Research Objectives

1.4.1 To study the dereference in job commitment of operational workers based on demographic factors in electronic factories in Wuhan, China.

1.4.2 To analyze the extent to which motivation factors influence the job commitment of operational workers in electronic factories in Wuhan, China.

1.4.3 To analyze the extent to which maintenance factors influence the job commitment of operational workers in electronic factories in Wuhan, China.

1.4.4 To explore the two-factor theory's applicability to the job commitment of operational workers in electronic factories in Wuhan, China.

1.4.5 To formulate suggestions to reduce the loss of operational workers in electronic factories in Wuhan, China.

1.5 Scope of the Research Study

1.5.1 Content

In this study, the two-factor theory serves as the theoretical framework for this research. The research variables include both dependent variables and independent variables. The dependent variable in this study is job commitment. The independent variables are motivation factors and maintenance factors.

1.5.2 Area of Study

This study chooses three representative electronic factories in the Wuhan area and their operational workers as our research subjects. The names of the three electronic factories are the Wuhan Huazhong University of Science and Technology Electronic factories, Wuhan Yangtze Electronics Group Co., Ltd, and Wuhan ZTE Corporation Limited.

1.5.3 Sample and Population

The population of the first company is more than 2600, the population of the second company is more than 3000, and the population of the third company is more than 3000.

The sample was collected from three electronic factories. The total number of samples for this research is 400 samples.

1.5.4 Sampling Method

A stratified quota sampling method was used to collect data.

1.5.5 Duration

The research plan takes about 8 months, from February 2023 to September 2023.

1.6 Research Framework 1

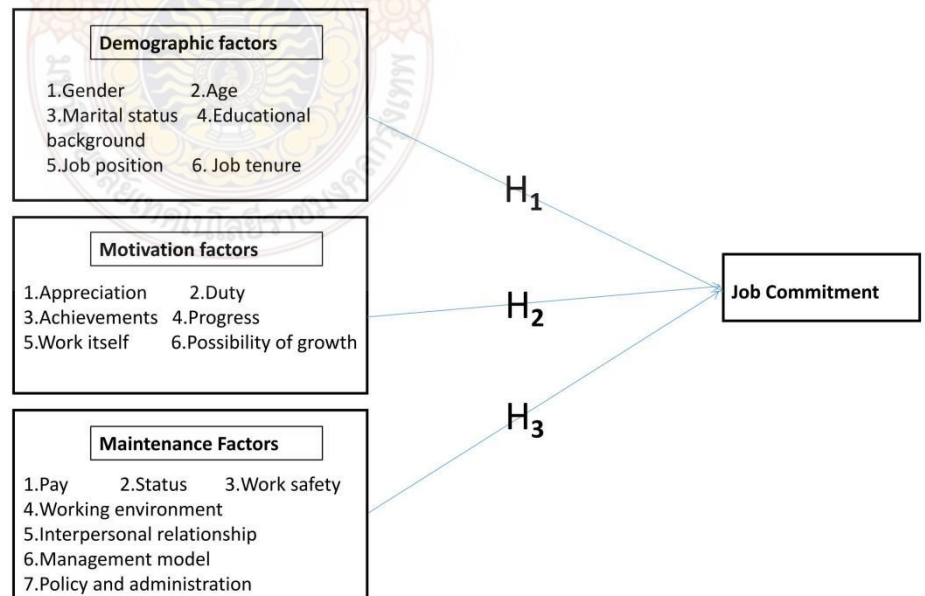


Figure 1.1 Research Framework of this Study

This study constructs a research framework based on the two-factor theory (Herzberg et al., 1959). This study will first investigate operational workers' perceptions of demographic, motivation, and maintenance factors. Then, it will explore the effects of these factors, analyze the current situation and reasons for the job commitment of operational workers in Wuhan, China, and formulate relevant suggestions to reduce the loss of operational workers in electronic factories.

1.7 Definition of Key Terms

Job commitment refers to the extent of an employee's enthusiasm and dedication towards their assigned tasks in the workplace. It encompasses a sense of responsibility and connection to the goals, mission, and vision of the organization they are affiliated with.

Electronic factories in this study refer to three electronic factories in Wuhan: Wuhan Huazhong University of Science and Technology Electronic Factory, Wuhan Yangtze Electronics Group Co., Ltd, and Wuhan ZTE Corporation Limited.

Operational workers in manufacturing enterprises studied in this paper mainly refer to the skilled workers directly responsible for machine operation and the operational workers of assembly line production in three electronic factories.

Herzberg et al. (1959) proposed the two-factor theory regarding employee satisfaction and motivation. This theory postulates that motivating and maintenance factors are the two sets of elements that influence job satisfaction and discontent, based on studies on employee motivation (Ewen et al., 1966). This notion is a well-known idea in organizational behavior and human resource management, and it makes sense for studies on job commitment. Motivating factors refer to the factors that can stimulate employees' enthusiasm and improve their job satisfaction. In this study, motivating factors include appreciation, duty, achievement, progress, work itself, and the possibility of growth.

Maintenance factors refer to the factors that can keep employees in an organization. This study's maintenance factors include pay, status, work safety, working environment, interpersonal relationships, management model, and policy and administration.

1.8 Benefit of the Study

This research question aims to identify and understand the specific factors that significantly influence the job commitment of operational workers in electronic factories.

By tackling these research inquiries, this study can thoroughly comprehend the diverse aspects of task dedication among operational workers in Wuhan's electronic manufacturers. This information will help create tactics to keep bright people in the area and promote the long-term expansion of the electronic manufacturing sector.

The existing two-factor theory, demographic factors, motivation factors, maintenance factors, and job commitment theories are briefly reviewed and combed.

Forming more targeted and operable improvement measures to help electronic factories achieve sustainable development.

CHAPTER II

LITERATURE REVIEW

2.1 Related Theories

2.1.1 Two-factor Theory

The two-factor theory, also known as the motivation-maintenance theory, was proposed by Herzberg et al. (1959) as a theory about employee motivation and satisfaction. Based on research on employee job motivation, this theory suggests that two sets of factors affect job satisfaction and dissatisfaction: motivation and maintenance (Ewen et al., 1966). It puts forward the view that employee performance will be better in the case of high employee satisfaction. This theory has an essential enlightenment for enterprise management.

Motivational factors that stem from intrinsic conditions of the job itself, such as recognition, achievement, or personal growth, and that give positive satisfaction include challenging work, responsibility, the opportunity to do something meaningful, involvement in decision-making, and feeling of importance to an organization (Hackman & Oldham, 1976).

Although their absence causes discontent, maintenance variables (such as status, job security, salary, fringe benefits, work conditions, decent pay, paid insurance, and vacations) do not positively affect contentment or increase motivation. These are maintenance considerations, which is why "hygiene" is employed. These are not directly related to the work and can include pay or benefits, business regulations, or supervision procedures (Herzberg, 1968; Hackman & Oldham, 1976).

The use of Herzberg's two-factor theory of motivation for job happiness in clinical laboratories in Omani hospitals was investigated by Alrawahi et al. (2020). The study analyzed the application of the two-factor theory to job satisfaction in clinical

laboratories in Omani hospitals. Koncar et al. (2021) investigated the relevant elements influencing employee satisfaction using the two-factor theory for online employer reviews. The study created models that predicted employee satisfaction and reviewed motivational elements and hygiene for the digital age. In order to identify the motivational factors and hygiene factors affecting job satisfaction by sector and ascertain whether there is a significant effect on job satisfaction through applying the two-factor theory, Lee et al. (2022) analyzed corporate review data spanning nine industries. The study discovered that the two-factor theory does not always apply to all companies and people and that distinct maintenance and motivation variables are applicable in different jobs.

In summary, these studies reveal the role of the two-factor theory on employee motivation and satisfaction in different industries and situations. In the case of operational workers in Wuhan's electronic factories, using the two-factor theory can help management identify which motivation and maintenance factors have problems and take appropriate measures to improve employee satisfaction, thus increasing job commitment.

2.1.2 Job Commitment

Job commitment is an essential aspect of employee engagement and productivity in the workplace. It goes beyond simply completing assigned tasks; it reflects employees' enthusiasm, dedication, and sense of responsibility toward their work. Employees committed to their jobs connect to the organization's goals, mission, and vision (Millward & Hopkins, 1998). They are willing to go the extra mile, take initiative, and contribute their best efforts to succeed.

Job commitment is vital for several reasons. First, loyal workers are likelier to stay with the company for longer. By doing this, turnover and the related expenses of hiring and onboarding new staff are decreased. Employee commitment to their work increases the likelihood that they will grow a sense of loyalty to the company, improving their general well-being and job satisfaction (Riketta, 2002).

Second, increased productivity is a result of job commitment. Committed employees are driven to give their best work and are more inclined to take on new tasks. They are motivated to accomplish organizational and personal goals and have a strong work ethic (Niazazari et al., 2014). Their passion and commitment foster a great work atmosphere where others are motivated to put in their best effort.

Furthermore, job commitment fosters a sense of ownership and accountability (Millward & Hopkins, 1998). Committed employees take pride in their work and take ownership of their responsibilities. They are proactive in finding solutions to problems and are willing to take responsibility for their actions. This level of accountability contributes to a culture of trust and reliability within the organization.

Organizations can encourage employees to stay committed to their jobs by establishing a supportive environment that acknowledges and honors their efforts (Wiener & Vardi, 1980). Job commitment can also be enhanced by offering professional growth and development possibilities, such as training courses and career progression routes. Furthermore, transparent communication of objectives, expectations, and feedback can foster a sense of commitment among staff members.

To sum up, job commitment is critical to employee productivity and engagement. Employees who are committed to the company are more likely to stick around, put in their best work, and accept accountability for their tasks. Fostering job commitment requires establishing a favorable work atmosphere and offering chances for advancement and development. Organizations may cultivate a committed, driven staff that propels success by prioritizing job commitment.

2.1.3 Operational Workers' Turnover

There are many factors contributing to employee turnover in electronic factories. Firstly, limited career development opportunities within domestic companies drive talents to seek better prospects overseas. Additionally, foreign companies offer attractive salary packages and benefits as strong incentives for employees to leave their home country (Alexandrov et al., 2007). The negative impact of employee turnover

should not be underestimated. It leads to the loss of valuable human capital within domestic enterprises and hinders technological advancements within the industry. Moreover, when highly skilled talents leave their home country, they take away their expertise, potential innovation, and creativity (Tracey & Hinkin, 2008).

According to Chen's (2020) study, "Perspective on the Influence of Leadership on Job Satisfaction and Lower Employee Turnover in the Mineral Industry," there is a strong correlation between the employee turnover rate and organizational commitment, working conditions, and leadership attributes. According to the study, social media use can increase job satisfaction and decrease turnover intentions by strengthening employee engagement and loyalty to the company.

According to Mapuranga et al. (2021), job satisfaction, job embedding, and organizational commitment significantly affect intent to stay. In the Entrepreneurial Leadership and Employee Turnover Intentions: The Role of Affective Commitment and Person-Job Fit study, Yang et al. (2019) discovered that affective commitment significantly and negatively influences employee turnover intention. From the standpoint of social psychology, Lin and Huang's (2020) study, Employee Turnover Intentions and Job Performance from a Planned Change: The Effects of an Organizational Learning Culture and Job Satisfaction, examined the attrition of operational personnel. They highlighted a lack of belonging and self-fulfillment as essential reasons for operational workers leaving their positions.

2.14 Electronic Factories in Wuhan

Wuhan, the capital city of Hubei Province in China, is a central hub for electronic manufacturing. The city has attracted numerous electronic factories due to its strategic location, favorable business environment, and skilled labor force (Zhou et al., 2021). These factories play a crucial role in developing the electronics industry in Wuhan and contribute significantly to the local economy.

Electronic factories in Wuhan are characterized by their large scale, advanced technology, and diverse product range. They manufacture various electronic

products, including consumer electronics, electronic components, and communication devices. These factories often operate globally, supplying products to domestic and international markets (Han & Wu, 2004).

The electronic factories in Wuhan are typically equipped with modern production facilities and sophisticated manufacturing processes. They employ many operational workers for various tasks, such as assembly line operations, quality control, and packaging. These employees are the backbone of the factories and play a crucial role in ensuring smooth production processes (Mei & Nie, 2008).

