THE EVALUATION OF WORK ENGAGEMENT AMONG GENERATION Z THAT INVOLVED IN LOGISTICS BUSINESS ORGANIZATIONS IN SELANGOR

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ABSTRACT

THE EVALUATION OF WORK ENGAGEMENT AMONG GENERATION Z THAT INVOLVED IN LOGISTICS BUSINESS ORGANIZATIONS IN SELANGOR

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The senior workforce will soon be replaced as the most prevalent generation by Generation Z, who will make up more than a third of the global population. This research will examine the evaluation of work engagement among generation Z that involved in logistics business organizations. Therefore, this study aimed to analyse the relationship between work engagement and independent variables including job characteristics, organizational culture, teamwork and top management support by using Social Exchange Theory. In addition, quantitative research was undertaken by collecting data via questionnaire survey form which send it to be targeted respondents. The quantitative research has analysed by using the Multiple Linear Regression Analysis, Pearson Correlation Analysis and Reliability Analysis. As a result, the analysis has shown that the significance relationship between the work engagement and independent variables.

Keywords: Work Engagement, Generation Z, Social Exchange Theory, Logistics Business Organization

ACKNOWLEDGEMENT

DECLARATION

We hereby declare that the project report is based on our original work except for quotations and citations which have been duly acknowledged. We also declare that it has not been previously or concurrently submitted for any other degree at UTAR or other institutions.

(CHOO CAI XUAN)   (LAI PEI QI)   (LING HUI LI)

APPROVAL SHEET

This final year project report entitled "**THE EVALUATION OF WORK ENGAGEMENT AMONG GENERATION Z THAT INVOLVED IN LOGISTICS BUSINESS ORGANIZATIONS IN SELANGOR**" was prepared by CHOO CAI XUAN, LAI PEI QI and LING HUI LI submitted as partial fulfilment of the requirements for the degree of Bachelor of Science (Hons) Logistics and International Shipping at Universiti Tunku Abdul Rahman.

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PERMISSION SHEET

It is hereby certified that **CHOO CAI XUAN (ID No: 20ADB04118), LAI PEI QI (ID No: 20ADB01278) and LING HUI LI (ID No: 20ADB01316)** has completed this final year project entitled **"THE EVALUATION OF WORK ENGAGEMENT AMONG GENERATION Z THAT INVOLVED IN LOGISTICS BUSINESS ORGANIZATIONS IN SELANGOR"** under the supervision of Dr. Mohd Azam Bin Din from the Department of Physical and Mathematical Science, Faculty of Science.

We hereby give permission to the University to upload the softcopy of our final year project in pdf format into the UTAR Institutional Repository, which may be made accessible to the UTAR community and public.

Yours truly,

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(CHOO CAI XUAN)	(LAI PEI QI)	(LING HUI LI)

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CHAPTER 1

INTRODUCTION

1.0 Introduction

This research focused on investigating and comprehending the most common elements that significantly affected Generation Z's work engagement in the logistics industry. The chapter started with the background of the study, which was to understand the work engagement in the logistics industry of Generation Z with the relationship between the job characteristics, organisational culture, teamwork, and top management support. Moving on, the chapter consisted of the problem statement describing the main issues affecting Gen Z's work engagement. Following that, the research objectives, research questions, significance of the study, the definition of the term, scope and limitations, and the conclusion had been discussed.

1.1 Background of Study

For a while now, the study on millennials has occupied the spotlight. The millennial generation is characterized as being youthful, educated, forceful, and extroverted. Though millennial research is ongoing, a new generation, known as "Generation Z," has started to catch the interest of a variety of stakeholders, including corporate executives, entrepreneurs, and human resources professionals. A total population of Malaysians, accounting for 29% of Generation Z has started to engage in the workplace. Along with Generation Z being hired and entering the workplace, more than 1/3 of Generation Z is

predicted to surpass the millennials. Many business organizations comprehended the new positions and developed strategies to integrate Generation Z into the workplace to deal with intergenerational challenges (Chillakuri, 2020).

Generation Z, who was born from mid-1990 to 2010, and was raised in a "digital technology" environment (Benítez-Márquez et al., 2022). There are four "E" characteristics of Malaysian Generation Z has been identified as Electronically engaged, Educated, Entrepreneurial, and Empowered. It is to be seen that they are digitally native that they have never lived without the Internet and digital technology to stay interacting with people in real life, even family members. Thus, they are active learners and keen to obtain particular skills, which has indirectly developed their entrepreneurial aspirations. A survey found that 31% of Malaysian Generation Z respondents were expressed interest in becoming entrepreneurs. As a result, entrepreneurship is more lucrative for Malaysian Generation Z than working for an organization (Tjiptono et al., 2020).

Figure 1.1: Average Number of Job Changes by Age in 2022

Sources: Adopt from (Boskamp, 2022)

In **figure 1.1**, Generation Z, from the age range of 18 years old to 24 years old, has become the most likely generation that intended to change jobs. In comparison to Generation Y, there is a huge gap intended for changing jobs between these two generations. There are many factors that affected the idea of Generation Z and Generation Y which motivated them to have different preferences in their work. According to ÇORA (2019) has beenfound that Generation Z is impatient and disloyal, meanwhile, they express their ideas and emotions directly. Hence, they wish their managers would listen and value feelings in order to create an effective working environment. In addition, Gaidhani, Arora, and Sharma (2019) mentioned that Generation Z prefers a working environment that is able to develop professional skills and encourages their entrepreneurial skills, as they have the freedom to identify what they like. On the contrary, Gen Y prefers a stable and routine working environment because they have responsibilities for taking care of their families.

Other than that, Generation Z in Malaysia is inquisitive and open-minded. To the extent of the challenges they faced at work, they believed it would be beneficial for them, as they were willing to embrace the challenges. Work life balance empathizes with the expectations of Malaysian Generation Z and enables them to schedule time for both their personal and work lives. If they felt there was a work life imbalance, they may reject leadership positions or even the job altogether. Through various types of behaviours in the workplace, relationships with teams, communication, digitalization at the workplace, and leadership or entrepreneurship were the essential factor that affected work engagement, as supported by Tjiptono et al. (2020). They were keen to have face-to-face communication with colleagues instead of texting or e-mailing to get sufficient interaction with them. It is vital to their future career and increasing level of work efficiency as 46% of Malaysians in Generation Z prefer teamwork and collaboration as what they expect, thus affecting their work engagement in the workplace afterwards (Tjiptono et al., 2020).

Moreover, logistics is the activity of coordinating the flow of goods, information, and other resources from the point of origin (supplier) to the point of consumption (consumer) to satisfy customer demand (Anca, 2019). Meanwhile, the logistics business would be defined as a structure for company planning that involves material procurement, inventory management and control. In short, it included inbound and outbound shipping, materials management, and physical distribution from the procurement process. The key stakeholders included shippers, suppliers, transport carriers, warehousing, freight forwarders, and terminal operations. Since it was able to generate the

value for the company and its key stakeholders as a function of time and location, it was vital for logistics to grow in importance as a process that adds value (Zigu, 2020).

