FACTORS AFFECT EMPLOYEE PRODUCTIVITY IN MALAYSIA MANUFACTURING INDUSTRY

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FACULTY OF ACCOUNTANCY AND MANAGEMENT

DEPARTMENT OF INTERNATIONAL BUSINESS

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BY

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A final year project submitted in partial fulfilment of the requirement for the degree of

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DECLARATION

I hereby declare that:

(1) This undergraduate FYP in the end result of our own work and that due acknowledgement has been in the reference to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this FYP has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made in completing the FYP.

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DEDICATION

This dissertation is specially dedicated to:

Ms. Low Suet Cheng, Dr. Low Mei Peng

and

My family, friends, and loved one

Thanks for the continuous guidance, assistance, and support throughout the journey of this research project.

With a humble, THANK AGAIN TO ALL HELPED ME.

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LIST OF ABBREVIATIONS

MIDA	Malaysian Investment Development Authority
ONS	Office for National Statistics
GDP	Gross Domestic Product
4IR	Fourth Industrial Revolution
12MP	12th Malaysia Plan
E&E	Electrical and Electronic
MEF	Malaysian Employers Federation
EP	Employee Productivity
JS	Job Satisfaction
M	Motivation
WE	Work Environment
TD	Training and Development
IV	Independent Variables
DV	Dependent Variables
R^2	R Square
SPSS	Statistical Package of the Social Science

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PREFACE

The Malaysian landscape has witnessed a substantial shift, transitioning from an agrarian-centric economy to a robust manufacturing sector, signaling a pivotal developmental stride for the nation. This evolution positions Malaysia as a burgeoning force in the global economic spectrum. However, despite the manufacturing sector's pivotal role in driving economic growth, there persists a pressing concern – a productivity deficit within the Malaysian workforce. Challenges such as excessive workloads, elevated stress, and a mismatch in skill expectations further compound this issue, threatening both individual well-being and national economic progress. Thus, it is crucial to investigate the underlying factors that impact employee productivity.

In general, job satisfaction, motivation, work environments, and training and development are four important factors that are closely related to employee productivity. The purpose of this study is to ascertain whether these factors have a substantial effect on employee productivity.

The study of employee productivity in Malaysia's industrial sector is critical to the country's economic environment. Understanding and enhancing productivity not only drives efficiency and innovation, but also improves overall industry performance. By investigating elements such as job satisfaction, motivation, work environment, and training, this study provides a guiding compass for governments and enterprises, allowing the development of specific strategies to optimize the workforce. This research intends to boost production productivity, cost-effectiveness, and global competitiveness by focused interventions and supportive work conditions, enabling sustainable economic development and resilience in a continuously changing industrial landscape.

ABSTRACT

The advancement of economies, especially in manufacturing-centric nations like Malaysia, relies heavily on cultivating a proficient workforce and enhancing labor productivity. In line with Malaysia's strategic goals outlined in the Twelfth Malaysia Plan, talent development is pivotal for inclusive economic growth. Understanding its significance, particularly in the manufacturing industry, becomes paramount given its substantial contributions to Malaysia's GDP and employment landscape. As Malaysia continues its economic trajectory, bridging the gap between talent development and productivity enhancement becomes imperative for sustaining and advancing its position in the global economy.

The objective of this study is to examine the relationship between the factors which are job satisfaction, motivation, work environment and training and development with the employee productivity. The target respondents consisted of people working in the manufacturing industry in Malaysia. In total 250 samples were collected by the researcher using the questionnaire. The samples were analyzed by the statistical software SPSS. The demographic profile of respondents was analyzed. The reliability test, Pearson Correlation Analysis and Multiple Regression Analysis were carried out in this study. The findings of this study reveal that the four factors being studied have a positive direct effect on the employee productivity in Malaysia's manufacturing industry. Job satisfaction, motivation, training and development are the top three factors that have direct effect on the employee productivity in this study.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This study's introduction contains a synopsis of the context, problem statement, research inquiries, and objectives. The primary objective of this investigation is to analyze the variables that influence industrial labor productivity in Malaysia. The study specifically focuses on various variables including job satisfaction, employee motivation, work environment, and training and development.

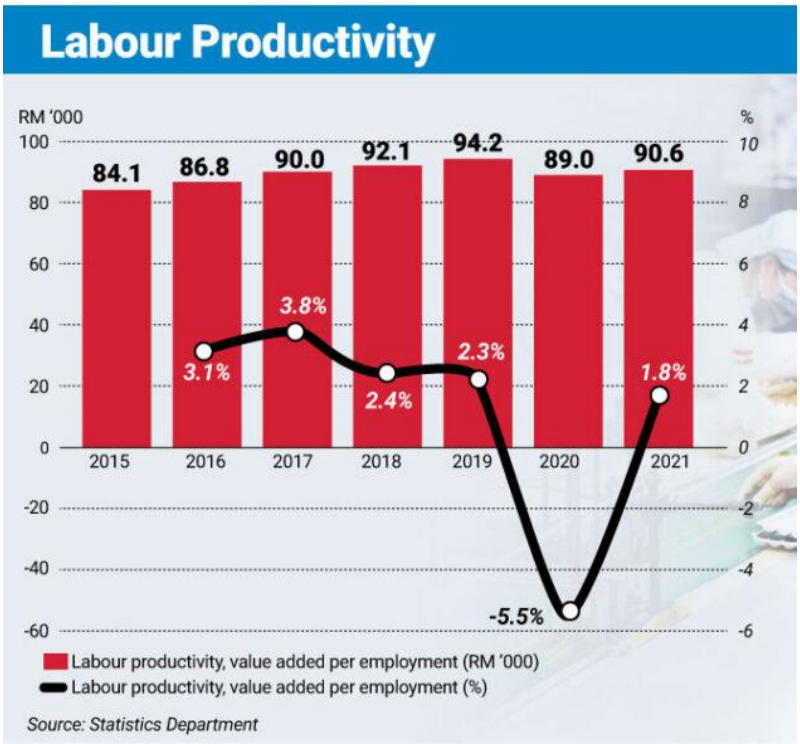
1.1 Research Background

1.1.1 Employee Productivity

The primary driver for economic growth is human capital. The development of competent skills serves as the foundation for fostering a robust and dynamic economy. In order to be considered as talents within a certain business, individuals must possess skill sets that are pertinent to the field and demonstrate a high level of adaptability. In order for an economy to experience significant productivity growth, it necessitates the presence of highly qualified individuals and the valuable contribution of quality human capital, which can enhance overall productivity performance (MPC, 2023). Aligned with the objectives outlined in the Twelfth Malaysia Plan (2021 - 2025), the primary emphasis of

talent development is to strategically reorient the labor market in order to foster inclusive and sustainable economic expansion. In order to enhance job prospects for Malaysians, promote fair workers' compensation, bolster labor force participation rates, and fortify the labor market support system, it is imperative to enhance talent development plans and initiatives (MPC, 2023). The facilitation of innovation and technology adoption processes, as well as the promotion of activities that lead to the realization of latent economic development potential, are significantly influenced by the presence of highly competent individuals. Hence, it is imperative to enhance endeavors in cultivating a proficient workforce to bolster the Malaysian government's vision of attaining advanced and inclusive status (Asada, Lenain, South-East Asia Desk, & Economics Department, 2019).

Figure 1.1: Statistics about labor productivity increase in 2021



Source: MIDA. (2022). Manufacturing sector boosts labor quality.

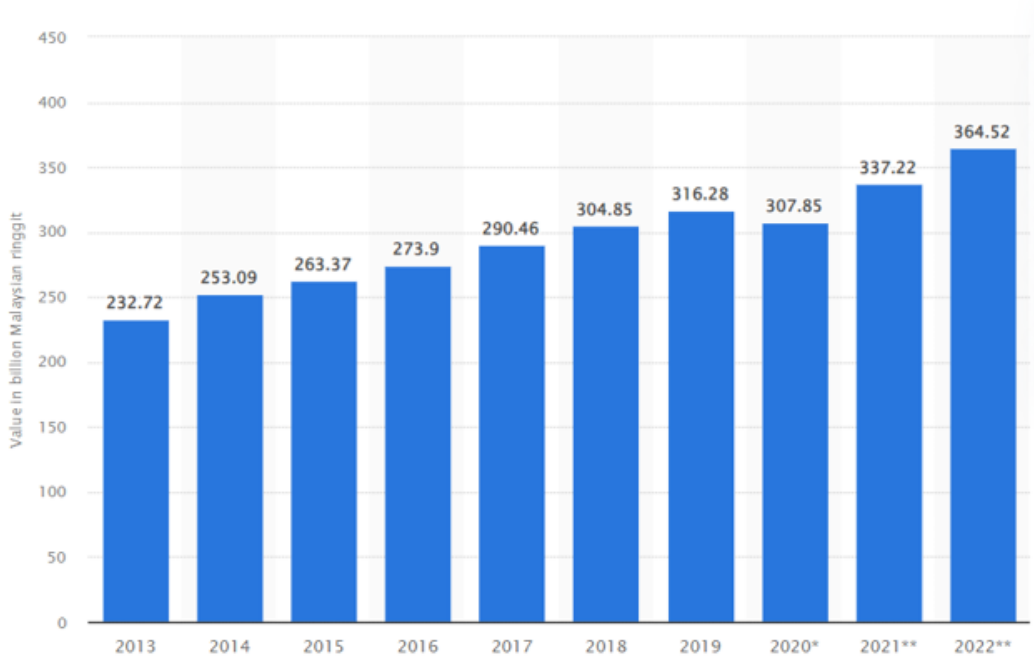
According to the Malaysian Investment Development Authority (MIDA, 2022), there was a notable increase in labor productivity in 2021, with a growth rate of 1.8%. This positive trend is in stark contrast to the previous year, where labor productivity experienced a decline of -5.5%. The labor productivity in the manufacturing sector experienced a significant gain of 5.3% in comparison to the previous quarter, which had seen a contraction of 3.5%. This growth was observed across all sub-sectors, with the exception of textiles, apparel, and leather products. The Department of Statistics (2022) has recognized labor productivity as a crucial economic indicator that is associated with economic growth, competitiveness, and the standard of life within an economy. Productivity is a crucial factor in the development and assessment of governmental policies, according to the Office for National Statistics (ONS) in the United Kingdom. The Department of Statistics (2022) also highlights that the public's interest in productivity trends has been further stimulated by several reasons, such as the impact of technology and innovation on economic growth and the apprehension regarding the proportion of domestic labor's contribution to such growth.

The topic of employee productivity is a significant area of study in management that has received much research focus and is recognized as a critical factor for improving organizational success (Gamede & Mtotywa, 2022). In contemporary times, the focus on this matter is influenced by various factors, including the significant levels of unpredictability and consequences resulting from the volatility generated by the pandemic, the coexistence of different generations in the workforce, and the transformations occurring in the workplace and the skills necessary for future employment (Gamede & Mtotywa, 2022). According to Gamede and Mtotywa (2022), organizations must reassess and enhance their strategies in order to enhance employee productivity.

1.1.2 Manufacturing Industry in Malaysia

Since the 1970s, Malaysia has experienced a notable economic transition from an agrarian-based economy to a manufacturing-centric sector, signifying a substantial development for the nation. The aforementioned change has effectively positioned Malaysia as a developing nation with regards to its domestic economy. Presently, Malaysia's manufacturing sectors are vital to the nation's economic development by contributing significantly to its gross domestic product, exports, and employment creation for individuals with diverse levels of education and experience (Ngu, Djun Lee, & Shahril, 2020). The Statista department predicted that Malaysia's manufacturing industry contributed 364.52 billion ringgits to GDP in 2022. Figure 1.2 shown in this study demonstrates a notable increase as compared to the previous fiscal year, where the gross domestic product (GDP) remained at around 337.22 billion Malaysian ringgit (Department, 2023). Furthermore, it is noteworthy to mention that the country has had a substantial increase in its manufacturing gross domestic product (GDP) during the past decade, as depicted in Figure 1.2 (Department, 2023).

Figure 1.2: Statistic about GDP from Manufacturing in Malaysia from 2013 to 2022



Source: Department, S. R. (2023). Gross domestic product (GDP) from manufacturing in Malaysia from 2013 to 2022.

Employment and capital investment from Malaysia's manufacturing sector are crucial to the economy (Bakri et al., 2020). The manufacturing industry has had significant expansion, leading to the advancement of various linked sectors such as materials supply, production, sales, service, and other automotive operations (Bakri et al., 2020). The aforementioned progress has furthermore played a role in fostering the enhancement of skills and the expansion of technological and engineering capabilities within Malaysia. According to the Malaysian Investment Development Authority (MIDA, 2022), the manufacturing industry is projected to generate a total of 58,141 potential job openings. These possibilities would encompass various jobs, including 2,631 managerial positions and 6,277 professional/technical and supervisory positions. This indicates a shift towards a higher value chain in the

manufacturing sector. Hence, the manufacturing sector holds significant importance as a major contributor to Malaysia's economy. The impact has been significant, particularly in relation to the production of goods for export and the generation of employment possibilities (Nordin, 2016).

Malaysia has demonstrated significant progress in its efforts to adopt the Fourth Industrial Revolution (4IR) in order to maintain competitiveness in the manufacturing sector, particularly in terms of productivity, innovation, and talent acquisition. These endeavors are crucial for generating the necessary employment opportunities to sustain long-term economic growth (MIDA, 2021). Furthermore, it is evident that the manufacturing industry in Malaysia has significant promise in the incorporation of Industry 4.0 technology. The government has demonstrated an apparent recognition of the significance of implementing measures and has initiated efforts to stimulate the business through the provision of consultancy services and tax incentives (Malaysia E., 2020). Moreover, during the implementation of the 12th Malaysia Plan (12MP), it is projected that the manufacturing sector will exhibit the most substantial average annual growth rate of 5.7% compared to other sectors. The transition of the electrical and electronic (E&E) manufacturing sector towards higher value-added industries is expected to take place through the resetting of the economy, capitalizing on Malaysia's prominent position as a big net exporter of semiconductor components.

1.2 Problem Statement

According to Chu Mei Fong, the author of an article from "The Star", it has been noted that Malaysians sometimes work an average of fifteen hours more each week than what is required of them (The Star, 2017). This surpasses the working hours of employees in Singapore, Hong Kong, and Australia (Society, 2017). Nevertheless, it is evident that Malaysians experience a significant degree of productivity deficit, whereby the local workforce demonstrates lower levels of production compared to their counterparts in the region. According to a recent workplace survey performed by AIA Vitality, it has been observed that employees in Malaysia are confronted with excessive workloads, elevated stress levels, and engage in unhealthy lifestyles, thus rendering them susceptible to health-related issues and diminished productivity (Society, 2017). According to a study conducted by Randstad in 2023, Malaysian individuals seeking employment possess elevated expectations regarding their employers' commitment to fostering their professional growth. This is perceived as a means to advance their careers into more esteemed positions and attain enhanced remuneration. Syed Hussein Syed Husman, head of the Malaysian Employers Federation (MEF), said that despite attractive compensation packages, residents were unwilling to accept low-skilled and unskilled positions in the manufacturing and catering sectors. The significance of these occupations is mostly associated with their social standing and the work settings in which they are situated (Rodzi, 2021). Based on a study conducted by Randstad (2023), it was found that a significant proportion of Malaysians, specifically 85%, acknowledged the significance of upskilling and re-skilling. However, a notable 24% of respondents expressed dissatisfaction with the level of support provided by their employers in this regard. Thus, this study seeks to improve Malaysian industrial efficiency by providing valuable insights.

1.3 Research Objectives

1.3.1 General Objective

In an attempt to address the previously given issue description, the current study is being conducted with the goal of clarifying particular goals.

1.3.2 Specific Objectives

In order to enhance precision, it is imperative to determine the overall relationship between variables, regardless of the specific research context. The following are the objectives of the research:

1. To examine the relationship between job satisfaction and employee productivity in Malaysia manufacturing industry.

2. To examine the relationship between employee motivation and employee productivity in Malaysia manufacturing industry.

3. To examine the relationship between work environment and employee productivity in Malaysia manufacturing industry.

4. To examine the relationship between work environment and employee productivity in Malaysia manufacturing industry.

1.4 Research Questions

As a result of the study's objective, the subsequent research questions have been formulated:

1. Does job satisfaction influence significantly impact employee productivity in Malaysia manufacturing industry?

2. Does motivation influence significantly impact employee productivity in Malaysia manufacturing industry?

3. Does work environment influence significantly impact employee productivity in Malaysia manufacturing industry?

4. Does training and development influence significantly impact employee productivity in Malaysia manufacturing industry?

1.5 Significant of Study

The implications of the research on employee productivity within the manufacturing sector of Malaysia are of considerable importance in terms of the nation's competitiveness and economic expansion. Gaining insight into and improving employee productivity can significantly contribute to increased efficiency, innovation, and overall performance in the manufacturing sector, which remains a critical driver of Malaysia's progress. A comprehensive investigation into factors influencing employee productivity, such as job satisfaction, motivation, work environment, and training and development, can guide policymakers, businesses, and stakeholders in formulating targeted strategies to optimize workforce productivity. By identifying bottlenecks, implementing effective training programs, and creating conducive working conditions, the study can contribute to increased production output, cost-effectiveness, and global market competitiveness for the Malaysian manufacturing sector, thereby supporting sustainable economic advancement and ensuring the sector's resilience in the face of technological advancements and changing industry dynamics.

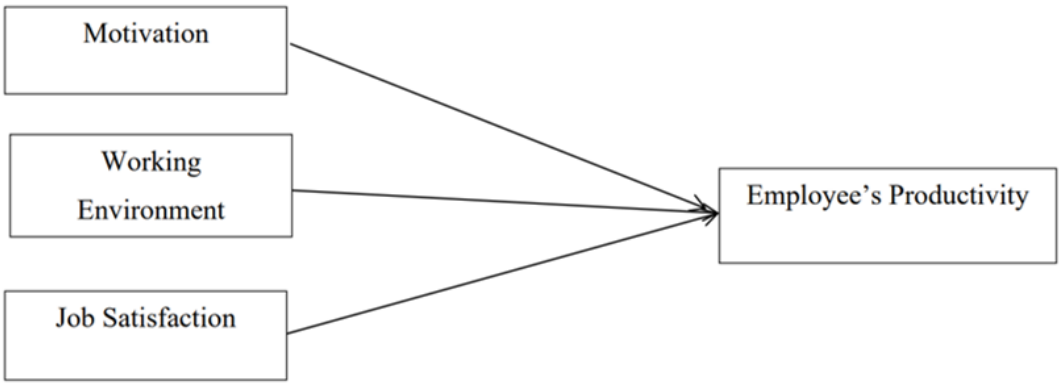
CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

The literature and secondary data sources used for this research are reviewed in this chapter. These sources include textbooks, periodicals, and online databases. In addition to testing hypotheses, a proposed conceptual framework is also provided.