Moreover, electronic factories in Wuhan provide employment opportunities for individuals from different educational backgrounds and skill levels (Lei et al., 2022). Many operational workers in these factories come from rural areas or migrant populations seeking better job prospects. The factories offer stable employment, competitive wages, and opportunities for career advancement, making them attractive options for many individuals.

However, working in electronic factories can also present challenges for operational workers. The nature of the work is often repetitive and demanding, requiring long hours and high concentration levels. Additionally, the work environment may be noisy and potentially hazardous, with exposure to chemicals and other safety risks (Mei & Nie, 2008). These factors can impact the job commitment of operational workers and influence their overall job satisfaction and well-being.

Comprehending the features and workings of Wuhan's electronic factories is crucial to appreciating the variables affecting operational workers' dedication to their jobs. Through a review of the relevant literature (Han & Wu, 2004; Lei et al., 2022; Mei & Nie, 2008; Zhou et al., 2021), specific challenges and opportunities faced by these workers can be better understood, and methods to improve their commitment to their jobs and overall job satisfaction can be identified.

2.2 Job Commitment

In the study by Alexandrov et al. (2007), management's perceived concern for customers and front-line staff on turnover intentions demonstrated the multiplicity of commitment consequences on an organization's ability to operate well. Highly devoted employees exhibit better corporate citizenship behavior and a greater desire to be a part of the company. A genuine passion for their work drives employees with a high job commitment. They take pride in their work and are willing to go above and beyond to ensure that tasks are completed to the best of their ability. This dedication often leads to higher quality work, increased productivity, and better performance.

The study by Min and Hong (2021) examined the impact of food sustainability and the food safety climate on kitchen staff's job satisfaction, dedication, and stress levels. The findings indicated that job stress negatively impacted job commitment. Reasonable stress, meanwhile, might support commitment to one's work. According to Yue et al.'s study, "Empathy and burnout in medical staff: the mediating role of job satisfaction and job commitment," empathy was found to be favorably associated with work commitment and significantly inversely correlated with job burnout and job satisfaction. A noteworthy inverse relationship was found between job burnout, commitment, and satisfaction.

In the study Reducing Employee Turnover Intentions in the Tourism and Hospitality Sector: The Mediating Effect of Quality of Work Life and Intrinsic Motivation, conducted by Xu et al. (2022), it was discovered that employees in the tourism and hospitality sector who exhibit more significant levels of intrinsic motivation—a measure of inner satisfaction as opposed to external rewards—show more extraordinary dedication to their work. This pledge lessens the possibility of staff churn. According to Mapuranga et al. (2021), a noteworthy positive correlation exists between employees' job performance and a solid organizational commitment level, fostering employee loyalty to the company. The study also discovered a substantial positive

association between emotional and normative commitment and a strong relationship between employee engagement and organizational commitment.

2.3 Demographic Factors

The relationship between organizational commitment and demographic variables (gender, age, qualification, experience, and marital status) was examined by Affum-Osei et al. (2015) using data from a commercial bank in Ghana. They discovered a significant relationship between the two. Kipkebut (2013) investigated the relationships between demographic factors (age, marital status, gender, job tenure, and educational level) and organizational commitment of industrial workers. The study focused on the case of employees in Kenyan universities. The study examined the effects of demographic characteristics on job satisfaction, turnover intentions, and organizational commitment.

Understanding how different demographic factors affect job commitment can provide valuable insights for organizations in managing their workforce effectively. Six significant demographic variables are the subject of this study: gender, age, marital status, educational background, job position, and job tenure. The goal is to comprehend how many demographic parameters, such as gender, age, marital status, educational background, job position, and job tenure, influence an individual's commitment to their profession. We can learn more about the influence of these demographic characteristics on work commitment and spot any possible patterns or trends by looking at the results of earlier research. In a related study, psychological and demographic characteristics predicted industrial workers' organizational commitment (Salami, 2008).

2.3.1 Gender

Gender has been a topic of interest in various studies exploring its impact on job commitment. Although there is a modest correlation between gender and

organizational commitment, a study by Mathieu and Zajac (1990) revealed that gender may impact employees' attitudes toward the company. According to Affum-Osei et al. (2015), most workers had moderate to high levels of dedication, with men showing the highest level of commitment relative to women. It is crucial to remember that inequalities in gender-related job commitment might exist across various industries, corporate cultures, and personal preferences. Salami (2008) and Kipkebut (2013) found no significant relationship between gender and job commitment. Pourghaz et al. (2011) reported no distinction in the general level of commitment between males and females.

2.3.2 Age

Another significant demographic variable researched in connection to work commitment is age. Age is a key demographic trait connected to organizational commitment (Allen & Meyer, 1990; Dodd-McCue & Wright, 1996). Azeem (2010) discovered that age was a predictor of organizational commitment in a study examining the relationship between job satisfaction, demographic characteristics, and organizational commitment. Research by Kipkebut (2013) has demonstrated that senior workers often demonstrate higher levels of job devotion than younger workers. According to Pourghaz et al. (2011), people aged 21 to 28 had a higher level of affective commitment than those aged 29 to 39 and 40 and older.

2.3.3 Marital Status

Marital status is also a relevant demographic factor affecting job commitment. Salami (2008) suggested that married individuals generally demonstrate higher levels of job commitment than unmarried individuals or divorced or widowed individuals. A stable support system at home may contribute to greater satisfaction and engagement in one's work. However, the study of Affum-Osei et al. (2015) suggested that single employees were more committed to their jobs than married and divorced employees.

2.3.4 Educational Background

The degree of one's education is a significant demographic factor influencing one's level of job dedication. Mathieu and Zajac (1990) found a significant correlation between organizational commitment and educational attainment. The study by Amegayibor (2021) The impact of demographic variables on the productivity of employees: An owner-manager manufacturing company's case study revealed that employees' performance is influenced by their educational attainment. According to Salami's (2008) research, people with higher education levels typically demonstrate higher levels of employment devotion since they have more options for career progression and career prospects. Nonetheless, A. Iqbal (2010) discovered a negative correlation between educational background and job commitment, suggesting that individuals with higher levels of education may hold higher expectations, which the organization may not be able to provide. According to A, highly educated people might be less committed since they have more job options (Iqbal et al., 2011).

2.3.5 Job Position

Job position is another important demographic factor that influences job commitment. A. Iqbal (2010) has indicated that employees in higher-ranking positions display higher levels of job commitment than those in lower-ranking positions. This can be attributed to increased responsibility, recognition, and job security associated with higher-level roles.

2.3.6 Job Tenure

From the perspective of job tenure, workers who had been at their jobs longer were more likely to become committed to their jobs than workers who had been there for a shorter period. Employees' commitment to work significantly correlates with their job tenure (Azeem, 2010; A. Iqbal et al., 2011; Salami, 2008). Employees who have worked for a company longer have a better understanding of it and are more recognizable and devoted to it. According to Pourghaz et al. (2011), employees with

one to four years of job tenure had higher mean scores on the organizational commitment scale than those with nine years or more.

2.4 Motivation Factors

Motivating factors refer to the factors that can stimulate employees' enthusiasm and improve their job satisfaction. In this study, motivating factors include appreciation, duty, achievement, progress, work itself, and the possibility of growth.

In the study of the relationship between motivational factors, work satisfaction, and economic performance in Romanian small farms, Maican et al. (2021) discovered a positive correlation between the two. According to the study, effective motivation and job satisfaction substantially impact organizational and individual performance. According to Lee et al. (2022), an employee's level of job satisfaction is greatly influenced by both environmental and personal elements, including compensation, advancement, relationships with coworkers and superiors, ability, competency, and beliefs. The impact of intrinsic motivation on job happiness is positively significant, according to Akosile and Ekemen's (2022) study, "The Impact of Core Self-Evaluations on Job Happiness and Turnover Intention among Higher Education Academic Staff: Mediating Roles of Extrinsic and Intrinsic Motivation". In their study, A Conceptual Model of Nurses' Turnover Intention, Smokrović et al. (2022) discovered that determining the elements that affect nurses' motivation is a preventive measure against turnover intention and dissatisfaction.

2.3.1 Appreciation

The importance of appreciation in the workplace cannot be underestimated. According to Pfister et al. (2020), employees need appreciation, which is demonstrated by positive feedback, comes from a place of respect and esteem, and manifests as interest, attentiveness, and amenability. According to findings from Pohrt et al.'s Study on Mental Health at Work (2021), appreciation and job control are predictive of

depressive symptoms. This suggests that psycho-social occupational epidemiology should pay greater attention to appreciation. When employees feel that their contributions are acknowledged and appreciated, they are more motivated to stay in the organization. The role of appreciation systems in the workplace was examined by Spiro et al. (2021) in their study *Networks of Gratitude: Structures of Thanks and User Expectations in Workplace Appreciation Systems*. They discovered that supervisors do not always act on such recognition in ways that employees expect. Krufft and Kock (2021) examined how demographic traits affect job satisfaction, organizational commitment, and turnover intentions. Using employees from Kenyan universities as a case study, they also explored how recognition influences workers' motivation to innovate.

When operational workers feel that their work is not being sufficiently valued, they may feel ignored and unappreciated, increasing the likelihood of their resignation. This is particularly true in manufacturing companies like Wuhan electronic factories, where failure by management to provide timely appreciation and recognition to operational workers may result in talent attrition.

2.3.2 Duty

Duty refers to the tasks and responsibilities that employees undertake in their positions. Grant and Parker (2009) investigated how to restructure responsibilities to produce healthier connections and more proactive behavior in their study *7 Redesigning Work Design Theories: The Rise of Relational and Proactive Perspectives*. In their study “*Designing Motivating Jobs: An Expanded Framework for Linking Work Characteristics and Motivation*”, Parker and Ohly (2008) highlighted the significance of responsibility design in enhancing and motivating worker motivation. The responsibility design mechanism functions as an intermediary between organizational performance and human resource management, as discussed by Jiang et al. (2012).

Lin and Huang (2020) found that employees with a higher level of job satisfaction tended to fulfill their job duties and be more inclined to be loyal to the

organization. However, suppose operational workers are burdened with excessive responsibilities beyond their capabilities or are not aligned with their job descriptions. In that case, they will face immense pressure and struggle to complete tasks effectively. In such situations, they may leave their current positions and seek jobs that align with their abilities and responsibilities (Soelton et al., 2020).

2.3.3 Achievements

Judge and Ilies (2004) found that achievement positively affects job satisfaction. Locke and Latham (2013) explored the impact of achievement goal setting on individual task performance and guided how to set practical goals. Employees were more motivated to pursue other opportunities and leave when they were more motivated to pursue personal achievement and career development. This may be due to their desire to seek new challenges and opportunities for achievement in different environments (Tangirala et al., 2013). Achievement motivation should be aligned with the strategy model. Analyzing achievement motivation will enable a proper evaluation of the organization's human resources and other potentials (Werdhiastutie et al., 2020). Self-determination theory believes that satisfying employees' motivation for achievement is crucial to their job satisfaction and willingness to stay in the organization. When employees feel their need for achievement is being met, they are likelier to remain engaged and keep working in the organization (Deci et al., 2017).

2.3.4 Progress

The concept of progress is a catalyst for employees to advance their careers, grow professionally, and ultimately increase their income in the present situation (Alrawahi et al., 2020).

It is thought that an employee's commitment to sticking with the company strongly correlates with how they perceive the professional development opportunities provided by their employer. In other words, employee attitudes and behaviors are significantly influenced by their ability to learn at work (Lankau & Scandura, 2002). Suppose the current job allows employees to hone their skills and develop new ones. In

that case, their commitment to continuity should be high, as significant losses would be associated with pursuing a job change. Conversely, individuals who feel there is little room for professional development in their current role will likely have little to lose by leaving and exhibiting low commitment levels. Organizations that provide their employees with robust career development, promotion, and learning opportunities can enhance their loyalty and willingness to stay (Stamolampros et al., 2019).

Organizations can increase employee-organizational engagement in two ways, according to Rousseau (1998): by making organizational membership seem more valuable and showing workers that the company values them. Higher levels of organizational commitment seem to result from supporting employees' appraisals of their professional development by helping them achieve their goals, learn new skills, and receive recognition for these efforts through promotions.

2.3.5 Work Itself

The work itself refers to the specific work content and nature that the employee engages in on the post. According to Herzberg's two-factor theory, factors such as the task difficulty of the work itself, timeliness of feedback, and support ability will affect employees' work engagement (Herzberg, 1968). Wernimont (1966) studied Intrinsic and extrinsic factors in job satisfaction and suggested that Work Itself was mentioned often in describing past satisfying situations. If operational workers are not satisfied or bored with their work, they may lose interest and motivation in the job and thus consider leaving the current business (Kang & Malvaso, 2023).