In Malaysia, the logistics industry has been proven that it has a significant contribution to national trade and drives the GDP within Malaysia's economy (Karia, 2018). There were 6,065 logistic companies in Malaysia, while there were an exceedingly high 1,079 logistic companies in the Selangor area (businesslist, 2023). According to Tjiptono et al. (2020), Generation Z is the youngest, most ethnically diverse, and largest generation, who can create a monthly disposable income of MYR 327 million. However, there was only consists of 16% of Malaysian workers who stay less than one year with their present company, are planning to shift their jobs (Writer, 2020). This is partly due to Generation Z's clearly about their choices between a high-paying boring job and a low-paying interesting job (Gomez, Mawhinney, & Betts, 2020), but the logistics industry is among the higher-paying boring jobs. In Malaysia, the logistics industry has a salary range of around RM3000 to RM3700 (JobStreet, 2022), the logistics industry's scope of work is systematized, making new changes difficult. Especially the job task of the logistics industry is requiring a lot of physical effort to complete it. Hence, they are dissatisfied with their jobs and will change jobs within a short period, resulting in rapid manpower turnover.

Meanwhile, within the evolution of the era, technology is becoming more advanced as generations progress, and generation Z's social lives are very

digitally focused (Emran and Rahim, 2016), with 80 percent of them spending an average of 8 hours a day on the internet (Dhesi, 2018). New technologies seem to be a regular part of life, according to Dolot (2018), 56% of Generation Z are particularly interested in learning about and using them. This means that they can easily get a lot of useful information through the internet, causing them to have a wide range of knowledge and interests. Since it would create the interests as much from internet, it makes them easily get bored, thus resulting it will be presented in their working attitude.

Last but not least, enhanced employee work engagement is a crucial need for an organization to perform well as well as to get a competitive advantage in the marketplace (Bakker and Albrecht, 2018). In particular, the percentage of work engagement in an organization is often not very high, thereby, it is crucial to seek ways to improve employees' job engagement in the organization (Statnickė, Savanevičienė and Šakys, 2019). Based on the research by Randstad Malaysia (2022), it is illuminated Generation Z has a high frequency of changing jobs compared with the other generations.

1.2 Problem Statement

Work engagement is one of the main factors to evaluate the employees in the logistics business organizations. This is because that the high work engagement helped the logistics business organization to retain the employees and maximized the loyalty of the employees. However, the low work engagement often led to the employees resign and changes their job to the other

organizations. According to the survey of Randstad Malaysia (2022), there are 3 in 10 respondents in Malaysia said that they planned to change their jobs which have marking a 7% increase from 2021 which led to a high turnover. This circumstance arose may be caused a serious problem that we have faced that the Gen Z employee rapidly changes their job within one year on logistics business organizations.

The most factor that motivating the Malaysian employees changing jobs which are job characteristics, company culture, teamwork and top management support. According to Prameswari (2019), the characteristics of job may increase in high work engagement by increased the satisfaction and motivation. Regarding to Pandita and Kumar (2021), the work engagement may be affected by top management support and teamwork which would lead to a cost and rewards basic. Apart from that, company culture also an important factor which the employee focused on especially Gen Z employees. The organisation's culture which was not consistent with the employees will led to the employee changing job in high percentage.

Work engagement of employee benefited to the logistics business organization, but most of the management did not understand employee work engagement. Although there has research on employee work engagement, but none have been research on the logistics business organization especially the generation Z employee. Due to the knowledge gap, conducted this research on the factors that may affected the work engagement of generation Z on logistics business

organization. By conducting this research, expected to help the management to understand the wants and needs of the employee which actually can engage and disengage them. Thus, the issues would be taken into our studies to investigate the work engagement of generation Z on logistics business organizations.

1.3 Research Objective

The research objective consists of:

1. To identify how the job characteristics affect work engagement among Generation Z in logistics business organizations.

2. To determine how the organisational culture affects work engagement among Generation Z in logistics business organizations.

3. To determine whether teamwork affects work engagement among Generation Z in logistics business organizations.

4. To investigate whether top management support affects work engagement among Generation Z in logistics business organizations.

1.4 Research Question

The research question is:

1. How the job characteristics affected the work engagement for Generation Z in logistics business organizations?

2. How the organisational culture affected the work engagement for Generation Z in logistics business organizations?

3. How teamwork affected the work engagement for Generation Z in logistics business organizations?

4. How top management support affected the work engagement for Generation Z in logistics business organizations?

1.5 Significance of Study

The motive for carrying out this research study was to study Generation Z, which would have an essential impact on their future careers. Based on this research study, the reasons or factors behind working engagement in logistics careers would be explored that how work engagement affected Generation Z. According to the research, it was proven that the current trend in the business market is a high demand for an employee in a logistics career. Besides, Malaysia's logistics industry still operates more in the traditional manner, which means it needs a number of employees to fulfil the demand and enhanced the logistics operation with efficiency.

The significance of this research study would be advantageous for a few sectors. The government policy maker, the company human resources department, and the future researcher would be included. Firstly, this research study provided the government policy maker to set up the policy to enhance or get focused on the employees of Generation Z. A suitable procedure was the only solution to improve employee work engagement and provide a healthy working environment. Next, another sector that would benefit was the logistics company's human resources department since the person in charge was able to understand the current situation of working engagement by Generation Z and

provide suitably and fulfil the demand the generation needs and wants. Regarding the research study, it was especially for the management of the company can be used as a reference which helps them avoid misunderstanding generation Z's characteristics and working attitude towards the workplace.

1.6 Scope

The scope of this research was set at Selangor, Malaysia which target on the generation Z that involved in logistics business organizations. This research has chosen the samples of the individuals especially generation Z who worked as a junior employee which engaged in logistics business organizations.

1.7 Research Gap

A research gap was found in this study, with fewer researchers examining the work engagement in the logistics business organizations especially generation Z. Most of the research was on other industries or other countries, and there are little research reports on the logistics business organizations in Selangor, Malaysia. In addition, this research has only emerged in the last two decades. Most previous researchers have not ventured into this area, resulting in a lack of information for this study. It was difficult for the researcher to find citations and references for the literature review.

1.8 Definition of Term

1.8.1 Work Engagement

The opposite of job burnout, work engagement is a positive, satisfying, emotional condition of well-being associated with work. Employees that are actively immersed in their job exhibit high levels of energy (Bakker, 2010).

1.8.2 Job Characteristics

Job characteristics include five basic job dimensions: skill diversity, task identity, task significance, autonomy, and feedback (Yoo et al., 2018).

1.8.3 Organizational Culture

Organizational culture is the "set theory" of significant values, beliefs, and understandings that members share. Culture provides greater methods of thinking, perceiving, and behaving that could assist managers in making decisions and coordinating organisational operations (Sun, 2009).

1.8.4 Teamwork

The term "teamwork" refers to interactions among team members who pool their resources to meet task objectives (Schmutz, Meier and Manser, 2019).

1.8.5 Top Management Support

The level of top management support is defined as the expectation of workers that they will get support, encouragement, and care from their managers (Contreras et al., 2020).