2.1 Review of Relevant Theoretical Models

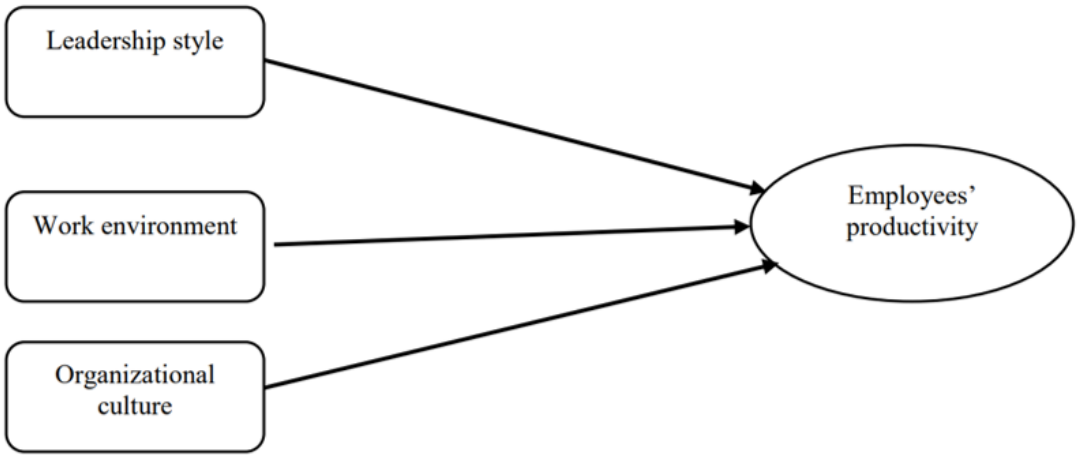
Figure 2.1: Theoretical Models 1



Adopted from: Zakaria, N. H., Alias, M., & Rani, N. (2022). Employee's Productivity: The Most Dominant Factors. International Journal of Entrepreneurship and Management Practices. Vol. 3, No. 9, pages 01-13.

The theoretical model shown in Figure 2.1 was formulated by Zakaria, N. H., Alias, M., and Rani, N. (2022). This conceptual framework provides an illustration of the interaction that exists between job satisfaction, motivation, and working conditions. The results demonstrate a significant positive association (p=0.705) between employee motivation and productivity, implying an obvious relationship between these two factors. There was an important relationship between employee motivation, job satisfaction, and output, according to the study's findings. In contrast, work environment was shown to have no discernible impact on the intent of the employee productivity`.

Figure 2.2: Theoretical Models 2

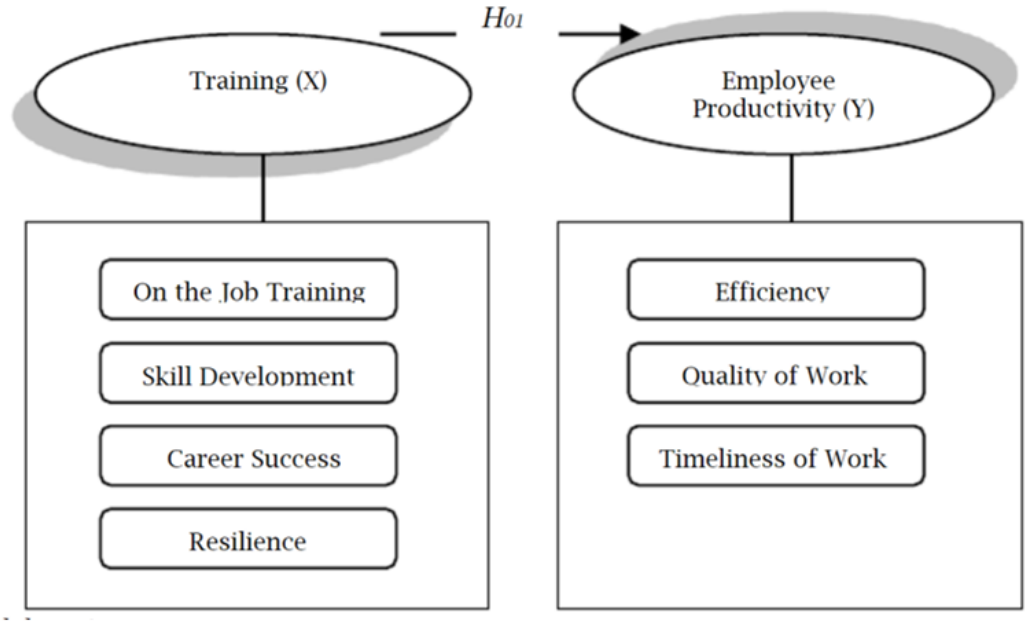


Adopted from: Almaamari, Isa Alaswad, and Gulf University., (2021). Factors Influencing Employees' Productivity- Literature Review. Academy of Entrepreneurship Journal, Vol. 27, No. 3.

The above theoretical framework was created by Almaamari, Isa Alaswad, and Gulf University in 2021. The relationship between four variables is depicted in this model:

the productivity of employees serves as the dependent variable, while the leadership style, work environment, and organizational culture exert an influence on the dependent variable. Employee productivity and the work environment are found to be positively correlated, according to the study.

Figure 2.3: Theoretical Models 3



Adopted from: Adebowale, S., & Adefulu, A. (2019). Training and employee productivity of selected insurance: Perspectives for the board of directors. Corporate Board: Role, Duties and Composition, Vol.15, No.3, pages 17-26.

Adebowale and Adefulu (2019) presented a theoretical framework that shows how several training characteristics, such as on-the-job training and skill development, resilience, efficiency, and punctuality, relate to employee productivity (Figure 2.3). The results of this study demonstrated a significant positive link between training and employee productivity.

2.2 Review of past empirical studies

2.2.1 Dependent Variable: Employee productivity

Employee productivity is affected by the working environment, human resources department motivation, supervisor support, individual skills, and organizational structure (Odion & Elaho, 2022). According to Castenede, Japos, and Templonuevo (2022), management has long studied employee productivity. It has evolved to include multiple dimensions. Motivation, work-life balance, work environment, internet usage, the service profit chain, and remuneration have been linked to the phenomenon (Castenede, Japos, & Templonuevo, 2022). As Singh and Chaudhary (2022) found, firms are focusing more on employee productivity.

The success of a corporation depends on employee productivity in the global market. According to Olasanmi, Olajide, and Ojubanire (2021), employees strategically using resources to generate cost-effective goods and services has many benefits. According to Leonard (cited in Olasanmi et al., 2021), punctuality, discipline, coordination, analysis, and a skilled team are important. In Rasli Samudin, N. M., et al.'s (2022) study, employee production over a set period was used to measure productivity. This shows that improving the work environment and employee wellbeing can boost staff productivity. For a firm to maintain its operations, it is crucial that the overall productivity of its employees exceeds the entire expenses accrued by the company. Basahal et al. (2022) assert that achieving optimal levels of employee productivity is a prevalent goal among firms.

2.2.2 Independent Variable: Job Satisfaction

Nambuswa Makokha and Chenangat (2023) provided a definition of job satisfaction as the extent to which an employee experiences positive or negative emotions with respect to their professional obligations, the overall work environment, interpersonal relationships with coworkers, and the job itself. According to Onyebuchi, Lucky, and Okechukwu (2019), job-satisfied people like their jobs, while dissatisfied workers dislike them. Satisfied employees are more likely to boost firm productivity, leading to positive results. Therefore, contented employees are more likely to actively participate in their daily tasks and behave positively than dissatisfied employees (Alanizan, 2023). Employee satisfaction is crucial to corporate operations since it boosts long-term productivity and customer retention (AL Kurdi, Alshurideh, & AInaser, 2020). According to AL Kurdi et al. (2020) and Matzler and Renzl (2006), employee satisfaction is a major influence in quality and productivity. Singh, Solkhe, and Gautam (2022) defined happiness as job satisfaction. The studies concluded that happy workers are more productive. Thus, happy workers are more productive. Mohammad (2019) suggested that job satisfaction increases staff productivity (Singh & Chaudhary, 2022). The long-term viability of an organization depends on its personnel, who are crucial to its growth and production. Prioritizing employee work happiness can boost performance and organizational productivity (Gomathy, Theja Sree, Lakshmi Prasanna, & Swathi, 2022).

2.2.3 Independent Variable: Motivation

Motivating behavior changes is crucial. It helped people achieve a goal. Motivation involves a person's ardour, orientation, and tenacity in pursuing a goal. Personal traits and surrounding elements interact dynamically (Saraih, Mariadass, Abashah, & Mutalib, 2021). Highly motivated and enthusiastic workers perform better, increasing production (Uka & Prendi, 2021). In many companies, employees are motivated by money, awards, and other incentives to meet goals. When employees can work freely, Uka and Prendi (2021) say they're more motivated and productive. According to Aga, Mbah, and Okafor (2018), motivation affects worker productivity in the Enugu-based bottling and 7up industries. Researchers analyzed the firm's employee motivation issue. Motivation showed a strong favorable effect on outcome yield. In 2021, Oduguwa, Adeolu-Akande, and Oyedokun found that employee motivation in a corporation has specific characteristics and increases production.

The study by Ndudi, Kifordu, and Egede (2023) discovered that intrinsic and extrinsic motivation increased employee productivity. Competitive compensation, work bonuses, and growth opportunities are the most effective extrinsic motivators. Core beliefs, interests, and morality compel people to act, according to Ackerman (2021). According to Ackerman (2021), extrinsic motivation is a psychological impulse to engage in specific activities that leads to external incentives. However, a cement manufacturing company in Nigeria found that low productivity is due to low motivation, according to Dugguh (2014). Motivated personnel are more productive (Naa, et al., 2021).

2.2.4 Independent Variable: Work Environment

Hafeez et al. (2019) found that workplaces affect employee performance and productivity. They observed that a comfortable workplace helps workers focus, improving job performance and production. The work environment can greatly impact employee productivity (Emmanuel, 2021). The investigation found that the company fosters a negative internal working environment, maintains poor working conditions, and is chaotic. The organization also fails to involve employees in decision-making, which might lower productivity and hinder goals (Emmanuel, 2021). A better work environment is said to improve productivity and results. Nderitu and Ndeto (2019) say a good workplace environment can boost productivity. Professionals experience several arrangements, compliances, and stimulants in their physical work environment. This includes workspace design and layout, furniture quality and functionality, lighting, ventilation, air quality, humidity and temperature management, heat distribution systems, and sound management (Davis et al., 2011). Physical factors may affect workplace performance. Md and Arka (2021) found that they affect concentration, safety, and proactivity. Insecure workers are less productive and enjoyable than relaxed workers, according to Hanaysha (2016a). To ensure the welfare of employees, managers are required to enhance the work environment (Ahakwa et al., 2021). An all-encompassing system for assessing the work environment was devised by Ahakwa et al. (2021). Job autonomy, leader care and support, leader facilitation of work, spirit, working group collaboration, position ambiguity, justice, and reward system equity are all components of the framework.

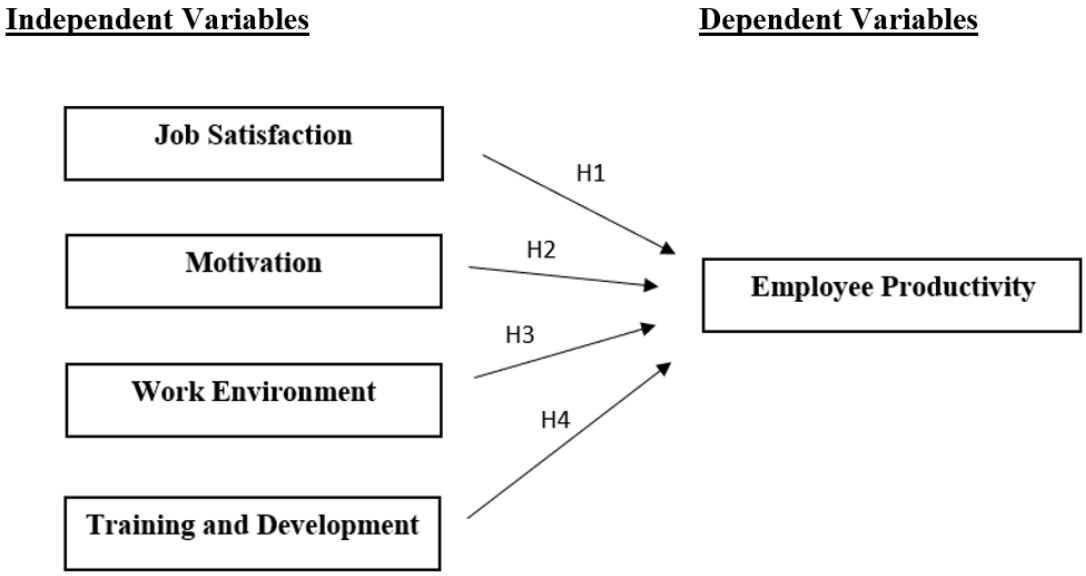
2.2.5 Independent Variable: Training and Development

Within a company, growth and training are essential elements. According to Azizur and Riasat Malik (2021), the acceleration of organizational operability, enhancement of employees' morale and talents, and maximization of resource utilization, particularly human resources, are key factors. Devi and Shaik (2012) conducted a study that revealed the positive effects of training and development practices on enhancing employees' effectiveness, technical skills, interpersonal skills, teamwork, confidence, and motivation to work (Foong et al., 2015).

Arthur et al. (2020) believes that training programs that are effective in nature equip employees with the essential tools and information required to execute their responsibilities with optimal efficiency. Organizations can enhance their total productivity and maintain a competitive advantage in the market by improving the capabilities of their employees (Thalari et al., 2023). The study demonstrates that employees who undergo training are more likely to possess enhanced skills, more competence, and increased proficiency in their job performance compared to their non-trained counterparts. The study conducted by Mohammed, Mohammed, and Gana (2022) determined that training and development initiatives have a favorable influence on employee productivity. Consequently, organizations are advised to prioritize and implement effective training and development programs for their employees in order to enhance productivity levels and attain a competitive advantage over rival firms. According to Yashodha (2023), the implementation of training and development initiatives has the potential to enhance both employee productivity and organizational productivity.

2.3 Conceptual Framework

Figure 2.4: Conceptual Model in this Study



Source: Developed for the Research

The conceptual framework depicted in Figure 2.4 provides a visual representation of the variables that are anticipated to impact labor productivity within the Malaysian manufacturing industry. There is a robust relationship between productivity and a number of other variables that could influence industrial workers' output.

2.4 Hypotheses Development

This investigation's hypothesis was developed using the following conceptual framework and previous empirical research:

2.4.1 Job Satisfaction

Research shows that job satisfaction and worker productivity are related, according to Ene-Ita, Okoi, and Ogar (2021). Job satisfaction is goal-driven behavior. Motivated people expect a particular path of action to lead to the achievement of a goal and a highly valued reward, fulfilling their needs (Ene-Ita, Okoi, & Ogar, 2021). The study also found that job happiness boosts organizational profitability, operational performance, and product and service quality. Fatwa, Surahama, Subardjo, and Eka (2019) found that job satisfaction increases motivation to improve professionalism, domain knowledge, and specialized skills. Therefore, this increased drive should boost their work output. The study found that a number of factors, including the work environment, opportunities for promotion, autonomy, professional development, safety and security, empowerment, and authority, had a significant effect on academic staff members' performance and productivity. The idea that people perform best in a seamless work environment with the right physical and psychological resources boosts production and efficiency (Okolocha, 2021). Several research investigations have shown a relationship between job happiness and motivation, productivity, work performance, and life satisfaction; this suggests that job satisfaction impacts not only employees' professional but also their personal lives (Abuhashesh et al., 2019).

H_1: There is a significant relationship between job satisfaction and employee productivity in Malaysia's manufacturing industry.

2.4.2 Motivation

Alhaji (2019) found that organizational motivation and productivity are positively correlated. Therefore, it is imperative that management consistently provides workers with appropriate motivation to enhance their performance (Alhaji, 2019). Employee motivation and performance are strongly correlated, demonstrating the importance of trust in motivating and improving performance. Workplace involvement increases with motivation because it gives work meaning. It increased employees' motivation, which improved their working performance. Employees are more productive and confident when motivated. Companies need employee motivation because it leads to job satisfaction, a sense of accomplishment, and long-term dedication to the company (Saraih U., Mariadass, Abashah, & Mutalib, 2021). Additionally, managers must promote staff solidarity, support, and care. Prioritizing employee demands may increase motivation, reducing stress and attrition costs, according to Thuy, Kristine, and Chung (2022). On the other hand, motivation shapes production. Employees without motivation produce less (Daniel, John, & Faith, 2019).

H_2: There is a significant relationship between employee motivation and employee productivity in Malaysia's manufacturing industry.

2.4.3 Work Environment

Saidi, et al.'s 2019 study found a statistically significant link between office atmosphere and employee performance. A good work environment is essential for employee productivity and stress reduction (Saidi, et al., 2019). Adam and Nurdin (2019) noticed that individual, organizational, and work environment factors significantly affected employees' productivity in their organizations. Additionally, workers in unstable and unsafe workplaces are more likely to develop occupational illnesses due to the environment's negative impact on productivity. This impacts organizational productivity (Mohamed et al., 2022). Companies also aim to create a workplace that encourages employee participation and job satisfaction. This is because these aspects boost productivity, reduce staff turnover, and improve organizational performance (Rinu et al., 2023). A positive workplace improves employee well-being, satisfaction, and productivity, according to Mohd and Yusuf (2019). According to Matthew and Khann (2016), the quality of the working environment including safety, health, and comfort can greatly affect worker satisfaction. Poor lighting and noise might reduce staff efficiency, according to Odion and Elaho (2022).

H_3: There is a significant relationship between a positive work environment and employee productivity in Malaysia's manufacturing industry.

2.4.4 Training and Development

Bharthvajan R, 2019, defines "training" as the acquisition and improvement of information, talents, and skills from helpful competences and knowledge. Training improves quality and quantity of output (Bharthvajan R, 2019). Esther (2020) found that staff at banks who received training and development were more productive than those who did not get such training. Training and development have improved enterprise performance and contributed to the economic growth of countries that have prioritized strategic planning and implementation of national workforce training and development initiatives. National policy that improves human capital contributes to economic growth (Christina & Shiwani, 2022). Recognizing that employees are a significant company resource requires proactive or reactive training and development programs to empower them. This is vital for addressing the knowledge and skills gap caused by the ever-changing work environment. According to Mohammed, and Gana (2022), training and development boost employee productivity. Thus, firms should prioritize and implement effective staff training and development to boost productivity and gain a competitive edge.

H_4: There is a significant relationship between training and development and employee productivity in Malaysia's manufacturing industry.

CHAPTER 3: RESEARCH METHODOLOGY

3.0 Introduction

This chapter provides an explanation of the research methods used to achieve the objectives stated in the first chapter. This section describes the data collection method, target respondents, sample design, and statistical model analysis methods employed by the research instrument.