According to Luthans et al. (2015), employees find job satisfaction in demanding and fascinating jobs that give them status. It would appear that work that employees find personally engaging will probably increase their job satisfaction. According to Norizan's (2012) theory, an individual's job happiness is mainly influenced by the type of work their business allows. Employers are more likely to have satisfied workers if their positions provide enough variety, challenge, discretion, and room to use one's abilities and skills.

To prevent the loss of operational workers, manufacturing enterprises like Wuhan's electronic factories should pay attention to their employees' professional interests and needs. Companies can increase employee satisfaction and investment by matching these interests and abilities when arranging work.

2.3.6 Possibility of Growth

Performing the same task or job can become monotonous and uninspiring. Therefore, it is crucial to assign employees to work that challenges their abilities and provides opportunities for growth and development (Wiener & Vardi, 1980). This is a great chance to assess the capabilities of lower-level employees and give them new projects or goals that encourage creativity and skill development in unfamiliar areas. This approach broadens their knowledge and helps increase their overall value to the company. Although a lateral move does not change an employee's position, it does give them a deeper understanding of various aspects of the company. In addition, performing different tasks can change the pace of employees' lives and the direction of their work. Sometimes, employees may find that working in a particular area provides more incredible personal growth and development than in previous jobs.

Weng et al. (2010) investigated the connection between workers' devotion to their jobs and career advancement. Empirical Analysis of Factors Affecting Manufacturing Turnover Intention was investigated by Li and Sawhney (2019). Workers said that when they feel they are progressing, growing, and developing, they are more inclined to stay with the company.

In order to retain operational workers, Wuhan's electronic factories and other manufacturing enterprises should establish a good promotion channel and salary system and provide a clear development path and incentive mechanism for employees so that they can see the possibility of growth and improvement in the current enterprises.

2.5 Maintenance Factors

Maintenance factors refer to the factors that can maintain employees staying in an organization. Pay, status, work safety, working environment, interpersonal relationship, management model, and policy and administration are considered to provide specific guarantees against employee turnover.

Maqbali (2015) reviewed the influencing factors of nurses' job satisfaction, including maintenance factors. The study conducted by Nagpaul et al. (2022) investigated the impact of work hygiene and motivational variables on security officers' job satisfaction and quit intentions. According to the study, job satisfaction is a worker's subjective expression of happiness with hygienic aspects like pay, policies, and workplace maltreatment. Social exchange theory was used by A. Iqbal et al. (2022) to investigate the connection between employee turnover intention, toxic workplace environments, dictatorial leadership, and cognitive distraction. According to the study, workers who believe their company has a fair and balanced structure are likelier to show a solid dedication to their work and are less likely to consider leaving the company.

2.5.1 Pay

Pay is the sum a company gives employees in exchange for their productive job output. The compensation plan significantly impacts how satisfied workers are with their jobs. Workers are compelled to look for better incomes that will secure their future and overall well-being due to the increasing needs of families and rising living expenses. People will experience emotional discontent if they are not fairly compensated (De Jonge et al., 2000).

According to Bustamam et al. (2014), fostering work performance and averting an extraordinary staff exodus depend on welfare and compensation structures. Kang and Malvaso (2023) have shown that pay is a significant factor influencing the turnover of operational workers. When employees feel that their compensation is not competitive or does not match their skills and contributions, they may be more likely to seek better-paying opportunities elsewhere. Organizations must ensure that

operational workers are adequately compensated to reduce turnover and retain talented individuals.

2.5.2 Status

Status refers to an individual's perceived position or rank within an organization. Higher-rank employees and lower-rank employees have different ways to adapt to career building. Bandura (1982) asserted that people with a strong sense of efficacy put forth more effort to overcome obstacles. Therefore, even though higher-rank employees have more formal authority and autonomy over their work, they appear to be subject to more psychological restrictions than lower-rank employees, who consider the obstacles of their jobs as being substantially more changeable. Berg et al. (2010) found that higher-rank employees adjust their expectations and behavior according to the opportunities they recognize at work to achieve self-development, while lower-rank employees create more career opportunities by adjusting others' expectations and behaviors.

2.5.3 Work Safety

Gyekye (2006) states that job safety measures the degree of safety associated with a particular job assignment. Workplace safety assessments examine employees' awareness of the risks and hazards associated with their jobs and the precautions taken to lessen or eliminate them. Health and safety programs involve clearly defined measures to help implement regulations and training. Safety policies and training mainly determine safety performance. Safety training educates staff members about operating safely without endangering their health (Law et al., 2006).

Similar conclusions were reached by J. Lin and Mills (2001), who found that reducing accident rates required safety training and explicit policy pronouncements. Prior studies have indicated a link between enhanced safety performance and safety education. Consequently, practical training fosters community among staff members and increases their accountability for workplace safety.

Huang et al. (2016) investigated how employee turnover is affected by the safety climate. According to the study, employee outcomes can be directly and indirectly predicted by the safety climate or the extent to which workers believe safety is a top priority in their organization. The study also discovered a direct or indirect relationship between organizational commitment and safety climate. Employee turnover is significantly impacted by work safety. Negative views of management's commitment to safety can result in more excellent turnover rates, whereas positive safety climates can lead to lower rates.

2.5.4 Working Environment

A person's attitude toward their work is greatly influenced by the status of their workplace, which is judged to be good or acceptable if it enables them to carry out activities in an ideal, safe, pleasant, and healthy manner (Cox & Cheyne, 2000). When assessing the work environment, Cox and Cheyne (2000) state that there are two things to take into account: 1) a welcoming, cozy, and safe space with good lighting, no distracting noises, and security at work; and 2) the availability of work facilities in the form of equipment to support the productive conduct of business.

The working environment significantly impacts employee satisfaction and retention. Physical work conditions, workload, flexibility, and work-life balance can influence employees' decision to stay or leave an organization (Taheri et al., 2020). Creating a positive and supportive working environment can help reduce turnover by enhancing employee satisfaction and well-being.

2.5.5 Interpersonal Relationships

Senior HR managers anticipated managers to be adept in interpersonal communication, focusing on message frequency and clarity, active listening techniques, and collaborative leadership abilities, as stated by Bambacas and Patrickson (2008). HR managers knew trust-building leadership and transparent communication were critical to boosting employee loyalty. However, these were also the most missing skills.

Morrison (2008) emphasized that interpersonal connections could improve employees' attitudes toward their jobs, including job dedication, engagement, and perceived organizational support. On the other hand, Song and Olshfski (2008) emphasized that good interpersonal relationships are necessary to reduce negative work attitudes among employees by serving as confidantes to discuss unpleasant work experiences. Similarly, interpersonal relationships inside a company will prevent the undervaluing of employees and promote the growth of practical listening skills at all levels. In order to achieve a single targeted aim and objective, this will also enable effective communication at all levels between management and subordinates.

Interpersonal solid relationships within the workplace are crucial for employee retention. When operational workers have positive relationships with their supervisors and colleagues, they are more likely to feel valued and engaged (Lee et al., 2022). Organizations should foster collaboration, open communication, and mutual respect to promote positive interpersonal relationships and reduce turnover.

2.5.6 The Management Model

The management model employed by an organization can influence employee turnover. Roethlisberger and Dickson (2003) propose that a shift in the attitudes and behaviors of management would correspondingly affect the workforce's attitudes. Employees had greater job satisfaction, conscientiousness, and loyalty when they were under the guidance of supervisors who exhibited favorable ways of supervision and generous attitudes.

Asni and Sulong (2018) suggest that autocratic or overly controlling management styles can lead to dissatisfaction and lower motivation of operational workers. Autocratic management styles often involve top-down decision-making, where employees have little to no input or autonomy in their work. This lack of involvement and control can make employees feel undervalued and unappreciated, decreasing job satisfaction (Stavros et al., 2021).

On the other hand, organizations that adopt a more democratic and participation management style tend to have lower turnover rates. In this approach, managers involve employees in decision-making processes and give them a sense of ownership over their work. This inclusion empowers employees and makes them feel valued as contributors to the organization's success (Dyczkowska & Dyczkowski, 2018).

A participation management style also encourages open communication channels between managers and employees. This allows for feedback and suggestions from all levels of the organization, fostering a culture of collaboration and mutual respect (Kim, 2002). Such an environment promotes higher levels of job satisfaction and increases employee motivation, reducing the likelihood of employee turnover.

2.5.7 Policy and Administration

Organizational policies and administration practices also play a role in employee retention. When policies are perceived as unfair or inefficient administrative processes, operational workers may become frustrated and disillusioned with their work environment (Kim, 2002). Organizations must review and revise policies regularly, ensuring transparency, fairness, and efficiency to retain talented individuals.

Herzberg reiterated that several factors affect how satisfied employees are at work. The management of the business is the first variable. When Naeem (2013) researched various Pakistani firms and discovered a substantial positive correlation between organizational culture and promotion practices and employee satisfaction, it furthered the case for Herzberg's theory. This demonstrates the need for executives who establish corporate culture and rules to ensure clear-cut and devoid of ambiguity. To improve the working environment, leaders must communicate the requirements and be open to hearing employee input on policy changes. The regulations must be impartial and fair (Naeem, 2013).

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research Design

This study explores the factors influencing operational worker loss in electronic factories in Wuhan. This study employed a survey research method and collected relevant data through questionnaires to achieve this goal. Next, the study will analyze these data to reveal the main reasons for talent turnover and propose solutions.

The two-factor theory serves as the theoretical framework for this research. The research variables include both dependent variables and independent variables. The dependent variable in this study is job commitment. The independent variables are motivation factors and maintenance factors. The details of these independent variables are as follows.

Demographic factors are classified as Gender, Age, Marital status, Educational background, Job position, and Tenure.

Motivation factors are classified as Appreciation, Duty, Achievements, Progress, Work, and Possibility of growth.

Maintenance is classified as Pay, Status, Work safety, Working environment, Interpersonal relationship, Management mode, and Policy and administration.

3.2 Research Population and Samples

3.2.1 Population

In order to conduct in-depth research, this study has chosen three representative electronic factories in the Wuhan area and their operational Workers as the research subjects.

Wuhan Huazhong University of Science and Technology Electronic Factory. As an enterprise under Huazhong University of Science and Technology, they have a large scale and reputation in the manufacturing, research, and development of electronic products. The operational Workers in this company are more than 2600 employees.

Wuhan Yangtze Electronics Group Co., Ltd. This company is a well-known electronic manufacturer with a large scale in the Wuhan area, specializing in the manufacturing and sales of communication equipment. The operational Workers in this company is more than 3000.

Wuhan ZTE Corporation Limited. As one of the global leading communication equipment suppliers, they also have significant production bases in Wuhan, mainly manufacturing mobile communication devices. The operational Workers in this company is more than 3000.

The turnover of operational workers in electronic factories is relatively high. Due to the frequent changes of employees, it is difficult to count the specific number of operational workers accurately, and only a rough estimate can be obtained.

3.2.2 Samples

The sample is collected from the operational workers of three electronic factories in Wuhan, China. Due to the unknown population's absolute number, the sample size is calculated using Cochran's formula.

$$n = \frac{P(1-P)Z^2}{e^2}$$

$$\begin{aligned}
 &= \frac{.5 * .5 * (1.96)^2}{.05^2} \\
 &= 384.16 \quad \cong 385
 \end{aligned}$$

An additional 15 samples were collected just in case of error and for the integrity of the data. Therefore, the total sample size is 400 samples. Data is collected from three electronic factories in Wuhan, China, and the sample size for each factory is shown in Table 3.1.

Table 3.1 Sample Size from each Electronic Factory

Company name	Sample size
1. Wuhan Huazhong University of Science and Technology Electronic Factory.	130
2. Wuhan Yangtze Electronic Group Co., Ltd	135
3. Wuhan ZTE Corporation Limited	135
Total	400

3.2.3 Sampling Methods

The stratified sampling method is used to ensure the reliability and representativeness of the research. Firstly, determine the proportion of each electronic factory in the entire sample based on their scale and number of employees since each factory is relatively close. The quota sampling method is used to determine sample size for electronic factories. In each factory, a convenient sampling method is applied.