1.9 Conclusion

The first chapter was about the overview of the work engagement of Gen Z in the logistics industry and it consists of the background of the study, problem statement, research objectives, research questions, the significance of the study, definition of term, scope, and limitation. Chapter two were further discussing the literature review, the relevant theory, a conceptual framework, and the hypotheses development about the topic.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

Chapter 2 was the literature review for our research topic consists of the findings and studies from various parties. It presented the existing literature review on the work engagement of Generation Z in logistics business organisations. Apart from that, this research also proposed an academic theory, the social exchange theory, to relate work engagement and the factors that may affect work engagement, such as job characteristics, company culture, teamwork, and top management support. This chapter also discussed the theoretical framework and hypothesis development.

2.1 Social Exchange Theory

The most precise definition of the social exchange theory was restricted to the actions that are dependent on rewarding each other, and it implies a bilateral exchange and reciprocal process involving "transactions" or "simple exchange" (Blau, 1964; Emerson, 1976). Social exchange theory was distincted from two economic and social perspectives (Blau 1964; Moorman et al. 1998; Standford 2008). The financial branch related to the agreement, which the organization and the employees agree upon and sign with economic gain and physical effort (Deckop et al. 2003). In contrast, the social branch related to personal self-interest and satisfaction, providing social and emotional comfort to the employees (Slack, Corlett and Morris, 2014).

According to Blau (1964), the social exchange theory was driven by self-interest by integrating individual social rationality, showing self-centred and selfish thinking. Apart from that, the employees receive rewards from the organization to repay the cost to the organization with greater engagement (Umair Mughal, 2020). Therefore, the social exchange theory aimed to maximize the rewards and minimize the costs (Yin, 2018). The social exchange theory influenced the employee's work engagement through job characteristics, organizational culture, teamwork and top management support.

The social exchange relationship between the work engagement and Gen Z employees would show on the job characteristics such as job identity, job autonomy, job task significance and job feedback. A quality job characteristic would increase employee motivation and engagement, making them feel responsible and actively put their effort into the assigned task (Garg and Dhar, 2017). Thus, the employees, especially Gen Z, preferred the job characteristics with creativity and innovation of advanced technology (Briken et al., 2017). Moreover, the other features, such as flexible work arrangements for the employees, were generally a job reward to the employees, which balances with their efforts (Chernyak-Hai and Rabenu, 2018).

Apart from that, the main characteristics of organizational culture were beliefs and shared values which may affected employee behaviour in the organization. The reward related to the corporate culture would impact employee effectiveness and influenced the work engagement level. Thus, innovative

behaviours in the workplace need a promising, supportive, and inspiring organizational culture to build a positive workplace environment. It would led to the employees achieving their personal goals and being willing to contribute their time to their respective tasks, which would get paid and incentives from the organization (Nazir et al., 2018).

According to Whitener, et al (1998), interpersonal trust was the fundamental element of social exchange relationships among the employees on teamworking which contribute paramount significance to performance, communication, and behaviour. Teamwork strengthens the team's trust among the employees, empowering their personalities and developing their skills and talents (Sanyal and Hisam, 2018). As a result, teamwork was an element of the social exchange relationship, and two parties could be protected their self-interests by maximizing both benefits and minimizing the cost and risk (Memon, Ghani and Khalid, 2020).

Furthermore, the top management support was an essential element of social exchange relationship, including giving training to their employees, which respond through organizational commitment (Mora Cortez and Johnston, 2020). The top management may transmit the corporate values and climate that could be strengthen the internal cohesion and the subordinates' sense of belonging to the company (Gabrielli, Russo and Ciceri, 2019). Therefore, the top management support, such as encouragement, can increased the employee's

positive expectations, leading them to long-term benefits (Mehboob and Othman, 2020).

In conclusion, the social exchange relationship would reflect the work engagement level of the Generation Z employees by a high quality of job characteristics, the high moral value of organizational culture, teamwork between the colleagues and top management support towards the subordinates, which the employee cost would be proportional to the reward.

2.2 Work Engagement

More than a third of the world's population will soon identify as Gen Zers, replacing the senior workforce as the most common generation. Hence, it led to an upsurge in the number of studies examining the employee engagement of generation Z. According to Kahn, the notion of work engagement was first introduced in a 1990 paper. He characterized it as a degree of active, energizing involvement in a working position in which employees are attentive in expressing their opinions and establishing connections. Work engagement is also defined as a good, motivating, and satisfying state of work-related well-being (Blanch and Aluja, 2009).

Engaged workers identify themselves through their job, and as a result, they exhibit high levels of vigour, dedication, and a sense of dedication to engagement in their job (Timms et al., 2015). In addition, vigour indicates energy, identity, and dedication, while absorption refers to complete focus on

and concentration on work (Mauno, Kinnunen and Ruokolainen, 2007). According to Borst et al. (2019), when workers feel engaged, they are most able and motivated to apply high levels of effort, resulting in enhanced performance. In addition, engaged employee increase their engagement by developing their professional and personal capabilities (Bakker and Demerouti, 2008) and transmitting their engagement to others (van Mierlo and Bakker, 2018). Based on the studies, the article elaborated that work engagement may be predicted to be influenced by a few elements there will be as below: job characteristics, organizational culture, teamwork and top management support.

2.3 Job Characteristics

Employee engagement was essential to achieving corporate goals since workers are the organization's main driving variable (Bakker, 2011). Employees who are highly engaged would put greater effort into achieving organizational objectives (Prameswari, 2019). Job characteristics are one of the components of establishing employee work engagement (Saks, 2006). According to Hackman and Oldham (1975), theory of job characteristics, there are five dimensions of job characteristics which are autonomy is job encourages the worker to have freedom and independence, feedback refers to the job activities deliver the employees with direct and precise data about their performance, skill variety refers to the wide range of tasks and abilities needed for the work, task identity allows an employee to see a project throughout the entire work process from beginning to end, and task significance refers to the degree to which workers perceive their work in being meaningful. This research will be based on job characteristics theory to elaborate on how it affects employee engagement.

Previous research has established that all the variables of job characteristics positively and significantly influence work engagement (Hidayah, Nadhir and Puteh, 2017; Prameswari 2019; George, Jonathan and Lendai, 2020; Kumar, Reddy and Das, 2021). The autonomy dimension significantly positively influences work engagement (Malinowska, Tokarz and Wardzichowska, 2018). Allowing workers greater autonomy would make them feel more trusted and respected by the company in carrying out their duties, increasing their sense of engagement with their employer and job (Saragih, 2011; Prameswari, 2019).

On the opposite side, Knight et al. (2017) have argued that autonomy is significant and negatively influences job engagement. This is because high workloads or a lack of personnel or time have a detrimental impact on people's feeling of freedom to complete their work in the most satisfying manner and their consequent level of work engagement. Several studies found that autonomy is insignificant with work engagement. Workers may assume they have job autonomy, but if their supervisors do not engage them, there may be no link between autonomy and engagement. Engagement decreases when workers do not find value in their autonomy (Lin and Ping, 2016; Hidayah, Nadhir and Puteh, 2017).

The results showed a significant positive link between employee engagement for the feedback component. Feedback on their performance is essential for workers to know whether they are doing well (Lee, Idris and Tuckey, 2018; Mol et al., 2018). On the other side, Hazalizah et al. (2022) found no significant

relationship between employee engagement and the feedback from performance evaluations because the workers may feel it is just printed and copied for everyone in the e-mail.