3.1 Research Design

The research design provides clear, concise evidence that addresses the study's topic by gathering, evaluating, and interpreting data (Bhat, 2023). This study uses quantitative and descriptive methods to investigate Malaysia's manufacturing industry's employee productivity factors.

3.1.1 Quantitative Research

Quantitative research tests hypotheses about people's attitudes and actions using numbers and statistics. Researchers survey a wide number of users to indirectly acquire objective, quantitative data about relevant users (Foundation, 2023). In this study, quantitative research methods were used to describe and assess research objectives via questionnaire. The precise measurements of variables in quantitative research methodologies allow researchers to develop more accurate conclusions and make better decisions (Almeida, 2017). This study examines the factors affect employee productivity in Malaysia's manufacturing industry using quantitative methods.

3.1.2 Descriptive Research

Descriptive research methods provide explanations for the characteristics of a population or phenomenon. This strategy emphasizes demographic segmentation above "why" a phenomenon occurs (Manjunatha, 2019). Observation, analysis, and description can solve problems and improve procedures, making it valuable. Most descriptive research uses questionnaires, interviews, phone surveys, and normative surveys (Mosquera, Varela, & Soberano, 2023). This strategy gives researchers an individual, organizational, and industrial profile of the phenomenon of interest (Kassu, 2022). This research design allowed the collection of data from a wide range of respondents about the impact of employee productivity on manufacturing industries in Malaysia, which helped analyze the responses.

3.2 Sampling Design

Sampling design, as defined by Saunders et al. (2012), is a structure that guides the selection of data from a given population. Surveying the entire population is difficult and expensive, hence samples are used to perform and assess the research (Saunders, et al., 2019). Non-probability sampling improves population data collecting in this investigation.

3.2.1 Target Population

Employees of Malaysian manufacturing industry constituted the target demographic for this research. The data presented by the Department of Statistics Malaysia indicates that a total of 1,028,301 individuals are employed in the local manufacturing sector (Gradmalaysia, 2023). These employees are remunerated on an average monthly basis. The rationale for choosing this

particular demographic is to acquire pertinent and precise data for the research, within a feasible timeframe, with low disruption, and at a reasonable expense (Saunders, et al., 2009).

3.2.2 Sampling Frame and Sampling Location

The method used to choose research participants from the study's target population is known as the sampling frame. (2010) Zikmund et al. The department of selection's relationship with the selected population is the most crucial determinant of the appropriate frame. In this study, the sampling frame consisted of those employed in the manufacturing industry from any sector, regardless of race, and the sampling locations included every state in Malaysia. This population is ideally suited for research because they have pertinent manufacturing industry knowledge and experience. Employees in the manufacturing sector of Malaysia will be required to complete an online Google form.

3.2.3 Sampling Elements

Employees of the manufacturing sector constitute the principal respondents for this study. Thus, respondents who participate in the study may have diverse backgrounds. These respondents will contribute their knowledge and expertise to this investigation. They were selected primarily because they have a greater understanding of how factors such as employment satisfaction, employee motivation, work environment, and training and development impact their productivity. Furthermore, the distribution of questionnaires accounted for a wide range of respondent characteristics, including age, gender, ethnicity, relationship status, degree of education, and income. As a result, the research will be able to generate a variety of perspectives from respondents with various backgrounds, allowing for more precise and reliable findings.

3.2.4 Sampling Technique

A technique in which the selection of samples does not assure equal representation of all participants is non-probability sampling (McCombes, 2019). Convenience sampling, which relies on the accessibility and willingness of respondents to complete questionnaires, is classified as a non-probability sampling method (Sedgwick, 2013). A technique known as non-probability sampling does not ensure that samples are selected in an equal manner from all participants. Convenience sampling is defined by Zakmund et al. (2013) as a sampling method characterized by the convenient availability and accessibility of the target audience. Due to its minimal cost, portability, and swift data acquisition, convenience sampling is selected for this study.

3.2.5 Sampling Size

Sample size refers to the exact quantity of samples selected from the population under investigation. (Sekaran & Bougie, 2010). According to (Memon*, 2020), the sample size for convenience sampling should ideally range from 30 to 500 participants, depending on the study's scope and resources (Memon et al., 2020). To ensure the statistical validity of this research, a larger sample size would be preferable for this particular investigation. A total of 250 participants will be surveyed. As a result, 270 sets of surveys were sent out to workers in Malaysia's manufacturing sector.

3.3 Data Collection Method

In order to evaluate the findings, confirm the hypothesis, and address the study issue, data collecting is necessary (Dudovskiy, 2022). Primary sources of data were employed in this investigation to assess the hypothesis and tackle the research questions.

3.3.1 Primary Data

Primary data consists of information that the researcher personally gathers through firsthand experiences, surveys, questionnaires, interviews, case studies, and observations (Ajayi and Victor 2017). This study's primary data was collected using Google Forms and then shared with participants using various social media channels, such as Instagram, WhatsApp, and Facebook.

3.4 Research Instruments

In order to gather primary data for this research, online surveys (Google Form) and self-administered closed-ended questionnaires were utilized. The method of administering self-administered questionnaires is chosen because it permits the rapid collection of a substantial amount of standardized data. Participants were extended an invitation to partake in an anonymous survey questionnaire for an estimated duration of 10 minutes.

3.4.1 Questionnaire Survey

At the beginning of the questionnaire, participants will be identified as Malaysians before proceeding to answer the next section. The questionnaire has

been split up into two pieces after providing a brief overview of the study issue. The demographic information is presented in Section A, and the factors that impact it are discussed in Section B, refer to Appendix 3.6.

3.4.2 Pilot Test

Polit et al. (2001) recommend a small pilot study sample. Pilot studies should make up 10–20% of the research sample, according to Baker (1994). This study's pilot study randomly distributed 30 questionnaires to 30 respondents. The questionnaire is modified and revised based on responder input, such as offensive or confusing language. The pilot test data is evaluated using SPSS version 29 to test dependability. The test has 25 items in five variables. The dependability value must be more than 0.70 to demonstrate that the variables are suitable for the precise study. Table3.1 shows that all variables' Cronbach's Alpha was more than 0.70, indicating accurate and consistent measurement.

Table 3.1: Reliability Test (Pilot Test)

Construct	Cronbach's Alpha	Number of Items
Employee productivity	0.886	5
Job Satisfaction	0.947	5
Employee Motivation	0.868	5
Work Environment	0.945	5
Training and Development	0.936	5

Source: Developed for the research

3.5 Construct Measurement

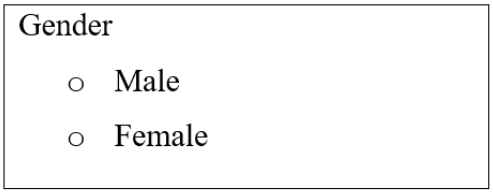
3.5.1 Scale of Measurement

According to Zikmund et al. (2010), there are four primary classes of scale measurement available to choose from. A nominal scale, an ordinal scale, an interval scale, and a ratio scale are the four levels of categorization. The following measuring scales were used in this study:

3.5.1.1 Nominal Scale

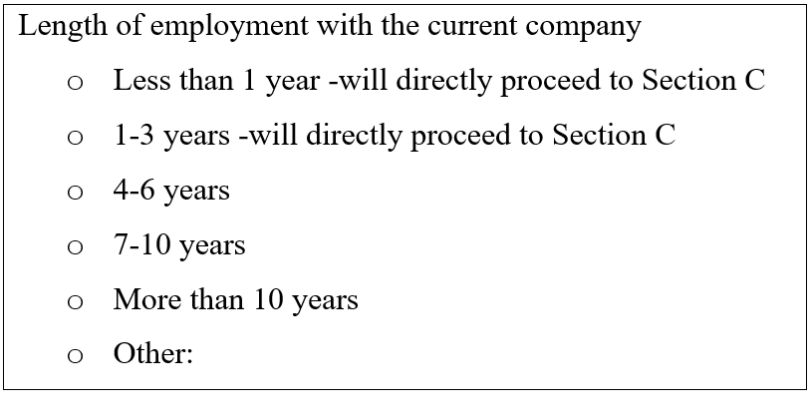
The nominal scale was used by the researcher in order to effectively assign values to various categories or groupings. (Sekaran & Bougie, 2010). Facilitating the identification or categorization process is the main goal of value assignments. Nominal scales possess the ability to classify objects or individuals into categories that are both collectively exhaustive and mutually exclusive. A nominal scale was used in the questionnaire's participant nationality on the option that represents their nationality. Section A of the survey also used a nominal scale to evaluate respondents' age, gender, and ethnic background, among other demographic characteristics. Furthermore, section B of the survey comprises multiple-choice questions pertaining to general information, including the duration of work at the present organization.

Figure 3.1: Example of Nominal Scale in Section A



Source: Developed for the research

Figure 3.2:Example of Nominal Scale in Section B



Source: Developed for the research

3.5.1.2 Interval Scale

The Five-Likert scale, which serves as an interval scale, is used to gather data for Section B of the survey. The respondents' varying degrees of liking are evaluated using an interval scale (Sekaran & Bougie, 2003). A five-point Likert scale is used in the questions in Section B to evaluate the independent and dependent variables. The participants provided responses to the survey questions by selecting one of the five alternative alternatives presented in Table 3.2.

Table 3.2: Example of Likert scale Measurement

Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Source: Developed for the research

3.5.1.3 Origin of Construct

Questions regarding Participant Nationality, Part A, and Part B make up the three main parts of the survey. The measurement items utilized for the structures in section B were adapted and sourced from various prior scholarly works. Appendix 3.5 has a comprehensive overview of each concept, accompanied by a representative measuring item.

3.6 Data Processing

The crucial element that connects data gathering, analysis, and interpretation is data processing. This crucial phase involves verifying, revising, coding, and tabulation. Data processing is vital to research. Research requires data verification to verify that surveys are accurate and complete (Zikmund et al., 2010). Data validation is essential to research since it finds and fixes errors like incomplete or improper surveys. Researchers can ensure test reliability by avoiding these faults (Raajeswari, 2020).

3.6.1 Questionnaire Checking

Examination of the questionnaire constitutes the initial stage of data processing, which aims to ascertain the quality of the data. The questionnaire's ability to detect errors early was tested in this study's pilot test. The goal was to find questionnaire instruction misunderstanding and question difficulty. To discover and fix errors before the survey, the checking process is the main goal. For research integrity and reliability. To eliminate unsatisfactory questionnaires, the original survey has to be repeated. Incomplete questionnaires had missing data, participated failed to follow directions, and other difficulties. Survey inaccuracies can greatly alter estimates and invalidate study conclusions. (Irina et al., 2021).

3.6.2 Data Editing

Data is edited methodically to ensure coherence, completeness, and readability before encoding and saving. (Zikmund et al., 2010). Survey research requires data editing to assure data quality and reliability. It identifies and corrects questionnaire responses that are incomplete or inconsistent. Data editing

improves questionnaire precision and accuracy by resolving these concerns. This technique checks for flaws and corrects data omissions to improve the statistical research study. If they could compromise the outcome, unacceptable responses will be ignored. This method eliminates unclear and incorrect response data. Editing must precede the transformation of data into information in order to generate value from it.

3.6.3 Data Coding

A numerical value or a character symbol is utilized to identify modified materials during the coding procedure. (Zikmund et al., 2010). The responses were more efficient and reliable after proper coding to transmit data from surveys to a computer system. Codes symbolically represent data meaning. Numerical symbols are used because they simplify data comprehension more than alphabetical descriptions. In section A of the survey, for example, respondents who were male were designated as "1" and respondents who were female as "2". This is being done to make the process of inputting data easier. In Section B, participants are asked to rate their agreement or disagreement on a five-point Likert scale. One represents "strongly disagree," while five represents "strongly agree."

3.6.4 Data Transcribing

Data entry into the computer, keypunching encoded survey responses into computer software, or transferring encoded pages to disks are all forms of transcription. (Philip & D. Athony, 2023). After optical scanning, the data is transferred to computer memory and transcribed. Thus, this study transcribed questionnaire data into SPSS version 29. To assure the precision and validity of the SPSS data, verification was performed.

3.7 Data Analysis

3.7.1 Descriptive Analysis

Numerical methods, graphs, and tables help descriptive statistics display raw data meaningfully and efficiently. In large datasets, descriptive statistics are essential for data visualization (Komal, 2023). Descriptive statistics simplifies data understanding by presenting it in a relevant way. To summarize central tendency, variability, and dispersion, this study used a variety of methods. Tables, graphs, and charts present data.

3.7.1.1 Reliability Test

A measurement's consistency or stability is referred to as reliability. (Daniel & Frederick, 2018). Reliability is the ability to produce the same result across time, space, and observers. It includes coherence, stability, equivalence, and homogeneity (Souza, Neusa, & Edinêis, 2017). In many fields, instrument quality is crucial. Reliability measures internal consistency, while validity measures concept measurement accuracy (Zikmund et al., 2010).

3.7.1.2 Cronbach's Alpha

In test formulation and utilization research, Cronbach's alpha is an indispensable statistical indicator. Taber (2018) highlights its use in multiple-item research. The degree of similarity among research variables is measured by internal consistency. The value range for Cronbach's alpha is one to zero. In accordance with Paulsen and BrckaLorenz (2017), values approaching one signify increased internal consistency, while values approaching zero signify decreased internal consistency. The range of Cronbach's Alpha is as follows:

Table 3.3: Range of Cronbach's Alpha value

Cronbach Coefficient alpha (α)	Indication
α value < 0.60	Poor reliability
α value between 0.61 and 0.70	Fair reliability
α value between 0.71 and 0.80	Good reliability
α value between 0.81 and 0.95	Very good reliability

Source: Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2010). Business Research Method (8th ed.) Ohio: South-Western Pub.

3.7.2 Inferential Analysis

Inferential statistics draws inferences from a representative sample and applies them to the whole population. Probability theory estimates the likelihood of sample properties. Research studies generally use hypothesis testing and analysis of variance (Komal, 2023).

3.7.2.1 Pearson's Correlation Coefficient

Variable relationships will be investigated utilizing the correlation method. The link between independent and dependent variables was ascertained by use of Pearson Correlation Analysis. The analysis used SPSS. The Pearson Correlation Analysis gives +1 to -1 results. Positive associations are inferred when the value exceeds 0, while negative associations are inferred when it falls below 0. A correlation coefficient of zero signifies the lack of a linear association between two continuous variables, as stated by Malawi (2012). On the contrary, a correlation value of one, irrespective of its sign (positive or negative), indicates the presence of an ideal linear relationship. Table 3.4

provides further insight about the correlational measures.

Table 3.4: Measurement of Pearson Correlation

Size of Correlation	Interpretation
0.90 to 1.00 (-0.90 to -1.00)	Very high positive (negative) correlation
0.70 to 0.90 (-0.70 to -0.90)	High positive (negative) correlation
0.50 to 0.70 (-0.50 to -0.70)	Moderate positive (negative) correlation
0.30 to 0.50 (-0.30 to -0.50)	Low positive (negative) correlation
0.00 to 0.30 (0.00 to -0.30)	Negligible correlation

Adopted from: Malawi, M. (2012). A guide to appropriate use of Correlation coefficient in medical research. Malawi Medical Journal, 24(3).

3.7.2.2 Multiple Linear Regression Analysis

According to Zikmund et al. (2010), the statistical technique referred to as multiple regression analysis utilizes a number of independent variables to make predictions about a metric dependent variable. A unique dependent variable is predicted by means of multiple regression analysis with known independent variables (Berry, 2018). The present study conducted an objective evaluation of the relationship between IV and DV. The formula for multiple regression analysis is as follows:

Formula of Multiple Regression analysis:

$$y = \beta 0 + \beta 1\chi 1 + \beta 2\chi 2 + \ldots + \beta m\chi m + \varepsilon$$

y= Dependent variable β0= Intercept

β1, β2…, βm= Regression Coefficient of the independent variables χ1,

χ2…, χm= Independent variables

ε = Random error

3.8 Conclusion

This chapter outlines and explores the methods used in this study. Every piece of information that was acquired from study participants is examined using the SPSS program. The interpretation of the study's findings will be covered in the next chapter.

CHAPTER 4: DATA ANALYSIS

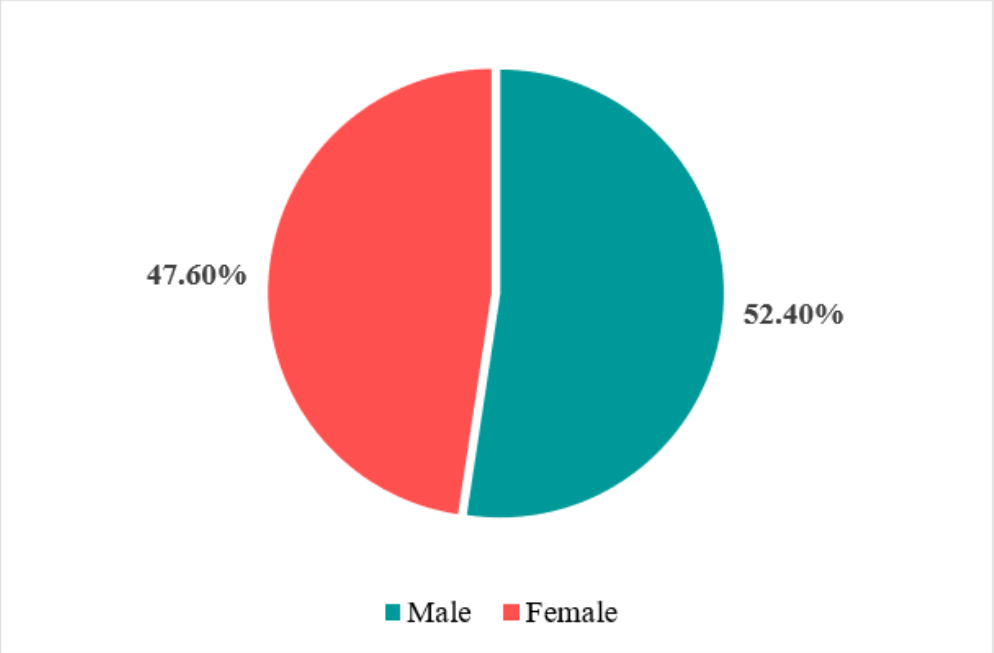
4.0 Introduction

Chapter 4 will go into more detail about the findings and recommendations of the research that was conducted using SPSS version 29. First, the research will do a descriptive analysis to summarize the target respondents' demographics. The actual poll will also employ Cronbach's Alpha to evaluate the scale. Finally, inferential statistics will be performed using multiple regression and Pearson's correlation analysis.

4.1 Descriptive Analysis

Through the process of descriptive analysis, raw data is transformed into a format that is easily understood and important characteristics are emphasized. The researcher will present and analyze 250 responses, organizing the data into tables and bar charts for better interpretation. The information provided in Section A (Appendix 3.6) of the questionnaire on the participants' demographics will be summarized.