3.3 Data Collection

A structured questionnaire survey is designed and distributed online questionnaires linked through the HR departments to collect data on the factors influencing the loss of operational workers in electronic factories in Wuhan. This ensures that the questionnaires are accurately distributed to the target population and convenient for employees to fill out. This approach ensures that participants can complete the questionnaires promptly and provides more authentic and reliable data.

3.4 Research Instrument

A questionnaire survey research method is used to collect relevant data for analysis. The questionnaire is divided into four parts.

Part 1: Demographic Information

In this section, participants are asked to provide their demographic information, including *gender, age, marital status, educational background, job position, and job tenure* in the company. The questionnaire is a checklist type.

Part 2: Motivation Factors

This section aims to assess the motivational factors that may influence the loss of operational workers. It utilizes the Likert scale, where respondents will rate their satisfaction or dissatisfaction with statements related to *Appreciation, Duty, Achievements, Progress, Work, and Possibility of growth*. The respondents use the Likert scale to indicate their level of opinion with each statement. (1: Strongly disagree; 2: Disagree; 3: Nether agree or disagree; 4: Agree; 5: Strongly agree)

Part 3: Maintenance Factors

This section aims to assess the motivation factors that may influence the loss of operational workers. It explores aspects including *Pay, Status, Work safety, Working environment, Interpersonal relationships, Management mode, and Policy and*

Administration. The respondents again use the Likert scale to indicate their level of opinion with each statement. (1: Strongly disagree; 2: Disagree; 3: Nether agree or disagree; 4: Agree; 5: Strongly agree)

Part 4: Job Commitment

The final part of the questionnaire aims to assess operational workers' job commitment. The respondents are asked about their ideas about job commitment in the factories. The respondents again use the Likert scale to indicate their agreement or disagreement with each statement. (1: Strongly disagree; 2: Disagree; 3: Nether agree or disagree; 4: Agree; 5: Strongly agree)

One paragraph of the questionnaire explains the nature and goal of this study to elicit more responses. The respondents were apprised of the significance and worth of their contributions. Completing the questionnaire takes five minutes.

The questionnaire parts 2, 3, and 4 used the Interval scale according to the Likert Scale. The interpretation of the mean value is shown in Table 3.2.

Table 3.2: Score Level and Meaning

Score Level	Average	Meaning
5	4.50 – 5.00	Excellent
4	3.50 – 4.49	Good
3	2.50 – 3.49	Moderate
2	1.50 – 2.49	Less
1	1.00 – 1.49	Least

The questionnaire was designed and created in English to optimize the communication process with the professor and elevate the study's overall quality. The choice of English as the primary language for the questionnaire was a strategic decision aimed at fostering a more efficient exchange of ideas and information between the researcher and the professor.

However, given the diverse linguistic landscape of China, it was also essential to survey both Chinese and English. This dual-language approach allowed for a broader range of respondents, particularly those who were more comfortable with Chinese, to understand and engage with the content of the questions. By offering the questionnaire in Chinese, the researchers could tap into a larger pool of potential participants, thereby increasing the representation and generalization of the study.

Moreover, using English as one of the languages in the survey helped ensure the survey results' accuracy and rigor. As a widely used global language, English has a well-established tradition in scientific research and academic publications. Using English in the survey questions provided a standardized and consistent framework for collecting and analyzing data, contributing to the study's reliability and validity.

3.5 Content Validity and Reliability

The content validity test using Item Object Consistency (IOC) and the reliability test using Cronbach's Alpha are performed in the following details to ensure the quality and confidence of the questionnaires.

3.5.1 Content Validity

Three experts in creating research tools examine the content and the measurement of the questions to cover and complete the research issues. The experts are required to rate the questionnaires as follows:

+1	The question is consistent with the content of the measurement objective.
0	Not sure that the question is consistent with the content of the measurement objective.
-1	The question is not consistent with the content of the measurement objective.

The results of all expert evaluations were then used to calculate the IOC index according to the formulas of Rovinelli and Hambleton (1977) as follows:

$$IOC = \frac{\Sigma R}{N}$$

ΣR = total rating score from all experts for each question

N = number of experts

If the calculated IOC index is greater than or equal to 0.5, the questionnaire is considered to be measured following the research objectives. Therefore, questions with an IOC index of 0.5 or higher will be chosen. If any question has a value that does not reach the 0.5 criterion, but it is necessary to use that question to cover what needs to be measured, that question will be revised again according to the advice of experts.

The three experts in creating research tools examined the content and the measurement of the questions to cover the completion of the research issues. The IOC index of the questions in the questionnaire about Part 2: Motivation Factors, Part 3: Maintenance Factors, and Part 4: Job Commitment are all above 0.67.

3.5.2 Reliability Test

The questionnaire was tested with 30 qualified samples to test their understanding of the corresponding questions. The internal consistency was measured using Cronbach's alpha coefficient (α) test method, where α must be greater than 0.7 to use this tool to collect data for further research to test the confidence of the tools used in this research.

Below is the formula for Cronbach's alpha:

$$\alpha = \frac{N * \bar{C}}{\bar{V} + (N - 1) * \bar{C}}$$

Where:

N = several items

$\bar{C}$ = mean covariance between items.

$\bar{V}$ = mean item variance.

Cronbach's Alpha (α) was used to test the reliability of the questionnaire, and the values for motivation factor, maintenance factor, and job commitment are 0.925, 0.927, and 0.93, suggesting that the items have relatively high internal consistency.

3.6 Data Analysis

The statistics used to analyze data are both descriptive statistics and inferential statistics.

3.6.1 Descriptive Statistics

Descriptive statistics are used to analyze the respondents' demographic, including gender, age, marital status, educational background, job position, and job tenure in the company. The frequency, percentage, and mean are used to analyze data.

3.6.2 Inferential Statistics

Inferential statistics is used to analyze data to test the hypotheses at the statistical significance level of 0.05. An analysis to test the relationship or interplay between one dependent variable and several independent variables, which tests

Hypothesis 1 Demographic factors affect the job commitment of operational Workers in electronic factories.

H1_a The difference in gender affects different job commitments of operational Workers in electronic factories.

H1_b The age difference affects operational workers' job commitments in electronic factories.

H1_c The difference in Marital status affects different job commitments of operational Workers in electronic factories.

H1_d The difference in educational background affects the job commitments of operational workers in electronic factories.

H1_e The difference in job positions affects the different job commitments of operational workers in electronic factories.

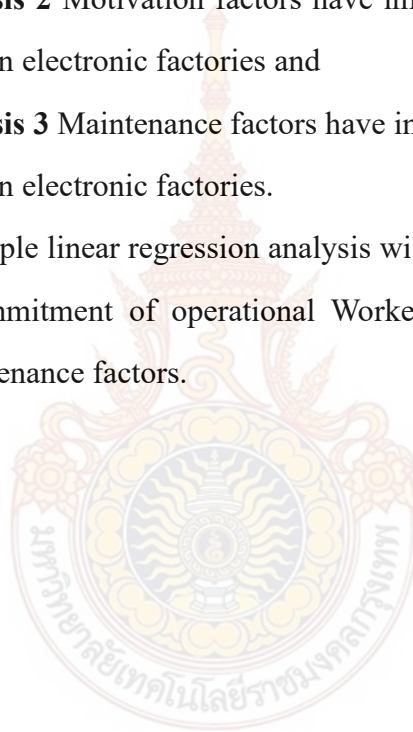
H1_f The difference in Job tenure affects different job commitments of operational Workers in electronic factories.

The independent sample t-test and one-way ANOVA are used to find the demographic factors that affect the job commitment of operational Workers in electronic factories in Wuhan.

Hypothesis 2 Motivation factors have influenced the job commitment of operational Workers in electronic factories and

Hypothesis 3 Maintenance factors have influenced the job commitment of operational Workers in electronic factories.

The multiple linear regression analysis will be used to find the influencing variables to job commitment of operational Workers of electronic factories, both motivation and maintenance factors.



CHAPTER IV

ANALYSIS RESULT

The research on Factors Influencing Job Commitment of Operational Workers in Electronic Factories in Wuhan, China, uses the statistical software package to analyze 400 samples. The variables involved in this study included demographic factors, motivation factors, maintenance factors, and job commitment. Demographic factors variables include gender, age, marital status, educational background, job position, and job tenure; motivation factors variables include appreciation, duty, achievements, progress, work itself, and the possibility of growth; maintenance factors variables include pay, status, work safety, working environment, interpersonal relationship, management model, and policy and administration. The analysis of data and interpretation use statistics symbols and meanings as follows:

N = number of population

n = number of samples

$\bar{X}$ = Mean

SD= Standard Deviation

t = t-Distribution

F = F-Distribution

SS= Sum of Squares

MS= Mean of Square

df= Degree of freedom

LSD= Least Significant Difference

r = Pearson of Correlation

Sig= The level of statistics significance to test the hypothesis

* = The statistical significance is at the 0.05 level.

4.1 Research Finding

This part will present the results based on the research objectives by splitting them into the following parts.

Part I: The analysis results of respondents' demographic data.

Part II: The analysis results of the level of opinion on the motivation factors, maintenance factors, and job commitment.

Part I: The analysis results of respondents' demographic data

Table 4.1 Frequency and Percentage of the Respondents

Gender	Frequency	Percent
male	170	42.5
female	230	57.5
Total	400	100

Age	Frequency	Percent
Less than 30 years old	143	35.8
31 - 40 years old	133	33.3
41 - 50 years old	87	21.8
More than 50 years old	37	9.3
Total	400	100

Marital status	Frequency	Percent
single	54	13.5
married	324	81
divorced	20	5
widowed	2	0.5
Total	400	100

Educational background	Frequency	Percent
High School or Lower	140	35
Special school	35	8.8
Two-year college	114	28.5
Bachelor's degree or above	111	27.8
Total	400	100

Job position	Frequency	Percent
Operational staff	305	76.3
Operational management staff	95	23.8
Total	400	100

Job tenure	Frequency	Percent
Less than six months	77	19.3
Six months - 1 year	178	44.5
1-5 years	89	22.3
More than five years	56	14
Total	400	100

The result showed that most respondents are female, accounting for 57.5%, followed by males, capturing about 42.5%. Most respondents are less than 30, 35.8%, and the last are over 50 years old, capturing 9.3%. Most respondents are married 81%, and the last are divorced, capturing 0.5%. Most respondents have an educational background of high school or lower than 35%, and the last are in special schools, capturing 8.8%. 76.3% of respondents are operational staff, and 23.8% are operational management staff. For job tenure in the company, 44.5% of respondents are six months to 1 year, and 14% are more than six months.

Part II: The analysis results of the level of opinion on the motivation factors, maintenance factors, and job commitment

Table 4.2 The Descriptive Statistics of Motivation Factors

	level of opinion (percent)					Mean	SD	Meaning	RANK
	5	4	3	2	1				
Motivation factor									
1. Appreciation	2	23	31.3	31.8	12	2.713	1.014	Moderate	3
2. Duty	1.5	21	31.8	30.5	15.3	2.63	1.025	Moderate	5
3. Achievements	1.3	20.5	30	33.8	14.5	2.603	1.008	Moderate	6
4. Progress	1	25.8	29.8	31	12.5	2.718	1.015	Moderate	2
5. Work itself	2.3	25	30.3	27.8	14.8	2.723	1.065	Moderate	1
6. Possibility of growth	1.8	24	31.3	28	15	2.695	1.049	Moderate	3
Motivation factors in total	0.5	10.3	58.3	25	6	2.743	0.74	Moderate	

Table 4.2 demonstrates that the results on the opinion level in the motivation factors found that all variables are at a moderate level. *Work is in the highest ranking, and achievement is in the lowest.*

Table 4.3 The Descriptive Statistics of Motivation Factors and Maintenance Factors

Maintenance factors									
1. Pay	3.5	26.3	30.5	24.8	15	2.785	1.099	Moderate	3
2. Status	2.5	26	30.3	30.5	10.8	2.79	1.026	Moderate	2
3. Work safety	1	23	33	27.5	15.5	2.665	1.027	Moderate	7
4. Working environment	4.8	23.8	32.3	25	14.2	2.798	1.1	Moderate	1
5. Interpersonal relationships	1.5	23.8	30.3	29	15.5	2.668	1.049	Moderate	6
6. Management model	2.5	22.3	31	30.8	13.5	2.695	1.039	Moderate	5

7. Policy and Administration	2.8	23.8	33.5	27.3	12.8	2.765	1.038	Moderate	4
Maintenance factors in total	0.3	7.8	62.7	22.3	7	2.72	0.716	Moderate	

Table 4.3 demonstrates that the results on the opinion level in the maintenance factors found that all variables are at a moderate level. *Working environment* is the highest ranking, and *work safety* is the lowest ranking.