The finding for the skill variety dimension indicates that as skill variety rises, so does employee engagement. Employee engagement may increase if given a chance and the ability to use a variety of abilities in the work so that boredom may be reduced (Kim, 2017; Kim, Han and Park, 2019; George, Jonathan and Lendai, 2020). However, it was shown that skill variety was unrelated to job engagement due to the workers having a heavy burden job in their work environment (Othman and Nasurdin, 2019).

On the dimension of task significance, when workers believe their work has value for the business, they will have a strong feeling of responsibility in performing their tasks. This feeling of duty will motivate workers to work harder to complete their work (Bernadeta and Ilona, 2015; Grobelna, 2019). Regarding task identity, workers who had the chance to initiate, manage, and finish a specific job independently would be more motivated, hence experiencing better engagement. Task identity motivated people to achieve work objectives, encouraging greater employee engagement (George, Jonathan and Lendai, 2020; Karim, 2022). Nurul Hidayah and Fadilah (2022) stated that there is no significant relationship between task identity and work engagement because employees may disagree with a task identity that allows the job to be

completed without communicating to or interacting with others because they prefer to work in teams and via teamwork.

Based on the studies reviewed, fifteen journals and articles have proven that job characteristics and work engagement have a significant positive relationship. However, five of the research indicate that all elements accept task significance in the job characteristics having an insignificant relationship, and just one of the journals points out autonomy has a significant negative relationship with job engagement. As a result, this study assumes that the job characteristics favour work engagement in the logistics business organization.

2.4 Organizational Culture

Organizational culture should consider they are internal within the distinct and palpable character (Michael Morcos, 2018). It does not have a standard definition as it can be defined as less or more visible rather than bad or good in a workplace (Szydło and Grześ-Bukłaho, 2020). On the contrary, the characteristic of culture is not visible, unless it is made visible by its depiction (Van Maanen, 1988). Moreover, according to Denison and Mishra (1995), the study clearly indicates that there is a positive relationship between organizational culture and effectiveness. They discovered the four aspects of organizational culture, for instance, consistency, engagement, flexibility and mission may influence effectiveness of the employees, thus improving their work engagement.

Efficient communication between the employees and management in a positive culture leads to enhancing the employee's engagement. Since the employees feel trust in the workplace and it sustains them in the company for intended periods of time, this is supported by Najeemdeen et al. (2018). Meanwhile, Diamantidis (2018) argued that the adverse influence on culture has contributed to the low work performance of the employees. The training culture in a company included frequent absenteeism and poor motivation, however, resulting in a poorer level of the employees' skill flexibility and adaptability.

Despite that, (Meng and Berger, 2019; Likert and Likert, 1976) have the opposite perspective with the article above. Company culture can be defined as beliefs, values, and assumptions that are built by company members. These shares were able to influence the behaviours of the members because they rely on the value as the mean of decision-making and personal behaviours which may enhance effectiveness of the company. Next, MohaMohanty and P (2020) mentioned that psychological safety has a strong relationship with work engagement. In the workplace, psychological safety means the company members rally agree that a team is a secure place for taking an interpersonal risk. It benefits members' engagement which allows them to cooperate with each other easily. In other words, psychological safety allows them to fully focus on their work task without any unnecessary interference.

Furthermore, Al Shehri et al. (2017) said that implication of social exchange theory produces positive relationship with work engagement. Mutually

beneficial relationship between the employer and the employee will enhance the level of loyalty, commitment and trust over the year, the positive work ethic is the return of the company. Besides, article from Chaudhary (2017) define company culture as the personality of the company. It behaves as the mean of guidance for the employees to think and act towards it jobs. It is virtual but act as a backbone of the company which impact the behaviour of the employees.

2.5 Teamwork

A team is a collection of people who work together to attain the same aims and objectives, such as providing high-quality services. According to the research, teamwork assists in developing employees' skills and perspectives by automatically exchanging positive opinions, feedback, experiences, and viewpoints among team members. This process results in continuously developing the organization's services and employees' work performances. As a result, firms should improve the notion of cooperation among their employees in order to promote productivity and creativity, gain a competitive edge, and enhance each employee's performance. Besides, some researchers identified teamwork as a critical occupational skill since it is essential to fulfilling the business's visions, goals, strategies, and objectives in order to activate and enhance employee engagement (Sanyal and Hisam, 2018). Therefore, this research will focus on team trust and the team's psychological effects on work engagement.

Sanyal and Hisam (2018) mentioned that trust and work engagement correlate positively. Team trust develops when team members have confidence in one

another's skills and proficiencies. The ability of a team to trust one another has the potential to reinforce teamwork behavioural ideas, such as enhancing personalities skill and talent development. Edmondson (1999) pioneered the notion of team psychological safety. She defined it in her study as "a common sense that the team is safe for interpersonal risk-taking." Umair Mughal (2020) had mentioned that teamwork significantly affected employees work engagement. From another perspective, employees have less chance to increase work engagement when not working in a team. Hence, the result shows an almost 25% decrease in the worker's work engagement. Therefore, teamwork fosters good motivation and a strong concentration on work and proves that it significantly impacts the level of personal involvement in the work (Rasmussen and Jeppesen, 2006).

Bakker (2022) indicated that work engagement increases when a team has a strong level of enthusiasm and devotion. Furthermore, Fujita et al. (2016); Meng et al. (2018) mentioned a correlation between the team level and improved coordination of work and communication. It is resulting in more streamlined production processes, which are expected to impact work engagement positively. Furthermore, this process has a 'dark side' known as the contagion effect. For instance, if someone has a negative work engagement level it will affect the others (Westman et al., 2011).

In conclusion, six researcher point out that it is positively significant between teamwork and work engagement. Besides, that just one of the journals showed

negatively substantial. Based on all this evidence, it seems that teamwork is a crucial element that will significantly affect work engagement. As a result, this study will assume teamwork has positively affected work engagement in the logistic business organizations.

2.6 Top Management Support

Top management support (TMS) refers to the level of top management commitment toward a certain project. This represents their engagement and desire to invest important organisational resources (Holland and Light, 1999). Regarding to the Contreras et al. (2020), there are three different kinds of top management assistance that might exist in the workplace, such as emotional support which is caring their mental health, material support refers to rewards, and informational support which is information exchange. Thus, the purpose of their job tasks which regulates the strategy and growth of the organization in good development (Albrecht, 2018). When the resources have been supported by top management as much, the employees increased commitment and loyalty to the organization which affects their engagement.

Moreover, Geisler, Berthelsen and Muhonen (2019) have demonstrated a positive relationship between the social support, for instance, managers caring the employees for providing psychological needs which closely positively affected to the employee's engagement and greater job satisfaction. According to Memon et al. (2019), it discussed that Performance Appraisal Satisfaction (PAS) is closely influence the work performance of the employees. Top management must determine and communicate how to execute the system, PAS

able to keep the performance level and arouse the poor employee to progress, eventually it helps the company to sustain the quality of work then success. In this regard, the top management supervises the employees by using PAS system and the employees work more actively. Since the employees have performance a good job, the management rewards them as an action of supporting the employees, thus resulting the employees engaged positively and actively towards the workplace.