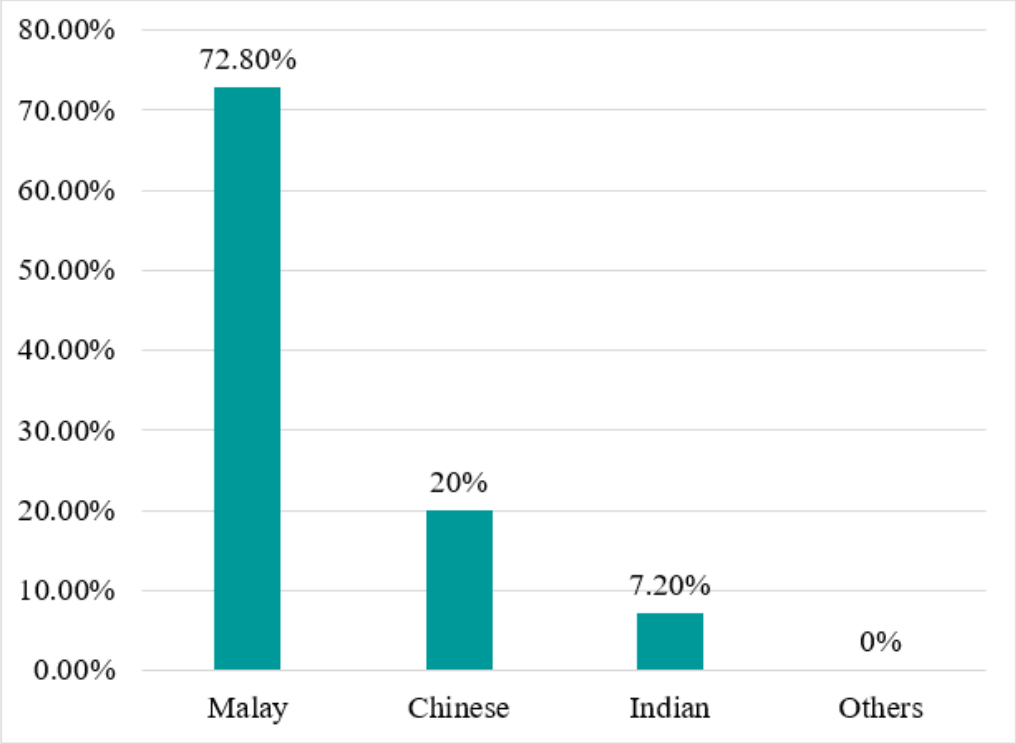
Figure 4.1: Percentage of Respondent's Gender



Source: Developed for the research.

According to Figure 4.1, the male participants make up 52.40% of the total. Meanwhile, 47.60% of responses are women. When compared to the number of female respondents, the number of male respondents is slightly greater.

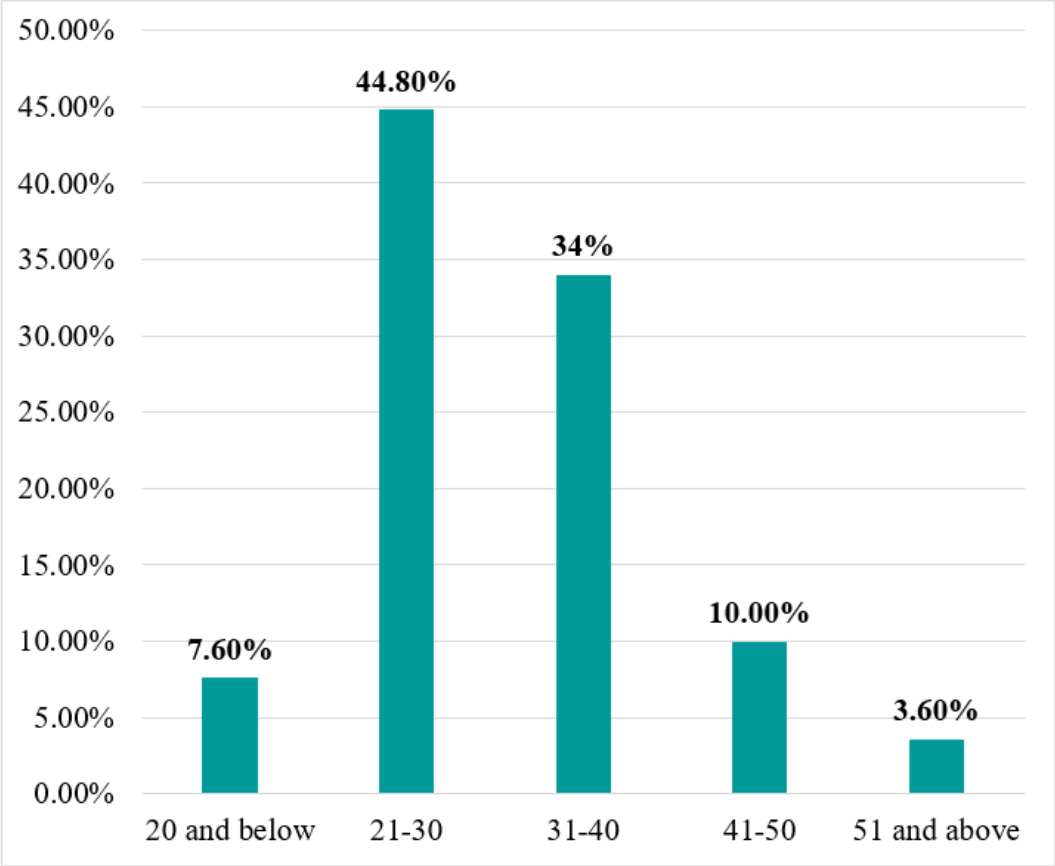
Figure 4.2: Percentage of Respondent's Ethnicity



Source: Developed for the research.

It is evident from Figure 4.2 that individuals of Malay ethnicity contribute the largest proportion of responses (72.8%). Chinese respondents make up 20% of the total responses, while Indian respondents comprise 7.20%.

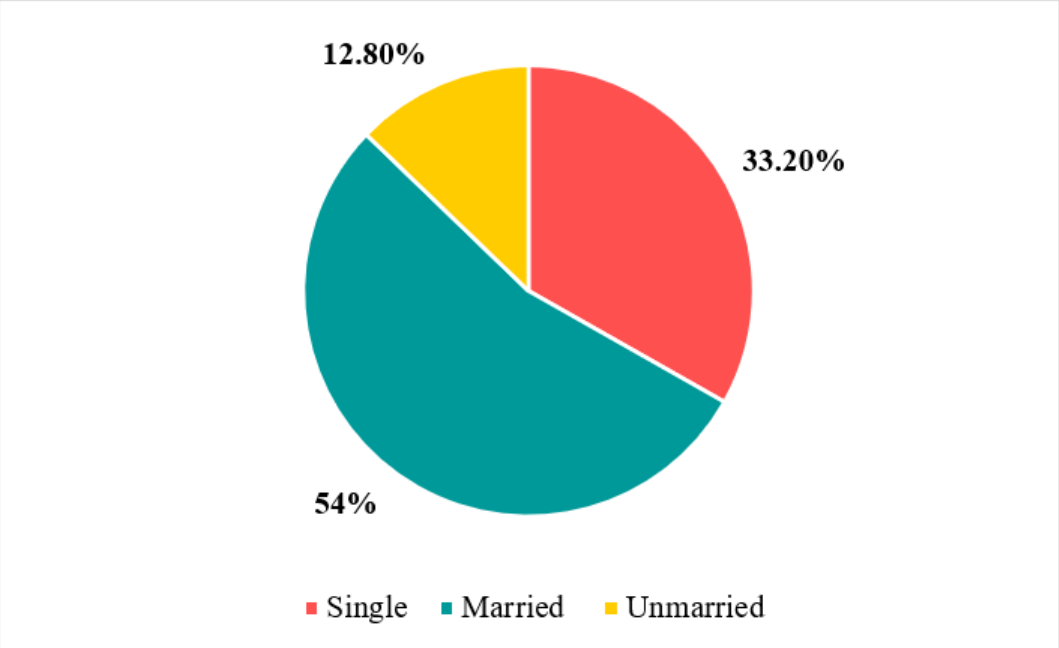
Figure 4.3: Percentage of Respondent's Age



Source: Developed for the research.

Based on the data presented in Figure 4.3, it can be observed that the age bracket of 21-30 constitutes the most significant proportion of participants, thus establishing its position as the most prominent in the dataset. The 31-40 age group is the second most prevalent, followed by the 41-50 age group. There is a smaller representation of individuals aged 51 and above, and a relatively small percentage of respondents who are 20 or younger.

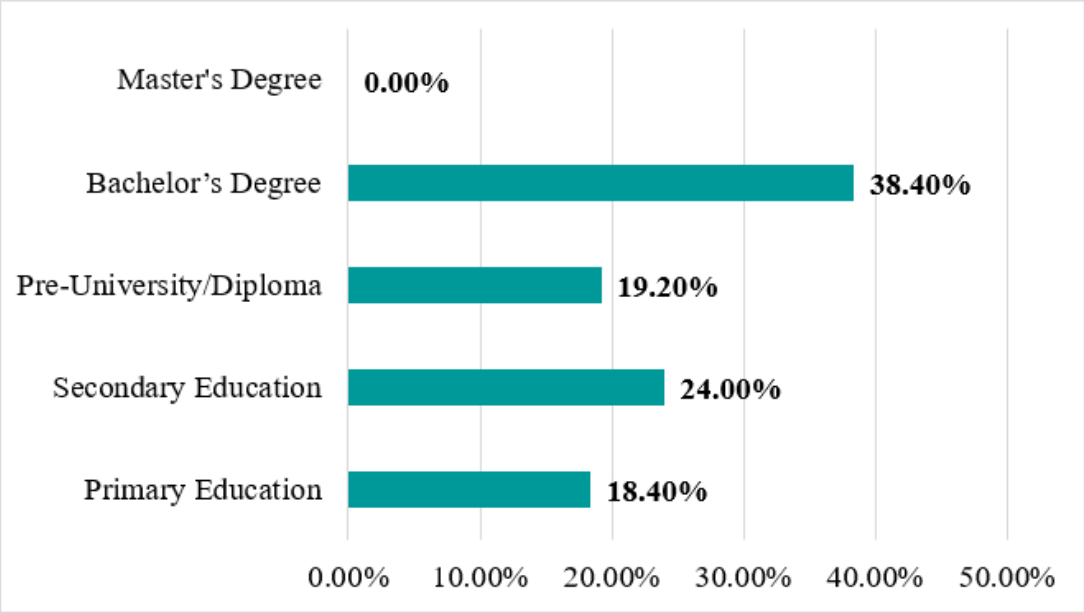
Figure 4.4: Percentage of Respondent's Marital Status



Source: Developed for the research.

The marital status of the respondents is shown in Figure 4.4. According to the survey findings, the most prominent demographic among the respondents is those who are married, constituting the majority with a representation of 54%. The dataset includes a substantial proportion of persons who are not in a marital relationship, with single individuals comprising 33.2% of the sample. Furthermore, the proportion of unmarried respondents is comparatively lower at 12.80%.

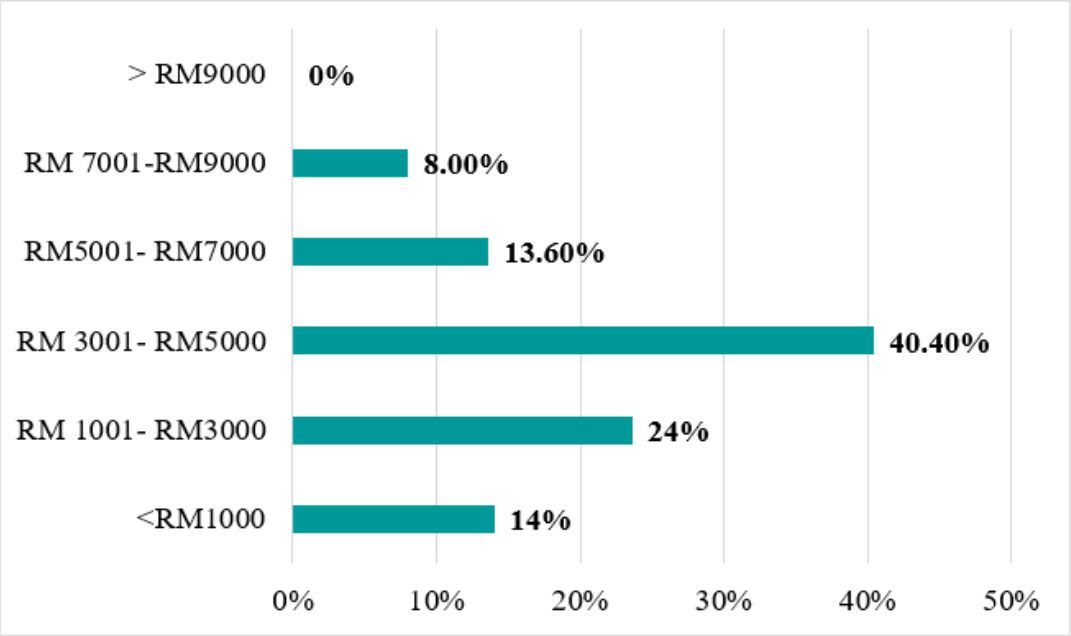
Figure 4.5: Percentage of Respondent's Educational Level



Source: Developed for the research.

From Figure 4.5, it showed the education levels of the respondents. The distribution of educational levels among respondents reveals a diverse range of qualifications, with the majority holding bachelor's degrees (38.40%). Secondary education and pre-university/diploma qualifications are also well-represented, accounting for 24.00% and 19.20% of responses, respectively. Additionally, 18.40% of respondents have primary education.

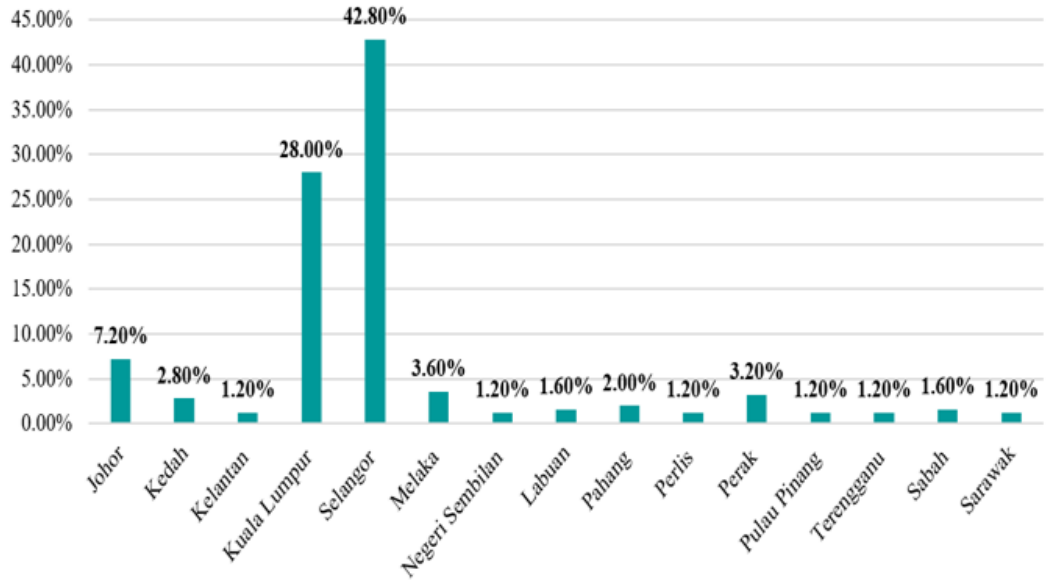
Figure 4.6: Percentage of Respondents Monthly Gross Income



Source: Developed for the research.

Figure 4.6 depicts the monthly gross income of the participants. The respondents who reported having an income that fell between RM3001 and RM5000 made up the bulk of the total number of respondents, accounting for 40.40% of the total. Subsequently, a notable proportion of individuals, specifically 24.00%, disclose earnings ranging between RM1001 to RM3000, so signifying a substantial presence within the bottom stratum of income distribution. Significant proportions can also be observed within the income brackets of RM5001 to RM7000 (13.60%) and RM7001 to RM9000 (8.00%).

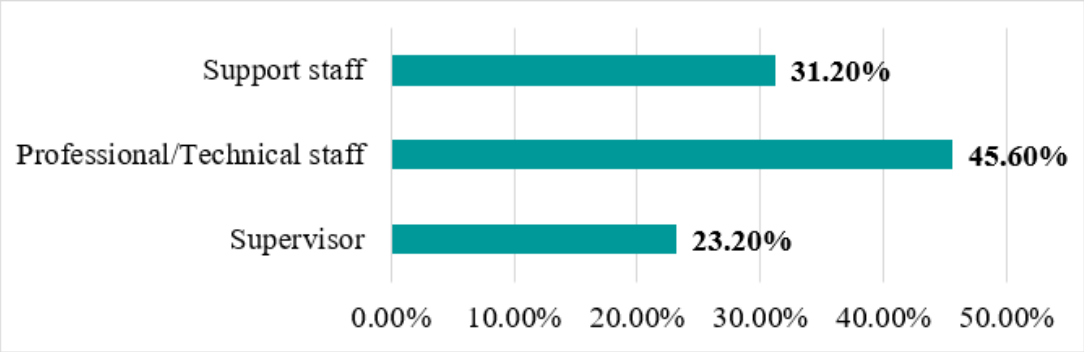
Figure 4.7: Percentage of Respondents State of Living in Malaysia



Source: Developed for the research.

The respondents to the survey in Malaysia are geographically dispersed throughout a wide range of states, as seen in Figure 4.7. The largest proportion of participants is situated in Selangor, accounting for 42.80% of the overall sample, with Kuala Lumpur following closely behind at 28.00%. Johor, as a state, exhibits the next greatest level of representation, constituting 7.20% of the total respondents. Other states exhibit lesser proportions of participation, as evidenced by Kedah, Melaka, and Perak, which individually provide approximately 3.60%, 2.80%, and 3.20% correspondingly. In contrast, a number of states in Malaysia, including Kelantan, Negeri Sembilan, Labuan, Perlis, Pulau Pinang, Terengganu, Sabah, and Sarawak, exhibit comparatively lower rates of involvement, ranging from 1.20% to 1.60%.