Table 4.4 The Descriptive Statistics of Job Commitment

	level of agreement (percent)					Mean	SD	Meaning	RANK
	5	4	3	2	1				
Job Commitment	1.5	25.8	37	27.3	8.5	2.845	0.953	Moderate	1

Table 4.4 shows the level of opinion on job commitment and finds that the job commitment of operational workers in electronic factories in Wuhan is at a Moderate level.

4.2 Hypothesis Testing Result

In this survey, gender and job position are two-point discrete variables. Age, marital status, educational background, and job tenure are more than three discrete variables. Therefore, an independent sample t-test and one-way ANOVA were used to test whether operational workers' job commitment differences in Wuhan electronic factories.

The multiple linear regression analysis was used to find the influencing variables to job commitment of operational workers of electronic factories, both motivation and maintenance factors.

This part will present the results based on the research objectives by spitting into two parts as follows:

Part I: The analysis results of demographic factors affect job commitment

Part II: The analysis results of motivation and maintenance factors influencing job commitment.

Part I: The analysis results of demographic factors affect job commitment

The means of only two groups can be compared using the Independent Samples t-test. It is limited to comparing two groups at a time, being two-point discrete variables, gender and job position, which were analyzed in this study using independent samples.

A one-way ANOVA examines the means of two or more independent groups to determine if there is statistical proof that the linked population means are statistically different. One parametric test is the One-Way ANOVA. The means for the two groups can be compared using the Independent Samples t-test and the One-Way ANOVA. However, the means of three or more groups can only be compared using the One-Way ANOVA. Age, marital status, educational background, and job tenure are among the more than three discrete factors in this study that are analyzed using One-Way ANOVA.

H_{1a}: The difference in gender affects different job commitments of operational workers in electronic factories.

Table 4.5 The Analysis Results on Gender Differences Affect Job Commitment

	Gender	N	Mean	Std. Deviation	t-value	df	Sig
Job Commitment	Male	170	2.935	0.891	1.632	398	0.103
	Female	230	2.778	0.993			

From Table 4.5, the analysis results of gender difference affect job commitment using an independent sample t-test at the statistically significant level of 0,05. The result found that males and females have no difference in job commitment of operational workers in electronic factories in Wuhan ($t(398)=1.632$, $p=0.103$).

H_{1b}: The age difference affects operational workers' job commitments in electronic factories.

Table 4.6 The Analysis Results on How Age Difference Affects Job Commitment

Job Commitment	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.6	3	1.2	1.324	0.266
Within Groups	358.79	396	0.906		
Total	362.39	399			

Table 4.6 shows the results of the analysis of age that affect job commitment ($f=1.324$, $p=0.266$), which has a significant value more than the level of 0.05, meaning that age has no significantly different effect on job commitment of operational workers in electronic factories in Wuhan.

H_{1c}: The marital status difference affects operational workers' job commitments in electronic factories.

Table 4.7 The Analysis Results on Marital Status Differences Affect Job Commitment

Job Commitment	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.026	3	3.009	3.372	0.019
Within Groups	353.364	396	0.892		
Total	362.39	399			

Table 4.7 shows the results of the analysis of marital status that affects job commitment ($f=3.372$, $p=0.019$), which has a significant value less than the level of 0.05, meaning that the difference of marital status affects different job commitments of operational workers in electronic factories in Wuhan.

Table 4.8 Difference in Marital Status Multiple Comparisons

Marital status		Mean Difference (I-J)			
		Group J			
		single	married	divorced	widowed
Group I	$\bar{X}$	3.019	2.855	2.3	2
single	3.019	-	0.164 (0.239)	0.719 (0.004*)	1.019 (0.135)
married	2.855	-	-	0.555 (0.011*)	0.855 (0.203)
divorced	2.3	-	-	-	0.3 (0.669)
widowed	2	-	-	-	-

* The mean difference is significant at the 0.05 level.

Dependent Variable: Job Commitment

Table 4.8 shows the pair mean comparison that affects the job commitment of operational workers categorized by marital status. The employees who are divorced have a lower mean than those who are single or married, with a significant value equal to 0.004 and 0.011.

H_{1d}: The difference in educational background affects the job commitments of operational workers in electronic factories.

Table 4.9 The Analysis Results on Education Background Differences Affect Job Commitment

Job Commitment	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.846	3	5.615	6.435	0
Within Groups	345.544	396	0.873		
Total	362.39	399			

Table 4.9 shows the results of the analysis of educational background that affects job commitment ($f=6.435$, $p=0.000$), which has a significant value less than the level of 0.05, meaning that the difference of educational background affects different job commitment of operational workers in electronic factories in Wuhan.

Table 4.10 Difference in Educational Background Multiple Comparisons

Educational background	Mean Difference (I-J)				
	Group J				
		High School or Lower	Special school	Two-year college	Bachelor's degree or above
Group I	$\bar{X}$	3.036	3.2	2.623	2.721
High School or Lower	3.036	-	-0.164 (0.353)	0.413 (0.000*)	0.315 (0.008*)
Special school	3.2		-	0.577 (0.001*)	0.479 (0.008*)
Two-year college	2.623			-	-0.098 (0.432)
Bachelor's degree or above	2.721				-

* The mean difference is significant at the 0.05 level.

Dependent Variable: Job Commitment

Table 4.10 shows the pair mean comparison that affects the job commitment of operational workers categorized by educational background. The employees with a high school or lower have a higher mean than those with a two-year college and Bachelor's degree or above, with significant values equaling 0.000 and 0.008. The employees with special schools have a higher mean than those with two-year college and bachelor's degrees or above, with a significant value equal to 0.001 and 0.008.

H_{1c}: The difference in job positions affects the different job commitments of operational workers in electronic factories.

Table 4.11 The Analysis Results on Job Position Differences Affect Job Commitment

				Std.			
	Job position	N	Mean	Deviation	t-value	df	Sig
Job Commitment	Operational staff	305	2.705	0.909			
	Operational management staff	95	3.295	0.955	-5.454	398	0.000

From Table 4.11, the analysis results of job position difference affect job commitment using an independent sample t-test at the statistically significant level of 0,05. The result found that operational and management staff differ in job commitment ($t(398) = -5.454, p=0.000$). It shows that the difference in job position affects different job commitments. Operational management staff shows a higher mean value on job commitment than operational staff. The number of operational staff exceeds the operational management staff; the t-value is negative.

H_{1f}: The difference in Job tenure affects different job commitments of operational workers in electronic factories.

Table 4.12 The Analysis Results on Job Tenure Difference Affect Job Commitment

Job	Sum of Squares		df	Mean Square	F	Sig.
Commitment						
Between Groups	5.303		3	1.768	1.96	0.119
Within Groups	357.087		396	0.902		
Total	362.39		399			

Table 4.12 shows the results of the analysis in job tenure that affects job commitment ($f=1.96$, $p=0.119$), which has a significant value more than the level of 0.05, meaning that the age has no significantly different effect on job commitment of operational workers in electronic factories in Wuhan.

Part II: the analysis results of motivation factors and maintenance factors that influence job commitment

Regression analysis is a statistical technique to find the relationships between variables in a given data set. A mathematical link between many random variables can be found using multiple linear regression (MLR) (Saunders et al., 2009). The technique evaluates the impact of independent factors on the dependent variable. According to Nimon and Oswald (2013), the formula for multiple linear regression is as follows.

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \dots + \beta_p X_{ip} + \epsilon \text{ where, for } i=n \text{ observations:}$$

Y_i = dependent variable

X_i = explanatory variables

β_0 = y-intercept (constant term)

β_p = slope coefficients for each explanatory variable

ϵ =the model's error term (also known as the residuals)

In Hypothesis 2, Y= job commitment, X₁, X₂, X₃, X₄, X₅, and X₆ represent Appreciation, Duty, Achievement, Progress, Work itself, and the Possibility of growth.

In Hypothesis 3, Y= job commitment, X₁, X₂, X₃, X₄, X₅, X₆, and X₇ are, respectively, represented Pay, Status, Work safety, Working environment, Interpersonal relationship, Management model, and Policy and administration.

Variables were tested by Multiple linear regression (MLR) at a confidence interval level of 95%.

H₂: Motivation factors significantly impact the job commitment of operational workers in electronic factories.

Table 4.13 Multiple Correlation Coefficients of Motivation Factors Affect Job Commitment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.61	0.372	0.366	0.759
a. Predictors: (Constant), Duty, Appreciation, Possibility of growth, Achievements				

From Table 4.13, the result shows that motivation factors have a positive relationship with job commitment as the multiple correlation coefficient (R) = 0.610. It can be interpreted that the relation between predicted variables and dependent variables is relatively high in the same direction, with the predicted value of the analysis equal to 36.6%.

Table 4. 14 Regression Result on Motivation Factors

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.766	0.142		5.403	0.000
Appreciation (X ₁)	0.187	0.043	0.199	4.401	0.000
Duty (X ₂)	0.238	0.043	0.256	5.556	0.000
Achievements (X ₃)	0.174	0.044	0.184	3.98	0.000
Possibility of growth (X ₆)	0.183	0.041	0.202	4.507	0.000

a. Dependent Variable: Job Commitment

From Table 4.14, the motivation factors of operational workers, including appreciation, duty, achievement, and possibility of growth, influenced Job commitment with the forecasting equation as follows:

$$\begin{aligned}
 Y &= b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_6X_6 \\
 &= 0.766 + 0.187X_1 + 0.238X_2 + 0.174X_3 + 0.183X_6 \\
 &\quad (0.000^*) \quad (0.000^*) \quad (0.000^*) \quad (0.000^*)
 \end{aligned}$$

For

Y= Job Commitment

X₁= Appreciation

X₂= Duty

X₃= Achievement

X₆= Possibility of grow

H₃: Maintenance factors significantly impact the job commitment of operational workers in electronic factories.

Table 4.15 Multiple Correlation Coefficient of Maintenance Factors Affect Job Commitment

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.584	0.341	0.333	0.779
a Predictors: (Constant), Pay, Work Safety, Status, Interpersonal relationships, Policy and Administration				

From Table 4.15, the result shows that maintenance factors have a positive relationship with job commitment as the multiple correlation coefficient (R) = 0.779. It can be interpreted that the relation between the predicted variables and the dependent variable is relatively high in the same direction, with the predicted value of the analysis equal to 33.3%.

Table 4.16 Regression Result on Maintenance Factors

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.807	0.149		5.408	0.000
Pay(X_1)	0.169	0.042	0.195	4.001	0.000
Status(X_2)	0.156	0.045	0.168	3.483	0.001
Work safety(X_3)	0.182	0.044	0.197	4.175	0.000
Interpersonal relationships(X_4)	0.143	0.043	0.158	3.344	0.001
Policy and administration(X_5)	0.095	0.044	0.104	2.148	0.032
a Dependent Variable: Job Commitment					

From Table 4.16, maintenance factors of operational workers, including pay, status, work safety, interpersonal relationships, and policy and administration, influenced Job commitment, and the forecasting equation can be written as follows:

$$\begin{aligned}
 Y &= b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_5X_5 + b_7X_7 \\
 &= 0.807 + 0.169X_1 + 0.156X_2 + 0.182X_3 + 0.1143X_5 + 0.095X_7 \\
 &\quad (0.000^*) \quad (0.001^*) \quad (0.000^*) \quad (0.001^*) \quad (0.032^*)
 \end{aligned}$$

For

Y= Job Commitment

X₁= Pay

X₂= Status

X₃= Work safety

X₅= Interpersonal relationship

X₇ Policy and administration.

Table 4.17 Regression Results in both Motivation Factors and Maintenance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.5	0.155		3.21	0.003
Motivation	0.473	0.078	0.367	6.061	0
Maintenance	0.386	0.081	0.29	4.79	0

a Dependent Variable: Job Commitment

From Table 4.17, motivation factors and maintenance factors have influenced Job commitment, and the forecasting equation can be written as follows:

$$\begin{aligned}
 Y &= b_0 + b_1X_1 + b_2X_2 \\
 &= 0.5 + 0.473X_1 + 0.386X_2
 \end{aligned}$$

For

Y= Job Commitment

X₁= Motivation factors

X₂= Maintenance factors

4.3 Summary Results for Data Analysis

Table 4.18 Summary Result for Hypothesis 1

Demographic factors	Job Commitment	Results
Gender	t(398) =1.632, p=0.103	-
Age	F=1.324, p=0.266	-
Marital status	F=3.372, p=0.019*	√
Educational background	F=6.435, p=0.000*	√
Job position	t(398) =-5.454, p=0.000*	√
Job tenure	F=1.96, p=0.119	-

√ Accept the hypothesis at the significant value of 0.05.