Trust is based on top management's support for the employees and equally the employees' unconditional trust in management when they are exchanging and sharing efficient knowledge. Top management support may regard as a source of trust among the employees (Fernández-Pérez, Jesús García-Morales and Fernando Bustinza-Sánchez, 2012). The greater of trust, the more effectiveness of communication between top management and the employees, thus resulting minimizes the uncertainty (Daghfous, Belkhodja and Ahmad, 2018). Based on this, this encourages the employees gain more knowledge from sharing information, leads to improving engagement.

Futhermore, according to Chughtai and Buckley (2008), this paper analyses the impact of state trust such as top management, immediate supervisor and co-workers affected on the work engagement. The result shows a positive affect that upper level of trust in the employees, it will encourage the work engagement. Towards the workplace, it is a significant phenomenon that the employees should be routinely foster a culture of trust and empowerment

supported by the top management (Bakker, 2017). Therefore, when the employees feel the trust from the top management in the company, for instance the manager delegating the project to the employees by dependent to complete it, they will be more motivated and engaged in their works.

2.7 Conceptual Framework

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┌─────────────────────┐
│                     │
│  Job Characteristics│────────────────┐
│                     │            H1   \
└─────────────────────┘                  \
┌─────────────────────┐            H2     \
│   Organisational    │────────────────────┐
│      Culture        │            H3      ┌──────────────┐
└─────────────────────┘            ────────│     Work     │
┌─────────────────────┐            H4     ┌│  Engagement  │
│                     │────────────────────└──────────────┘
│      Teamwork       │                   /
└─────────────────────┘                  /
┌─────────────────────┐                 /
│  Top Management     │────────────────/
│     Support         │
└─────────────────────┘
```

Figure 2.1: Conceptual Framework

Based on the findings and studies, the factors that may affected the work engagement of generation Z has shown on the research framework according to the figure 1. The factors that influenced the work engagement on logistics business organizations which included job characteristics, company culture, teamwork and top management support. This research is aimed to investigate the relationship between these variables which determined the efficiency and effectiveness for work engagement of generation Z.

2.8 Hypothesis Development

2.8.1 The relationship between Job Characteristics and Work Engagement

The characteristics of job have special impact on increasing job satisfaction, increasing employee intrinsic motivation and reducing the pressure on demands of job, thus that they can complete their work efficiency (Prameswari et al, 2019). Not only the effectiveness will affect the work engagement, it also be able to provide a work environment that need to meet the employees' individual needs through job design (Noe, et al, 2015). According to Bakker (2011) established job characteristics resources such as autonomy, task variety, feedback, task significance, skill variety, task identity and social support to contribute to higher levels of job satisfaction and work engagement (Rai and Maheshwari, 2020).

H0: The job characteristics does not affect the work engagement of generation Z on logistics business organizations.

H1: The job characteristics does affect the work engagement of generation Z on logistics business organizations.

2.8.2 The relationship between Organizational Culture and Work Engagement

The employee work engagement drivers on employee-friendly corporate culture which may provide an innovative pathway, good career opportunities, managing performance, pay and reputation of the organizations (Evangeline and Gopal Ragavan, 2016). According to the Global Human Capital Trends 2015 reports that show an organization with high transparency, greater turnover rate and severe experience shortage, there have main issues faced by the organizations which are the work engagement and retention of Gen Z employees. Therefore, the organization's culture provides a work environment to motivate high engagement which will lead to the employees balancing their work tasks and personal goals, having high performance and high engagement of Gen Z employees (Taneja, Sewell and Odom, 2015).

H0: The organizational culture does not affect the work engagement of generation Z on logistics business organizations.

H2: The organizational culture does affect the work engagement of generation Z on logistics business organizations.

2.8.3 The relationship between Teamwork and Work Engagement

Teamwork which means colleagues who are willing to support one another such as warm, empathetic, cooperative, kind, approachable, not gossiping, or slanderous, grateful, respectful, and helpful as social support in the organisation (Pandita and Kumar, 2021). All employees need to be aware on the importance of teamwork in order to achieve rapid and innovative outcomes which able to promote sustainable development. The collaboration of team may be stronger and higher quality was able to contribute by provide the knowledge. Due to reciprocity among employees, the employees exchange their knowledge and trustworthy with each other (Navajas-Romero et al., 2022).

H0: The teamwork does not affect the work engagement of generation Z on logistics business organizations.

H3: The teamwork does affect the work engagement of generation Z on logistics business organizations.

2.8.4 The relationship between Top Management Support and Work Engagement

The top management support is very important especially managers, who as a mediator of the company to strengthen the relationship with the workers (Pandita and Kumar, 2021). The top management can support the employees in dealing with their occupational stress, and it sends the valuable message to the generation Z employees that they are valued, liked, respected, and fit into the reciprocity commitments (Agarwal, 2016). Nonetheless, the antithesis of the top management support is the managers sent negative behaviour to the employees such as power inequalities and led to subordinate performance decline (Tepper and Duffy, 2011), thus continue a negative impact for employee well-being and mental health, including personal depression and emotional fatigue (Pandita and Kumar, 2021).

H0: The top management support does not affect the work engagement of generation Z on logistics business organizations.

H4: The top management support does affect the work engagement of generation Z on logistics business organizations.

2.9 Conclusion

In conclusion, this chapter conclude on the pass journals that are related to the work engagement and this literature review give a better understanding of this studies. Throughout the literature review and research found that have many factors may influence the work engagement of employees especially Gen Z on logistics business organizations which supported by the previous researchers. The factor that most significantly impacted is the job characteristics, organizational cultures, teamwork and top management support. Apart from that, in this chapter also discuss about the Social Exchange Theory and the relationship between the dependent and independent variables. Therefore, an appropriate research method would be used on next chapter to clarify the relationship between work engagement and its factors.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

In this chapter, the research methodology describes collecting raw data and information, which becomes detailed and valuable information through analysis. It is used to determine the conceptual framework as the hypotheses are developed. This research would discuss on several aspects, including research design, data collection, sampling design, research instruments, data processing, and data analysis.

3.1 Research Method

In this research, quantitative research was used in the research method, which was collecting and analysing the structure of data and information that can be presented numerically and goals to build accurate and reliable measurements (Goertzen, 2017). In addition, it allowed researchers to study the population's demographics, which have collected the survey form from the respondents. Thus, this research conducted a quantitative analysis to prove the null and alternative hypotheses and determined the relationship between the dependent variables (work engagement) and independent variables, including job characteristics, organizational culture, teamwork and top management support.

3.1.1 Research Design