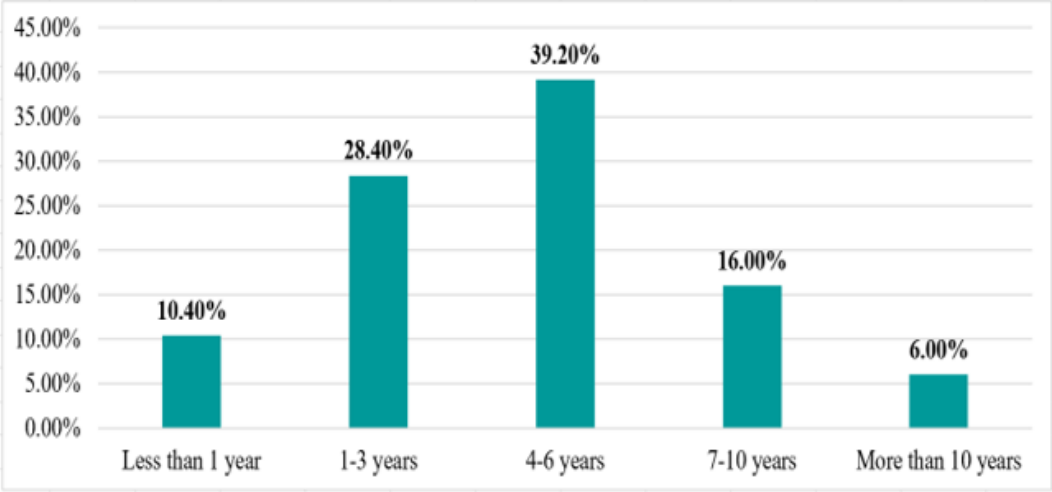
Figure 4.8: Percentage of Respondent's status within organization



Source: Developed for the research.

Figure 4.8 shows how the respondents are distributed across various employment positions in their companies. The data on respondents' employment positions demonstrates a broad distribution throughout their organizations. Professional/technical staff make up the largest sector, accounting for 45.60% of all respondents. Support staff comes in second, accounting for 31.20% of the dataset, while supervisors account for 23.20%.

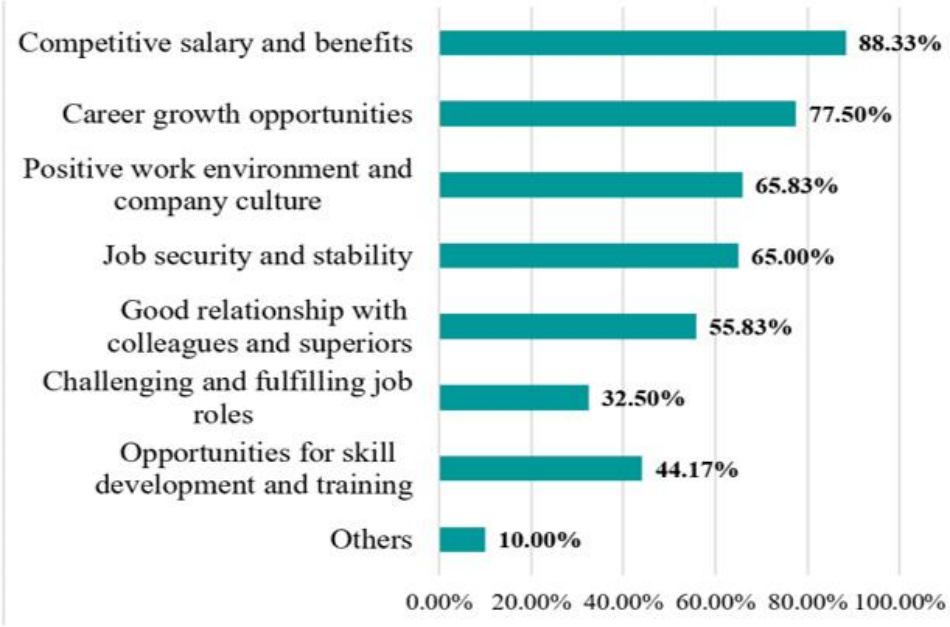
Figure 4.9: Percentage of Respondent's Length of Employment with their Current Company



Source: Developed for the research.

Above figure4.9 presents the length of employment among the respondents, providing insights into their tenure within their respective roles or organizations. The majority of respondents fall into the 4-6 years category, representing 39.20% of the total. Following this, 1-3 years accounts for 28.40%, indicating a significant portion of relatively recent employees. The 7-10 years group makes up 16% of respondents, showing a moderate level of mid-term employment. There are also respondents with less than 1 year of employment (10.40%) and those with over 10 years of experience (6%).

Figure 4.10:Percentage of Reasons that have Influenced their Decision to stay with Current Company



Source: Developed for the research.

Based on Figure 4.10, it showed a range of factors influencing respondent's decision to stay with their current company. The data shows that competitive salary and benefits (88.33%) and career growth opportunities (77.5%) are the most significant drivers for employee retention. Additionally, positive work environment and company culture (65.83%), job security and stability (65%), and good relationships with colleagues and superiors (55.83%) also play pivotal roles in keeping employees committed. Challenging and fulfilling job roles (32.50%) and opportunities for skill development and training (44.17%) are other noteworthy factors contributing to employee retention. Furthermore, a category labeled "Others" (10%) encompasses various unique and individual considerations that influence employees' decisions to remain with their current company.

Figure 4.11: Other Reasons that respondents have replied.

Reasons that have influenced their decision to stay with current company
o Company offers a flexible working arrangement
o Convenience for my daily commute
o Convenient location helps me reduce commute time and stress
o I appreciate the leadership and management style within the company
o The long-term prospects and stability of the company will be my reasons to stay
o My company provides clear career paths and growth opportunities which makes me feel valued
o I like the regular team building activities organized by the company
o Open and transparent communication from leadership
o Opportunities to transfer to different roles or departments within the company can promote my career growth
o Strict health and safety measures in the workplace
o During peak and off-peak periods, the company helps us manage our workload, which makes me feel better about work-life balance.
o Culture fit with the company influenced me to remain
o Location and commute
o Simple work and easy to adapt to

Source: Developed for the research.

Overall, Figure 4.11 highlights a diverse range of individual factors that influence respondents' decisions to stay with their current company. The complex aspect of staff satisfaction and retention is highlighted by these distinctive and personalized considerations, wherein individuals consider a range of factors that correspond to their specific values and workplace requirements.

4.2 Scale Measurement

4.2.1 Reliability Analysis

The Cronbach's Alpha reliability test is used to assess the data's dependability and internal consistency. The utilization of this method is important in assessing the reliability of measurements when quantifying the extent of correlation among different variables. The reliability test results for different constructs, each comprising a distinct number of items, are presented in Table 4.1. Robust internal consistency is shown by the work environment, employee motivation, employee productivity, and training and development, all of which have Cronbach's Alpha values between 0.928 and 0.948. The obtained values indicate an excellent reliability for each construct, emphasizing the consistency and stability of the measurements.

Table 4.1: The Cronbach's Alpha for all Variables

Construct	Number of Items	Cronbach's Alpha	Reliability Test
Dependent Variable			
Employee productivity	5	0.941	Excellent
Dependent Variable			
Job Satisfaction	5	0.928	Excellent
Employee Motivation	5	0.941	Excellent
Work Environment	5	0.948	Excellent
Training and Development	5	0.937	Excellent

Source: Developed for the research

4.3 Inferential Analysis

4.3.1 Pearson's Correlation Coefficient

The findings of Pearson's correlation analysis, as displayed in Table 4.2, indicate that there are statistically significant correlations between employee productivity and all independent variables (job satisfaction, motivation, working environment, training). These correlations are supported by p-values that are less than 0.05 (p-value<0.05). In this study, the Pearson correlation coefficients among variables show strong positive relationships between Employee Productivity and Job Satisfaction at 0.839, Employee Motivation at 0.810, Work Environment at 0.881, and Training and Development at 0.875. Every robust correlation exceeds 0.800, indicating strong positive and statistically significant relationships between these constructs, in line with the strength of association criteria shown in Table 4.2.

Table 4.2:Pearson's Correlation Coefficient

Pearson Correlation						
		EP	**JS**	**M**	**WE**	**TD**
EP	Pearson Correlation	1	.875**	.839**	.810**	.881**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
	N	250	250	250	250	250
JS	Pearson Correlation	.875**	1	.811**	.776**	.871**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001
	N	250	250	250	250	250
M	Pearson Correlation	.839**	.811**	1	.787**	.764**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001
	N	250	250	250	250	250
WE	Pearson Correlation	.810**	.776**	.787**	1	.777**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001
	N	250	250	250	250	250
TD	Pearson Correlation	.881*	.871**	.764**	.777**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	250	250	250	250	250

**. Correlation is significant at the 0.01 level (2-tailed)

Where,

E=Employee Productivity

JS= Job Satisfaction

M= Motivation

WE= Work environment

TD= Training and Development

4.3.2 Multiple Regression Analysis

Table 4.3: Multiple Regression Analysis Model Summary

Multiple R	R Square	Adjusted R Square	Standard Error of the Estimate
0.928[a]	0.861	0.858	0.42658

a. Predictors: (Constant), JS, M, WE, TD

The multiple R for the dependent variable (employee productivity) and the combined set of predictors (JS, M, WE, TD) is 0.928, as shown in Table 4.3. This value indicates a strong positive linear relationship between the two variables. In comparison to the R Square value of 0.861, the modified R Square value of 0.858 is considered a more precise metric. This suggests that the independent factors under consideration have an impact on about 85.8% of employee productivity. Nevertheless, it is worth noting that a portion of the unexplained variance (14.2%) could potentially be attributed to other factors that were not considered in the scope of this study. This underscores the importance of the identified predictors, as they have demonstrated their ability to exert an influence on employee productivity.

Table 4.4: ANOVA

Model	Sum of Squares	Mean Square	F	P-value
Regression	275.474	68.869	378.639	$< 0.001_b$
Residual	44.562	0.182		
Total	320.036			

a. Dependent Variable: Employee Productivity

b. Predictors: (Constant), JS, M, WE, TD

The statistical significance level ($p<0.05$) and the F-value (378.639) are displayed in Table 4.4. As indicated by the results of this research, employee productivity is substantially correlated with each of the following variables: job satisfaction, motivation, work environment, and training and development. This model demonstrates the suitability and dependability for investigating the association between IV and DV.

Table 4.5: Multiple Regression Analysis Coefficient's

Model	Unstandardized Coefficients		Standardized Coefficients	t-stat	Significance
	B	Standard Error	Beta		
(Constant)	-0.131	0.093		-1.411	0.159
JS	0.247	0.057	0.239	4.337	<.001
M	0.260	0.047	0.251	5.559	<.001
WE	0.147	0.048	0.134	3.088	.002
TD	0.378	0.052	0.377	7.306	<.001
Dependent Variable: Employee Productivity					

Source: Developed for this research.

The adjusted R-square was interpreted to give a more exact estimate of the R-squared for the variance prediction population. The adjusted R2 value of 0.858 offers a more precise explanation for the 85.8% impact of each independent variable on employee productivity, as indicated by the data in Table 4.3, in comparison to R2 = 0.861. Furthermore, it is possible that an additional 14.2% of the sample could be skewed and affected by variables unrelated to this study. This suggests that factors such as work environment, motivation, job satisfaction, and training and development have a more direct impact on worker productivity.

The F-value is 378.639, and the significance level is established at 0.001, as detailed in Table 4.4's summary of the ANOVA model. This emphasizes the significance of the four independent variables. Overall, this comprehensive model explains the strong significance between the independent and dependent variables.

The multiple regression equation is formed as follows:

$$EP = (0.131) + 0.247\ (JS) + 0.260\ (M) + 0.147\ (WE) + 0.378\ (TD)$$

Where,

EP = Employee Productivity
JS = Job Satisfaction
M = Motivation
WE = Work Environment
TD = Training and Development

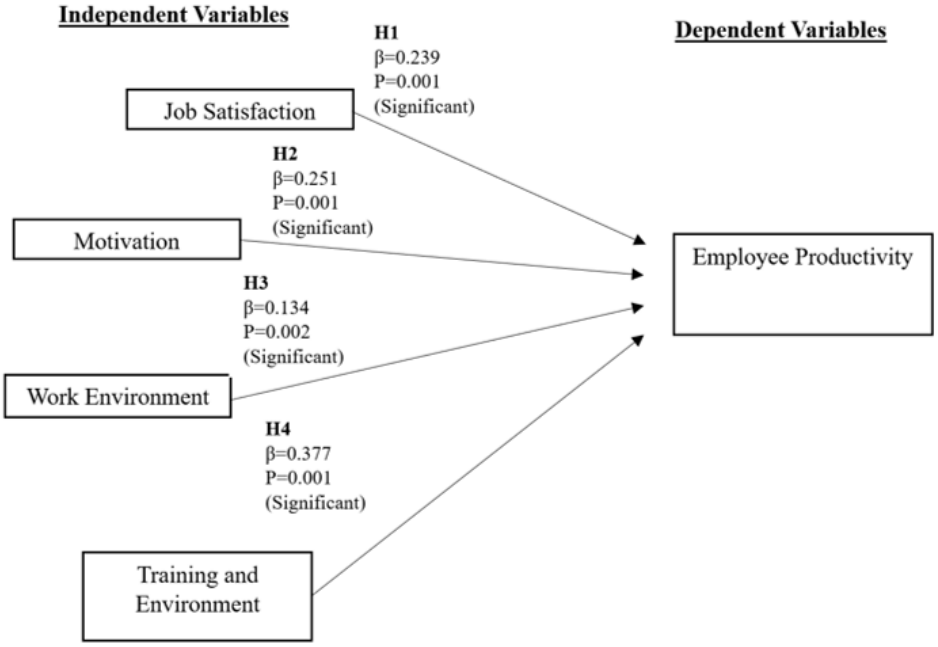
The impact of each predictor variable is detailed in Table 4.5 of the Multiple Regression Unstandardized coefficients. This indicates that for each dependent variable, an increase in the predictor variable is expected. The obtained result indicates that the estimated unstandardized coefficient for employee productivity is (0.313). For all independent variables set to zero, the expected

value of β0 is also (0.313).

However, the beta coefficient is represented using two variables that are measured on the same scale. As shown in Table 4.5, the correlation between working environment (IV) and employee productivity (DV) has the weakest Beta value (0.147), whereas the correlation between training and development (IV) and DV has the highest Beta value (0.378). Studies indicate that employee productivity is substantially influenced by training and development. The other two independent variables, job satisfaction (0.131) and motivation (0.260), also had a substantial influence on employee productivity in Malaysia's manufacturing sector.

4.3.3 Testing of Hypotheses

Figure 4.12: Hypothesis Result of Conceptual Framework



Source: Developed for this research

H_1: There is a significant relationship between job satisfaction and employee productivity in Malaysia's manufacturing industry.

In Figure 4.12, job satisfaction had a significant P-value of 0.001 ($p < 0.05$) and a beta coefficient of 0.239. Hair et al. (2006) defines a correlation as significant if the P-value is below the alpha threshold. Thus, support the alternative hypothesis (H1).

H_2: There is a significant relationship between motivation and employee productivity in Malaysia's manufacturing industry.

Figure 4.12 shows that the beta value for motivation was 0.251, indicating that employee productivity will improve by 251 units as motivation increases. Additionally, the low P-value of 0.001 ($P < 0.05$) strongly supports H2, indicates that motivation influence is substantially connected to the employee productivity.

H_3: There is a significant relationship between work environment and employee productivity in Malaysia's manufacturing industry.

The beta coefficient for the work environment was 0.134, indicating a positively significant statistical effect on employee productivity. This suggests that there is an anticipated 134-unit increase in employee productivity with each enhancement in the quality of the work environment. Despite the marginal increase in p-value to 0.002, the alternative hypothesis (H3) remains supported ($P<0.05$).

H_4: There is a significant relationship between financial aid and intention to pursue higher education.

The employee productivity is affected by training and development, as

evidenced by the statistically significant of H4 with a P-value of 0.001 ($P < 0.005$). Furthermore, with a Beta value of 0.377, training and development had the greatest impact on the dependent variable, indicating that it has the greatest influence. Thus, H4 support.

4.3.4 Conclusion

This research had 250 participants in total. Microsoft Excel and SPSS version 29 were used to do a thorough analysis of the questionnaire data. The dependability and importance of each component were evaluated using multiple linear regression and a reliability test. Chapter 5 will thus present an analysis of the findings and observations in a more comprehensive manner.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

Chapter Five provides a comprehensive overview of the statistical analyses that were conducted in the previous chapter. A number of statistical tests, including multiple regression and Cronbach's Alpha, are incorporated into these analyses. In support of the research objective and hypotheses, this section will provide an exhaustive clarification and expansion of the study's results. Additionally, emphasis will be placed on the limitations. In conclusion, this segment will furnish a succinct overview of the fifth chapter and encompass suggestions for further scholarly investigation.

5.1 Summary of Statistical Analysis

5.1.1 Descriptive Analysis

In this investigation, 250 respondents participated in the questionnaire survey have reflects a fairly balanced gender distribution, with 52.40% identifying as male and 47.60% as female. With regard to ethnic composition, Malay comprises a large percentage of respondents (72.80%), followed by Chinese (20%) and Indian (7.20%) participants, showcasing a predominantly Malay-centric response base. The age distribution reveals a significant portion of respondents falling within the 21-40 age range (21-30 at 44.80%, 31-40 at 34%), while individuals aged 50 and above constitute a smaller proportion (13.60%). Marital status varies, with the majority being married (54%) and notable percentages of single (33.20%) and unmarried (12.80%) respondents.

The level of educational level of the respondents shows that there is a significant proportion hold bachelor's degree (38.40%), followed by secondary education (24.00%) and pre-university/diploma qualifications (19.20%). Monthly gross income distribution indicates that the majority of respondents earn between RM3001 to RM5000 (40.40%), reflecting a substantial segment with mid-range incomes. On the basis of the educational profile and the frequency of this salary bracket, it can be inferred that the workforce in Malaysia's manufacturing sector is relatively educated and holds jobs with a middle-level pay.

Moreover, this study's geographic analysis of respondents focuses on the Malaysian population, and it was discovered that the majority of respondents are from the states of Selangor (42.80%) and Kuala Lumpur (28.00%), indicating a significant concentration in these regions. For the job positions level, reveal a prevalence of professional/technical staff (45.60%), followed by support staff (31.20%) and supervisors (23.20%), depicting a diversified workforce structure within the industry. The length of employment reveals a substantial portion of respondents with 4-6 years (39.20%) and 1-3 years (28.40%) of experience, suggesting a relatively experienced and stable workforce, with a smaller percentage having less than 1 year (10.40%) and more than 10 years (6.20%) of employment.

5.2 Discussion of Major Findings

Relationships between the IV and DV constituted the primary aim of this research. This section provides the main finding that supports the previous hypothesis. The results suggest that all independent variables exhibit a statistically significant impact at a significance level of 5%, as indicated by a p-value of 0.001 for each variable. Table 5.1 presents an extensive summary of the data obtained from the hypotheses testing.