- Reject hypothesis at the significant value of 0.05.

From Table 4.18, the result shows that marital status, educational background, and job position have significantly influenced operational workers' job commitment in Wuhan electronic factories. However, gender, age, and job tenure do not significantly influence operational workers' job commitment in Wuhan electronic factories. That means the differences in marital status, educational background, and job position affect different job commitments of operational workers.

Table 4.19 Summary Result for Hypothesis 2

Motivation factors	Result
Appreciation	√
Duty	√
Achievement	√
Progress	–
Work itself	–
Possibility of growth	√

√ Accept the hypothesis at the significant value of 0.05.

– Reject hypothesis at the significant value of 0.05.

From Table 4.19, the result has shown that appreciation, duty, achievement, and possibility of growth have significantly influenced the job commitment of operational workers in electronic factories in Wuhan. However, progress and work do not significantly influence operational workers' job commitment in Wuhan electronic factories.

Table 4.20 Summary Result for Hypothesis 3

Maintenance factors	Result
Pay	√
Status	√
Work safety	√
Working environment	–
Interpersonal relationship	√
Management model	–
Policy and administration	√

√ Accept the hypothesis at the significant value of 0.05.

– Reject hypothesis at the significant value of 0.05.

From Table 4.20, the result has shown that pay, status, work safety, interpersonal relationships, and policy and administration have significantly influenced the job commitment of operational workers in electronic factories in Wuhan. However, the working environment and management model do not significantly influence operational workers' job commitment in Wuhan electronic factories.

CHAPTER V

CONCLUSION AND DISCUSSION

5.1 Conclusion

This study aims to analyze the factors influencing the job commitment of operational workers in electronic factories. This study analyzes operational workers' job commitment in Wuhan electronic factories from three influencing factors: Demographics, Motivation, and Maintenance.

The research questions are about the difference in demographic factors' effect on job commitment, the influence of motivation factors on job commitment, and the influence of maintenance factors on job commitment.

Primary data was collected via an online questionnaire link distributed through the HR departments in electronic factories. All respondents are operational workers in electronic factories, and 400 valid questionnaires were finally recovered. The data obtained after analysis were representative.

The analysis of the level of opinion on job commitment found that the job commitment of operational workers in electronic factories in Wuhan is Moderate.

5.1.1 Demographic Factors

Four hundred respondents consist of 57.5% female and 42.5% male. Most respondents are less than 30, 35.8%, and the last are over 50 years old, capturing 9.3%. Most respondents are married 81%, and the last divorce is 0.5%. The education background of the most significant respondents was at a high school or lower rate of 35%, and the last was by the particular school, capturing 8.8%. 76.3% of respondents are operational staff, and 23.8% are operational management staff. For job tenure in the company, 44.5% of respondents are six months - 1 year, and 14% are more than six months.

This study found that marital status ($F=3.372$, $p=0.019$), educational background ($F=6.435$, $p=0.000$), and job position ($t(398)=-5.454$, $p=0.000$) significantly influence the job commitment of operational workers in electronic factories in Wuhan. However, gender ($t(398)=1.632$, $p=0.103$), age ($F=1.324$, $p=0.266$), and job tenure ($F=1.96$, $p=0.119$) were found to have no significant effect on job commitment of operational workers in electronic factories in Wuhan. These findings can provide insights for organizations in understanding and managing factors that influence job commitment in this context.

For an in-depth analysis of the impact of marital status and educational background on job commitment, the LSD method for multiple comparisons was employed.

Regarding **marital status**, it was observed that divorced employees had lower mean levels of job commitment compared to single or married employees, with significant differences found at p-values of 0.004 and 0.011.

For **educational background**, it was found that employees who have an educational background of high school or lower demonstrated higher mean levels of job commitment compared to those who have an educational background of a two-year college and a bachelor's degree or above, with significant differences observed at p-values of 0.000 and 0.008. Moreover, employees with educational backgrounds in special schools exhibited higher mean levels of job commitment compared to those with educational backgrounds of a two-year college and a bachelor's degree or above educational background, with significant differences observed at p-values of 0.001 and 0.008.

The analysis results of the **job position** difference effect on job commitment were obtained using an independent sample t-test at a statistically significant level of 0.05. The findings revealed a significant difference in job commitment between operational and management staff. The results indicate that job

position differences affect different job commitments, with operational management staff showing a higher mean value for job commitment than operational staff.

5.1.2 Motivation Factors

The analysis of the level of opinion in motivation factors found that all variables are Moderate. Work ranked most among these factors, while achievement ranked the lowest.

The findings indicate that motivation factors such as appreciation, duty, achievements, and the possibility of growth significantly impact job commitment among operational workers. Specifically, duty emerged as the most influential variable with a regression coefficient of 0.256. It was followed by the possibility of growth, appreciation, and achievements with coefficients of 0.202, 0.199, and 0.184, respectively.

The study's results indicate that several motivation factors, including duty, possibility of growth, appreciation, and achievements, have significantly influenced job commitment among operational workers. The duty factor is particularly influential in driving employee commitment to their work. Additionally, the potential for personal and professional growth and recognition and appreciation for one's efforts significantly enhance job commitment.

5.1.3 Maintenance Factors

The analysis of the level of opinion in Maintenance factors found that all variables are at a Moderate level. Among these factors, the working environment received the highest ranking, while work safety ranked the lowest.

The findings indicate that maintenance factors such as pay, status, work safety, interpersonal relationships, and policy and administration significantly impact job commitment among operational workers. Specifically, work safety emerged as the most influential variable with a regression coefficient of 0.197. It was followed by pay, status, interpersonal relationships, and policy and administration with coefficients of 0.195, 0.168, 0.158, and 0.104, respectively.

The study's results indicate that several maintenance factors, including work safety, pay, status, interpersonal relationships, and policy and administration, have significantly influenced job commitment among operational workers. Work safety is particularly influential in driving employee commitment to their job. Additionally, factors such as fair compensation (pay), recognition of one's position (status), positive relationships with colleagues (interpersonal relationships), and effective policies and administration also play significant roles in enhancing job commitment.

5.2 Discussion

5.2.1 Demographic Factors

The results suggest that marital status, educational background, and job position play essential roles in determining the level of job commitment of operational workers in electronic factories in Wuhan. The finding results comply with the previous study (Affum-Osei et al., 2015; A. Iqbal, 2010; Salami, 2008)

For **marital status**, According to this study, employees who were divorced reported mean levels of job commitment that were lower than those who were single or married. The findings align with the earlier research on the relationship between psychological and demographic factors and organizational commitment in industrial workers (Affum-Osei et al., 2015; Salami, 2008). This could be attributed to the challenges and emotional turmoil associated with divorce, which may spill over into the workplace. Divorced individuals often face additional responsibilities and pressures outside work, such as managing custody arrangements or dealing with financial burdens. These stressors can affect their well-being and ability to fully engage in their job roles.

This study found that single employees reported higher job commitment levels than married or divorced employees. The results of the findings comply with the previous study (Affum-Osei et al., 2015). However, Salami (2008) suggested that

married individuals generally demonstrate higher levels of job commitment than unmarried individuals or divorced or widowed individuals. This difference may be due to the different environments, countries, cultures, and GDP. Married people may also struggle with balancing job and family obligations and may have different levels of commitment. They could tend to be devoted to their relatives. Single employees, however, might not have such obligations to a spouse or family and instead tend to demonstrate a general dedication to the company.

For **educational background**, the employees with an educational background in high school or lower and a particular school demonstrated higher mean levels of job commitment compared to those with an educational background in a two-year college and a bachelor's degree or above. This result is consistent with the previous study (A. Iqbal, 2010). This may be because low-education employees are more dependent on obtaining and keeping job opportunities, making them more inclined to show high loyalty at work. Also, lacking other competitive advantages, they are more willing to demonstrate their worth and ability by performing well. However, this does not mean highly educated employees lack commitment; relatively speaking, less educated employees may pay more attention to their loyalty and commitment to work because they want to keep their job secure.

For **job positions**, operational management staff typically show more dedication to their work than operational staff do. This outcome agrees with the earlier research findings (A. Iqbal, 2010). Employees in operational management frequently possess more excellent professional experience, which may help them comprehend the significance of dedication in accomplishing organizational objectives. Additionally, they can have easier access to chances for skill and knowledge enhancement through training and development. Additionally, operational management employees typically have higher levels of devotion to the company due to their longer tenure there than operational staff.

5.2.2 Motivation Factors

Duty emerges as the most influential variable. This suggests that when operational workers feel a sense of duty towards their work and responsibilities, they are more likely to be committed to their jobs. The finding results comply with the previous study (Grant and Parker, 2009), (Parker and Ohly, 2008), and (Lin and Huang, 2020). This could be due to the operational workers of electronic factories primarily working for the assembly line, and each employee has a clear goal and duty to link up and coordinate the various production links. By recognizing the influence of duty on job commitment, organizations can develop strategies to promote this value among operational workers, including providing clear expectations, emphasizing the importance of fulfilling responsibilities, and creating an environment that encourages employees to take ownership of their work.

The possibility of growth also has significantly influenced job commitment, highlighting the significance of providing avenues for career advancement and skill enhancement. The results of the findings comply with the previous study (Li and Sawhney, 2019). Employees who perceive opportunities for personal and professional development within the organization are more likely to be committed to their jobs.

Appreciation is another crucial factor that influences the job commitment of operational workers—suggesting that a sense of value and satisfaction in work leads to higher levels of job commitment in operational workers. The finding results comply with the previous study (Pohrt et al., 2021) (Spiro et al., 2021) (Kruft and Kock, 2021). Failure by management to provide timely appreciation and recognition to operational workers may result in a decline in their job commitment.

Achievements also play a role in influencing the job commitment of operational workers, albeit to a slightly lesser extent than duty and growth possibilities, which suggests that when employees experience a sense of accomplishment in their work or reach specific goals, it positively impacts their commitment levels. The finding

results comply with the previous study (Judge and Ilies, 2004) (Locke and Latham, 2013) (Deci et al., 2017). When the organization meets the employees' needs for achievement, employees are more willing to stay there.

These findings highlight the multifaceted nature of motivation factors contributing to job commitment among operational workers in electronic factories. By recognizing the importance of duty, growth possibilities, appreciation, and achievements in fostering job commitment, electronic factories can tailor their strategies accordingly to enhance employee satisfaction and retention.

5.2.3 Maintenance Factors

Work safety emerges as the most critical variable influencing the job commitment of operational workers in electronic factories. The findings comply with the previous study (Huang et al., 2016; J. Lin and Mills, 2001). When operational workers feel safe and secure in their work environment, they are more likely to exhibit higher levels of job commitment. In electronic factories, where employees may encounter hazards such as exposure to chemicals, repetitive motion injuries, or accidents related to machinery or equipment, prioritizing work safety becomes paramount. Organizations prioritizing safety measures and providing proper training and protective equipment demonstrate their commitment to employee well-being. When employees perceive that their organization values their safety, it fosters trust and loyalty towards the company.

Pay is another crucial factor that influences the job commitment of operational workers. Fair and competitive pay is essential for attracting and retaining talented employees. When employees feel they are being compensated fairly for their work, it enhances their sense of value and recognition within the organization. In turn, it fosters a higher commitment and dedication towards their job. The findings comply with the previous study (Kang and Malvaso, 2023). Adequate compensation and rewards for their efforts can motivate employees to remain committed to their jobs and perform at their best.

The status also plays a significant role in influencing the job commitment of operational workers. The perception of status within an organization can significantly impact how employees feel about their jobs and their level of commitment to the organization. If employees perceive a lack of status or feel undervalued within the organizational structure, it can lead to frustration, demotivation, and decreased commitment levels. Employees may become disengaged or seek opportunities elsewhere where they believe their contributions will be better appreciated. The results of the findings comply with the previous study (Berg et al., 2010). When individuals feel valued and respected within their organization, they are more likely to be committed to their role.