This research has been conducted through questionnaires using the quantitative research method. This quantitative approach involved both descriptive and exploratory research. Exploratory research is a research design that determines and examines the research problem that is unclear and misunderstood. The key characteristics of the exploratory research design were unstructured and open-ended questions, thus being flexible for this research. Descriptive research described a deeper understanding of the phenomenon and its different characteristics without addressing why it happened. Hence, this research was able to use exploratory and descriptive research to discover the factors that affected the work engagement of generation Z in logistics business organizations.

3.2 Data Collection

Data collection is the process of gathering and analyzing information to verify findings and conduct research. It was performed to diagnose a problem and learn about its outcome and future tendencies. When attempting to answer a question, data collection methods can assist in predicting the outcome. Based on the information, both primary and secondary data collecting methods were helpful in various situations. Secondary data might be used to save time, and primary data could be used to obtain reliable findings (Priya, 2021).

3.2.1 Primary Data

The primary data is original and is directly collected by the researcher from sources including first-hand observations, surveys, questionnaires, case studies, and interviews (Ajayi, 2017). In that case, the target respondents were used as the primary data in a questionnaire survey methodology. This study aimed to investigate the level of work engagement among Generation Z employees in the logistics business organisation.

3.3 Sampling Design

3.3.1 Target Population

The targeted population is defined as a group of respondents that the researchers need to investigate, thus conducting research to evaluate the research questions. In this research, the target population was identified as generation Z in Selangor, Malaysia. According to the Department of Statistics Malaysia (2021), the population of Selangor consisted of a total of 6,555,400 residents in the year 2021, and there have SS of the born range between 1997 – 2012, which consisted of generation Z.

3.3.2 Sampling Size

A sample size that is bigger than required will more accurately reflect on the population which lead to more reliable results; however, the accuracy would only slightly improve beyond a certain point (Andrade, 2020). The process of sample size calculation and power analysis is too difficult and complex and

avoid the need for studying the knowledge of statistics and software programming, thus using the G*Power software to calculate the sample size which has a graphical user interface (GUI) (Kang, 2021). Firstly, by using the research goals and hypotheses including the null and alternative that discussed in previous chapter. Secondly, chose an appropriate statistical test that G*Power software has provided two methods which are distribution-based approach and design-based approach. In this research, chose the T-test based on the distribution-based approach or choosing the correlation point biserial model based on the design-based approach. Thirdly, chose one of five possible power analysis methods according to Table 3.1. Thus, used the type of power analysis which is a priori: compute required sample size – given alpha, power and effect size. After that, assumed that the input parameters as two tails test, the effect size of |p| is 0.3, the alpha of error probability is 0.05 and the power which one minus beta of error probability is 0.95. Therefore, the G*Power software determined that the total sample size is 134 in this research that need to use as reference on figure 3.1.

Figure 3.1: Calculate Total Sample Size by Using G*Power Software.

Source: Adopt from (Faul et al., 2009)

3.3.3 Sampling Process

In this research, the questionnaire survey form was conducted in electronic form to targeted respondents. The questionnaire survey form was generated as an online survey form by using Google Form which may be minimize the cost of conducting this research. The respondents were given to access the Google Form Link and complete the survey form based on their opinion. The data will be collected from September 2022 to December 2022 and the respondents will be the generation Z that involved in logistics business organizations at Selangor.

3.3.4 Sampling Techniques

Probability sampling is the gold standard in sampling methodology and ensures that research findings could be generalized to the target population. It includes simple random sampling, systematic random sampling, stratified random sampling, and cluster sampling. According to Acharya et al. (2013), each member of the population has an equal chance of being chosen for the research. In general, stratified random sampling separated the data into sub-groups (strata) with similar characteristics such as age, gender, race, income, education, and ethnicity. Hence, stratified random sampling would be the most suitable because it was able to evaluate each stratum's properties and compared them. Furthermore, a research organization may be divided the population into several non-overlapping, homogenous groups (strata). It randomly picked final participants from the different strata using stratified random sampling, leading to cost-effectiveness and efficiency. Therefore, Generation Z in logistics business organizations became the respective group of the sample.

3.4 Research Instrument

By conducting this research, the most useful tool for the research instrument was the questionnaire survey which was created in electronic form and collected the survey form from the targeted respondents by using the stratified random sampling technique. It was beneficial for the researchers because it is able to conduct the research more cost-saving, efficient and effective compared to other methods. Thus, the questionnaire arranged the questions using the fixed-alternative approach and the level of measurement, which consists of a nominal scale, ordinal scale, interval scale and ratio scale to maintain the data more integrity and consistency. The questionnaire was modified from other journal questionnaires related to this research objectives. The questionnaire was divided into six sections:

1. Section A: Socio – demographic profile.

2. Section B: Work engagement on logistics business organizations.

3. Section C: Job characteristics on logistics business organizations.

4. Section D: Organizational culture on logistics business organizations.

5. Section E: Teamwork on logistics business organizations.

6. Section F: Top management support on logistics business organizations.

Table 3.1: Questionnaire framework

Section	Variable	Measurement	Scale Technique
Section A	Gender	Nominal	-
	Age	Ordinal	-
	Location	Nominal	-
	Work position	Nominal	-
	Year of employment	Ordinal	-
	Does the respondent	Nominal	-

	involve in logistics business organizations?		
Section B	Work engagement on logistics business organizations.	Ordinal	5-points Likert scale
Section C	Job characteristics on logistics business organizations.	Ordinal	5-points Likert scale
Section D	Organizational culture on logistics business organizations.	Ordinal	5-points Likert scale
Section E	Teamwork on logistics business organizations.	Ordinal	5-points Likert scale
Section F	Top management support on logistics business organizations.	Ordinal	5-points Likert scale

3.4.1 Pilot Test

A pilot test was defined as a preliminary study whose primary purpose was to examine the suggested greater study's validity, such as the research project's cost, time, performance and risk. The objective of the pilot test was to evaluate the feasibility, reliability and validity of sampling techniques and questionnaires. Additionally, conducting a pilot test was to help the researchers modify the design of the questionnaires flaw when the respondents of the survey felt difficulty in completing the questionnaires (Fraser et al., 2018).

This research used the Statistical Package for Social Sciences (SPSS) program to analyse the result of the pilot test and examine the validity of the questionnaire through Cronbach's Alpha Coefficients which need to test the

consistency of the dependent and independent variables. The value of Cronbach's Alpha Coefficients is recommended at 0.70 and above, leading to high reliability and validity satisfaction (Taber, 2017). Thus, the values of Cronbach's Alpha Coefficients are used to test the validity of the variables based on the Rules of Thumb, which showed in Table 3.2 (Mat Nawi et al., 2020).

Table 3.2: Cronbach's Alpha Rules of Thumb

Alpha Coefficient Range	Strength of Association
$\alpha < 0.5$	Unacceptable
$0.5 \leq \alpha < 0.6$	Poor
$0.6 \leq \alpha < 0.7$	Questionable
$0.7 \leq \alpha < 0.8$	Acceptable
$0.8 \leq \alpha < 0.9$	Good
$\alpha \geq 0.9$	Excellent

Source: Adopt from (Habidin et al., 2015).