Table 5.1: Summary of the Hypothesis Testing Result

Hypotheses	Coefficient	T-Value	Value Scored	Result
Hypothesis 1: There is a significant relationship between job satisfaction and employee productivity in Malaysia's manufacturing industry.	0.247	4.337	β=0.239 p-value= <0.001	Supported
Hypothesis 2: There is a significant relationship between motivation and employee productivity in Malaysia's manufacturing industry.	0.260	5.559	β=0.251 p-value= <0.001	Supported
Hypothesis 3: There is a significant relationship between work environment and employee productivity in Malaysia's manufacturing industry.	0.147	3.088	β=0.134 p-value= <0.002	Supported
Hypothesis 4: There is a significant relationship between training and development and employee productivity in Malaysia's manufacturing industry.	0.378	7.306	β=0.377 p-value= <0.001	Supported

Source: Developed for research

H_1: There is a significant relationship between job satisfaction and employee productivity in Malaysia's manufacturing industry.

The obtained β value for job satisfaction is 0.239, with a corresponding p-value of 0.001 ($p<0.05$). A significant positive relationship was found between employee productivity and job satisfaction in the manufacturing sector of Malaysia. H1 was therefore supported.

According to Subardjo et al.'s (2019) research, work productivity increases with job

satisfaction and vice versa. According to Khalid and Qureshi (2007), one of the things that needs to be considered if an organization wishes to boost the work productivity of its employees is their level of job satisfaction. Additionally, Mamiseishvili and Rosser (2011) also discovered a positive relationship between work productivity and employment satisfaction. Prior research shows that high job satisfaction motivates workers to improve their professionalism, knowledge, and abilities, which boosts productivity (Chen, Chang, and Yeh, 2004). The findings of this research support the views of several experts, such as Robbins & Judge (2017), who state that " productivity is positively impacted by job satisfaction, which in turn promotes and aids in the reduction of workplace misbehavior, lowers attrition rates, and decreases absenteeism " as reported in Purwani et al.'s research (2020). Additionally, job satisfaction and productivity are positively and statistically correlated, according to a 2015 study by Garg and Tamba.

H_2: There is a significant relationship between motivation and employee productivity in Malaysia's manufacturing industry.

A positive and statistically significant relationship was observed between motivation and employee productivity in the manufacturing sector of Malaysia, as indicated by the motivation results. The findings indicate that $\beta=0.251$ and the p-value=0.001 ($p<0.05$). H2 was therefore supported.

The study conducted by Ajijola and Aderibigbe (2017) revealed a robust correlation between employee motivation and productivity. The study discovered that in order for workers to be extremely productive, bosses need to inspire them. Moreover, according to a study by Zakaria, Alias, and Rani (2020), employee motivation is a critical determinant of productivity. Employees at the organization thought that rewards and power may affect their drive and output. According to Suryabharathi, motivated employees produce more (2023). An organization can expect more engaged, devoted, and productive personnel when its workforce is motivated —in other words, they will work harder and generate more. Furthermore, a correlation between employee

motivation and absenteeism, productivity, turnover, and creativity were found by Safayet (2021). Increased creativity and productivity, as well as lower absenteeism and employee turnover rates, are all positively correlated with higher levels of motivation.

H_3: There is a significant relationship between work environment and employee productivity in Malaysia's manufacturing industry.

The results obtained with regard to the working environment are $\beta=0.134$ and a p-value of 0.002 ($p<0.05$). In the manufacturing sector of Malaysia, the results revealed an important positive relationship between the working environment and employee productivity. As a result, H3 was supported, as the p-value was below 0.05.

According to Saidi et al.'s (2019) research, a worker's productivity is greatly dependent on their working environment. Therefore, supervisors should often interact with their staff members, particularly when it comes to task planning and decision making, in addition to demonstrating concern for their well-being. Awan and Tahir (2015) propose that a conducive working environment can enhance the productivity of employees. These results align with the research conducted by Ajala (2012), which posited that improved or sufficient lighting has a positive impact on productivity, reduced rejects, enhanced safety, decreased insurance premiums, increased customer satisfaction, and a conducive work environment that facilitates job performance inherently enhances productivity. Because employee performance is directly correlated with the working environment and productivity, Iqra (2019) argues that organizations must maintain a more favorable physical environment to increase employee productivity.

H_4: There is a significant correlation between financial aid and intention to pursue higher education.

The study's findings regarding training and development are indicated by $\beta=0.377$ and

a p-value=0.001 ($p < 0.05$). Training and development have been widely recognized as having a direct and positive impact on employee productivity within the manufacturing sector of Malaysia. With a p-value below 0.05, H3 was found to be supported.

The productivity of an organization's personnel is largely dependent on training and development, as Youhelingam & Redzwan (2020) highlighted. In a comparable way, the results align with the research conducted by Ilyas, Cheng, and Adnan (2016), which demonstrated the significance of strategic training as a predictor of organizational profitability. Increased productivity is a key result of any training course; the more productive employees are, the bigger the growth in revenue and net income. Furthermore, according to Kumar et al. (2023), training and development initiatives that are well-thought-out and skillfully executed boost worker productivity and advance an organization's performance as a whole. Ivana et al., (2020) also discovered that companies with greater staff training program investments have higher levels of service quality and organizational productivity.

5.3 Implications of the Study

5.3.1 Theoretical Implication

The findings of this research provide a significant contribution to the advancement of existing theoretical frameworks concerning employee productivity. The study validated past research on the variables that influence employee productivity, drawing on three theoretical perspectives: the first from Zakaria, N. H., Alias, M., the second from Almaamari et al. (2021), and the third from Adebowale, S., and Adefulu, A. (2019).These theories have been proved to provide a comprehensive understanding of the independent aspects that have an impact on the success of enhancing employee productivity. Furthermore, knowing the theoretical foundations of employee productivity enables governments and industry leaders to devise interventions and initiatives to increase overall productivity. Thus, this study offers significant insights into the factors influencing employee productivity in Malaysia's manufacturing industry, as well as a foundation for future research and practical applications to improve organizational success.

5.3.2 Managerial Implications

From a managerial perspective, this study has successfully achieved its overarching objective by demonstrating that employee productivity is significantly influenced by various factors including job satisfaction, motivation, working environment, and training and development. This study will help businesses establish a healthier environment for their employees, which is important for improve productivity of workers and gaining a competitive edge in the market.

The study's results also provide light on how the factors under investigation impact manufacturing worker productivity, which is useful information for businesses and organizations in the manufacturing sector. When corporations or organizations know what they are missing or where they are comparatively weak, they may put more effort into strengthening those areas in their policy. Because it will help Malaysia's industrial sector become more productive, efficient, and competitive.

Manufacturing industry or organizations may also provide workers favorable advantages and monetary incentives to win their hearts and boost their satisfaction with work. Employee productivity can be effectively managed if the company's leadership is capable of implementing suitable incentives, fostering performance-oriented thinking, accepting internal justice concerns, and cultivating a pleasant, secure, comfortable, and positive work environment. Hence, in an effort to sustain industry competitiveness and enhance employee productivity, the research outcomes have furnished direction for the organization's policies, compensation structure, and management approach.

Lastly, the study may be utilized as a guide for the Malaysian manufacturing sector, as well as a reference for other sectors and managers seeking to enhance and boost worker productivity. This research may lead to the provision of amicable and cooperative leadership to employees, inspiring them to feel committed to their particular manufacturing firm and enhancing their productivity at work.

5.4 Limitation

While the research has achieved its goal, there have been several constraints encountered throughout the investigation process. The time constraint associated with data collection presents a difficulty for the researchers. As a result of temporal limitations, a survey of the Malaysian manufacturing sector was conducted using a total of 250 samples that were selected at random. Therefore, it's possible that the findings of this study don't adequately reflect the productivity of Malaysia's industrial workforce as a whole.

Additionally, this research aims to explore the variables influencing worker productivity in Malaysia's manufacturing sector. As a result, our target demographic consists of responders from the manufacturing sector. However, because we have pinpointed our target demographic, potential misunderstandings from this group are one of the problems we will face in this research. Some respondents may feel they do not understand parts of the surveys and hence cannot adequately reply to them.

In addition, a common psychometric tool in research using questionnaires is the Likert scale. The surveys will be evaluated by our participants according to their view and opinion, on a scale from "strongly disagree" to "strongly agree." However, they will not be offered any alternative choices and will be compelled to voice their opinions on the factors in issue accordingly.

The limited number of independent variables that were chosen for this research is another limitation. There are only four independent variables that the researchers have selected for this study. Employee productivity in Malaysia's manufacturing sector may also be influenced by factors such as pay, work-life balance, and other comparable variables. The overall result of our research will not be impacted by these limitations, as previously indicated. The purpose of the limitations is to enhance comprehension and thus facilitate further research.

5.5 Recommendation

Several suggestions are provided to mitigate the constraints of this study. First, the duration of this research and data collection should be extended. The researcher can acquire a greater quantity of samples by devoting additional time to the process. By increasing the sample size, the reliability and precision of the findings can be enhanced. Although obtaining a larger sample size may cost more money and effort, it will result in more dependable research findings and make it easier to draw conclusions that are more typical of the whole population.

Following that, a low response rate from our target audience may cause us to delay in our data analysis before ending the research. Some respondents may have misunderstandings about the purpose and meaning of certain questions, while others may have doubts about the validity of the survey. As a result, we may utilize social media platforms such as LinkedIn to disseminate the questionnaire by describing the context and purpose of the study and connecting the intended respondents. In turn, this will provide the researchers with more precise and dependable data and information, as the respondents will have a greater confidence in responding to the questionnaire and a clearer understanding of its purpose.

In addition, we can incorporate a portion of the open-ended questions into our survey to allow respondents the opportunity to offer insightful feedback and provide more comprehensive responses. Also, we may conduct an in-person interview with our participants to verify their comprehension and adherence to the instructions, thereby ensuring that they are providing accurate responses to the questionnaire.

Finally, it is advisable that future investigations consider additional variables that could potentially influence the dependent variable (employee productivity). There are more aspects that might influence an individual's productivity, including leadership skills, work-life balance, and salary. Therefore, in order to enhance the researcher's

comprehension of the determinants influencing employee productivity in Malaysia, it is recommended that an investigation be conducted on each aspect of the manufacturing industry.

5.6 Conclusion

The primary aim of this study was to examine the variables that influence employee productivity in the manufacturing sector of Malaysia. The factors included are job satisfaction, motivation, work environment, training, and growth. The researcher has analyzed the influence of the independent variable (IV) on the dependent variable (DV). Job satisfaction, motivation, training, and development have the greatest impact on employee productivity in the manufacturing industry. These results indicated that in order to increase employee productivity, the manufacturing sector can focus on these three factors. Lastly, it is essential to recognize the study's limitations and the suggestions that have been integrated into the chapter to provide guidance for future investigations.

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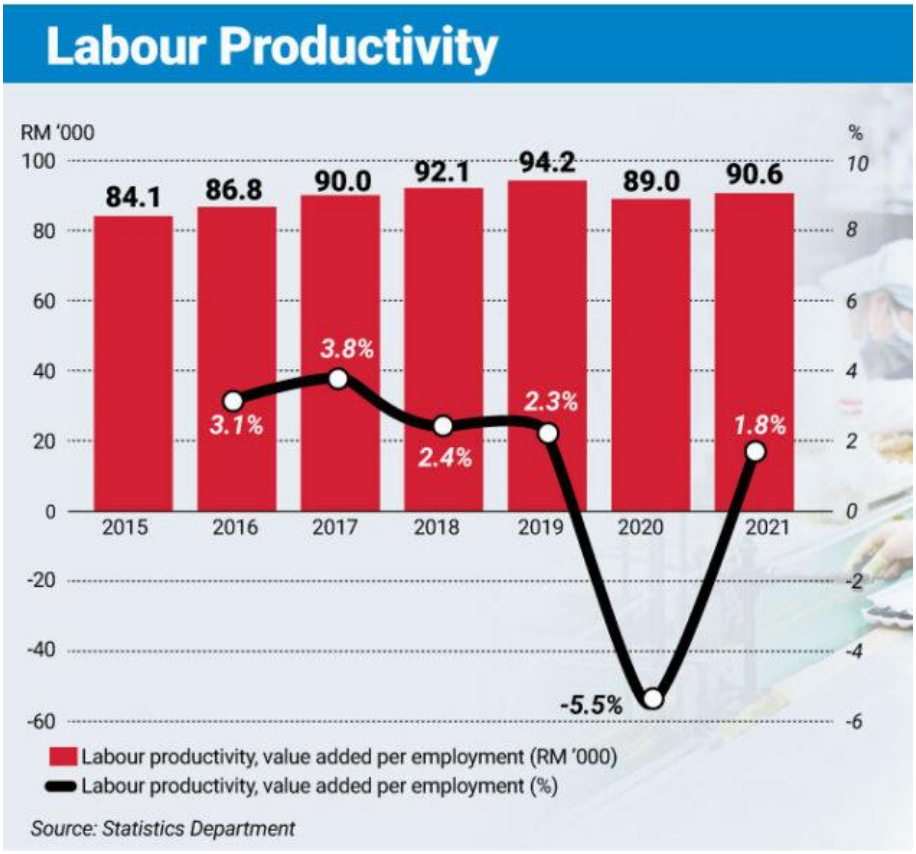
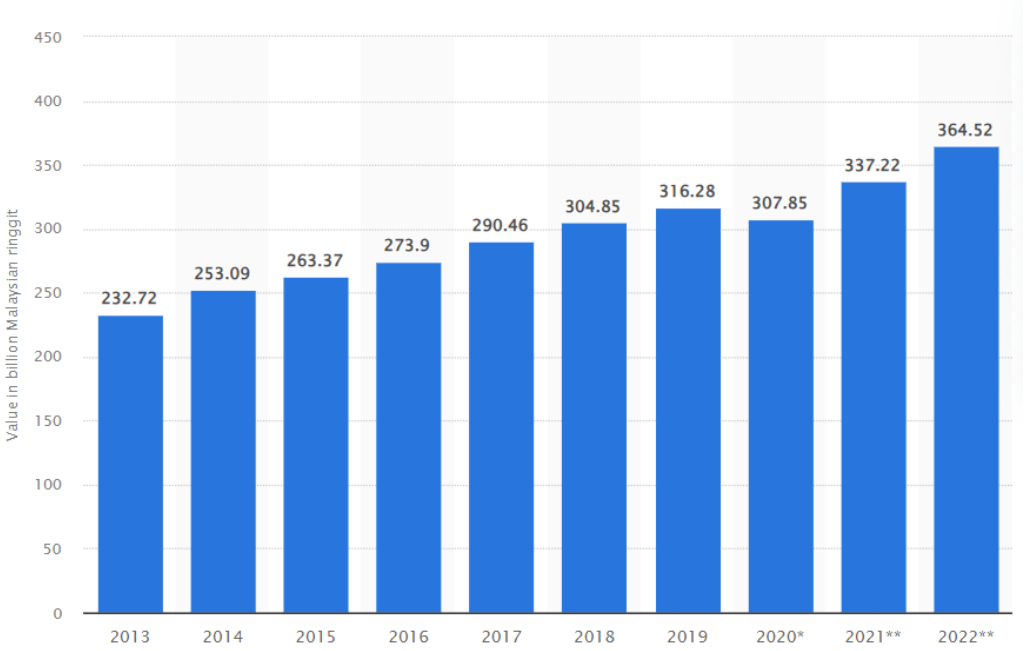
Appendices

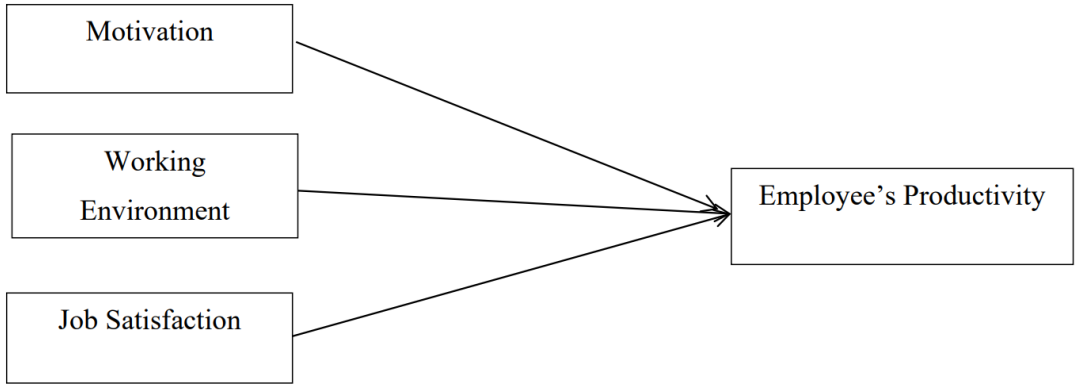
Appendix 1.1: Statistics about labor productivity increase in 2021



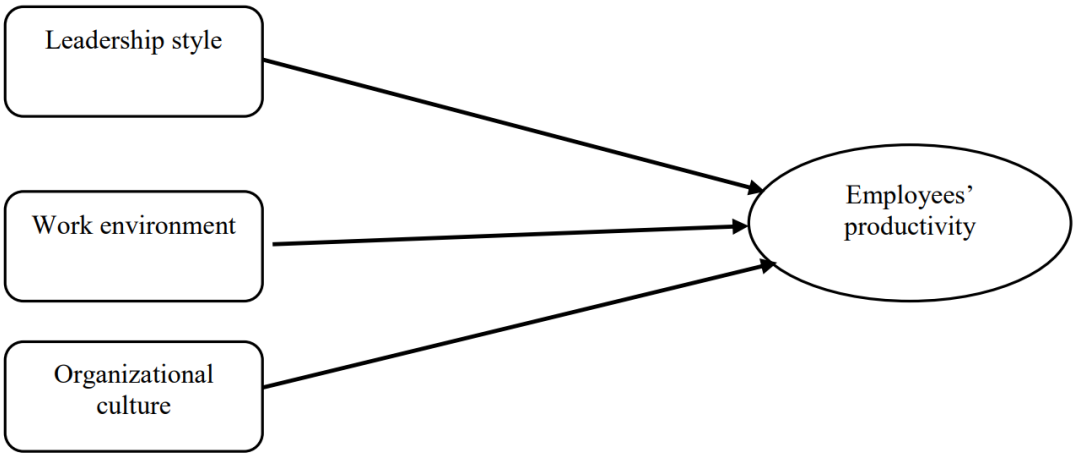
Appendix 1.2: Statistic about GDP from Manufacturing in Malaysia from 2013 to 2022