Interpersonal relationships within the workplace also influence the job commitment of operational workers. Positive relationships with colleagues and supervisors can create a supportive and collaborative work environment that fosters commitment. The findings comply with the previous study (Lee et al., 2022). Positive interpersonal relationships foster a sense of belonging and camaraderie among employees. When individuals feel connected to their coworkers and have strong social support networks, it enhances their job satisfaction and overall well-being. They are more likely to enjoy coming to work, collaborating with others, and contributing to the team's success.

On the other hand, negative or strained interpersonal relationships can have detrimental influences on job commitment. Conflict or unresolved issues between coworkers, employees, and managers can create stress, dissatisfaction, and disengagement. It may lead to decreased maintenance levels or even encourage turnover among operational workers.

Policy and administration factors also influenced the job commitment of operational workers, albeit to a slightly lesser extent. Clear policies, fair procedures, and effective administration can enhance employee satisfaction and commitment. The results of the findings comply with the previous study (Kim, 2002). When employees

perceive that policies are applied consistently and fairly across all levels of the organization, it fosters a sense of trust and confidence in the management. In turn, it enhances their commitment to the organization.

5.3 Implication for Practice

This study provides an in-depth understanding of the factors influencing the job commitment of operational workers in electronic factories in Wuhan, China. By analyzing the influencing factors, the results indicate that most respondents were female, married, had an educational background of high school or lower, were operational staff, and had been working for 6 months to one year. The hypothesis found that marital status, educational background, and job position differences affect job commitment differently. The motivation factors, including appreciation, duty, achievement, and possibility of growth, influenced job commitment. The maintenance factors, including pay, status, work safety, interpersonal relationships, and policy and administration, influenced job commitment. This practice has significant reference value for electronic factory managers and the human resources department.

This study implies that electronic factories should focus on employees' job commitment. Job commitment is employees' loyalty and sense of belonging to the organization and is an essential factor in employees' willingness to work hard for the organization. Establishing an excellent organizational culture, providing fair and equitable job opportunities, and paying attention to employees' personal development can help employees form high organizational commitment, thereby improving their job commitment.

This study demonstrates how the two-factor theory can be applied to investigating employee work commitment. Consistent with the tenets of the two-factor theory, this study discovered that maintenance and motivation variables mutually influence the job commitment of workers in electronic manufacturing. This discovery

offers the theoretical groundwork for subsequent relevant research and bolsters the two-factor theory's prominent position in studying employee job commitment.

Overall, this study provides an in-depth understanding of factors influencing the job commitment of operational workers in electronic factories, provides effective management strategies for electronic factory managers, and has important theoretical and practical significance for human resource management in electronic factories.

5.3.1 Demographic Factors

The result of demographic factors suggests that marital status and educational background play essential roles in determining job commitment among operational workers in electronic factories in Wuhan.

In terms of marital status, divorced employees may face additional personal challenges or have different priorities that impact their dedication to their work compared to those who are single or married. Electronic factories should consider the marital status of their employees when developing strategies to enhance job commitment. Providing support and resources for divorced employees, such as counseling services or flexible work arrangements, may help improve their engagement and overall job satisfaction. Additionally, to reduce the loss of operational workers, single employees have higher job commitment than others, so the organization should support this group for their career advancement, e.g., job training and higher education. Developing an encouraging work environment that considers each worker's requirements and difficulties can raise commitment levels everywhere.

In terms of educational background, it was suggested that the difference in employees' educational background affects different job commitments of operational workers in electronic factories in Wuhan. Organizations must consider this educational background when designing employee training programs and career development opportunities. Organizations must provide support and resources according to the needs

and contexts of different educational backgrounds. This support will help to improve job commitment and overall employee satisfaction within the organization.

Regarding job position, it is suggested that there is a notable distinction in the level of job commitment between operational staff and operational management staff based on position. Consequently, electronic factories must understand the variations in work dedication among various organizational roles. It is recommended that operational staff members have possibilities for skill development and career advancement in electronic manufacturing. Their degree of engagement and dedication to their work will rise. Moreover, encouraging a positive work atmosphere where each individual is valued and acknowledged for their contributions can also help to increase job commitment levels throughout the organization.

5.3.2 Motivation Factors

Electronic factories can foster a sense of duty in operational workers by cultivating an environment that values integrity, professionalism, and ethical behavior. Providing clear job descriptions, setting realistic expectations, and recognizing employees' efforts can reinforce this sense of duty. By acknowledging the significance of duty as an influential factor in the job commitment of operational workers, electronic factories can focus on nurturing this intrinsic motivation within their workforce. Encouraging a strong work ethic and reinforcing the importance of fulfilling one's duties can lead to increased job satisfaction and higher levels of engagement and ultimately contribute to organizational success.

In terms of the possibility of growth, electronic factories can foster a culture of growth by implementing talent development programs, conducting regular performance evaluations, and providing feedback on areas for improvement. Electronic factories can engage in projects encouraging employee growth because they understand the importance of giving operational workers professional and personal development opportunities. This growth will increase the workers' dedication to their jobs. This

investment increases the organization's talent pool and competitiveness and benefits individuals in the long term.

In terms of appreciation, electronic factories can cultivate a culture of appreciation by implementing recognition programs or initiatives that celebrate employee achievements. Regularly acknowledging individual or team accomplishments during meetings or through internal communication channels can foster a sense of appreciation. Electronic factories can create an environment where employees feel valued for their contributions.

In terms of achievements, whether completing a challenging project, meeting targets, or receiving positive feedback from clients or colleagues, achievements contribute to pride and satisfaction in one's work. Electronic factories can foster an environment that promotes achievement by setting clear goals and expectations for employees. Regular feedback and support throughout the process help individuals stay on track and progress toward these goals.

5.3.3 Maintenance Factors

It suggested that electronic factories can foster work safety by implementing proper safety protocols, providing adequate training on occupational hazards, maintaining equipment properly, and promoting open communication channels for reporting safety concerns. By prioritizing work safety as an essential factor in the workplace, organizations will enhance job commitment and create a positive organizational culture that attracts and retains talented employees.

In terms of Pay, Pay packages should be routinely reviewed and benchmarked by electronic manufacturing. Make sure that pay packages are consistently competitive and in line with industry norms by conducting reviews regularly. Consider conducting surveys or market research to determine if staff members are satisfied with the current services. By recognizing the importance of fair compensation practices and aligning them with employee expectations, electronic

factories can foster higher levels of job commitment in operational workers while attracting and retaining talent in the long run.

In terms of status, low-status employees often do not have much voice in the organization, and their job commitment can drop due to their dissatisfaction. Electronic factories should pay attention to and take measures to improve the position and status of operational workers. Electronic factories allow excellent operational workers to assume the project or team leader role. This action will exercise their leadership, organizational, and decision-making skills and improve their position and status. Providing avenues for employee involvement in decision-making processes can also enhance perceived status. When employees have a voice in shaping policies or strategies that directly impact their work, it gives them a sense of ownership and importance within the organization.

In terms of interpersonal relationships, when employees have good relationships with their colleagues and supervisors, it creates a supportive and collaborative work environment that fosters commitment. Electronic factories can foster positive interpersonal relationships by promoting a culture of teamwork and collaboration by encouraging employees to work together on projects and tasks. Encourage open and honest communication among employees at all levels. Create channels for feedback, suggestions, and ideas to be shared freely. This relationship will help build trust and understanding among colleagues.

Regarding policy and administration, Employees must have a clear set of rules to follow in the organizational constitution. Making sure that the company and its employees benefit from any modifications made to the policies that are currently in place is crucial. Electronic manufacturers can determine whether the present policies and programs are satisfying needs by using their yearly, or more often, employee engagement surveys. Electronic factories might directly question the present status of policies and include a section on compliance to promote suggestions for improvement. Electronic factories can also streamline administrative processes. Continuously

evaluate administrative processes to identify areas of improvement and eliminate unnecessary bureaucracy that may hinder productivity. Simplify procedures where possible to allow employees to focus more on their core responsibilities.

5.4 Recommendation for Future Research

Future research should aim to include more extensive and more diverse samples to improve external validity. It is important to consider conducting similar studies in different industries and regions to capture variations in factors influencing job commitment.

Future studies could incorporate additional data collection methods, such as observation or interviews with supervisors or colleagues, to provide a more comprehensive understanding of job commitment to overcome potential data biases.

This study did not explicitly examine the influence of cultural factors on job commitment despite being relevant in a Chinese context like Wuhan. Future research should explore how cultural values, norms, and practices impact the motivation and maintenance factors influencing job commitment among operational workers.

Future research can conduct comparative studies across different industries, regions, or countries to identify similarities and differences in factors influencing job commitment among operational workers to enhance generalization.

5.5 Limitation of Study

One limitation of this study is the relatively limited number of top electronic factories, which may limit the generalization of the findings to a broader population of operational workers in different sizes of electronic factories. This study focused on

electronic factories in Wuhan, China, which may limit the generalization of the findings to other types of organizations or locations.

The data collected for this research relied on self-reported measures from participants. This data introduces potential biases such as social desirability bias or memory recall bias.

This study utilized a cross-sectional design that measured variables simultaneously, limiting the ability to establish the causal influence of motivation and maintenance factors on job commitment over time. Longitudinal studies that track changes in these factors and their impact on job commitment would yield more robust findings.



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APPENDICES

APPENDIX 1: Questionnaire

Dear Ladies and Gentlemen,

Thank you for taking time out of your busy schedule to complete this questionnaire. This survey aims to understand the factors related to the job commitment of operational workers in the company. It is an academic questionnaire, which takes about 5 minutes of your time. Thank you!

Part I Demographics

1. Your gender

- ① male ② female

2. Your age

- ① Less than 30 years old ② 31 - 40 years old
③ 41 - 50 years old ④ more than 50 years old

3. Your marital status

- ① single ② married ③ divorced ④ widowed

4. What is your educational background?

- ① High School or Lower ② Special school
③ Two-year college ④ Bachelor's degree or above

5. Your position in the company?

- ① Operational staff ② Operational management staff

6. How long have you been working in the company?

- ① Less than 6 months ② 6 months - 1 year
③ 1-5 years ④ More than 5 years

Part II For the following **motivation factors**, the company's current use of the motivation factors is scored according to your satisfaction. (1: Strongly disagree; 2: Disagree; 3: Neither agree or disagree; 4: Agree; 5: Strongly agree)

Appreciation	1	2	3	4	5
7. I receive adequate recognition for doing my job well.					
8. My manager always thanks me for a job well done.					
9. I have had a compliment in the last two weeks					
Duty	1	2	3	4	5
10. I have a say in decisions that affect my work.					
11. I am empowered enough to do my job.					
12. I have control over how I do my work.					
Achievements	1	2	3	4	5
13. I am proud to work in this company because it recognizes my achievements.					
14. I feel satisfied with my job because it gives me a feeling of accomplishment.					
15. I feel I have positively contributed to my company.					
Progress	1	2	3	4	5
16. I will choose career advancement.					
17. My job allows me to learn new skills for career advancement.					
18. I know what is required to advance within the company.					
Work itself	1	2	3	4	5
19. I have a lot of variety in my tasks.					
20. My job is challenging and exciting.					
21. I enjoy the type of work that I do.					
Possibility of growth	1	2	3	4	5
22. I have received the necessary training to do my job well.					

23. I am proud to work in my company because I feel more confident.					
24. I have learned much new knowledge during my work.					

Part III For the following **maintenance factors**, the company's current use of the maintenance factors are scored according to your satisfaction. (1: Strongly disagree; 2: Disagree; 3: Neither agree or disagree; 4: Agree; 5: Strongly agree)

Pay	1	2	3	4	5
25. I am encouraged to work harder because of my salary.					
26. I am fairly paid for the work that I do.					
27. I get benefits in addition to my salary.					
Status	1	2	3	4	5
28. I am satisfied with my job position.					
29. I have entirely performed my professional skills in my current position.					
30. I am happy with my status.					
Work safety	1	2	3	4	5
31. I believe that my workplace is a safe working environment.					
32. My workplace is located in an area where I feel comfortable.					
33. There is workplace safety training to help prevent accidents, injuries, and illnesses.					
Working environment	1	2	3	4	5
34. I feel satisfied with the comfort of the workplace.					
35. I am satisfied with the pleasant working conditions.					
36. There are adequate facilities and supporting equipment to perform work.					
Interpersonal relationships	1	2	3	4	5
37. My colleagues are helpful and friendly.					
38. My supervisors are strong and trustworthy leaders.					