3.5 Data Processing

The data processing is gathering and transforming the data into usable information. Data collection is the first step of data processing. Data must be processed step-by-step to convert the collected data into the required form. According to Afshan (2019), the following step includes storage of data, sorting of data, processing of data, data analysis and data presentation.

3.5.1 Data Reliability and Validity

The principles of reliability and validity were used to evaluate the quality of research and indicate the accuracy of the methodology. Validity was concerned

with the measure's accuracy, while reliability was concerned with the consistency of the research. When established the research design, planning techniques, and writing up the study findings, it is essential to consider reliability and validity, particularly in quantitative research (Middleton, 2019).

3.6 Data Analysis

Data analysis was the process of analysing the data collected from the questionnaire survey form. In this research, a computer software program, the Statistical Package for Social Sciences (SPSS) 28.0, has been used; this research aims to examine the research questions. The generated result has supported the four hypotheses of this research. Thus, this research has used descriptive analysis, reliability analysis and inferential analysis, which consists of Pearson's Correlation Coefficient Analysis and Multiple Linear Regression Analysis.

3.6.1 Descriptive Analysis

Descriptive analysis was a type of analysis that helps to describe, organise and summarise the data, allowing the researchers to better understand the data. This analysis delivers a basic summary of the sample, which was determined by transforming unanalysed data into a simple pattern and easier to understand (Kemp, Hort and Hollowood, 2018). In addition, the analysis transformed the non-numerical data into informative data using the frequency and percentage distribution, which consists of socio-demographic distribution and Likert scale distribution of the respondents.

3.6.2 Reliability Analysis

Reliability analysis was used for the quantitative approach to evaluate the reliability of the questionnaire survey form, which ensures a high quality of research. In addition, the reliability analysis procedure generated a regular number by using the measurement of scale reliability to provide data about the relationship between the scale's component items (George and Mallery, 2018). The degree of Cronbach's Alpha Coefficient was used to determine the internal consistency of the variables in reliability analysis. According to the Rules of Thumb of Cronbach's Alpha Coefficient, the acceptance of the internal consistency range is 0.7 and above, which was used to ensure the acceptable reliability level of the questionnaires (Habidin et al., 2015).

3.6.3 Inferential Analysis

Inferential analysis defined as a statistical analysis tool whereas the goal is to generate about the population by determining random samples. It consists of two statistic which are hypothesis testing and regression analysis. Apart from that, the inferential analysis was very cost-effective and useful which may inference the population without complete data collection (Hair et al., 2008). In order to conclude the hypotheses and research questions that discussed in previous chapter, the Pearson's Correlation Coefficient Analysis and Multiple Linear Regression Analysis were selected to examine the relationship between dependent variables whereas the work engagement and independent variables includes job characteristics, organizational culture, teamwork and top management support.

3.6.3.1 Pearson Correlation Coefficient Analysis

The Pearson's Correlation Coefficient Analysis is determining the strength of the linear relationship between the dependent and independent variables. The scale of the Pearson's Correlation Coefficient Analysis indicates as "r" which range from -1 to $+1$. When the $r = 0$ indicates that the two variables have not linear correlation. Apart from that, when the correlation coefficient is $r = \pm 1$, it indicates that have perfectly linear between two variables which the value with $+$ sign referred as positive relationship while the value with $-$ sign referred as a negative relationship between two variables (Schober, Boer and Schwarte, 2018). In this research, the Pearson's Correlation Coefficient Analysis has been chosen because it suitable for examine the relationship between the dependent variables whereas the work engagement and independent variables includes job characteristics, organizational culture, teamwork and top management support based on the interpretation of the scale of Pearson's Correlation Coefficient which shown on table 3.3.

Table 3.3: The Scale of Pearson's Correlation Coefficient

Scale of correlation coefficient	Value
$0 < r \leq 0.19$	Very Low Correlation
$0..2 \leq r \leq 0.39$	Low Correlation
$0.4 \leq r \leq 0.59$	Moderate Correlation
$0.6 \leq r \leq 0.79$	High Correlation
$0.8 \leq r \leq 1.0$	Very High Correlation

Source: Adopt from (Selvanathan et al., 2020).

3.6.3.2 Multiple Linear Regression Analysis

The multiple linear regression analysis was formulated by linear relation equation between one dependent variable and more than two independent variables. The purpose of the regression analysis was to estimate and analyse the relationship between the dependent variables and independent variables which able to predict the covariance of the variables. The multiple linear regression analysis indicated the predictor variable X (independent variables) was used to model the response variable Y (dependent variables). The equation of multiple linear regression was shown as below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

where $Y = Work\ engagement\ of\ Generation\ Z$

$X_1 = Job\ Characteristics$

$X_2 = Organizational\ Culture$

$X_3 = Teamwork$

$X_4 = Top\ Management\ Support$

$\beta_0 = y - intercept\ (constant\ term)$

$\beta_1 = slope\ coefficients\ for\ each\ explanatory\ variable$

$\in\ =\ the\ model's\ error\ term\ (also\ known\ as\ the\ residuals)$

3.7 Ethical Consideration

During the data collecting stage, ethics was taken into account. Every effort has been made to search and retrieve the primary research for this review in order to be accurate, fair and honest and not to deliberately misinterpret its conclusions.

1. Participants may withdraw from the research at any time.

2. All data or information gathered will be utilised only for this research.

3. Participants' privacy will be protected, and all communications with them will be transparent and honest.

3.8 Timeline of Research

Table 3.4: Gantt Chart

Detail (week no)	13/06/2022	20/06/2022	27/06/2022	4/7/2022	11/7/2022	18/07/2022	25/07/2022	1/8/2022	8/8/2022	15/08/2022	22/08/2022	29/08/2022	3/2/2023	15/2/2023	2/3/2023	10/3/2023	24/03/2023	19/04/2023	27/04/2023	5/5/2023
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FYP 1 Briefing	X																			
Forming group	X																			
Research & Define Project Title	X	X	X																	
FYP 1 Workshop			X																	
Supervisor Meeting				X																
Chapter 1 Task Allocation				X																
Supervisor Meeting					X															

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Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Setting RO & RQ					X	X														
Supervisor Meeting					X															
Decide the Research Framework, IV & DV					X	X														
Chapter 1			X	X	X	X														
Supervisor Meeting						X														
Chapter 1 Draft Checking						X														
Chapter 2 Task Allocation						X														
Define Social Exchange Theory						X	X	X												
Supervisor Meeting								X												
Chapter 2						X	X	X	X											
Supervisor Meeting									X											
Chapter 2 Draft Checking									X											

Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Chapter 3 Task Allocation										█											
Setting Questionnaire										█	█	█									
Chapter 3										█	█	█									
Chapter 3 Draft Checking												█									
Supervisor Meeting												█									
FYP 1 Draft Review												█									
FYP 1 Report Submission												█									
Sent the Questionnaires														█							
Supervisor Meeting															█						
Chapter 4 & 5 Task Allocation															█						
Run the Pilot Test																█					
Data Collection														█	█	█	█				
Analysis of Questionnaires																█					

Task																				
Supervisor Meeting																	■			
Chapter 4 & 5 Draft Checking																	■			
Supervisor Meeting																		■		
FYP 2 Draft Review																		■		
FYP Presentation																			■	
FYP Submission																				■

3.9 Conclusion