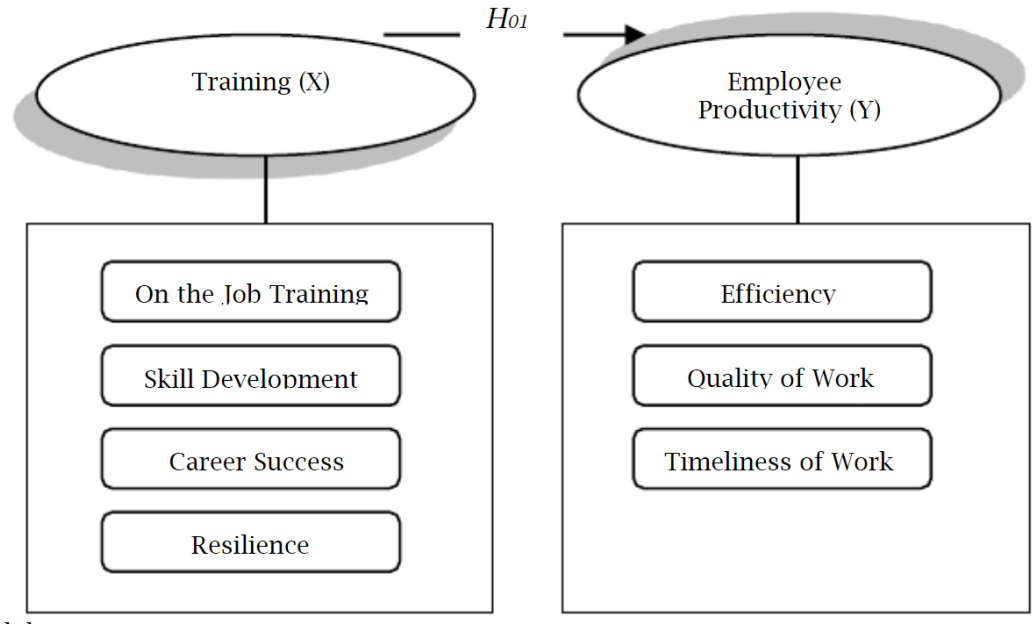
Appendix 2.1: Theoretical Models 1



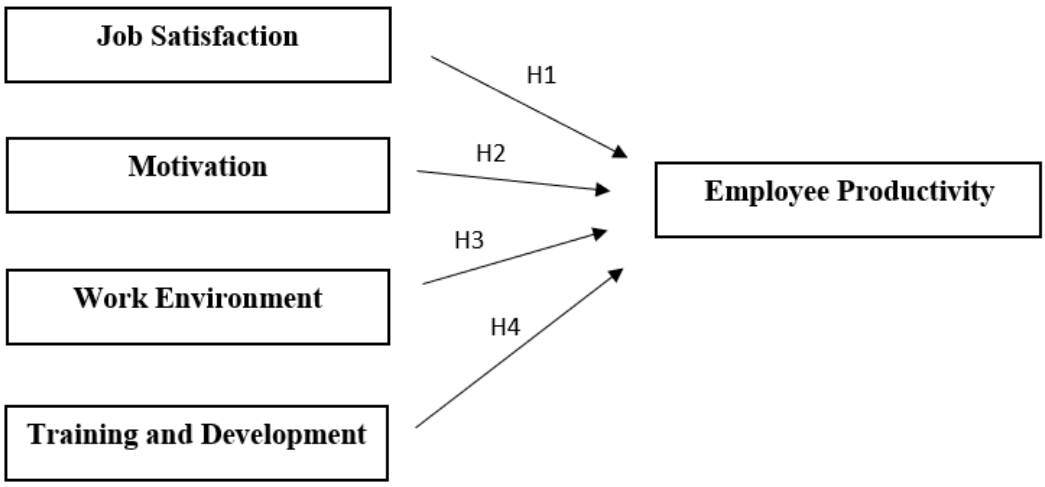
Appendix 2.2: Theoretical Models 2



Appendix 2.3: Theoretical Models 3



Appendix 2.4: Conceptual Model in this Study



Appendix 3.1: Reliability Test (Pilot Test)

Construct	**Cronbach's Alpha**	**Number of Items**
Employee productivity	0.886	5
Job Satisfaction	0.947	5
Employee Motivation	0.868	5
Work Environment	0.945	5
Training and Development	0.936	5

Appendix 3.2: Example of Nominal Scale in Section A

Gender

- Male
- Female

Appendix 3.3:Example of Nominal Scale in Section B

Length of employment with the current company

- Less than 1 year -will directly proceed to Section C
- 1-3 years -will directly proceed to Section C
- 4-6 years
- 7-10 years
- More than 10 years
- Other:

Appendix 3.4: Example of Likert scale Measurement

Strongly Disagree (SD)	**Disagree (D)**	**Neutral (N)**	**Agree (A)**	**Strongly Agree (SA)**
1	2	3	4	5

Appendix 3.5: Origin of Construct

Variable	**Construct Measurement**	**Cronbach's Alpha**	**Sources**
Dependent Variable			
Employee Productivity	1. My current workload does not make feel special commitment to work tasks. 2. I easily adapt and learn in my working environment. 3. My supervisors have influenced me to be independent, creative and accountable. 4. The facilities and equipment's in the organization has hindered me from achieving business targets. 5. Work environment is not efficient enough.	0.730	(Odion, O. B., 2022)
Independent Variables			
Job Satisfaction	1. Salary on time 2. Overtime pay is in line with expectations. 3. Promotion is fair and objective. 4. Communication between colleagues is well established. 5. There is feedback from superiors on the work done.	0.900	(Riyanto et al., 2021)

Motivation	1. My organization provides me with attractive compensation system. 2. It keeps me motivated to perform at my level best when my organization gives me better salary. 3. The way my organization evaluates my performance directly affect my salary. 4. The promotion process and procedure used by my employer are fair. 5. I am satisfied with monetary benefits received from my organization.	0.846	(Ying, L. Y., 2019)
Working Environment	1. The lighting in my workspace was adequate. 2. The air circulation in my workspace is good. 3. Employee facilities are adequate. 4. The working environment conditions support smooth implementation of the task. 5. Workplace security is assured.	>0.7	(Purbasari Rr.N., S. T., 2017)
Training and Development	1. My organization considers training as part of organizational strategy. 2. Training is well planned in my company.	0.730	(Awoniyi, C. I., 2021)

	3. Training programs are conducted frequently in my organization. 4. Training sessions have improved me in my job efficiency. 5. There was an enhancement in me which includes pay and promotion after each training program.		

Appendix 3.6: Survey Questionnaire

Participant Nationality

Please select the option that best represents your nationality.

1. Is your nationality Malaysian?
    - Yes (Continue to next section)
    - No (Submit form)

Section A: Demographic

Please select ONE the most relevant option.

1. Gender

    - Male
    - Female

2. Race

    - Malay
    - Chinese
    - Indian
    - Other:

3. Age

    - 20 and below
    - 21-30
    - 31-40
    - 41-50
    - 51 and above

4. Marital Status

    - Single
    - Married
    - Unmarried

5. Educational Level

- Primary Education
- Secondary Education
- Pre-University/Diploma
- Bachelor's Degree
- Master's Degree

6. Monthly Gross Income

- <RM1000
- RM1001- RM3000
- RM5001- RM7000
- RM7001- RM9000
- >RM9000

7. Which state do you currently live in?

- Johor
- Kedah
- Kelantan
- Kuala Lumpur
- Selangor
- Melaka
- Negeri Sembilan
- Labuan
- Pahang
- Perlis
- Perak
- Pulau Pinang
- Terengganu
- Sabah
- Sarawak

8. Please indicate your status within your organization

- Supervisor
- Professional/Technical staff
- Support staff
- Other (please specify)

9. Length of Employment with the Current Company

- Less than 1 year -will directly proceed to Section B
- 1-3 years -will directly proceed to Section B
- 4-6 years
- 7-10 years
- More than 10 years
- Other:

10. What are the primary reasons that have influenced your decision to stay with your current company? (Select all that apply)

- Competitive salary and benefits
- Career growth opportunities
- Positive work environment and company culture
- Job security and stability
- Good relationship with colleagues and superiors
- Challenging and fulfilling job roles
- Opportunities for skill development and training
- Other (please specify):

Section B: Likert Scale Question

Please indicate the degree of agreement or disagreement for each of the following statement based on the scale (Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree) by choosing ONE.

No.	Statements	SD	D	N	A	SA
Employee Productivity						
1.	My current workload does not make feel special commitment to work tasks					
2.	I easily adapt and learn in my working environment					
3.	My superior has influenced me to be independent, creative and accountable					
4.	The facilities and equipment's in the organization has hindered me from achieving business targets					
5.	Work environment is not efficient enough.					
Job Satisfaction						
1.	Salary on time.					
2.	Overtime pay is in line with expectations.					
3.	Promotion is fair and objective.					
4.	Communication between colleagues is well established.					
5.	There is feedback from superiors on the work done					
Motivation						
1.	My organization provides me with attractive compensation system.					

2.	It keeps me motivated to perform at my level best when my organization gives me better salary					
3.	The way my organization evaluates my performance directly affect my salary					
4.	The promotion process and procedure used by my employer are fair.					
5.	I am satisfied with monetary benefits received from my organization.					
Working Environment						
1.	The lighting in my workspace was adequate.					
2.	The air circulation in my workspace is good					
3.	Employee facilities are adequate.					
4.	The working environment conditions support smooth implementation of the task					
5.	Workplace security is assured					
Training and Development						
1.	My organization considers training as part of organizational strategy.					
2.	Training is well planned in my company.					
3.	Training programs are conducted frequently in my organization.					
4.	Training sessions have improved me in my job efficiency.					
5.	There was an enhancement in me which includes pay and promotion after each training program.					

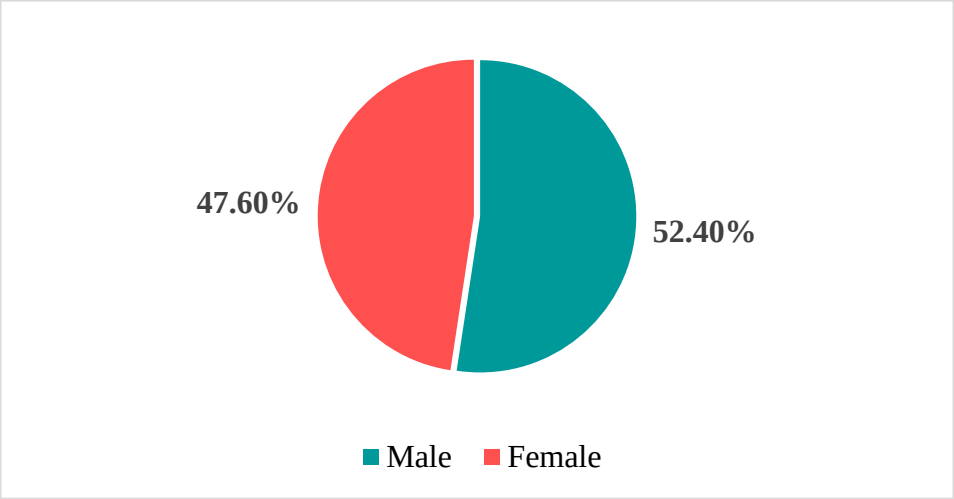
Appendix 4.1: Demographic Analysis

Demographic	N	%
Gender:		
Male	131	52.40%
Female	119	47.60%
Race		
Malay	182	72.80%
Chinese	50	20%
Indian	18	7.20%
Other:	0	0%
Age		
20 and below	19	7.60%
21-30	112	44.80%
31-40	85	34%
41-50	25	10.00%
51 and above	9	3.60%
Marital Status		
Single	83	33.20%
Married	135	54%
Unmarried	32	12.80%
Educational Level		
Primary Education	46	18.40%
Secondary Education	60	24.00%
Pre-University/Diploma	48	19.20%
Bachelor's Degree	96	38.40%
Master's Degree	0	0.00%

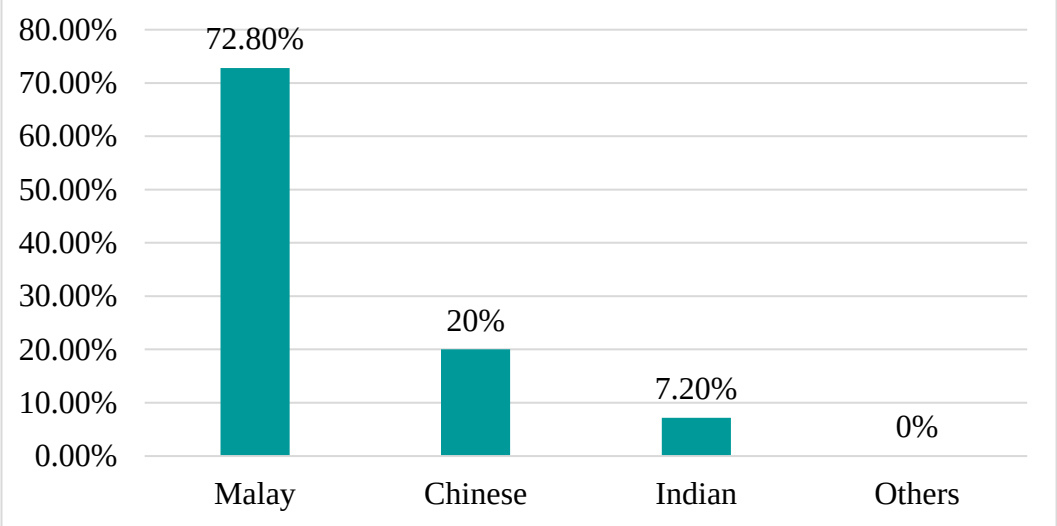
Monthly Gross Income		
<RM1000	35	14%
RM1001- RM3000	60	24.00%
RM 3001- RM5000	101	40.40%
RM5001- RM7000	34	13.60%
RM7001- RM9000	20	8.00%
>RM9000	0	0%
Which state do you currently live in?		
Johor	18	7.20%
Kedah	7	2.80%
Kelantan	3	1.20%
Kuala Lumpur	70	28.00%
Selangor	107	42.80%
Melaka	9	3.60%
Negeri Sembilan	3	1.20%
Labuan	4	1.60%
Pahang	5	2.00%
Perlis	3	1.20%
Perak	8	3.20%
Pulau Pinang	3	1.20%
Terengganu	3	1.20%
Sabah	4	1.60%
Sarawak	3	1.20%
Please indicate your status within your organization	58	23.20%
Supervisor	114	45.60%
Professional/Technical staff	78	31.20%
Support staff		

Length of Employment with the Current Company		
Less than 1 year -will directly proceed to Section C	26	10.40%
1-3 years -will directly proceed to Section C	71	28.40%
4-6 years	98	39.20%
7-10 years	40	16.00%
More than 10 years	15	6.00%
Other:	0	0%
What are the primary reasons that have influenced your decision to stay with your current company? (Select all that apply)		
Others	12	10.00%
Opportunities for skill development and training	53	44.17%
Challenging and fulfilling job roles	39	32.50%
Good relationship with colleagues and superiors	67	55.83%
Job security and stability	78	65.00%
Positive work environment and company culture	79	65.83%
Career growth opportunities	93	77.50%
Competitive salary and benefits	106	88.33%

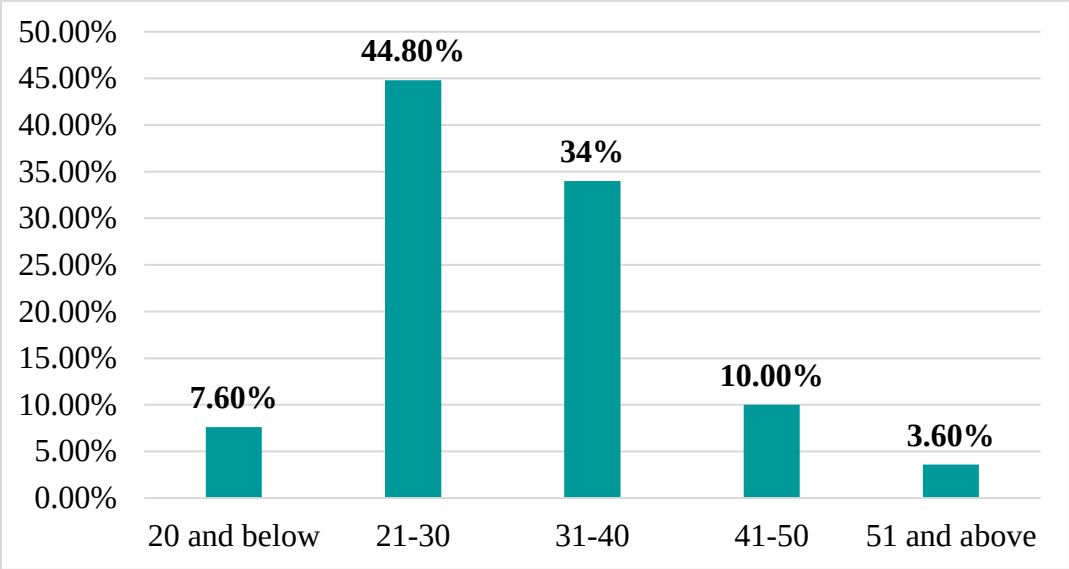
Appendix 4.2: Percentage of Respondents' Gender



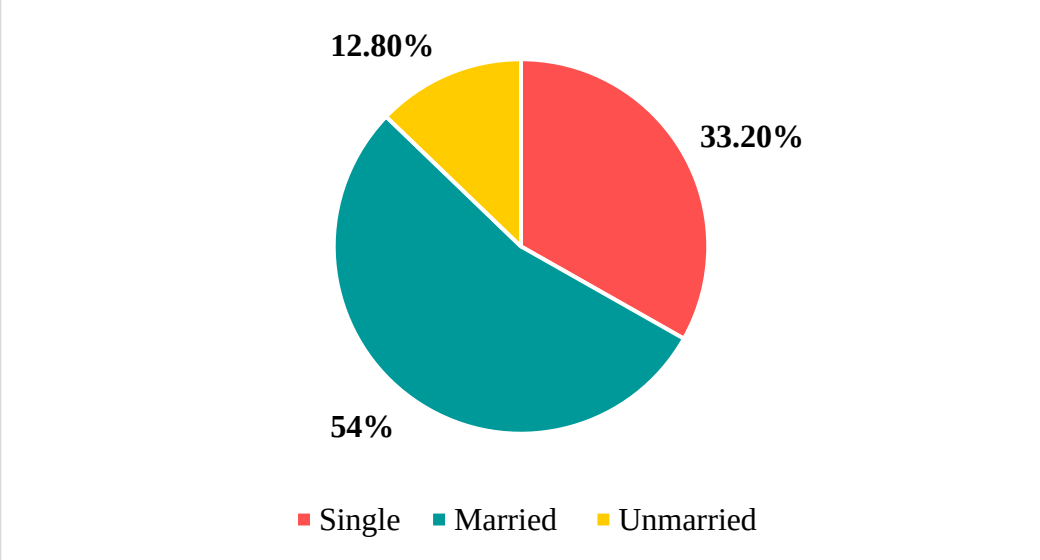
Appendix 4.3: Percentage of Respondent's Ethnicity