39. My colleagues acknowledge my work.					
Management model	1	2	3	4	5
40. The management team is committed to delivering a quality output.					
41. Work is distributed fairly and evenly across teams.					
42. There are clear communications with the manager, including clear instructions from the manager.					
Policy and administration	1	2	3	4	5
43. The administration team is transparent.					
44. The company policy is favorable for its workers.					
45. There is a well-defined performance appraisal.					

Part IV Please carefully read the questions and check the box corresponding to your opinion on **job commitment**. (1: Strongly disagree; 2: Disagree; 3: Neither agree or disagree; 4: Agree; 5: Strongly agree)

Job Commitment	1	2	3	4	5
46. I recommend this organization to my family and friends.					
47. I am glad I chose to work for this organization.					
48. My career goals are essential to my organization.					
49. I would strongly recommend my profession as a career.					
50. I do not think I want to work anywhere except here.					
51. I know my career path in this organization.					

调查问卷

亲爱的女士们先生们

感谢您从繁忙的日程中抽出时间完成此问卷。本调查旨在了解与公司基层员工工作承诺有关的相关因素。这是一份学术调查问卷，大约需要你5分钟的时间。谢谢你！

Part I 第一部分: 人口统计

1. 你的性别

- ① 男 ② 女

2. 你的年龄

- ① 30岁以下 ② 31 - 40岁
③ 41 - 50岁 ④ 50岁以上

3. 你的婚姻状况

- ① 未婚 ② 已婚 ③ 离婚 ④ 寡居

4. 你的教育背景如何？

- ① 高中或更低 ② 特殊学校
③ 两年制大学 ④ 本科及以上学历

5. 你在公司的职位？

- ① 基层工作人员 ② 基层管理人员

6. 你在这个公司工作了多久了？

- ① 少于6个月 ② 6个月-1年
③ 1-5年 ④ 5年以上

Part II 第二部分:

对于以下动机因素，公司目前对动机因素的使用情况将根据您的满意度进行评分。(1:强烈不同意 2:不同意 3:中立 4:同意 5:强烈同意)

欣赏	1	2	3	4	5
7. 由于我的工作做得很好，我得到了充分的认可。					
8. 我的经理总是感谢我的工作做得很好。					
9. 在过去的两周里，我得到了赞美。					
责任	1	2	3	4	5
10. 我在影响我工作的决定方面有发言权。					
11. 我有足够的权力来做我的工作。					
12. 我可以控制我的工作方式。					
成就	1	2	3	4	5
13. 我很自豪能在这家公司工作，因为它认可了我的成就。					
14. 我对我的工作感到满意，因为它给了我一种成就感。					
15. 我觉得我为我的公司做出了积极的贡献。					
发展	1	2	3	4	5
16. 我会选择职业发展。					
17. 我的工作让我能够学习到职业发展的新技能。					
18. 我知道我在公司内部晋升需要什么。					
工作本身	1	2	3	4	5
19. 我在我所做的任务上有很多变化。					
20. 我的工作既具有挑战性，也令人兴奋。					
21. 我喜欢我所做的工作类型。					
成长的可能性	1	2	3	4	5
22. 我已经为做好我的工作而接受了必要的培训。					
23. 我很自豪能在公司工作，因为我感到更自信了。					
24. 我在工作中学到了很多新知识。					

Part III 第三部分:

对于以下维修因素，公司目前对维修因素的使用情况根据您的满意度进行评分

。(1:强烈不同意 2:不同意 3:中立 4:同意 5:强烈同意)

薪水	1	2	3	4	5
25. 因为我的薪水，我被鼓励去更加努力地工作。					
26. 我所做的工作有公平的报酬。					
27. 我除了得到工资外，还能得到福利。					
地位	1	2	3	4	5
28. 我对我的工作职位很满意。					
29. 我在目前的职位上已经充分发挥了我的专业技能。					
30. 我对自己的地位很满意。					
作业安全性	1	2	3	4	5
31. 我相信，在我的工作场所，这是一个安全的工作环境。					
32. 我的工作场所位于一个我觉得舒服的地方。					
33. 有工作场所安全培训，以帮助预防事故、伤害和疾病。					
作业环境	1	2	3	4	5
34. 我对工作场所的舒适感感到满意。					
35. 我对这里令人愉快的工作条件很满意。					
36. 有足够的设施和辅助设备来进行工作。					
人际关系	1	2	3	4	5
37. 我的同事们乐于助人，也很友好。					
38. 我的上司都是坚强而值得信赖的领导者。					
39. 我的同事们感谢我的工作。					
管理模式	1	2	3	4	5

40. 管理团队致力于提供高质量的产出。					
41. 工作在各个团队中公平、均匀地分布。					
42. 与经理有明确的沟通，包括来自经理的明确指示。					
政策和管理	1	2	3	4	5
43. 管理团队是透明的。					
44. 该公司的政策对其工人有利。					
45. 有一个明确定义的绩效评估。					

Part IV 第四部分：请仔细阅读这些问题，并查看您对工作承诺的意见。

(1:强烈不同意 2:不同意 3:中立 4:同意 5:强烈同意)

工作承诺	1	2	3	4	5
46. 我向我的家人和朋友推荐这个组织。					
47. 我很高兴我选择了为这个组织工作。					
48. 我的职业目标对我的组织很重要。					
49. 我强烈推荐我的工作作为一种职业。					
50. 除了这里，我不想在任何地方工作。					
51. 我知道我在这个组织里的职业道路。					

APPENDIX 2: Content Validity

The content validity test uses Item Object Consistency (IOC) to ensure the quality and confidence of the questionnaires. The three experts in creating research tools examined the content and the measurement of the questions to cover the completion of the research issues.

(1) Wuhan Yangtze Electronics Group Co., Ltd.'s administrative director is one person.

(2) The Lecturers of Management Science Department of Institute of Science Innovation and Culture Rajamangala University of Technology Krungthep: 2 people

Table 1 IOC on Motivation Factors

IOC on Motivation Factors		Expert 1	Expert 2	Expert 3	OC ndex
Appreciation	Q7	1	1	1	
	Q8	1	1	1	
	Q9	1	1	1	
Duty	Q10	1	1	1	.67
	Q11	1	1	1	
	Q12	1	0	1	
Achievements	Q13	1	1	1	.67
	Q14	1	0	1	
	Q15	1	1	1	
Progress	Q16	1	1	1	

	Q17	1	1	1
	Q18	1	1	1
	Q19	1	1	1
Work itself	Q20	1	1	1
	Q21	1	1	1
Possibility of growth	Q22	1	1	1
	Q23	1	1	1
	Q24	1	1	1

From Table 1 above, the IOC index of the questions in the Motivation

The factors part is above 0.5, meaning all the questions are measured following the research objectives.

Table 2 IOC on Maintenance Factors

IOC on Maintenance Factors		Expert 1	Expert 2	Expert 3	IOC index
Pay	Q25	1	1	1	1
	Q26	1	1	1	1
	Q27	1	1	1	1
Status	Q28	1	1	1	1
	Q29	1	1	1	1
	Q30	1	1	1	1
Work safety	Q31	1	1	1	1
	Q32	1	1	1	1
	Q33	1	1	1	1
Working environment	Q34	1	1	1	1
	Q35	1	1	1	1
	Q36	1	1	1	1
Interpersonal relationships	Q37	1	1	1	1
	Q38	1	1	1	1

	Q39	1	1	1	1
	Q40	1	1	1	1
Management model	Q41	1	1	1	1
	Q42	1	1	1	1
Policy and administration	Q43	1	1	1	1
	Q44	1	1	1	1
	Q45	1	1	1	1

From Table 2 above, the IOC index of the questions in the Maintenance Factors part is above 0.5, meaning the research objectives measure all the questions in this part.

Table 3 IOC on Job Commitment

IOC on Maintenance Factors		Expert 1	Expert 2	Expert 3	IOC index
Job Commitment	Q46	1	1	1	1
	Q47	1	1	1	1
	Q48	1	1	1	1
	Q49	1	1	1	1
	Q50	1	1	1	1
	Q51	1	1	1	1

From Table 3 above, the IOC index of the questions in the Job Commitment part is above 0.5, meaning the research objectives measure all the questions in this part.

APPENDIX 3: Reliability

The questionnaire was tested with 30 qualified samples to test their understanding of the corresponding questions. The internal consistency was measured using Cronbach's alpha coefficient (α) test method, where α must be greater than 0.7 to use this tool to collect data for further research to test the confidence of the tools used in this research.

Below is the formula for Cronbach's alpha:

$$\alpha = \frac{N * \bar{C}}{\bar{V} + (N - 1) * \bar{C}}$$

Where:

N = several items

$\bar{C}$ = mean covariance between items.

$\bar{V}$ = mean item variance.

Table 1 Reliability Analysis of Motivation Factors

Reliability Analysis on Motivation Factors				
Items		Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha Based on Standardized Items
Appreciation	Q7	0.769	0.853	0.891
	Q8	0.813	0.821	
	Q9	0.773	0.852	
Duty	Q10	0.649	0.811	0.835
	Q11	0.734	0.721	
	Q12	0.705	0.763	

	Q13	0.727	0.764	
Achievements	Q14	0.697	0.796	0.847
	Q15	0.72	0.782	
	Q16	0.631	0.81	
Progress	Q17	0.628	0.819	0.828
	Q18	0.801	0.641	
	Q19	0.534	0.882	
Work itself	Q20	0.785	0.624	0.819
	Q21	0.717	0.71	
	Q22	0.726	0.779	
Possibility of growth	Q23	0.803	0.694	0.847
	Q24	0.636	0.85	
TOTAL ITEMS OF MOTIVATION FACTORS				0.925

It can be seen from Table 1 above that the reliability of Appreciation, Duty, Achievements, Progress, Work itself, and Possibility of growth is 0.891, 0.835, 0.847, 0.828, 0.819, and 0.847, respectively. All reliability is above 0.7. Moreover, the correlation between the corrected items and the totals is above 0.5, and the reliability after deleting the items has different degrees of decline. Hence, the Motivation factors part of the questionnaire has better reliability.

Table 2 Reliability Analysis of Maintenance Factors

Reliability Analysis on Maintenance Factors				
	Items	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha Based on Standardized Items
Pay	Q25	0.753	0.759	0.851
	Q26	0.696	0.814	
	Q27	0.713	0.798	
Status	Q28	0.709	0.789	0.846
	Q29	0.649	0.846	
	Q30	0.784	0.711	
Work safety	Q31	0.572	0.595	0.724
	Q32	0.575	0.601	
	Q33	0.488	0.693	
Working environment	Q34	0.715	0.717	0.823
	Q35	0.662	0.773	
	Q36	0.662	0.77	
Interpersonal relationships	Q37	0.612	0.789	0.81
	Q38	0.679	0.716	
	Q39	0.698	0.696	
Management model	Q40	0.777	0.856	0.892
	Q41	0.777	0.855	
	Q42	0.81	0.828	
Policy and administration	Q43	0.738	0.765	0.846
	Q44	0.61	0.878	
	Q45	0.812	0.686	
TOTAL ITEMS OF MAINTENANCE FACTORS				0.927

It can be seen from Table 2 above that the reliability of Pay, Status, Work safety, Working environment, Interpersonal relationships, Management model, and Policy and administration are 0.851, 0.846, 0.724, 0.823, 0.81, 0.892, 0.846, respectively. All reliability is above 0.7. Moreover, the correlation between the corrected items and the totals is above 0.4, and the reliability after deleting the items has different degrees of decline. Hence, the Maintenance factors part of the questionnaire has better reliability.

Table 3 Reliability Analysis of Job Commitment

Reliability Analysis on Job Commitment			
Items		Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
			Cronbach's Alpha Based on Standardized Items
	Q46	0.863	0.909
	Q47	0.778	0.919
Job	Q48	0.755	0.923
Commitment	Q49	0.903	0.902
	Q50	0.86	0.908
	Q51	0.639	0.935

Table 3 shows that the reliability of job commitment is 0.93. The reliability is above 0.7. Moreover, the correlation between the corrected items and the totals is above 0.6, and the reliability after deleting the items has different degrees of decline. Hence, the job commitment part of the questionnaire is more reliable.

BIOGRAPHY

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BACKGROUND

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