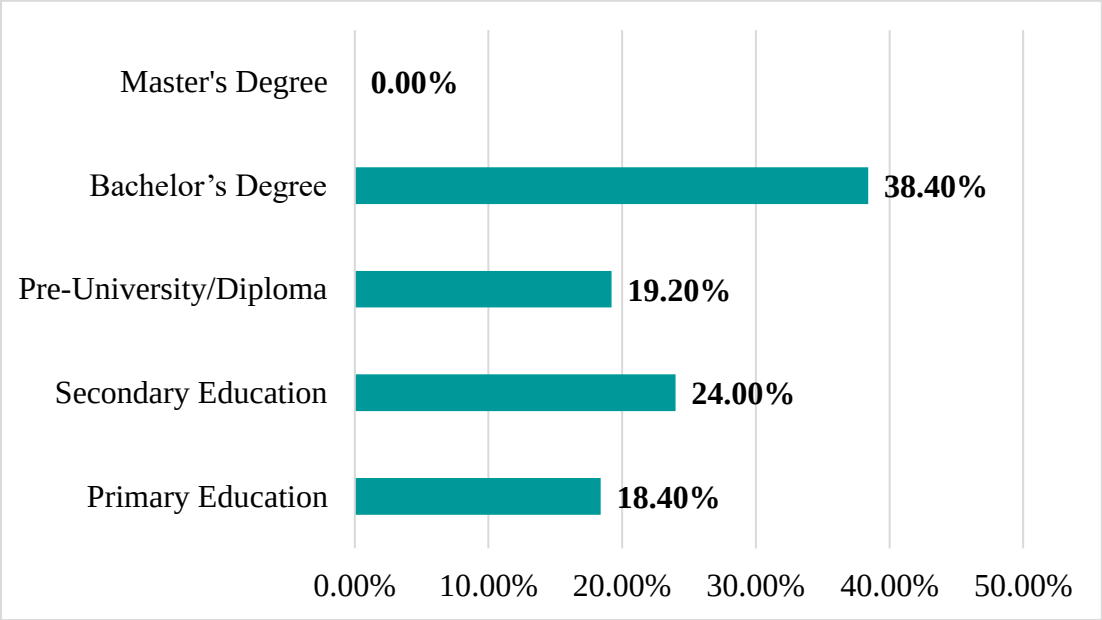
Appendix 4.4: Percentage of Respondent's Age



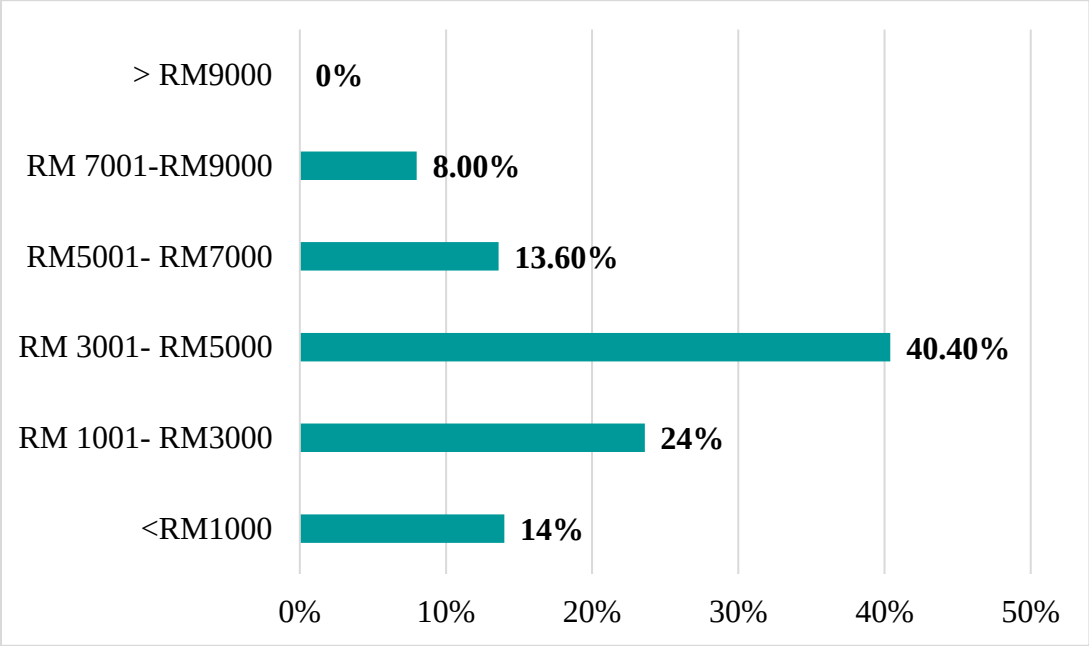
Appendix 4.5: Percentage of Respondent's Marital Status



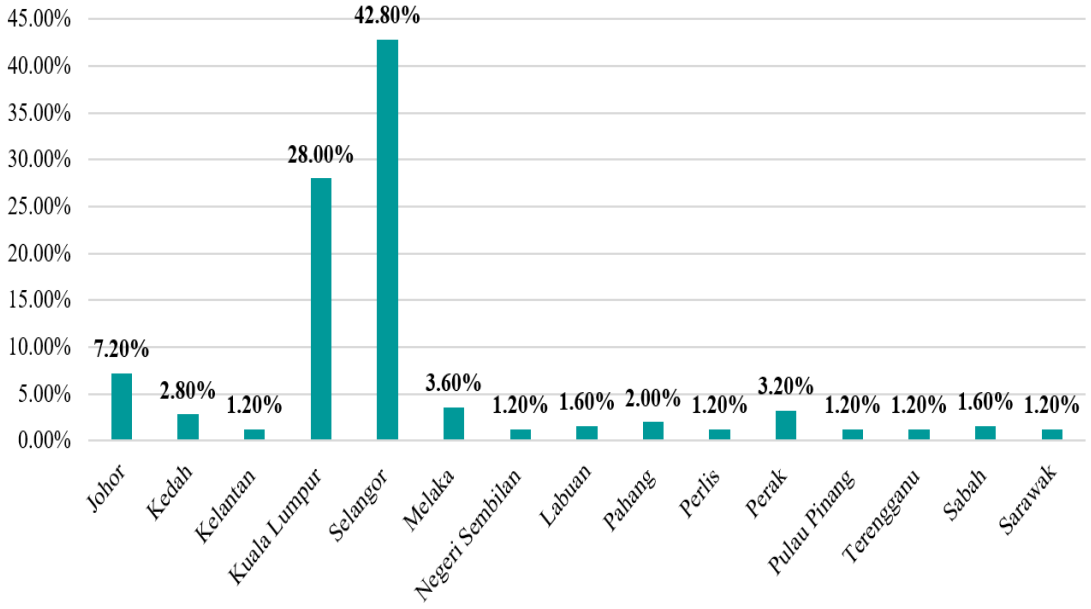
Appendix 4.6: Percentage of Respondent's Educational Level



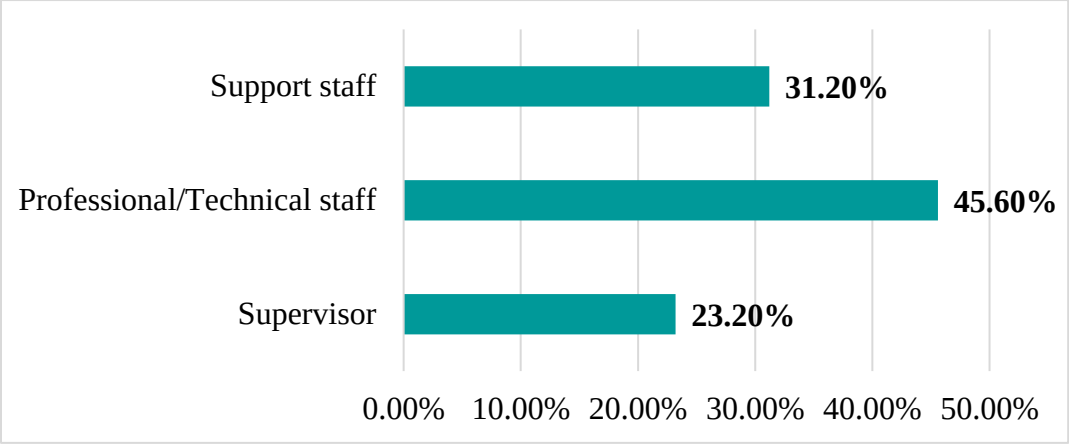
Appendix 4.7: Percentage of Respondents Monthly Gross Income



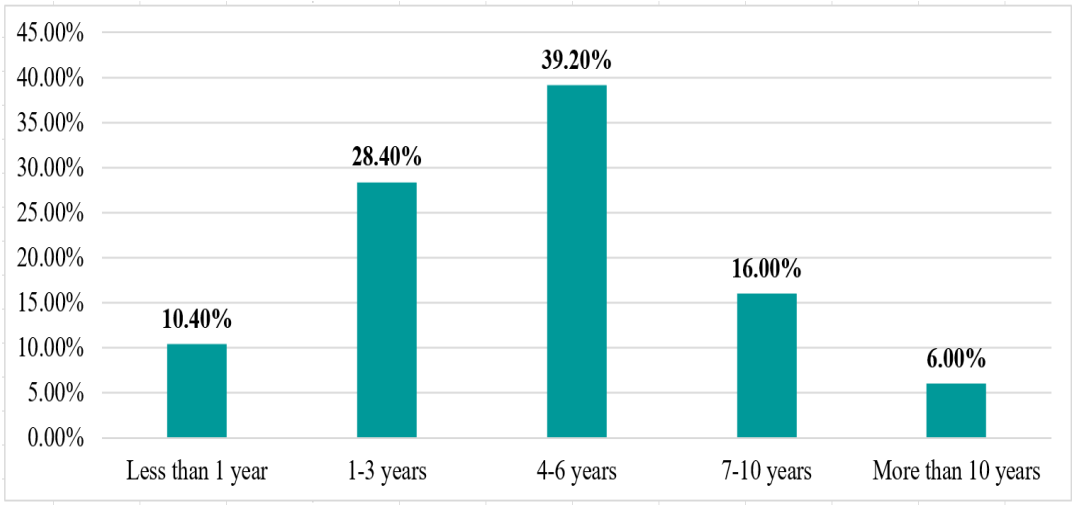
Appendix 4.8: Percentage of Respondents State of Living in Malaysia



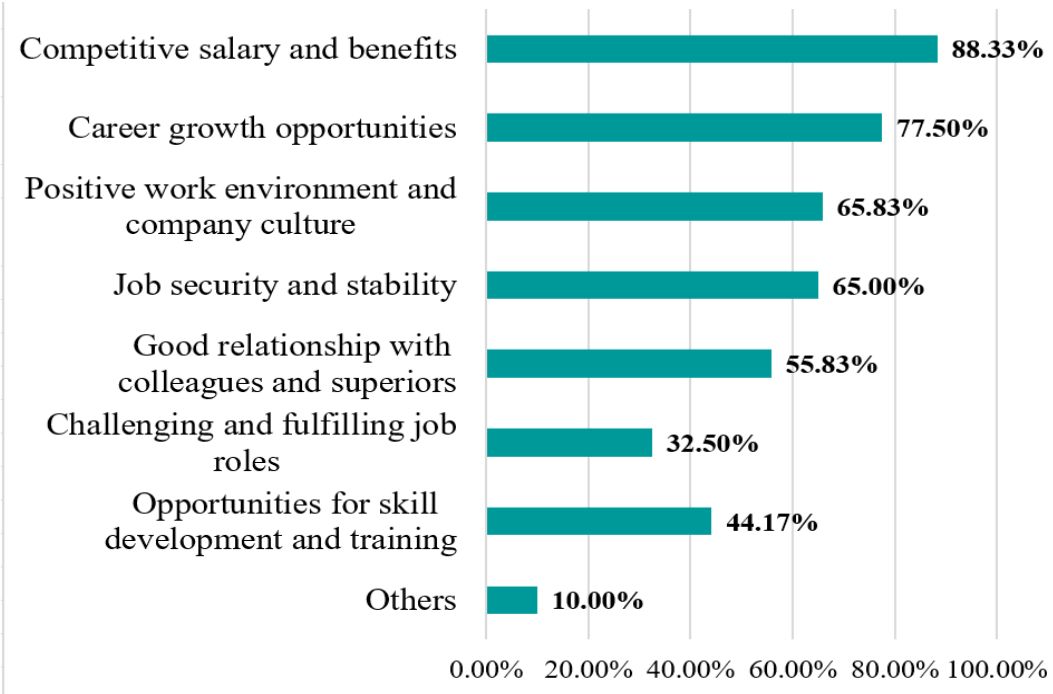
Appendix 4.9: Percentage of Respondent's status within organization



Appendix 4.10: Percentage of Respondent's Length of Employment with their Current Company



Appendix 4.11:Percentage of Reasons that have Influenced their Decision to stay with Current Company



Appendix 4.12: Other Reasons that respondents have replied.

Reasons that have influenced their decision to stay with current company
o Company offers a flexible working arrangement
o Convenience for my daily commute
o Convenient location helps me reduce commute time and stress
o I appreciate the leadership and management style within the company
o The long-term prospects and stability of the company will be my reasons to stay
o My company provides clear career paths and growth opportunities which makes me feel valued
o I like the regular team building activities organized by the company
o Open and transparent communication from leadership
o Opportunities to transfer to different roles or departments within the company can promote my career growth
o Strict health and safety measures in the workplace
o During peak and off-peak periods, the company helps us manage our workload, which makes me feel better about work-life balance.
o Culture fit with the company influenced me to remain
o Location and commute
o Simple work and easy to adapt to

Appendix 4.13: The Cronbach's Alpha for all Variables

Construct	Number of Items	Cronbach's Alpha	Reliability Test
Dependent Variable			
Employee productivity	5	0.941	Excellent
Dependent Variable			
Job Satisfaction	5	0.928	Excellent
Employee Motivation	5	0.941	Excellent
Work Environment	5	0.948	Excellent
Training and Development	5	0.937	Excellent

Appendix 4.14: Pearson's Correlation Coefficient

Pearson Correlation						
		EP	**JS**	**M**	**WE**	**TD**
EP	Pearson Correlation	1	.875**	.839**	.810**	.881**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001
	N	250	250	250	250	250
JS	Pearson Correlation	.875**	1	.811**	.776**	.871**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001
	N	250	250	250	250	250
M	Pearson Correlation	.839**	.811**	1	.787**	.764**

	Sig. (2-tailed)	<.001	<.001		<.001	<.001
	N	250	250	250	250	250
WE	Pearson Correlation	.810**	.776**	.787**	1	.777**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001
	N	250	250	250	250	250
TD	Pearson Correlation	.881*	.871**	.764**	.777**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	
	N	250	250	250	250	250
**. Correlation is significant at the 0.01 level (2-tailed)						

Appendix 4.15: Multiple Regression Analysis Model Summary

Multiple R	**R Square**	**Adjusted R Square**	**Standard Error of the Estimate**
0.928[a]	0.861	0.858	0.42658

a. Predictors: (Constant), JS, M, WE, TD

Appendix 4.16: ANOVA

Model	Sum of Squares	Mean Square	F	P-value
Regression	275.474	68.869	378.639	< 0.001[b]
Residual	44.562	0.182		
Total	320.036			

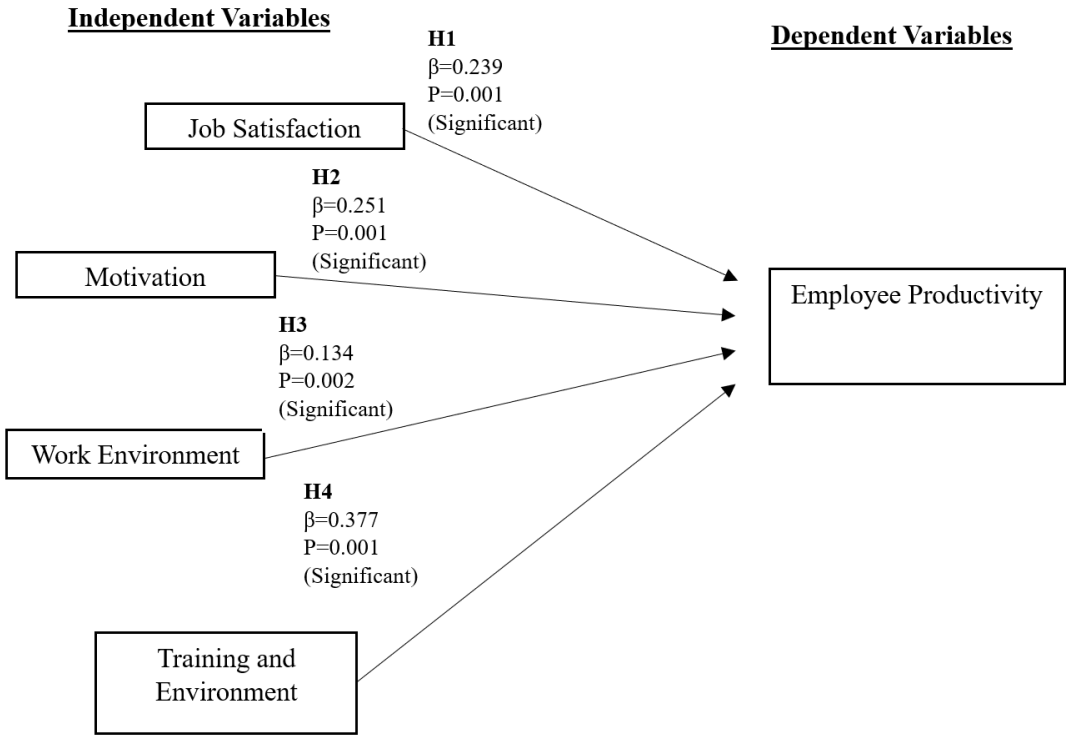
a. Dependent Variable: Employee Productivity

b. Predictors: (Constant), JS, M, WE, TD

Appendix 4.17: Multiple Regression Analysis Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t-stat	Significance
	B	Standard Error	Beta		
(Constant)	-0.131	0.093		-1.411	0.159
JS	0.247	0.057	0.239	4.337	<.001
M	0.260	0.047	0.251	5.559	<.001
WE	0.147	0.048	0.134	3.088	.002
TD	0.378	0.052	0.377	7.306	<.001
Dependent Variable: Employee Productivity					

Appendix 4.18: Hypothesis Result of Conceptual Framework



Appendix 5.1: Summary of the Hypothesis Testing Result

Hypotheses	Coefficient	T-Value	Value Scored	Result
Hypothesis 1: There is a significant relationship between job satisfaction and employee productivity in Malaysia's manufacturing industry.	0.247	4.337	β=0.239 p-value= <0.001	Supported
Hypothesis 2: There is a significant relationship between motivation and employee productivity in Malaysia's manufacturing industry.	0.260	5.559	β=0.251 p-value= <0.001	Supported
Hypothesis 3: There is a significant relationship between work environment and employee productivity in Malaysia's manufacturing industry.	0.147	3.088	β=0.134 p-value= <0.002	Supported
Hypothesis 4: There is a significant relationship between training and development and employee productivity in Malaysia's manufacturing industry.	0.378	7.306	β=0.377 p-value= <0.001	Supported