In conclusion, the research method of this research methodology was quantitative approach which conduct through questionnaires survey form. The quantitative research was used the descriptive and explanatory research of the research design. In addition, the data collection and sampling design has been discussed on this research. The target population was set at Selangor, Malaysia and the sampling size was developed of 134 set of questionnaires which distributed 14 set of questionnaires as the pilot test. The questionnaires were generated as Google Form by using nominal scale, ordinal scale, ratio scale and rating 5-points Likert scale approach. The data analysis such as descriptive analysis, reliability analysis, Pearson's Correlation Coefficient analysis and Multiple Linear Regression analysis are processed using the SPSS version 28.0 to check the reliability and validity of the research.

CHAPTER 4

RESEARCH RESULTS

4.0 Introduction

In this chapter, the research was found by using various analyses of the target respondents' conduct with questionnaires. The respondents had been discussed in this research to analyze the relationship between the dependent variable, work engagement and four independent variables which are job characteristics, organizational culture, teamwork, and top management support. Furthermore, the results of this research were established using the SPSS computing software.

4.1 Stage 1 Descriptive Analysis

In this research, a total of 137 questionnaires had been issued to the target respondents which are the Generation Z who involved in logistics business organization in Selangor, Malaysia and all the questionnaires were fully collected from them. Apart from here, this research completely utilized the tabulation, tables, and chart to present the demographic profile and overall statistics. The data of demographic phase that were being collected from the 137 target respondents were gender, age, the year of employment for the respondent, the working department of respondent in the company, location of the company, and does the respondent involved in logistic industry.

4.1.1 Gender

Table 4.1 showed the number of male and female participants that responded to the survey. There were 66 (48.2%) male respondents and 71 (51.8%) female respondents filled out the questionnaire. From this analysis, shown that the respondent who responded the questionnaire was almost equal between the male and female thus the questionnaire would gather the different gender's opinion.

Table 4.1: Gender

	Frequency	Percentage (%)
Male	66	48.2
Female	71	51.8

Figure 4.1: Gender

4.1.2 Age

Table 4.2 showed the age of respondents, which were categorized into 4 groups based on below: 18 – 19 years old, 20 – 21 years old, 22 – 23 years old, and 24 -25 years old. In this research, the respondents between 22 – 23 years old made up the majority of respondents, contributing 85 respondents (62%). Accordingly, the age group of 24 – 25 years old came in second which contributed 25 respondents (18.2%). Third was the age group of 20 – 21 years old with 24 respondents (17.5%) while in last was the youngest age group of 18 – 19 years old which had contributed 3 respondents (2.2%) in this questionnaire. By conducting this research that known that the generation Z who responded to our survey form was 22-23 years old thus that the result will more closely to their work engagement.

Table 4.2: Age

	Frequency	Percentage (%)
18 – 19 years old	3	2.2
20 – 21 years old	24	17.5
22 – 23 years old	85	62
24 – 25 years old	25	18.2

Figure 4.2: Age

4.1.3 The Year of Employment for the Respondent

Table 4.3 showed the year of employment for the respondent, which were categorized into 4 groups, there were less than 1 year, between 1 – 2 years, between 3 – 4 years, and more than 6 years. In this research, most of the respondents had worked less than 1 year, which had contributed 66 respondents (48.2%). Accordingly, the 53 respondents (38.7%) had worked between 1 – 2 years came in second. Third was following by the respondents had worked between 3 – 4 years which had 13 respondents (9.5%) while in last was the 5 respondents (3.6%) that work more than 6 years which had filled out this questionnaire.

Table 4.3: The Year of Employment for the Respondent

	Frequency	Percentage (%)
Less than 1 year	66	48.2
Between 1 – 2 years	53	38.7
Between 3 – 4 years	13	9.5
More than 6 years	5	3.6

Figure 4.3: The Year of Employment for the Respondent

4.1.4 Work Department in the Company

Table 4.4 showed the work department of the respondent in the company, which were categorized into few groups: accounting, customer service, documentation, human resource, import and export, logistics, procurement, sales, warehouse and others department. In this research, warehouse department was the most respondents which had 17 respondents (12.4%) worked in the logistics industry. Accordingly, it was following by the logistics department which had 13 respondents (9.5%); customer service department & import and export department which had the same responses of 11 respondents (8.0%); sales department which had 9 respondents (6.6%); documentation department & procurement department which had the same responses of 7 respondents (5.1); accounting department & human resource department which had the same responses of 6 respondents (4.4%). Lastly, there were 50 respondents (36.5%) consisted of varies department such as administrative, engineering, finance, information processing, inventory control, marketing, material handling, operations, outbound, packaging, production planning, quality control, regional control tower, shipping and receiving, software developing and engineering, storage, and transportation department that categorized into others department.

Table 4.4: Work Department in the Company

	Frequency	Percentage (%)
Accounting	6	4.4
Customer Service	11	8.0
Documentation	7	5.1
Human Resource	6	4.4
Import and Export	11	8.0

Logistics	13	9.5
Procurement	7	5.1
Sales	9	6.6
Warehouse	17	12.4
Others	50	36.5

Figure 4.4: Work Department in the Company

4.1.5 Location of the Company

Table 4.5 showed the location of the company. Based on the result, 100% of the respondents' company located in Selangor, which were categorized into 7 areas such as Klang Valley, Hulu Selangor, Kuala Langat, Kuala Selangor, Sabak Bernam, Sepang and other areas. In this research, the most respondents' company located in Klang Valley area which had 52 respondents (38.0%). Accordingly, Hulu Selangor area came to the second which had 28 respondents (20.4%). Third was Kuala Selangor area which had 25 respondents (18.2%). Furthermore, it was following by the Kuala Langat and Sepang area which had the same responses of 10 respondents (7.3%); Sabak Bernam area which had 4 respondents (2.9%). Lastly, the other areas were included 8 respondents (5.8%) where located from Bandar Utama, Hulu Langat, and Putrajaya areas.

Table 4.5: Location of the Company

	Frequency	Percentage (%)
Klang Valley	52	38.0
Hulu Selangor	28	20.4
Kuala Langat	10	7.3
Kuala Selangor	25	18.2
Sabak Bernam	4	2.9
Sepang	10	7.3
Others	8	5.8

Figure 4.5: Location of the Company

4.1.6 Does the Respondent Involved in Logistics Industry?

Table 4.6 showed does the respondent involved in Logistics industry. According to the results, 100% of the respondents (137 respondents) are involved in Logistics industry.

Table 4.6: Does the Respondent Involved in Logistics Industry?

	Frequency	Percentage (%)
Yes	137	100
No	0	0

Figure 4.6: Does the Respondent Involved in Logistics Industry?

4.2 Reliability Analysis

Table 4.7: Result of Reliability Analysis

Variables	Cronbach's Alpha	No. Of Items
<u>Dependent</u> Work Engagement	0.807	5
<u>Independent</u> Job Characteristics Organizational Culture Teamwork Top Management Support	 0.738 0.788 0.832 0.848	 5 5 5 5

Cronbach's Alpha Coefficient was utilized as a reliability analysis approach to determine the reliability of the questionnaire. Based on the Rules of Thumb, the values of Cronbach's Alpha Coefficients were classified as unacceptable, poor, questionable, acceptable, good, and excellent, as shown in Table 3.2. According to Table 4.7, it shown the independent variables in this questionnaire were job characteristics, organizational culture, teamwork, and top management support. Two of the independent variables were classified as acceptable, which is job characteristics and organizational culture as the values between $0.7 \leq \alpha \leq 0.8$ of Cronbach's Alpha range. Next, teamwork and top management support were classified as good, as two of these independent variables had the value between $0.8 \leq \alpha \leq 0.9$. Furthermore, the dependent variable, which is work engagement was classified as good, as it falls within the range of $0.8 \leq \alpha \leq 0.9$ for Cronbach's Alpha. In conclusion, all the independent variables and the dependent variable in this research were ensured the reliability by implementing Cronbach's Alpha Rules of Thumb.

4.3 Inferential Analysis

In this research, the data collected from the 137 target respondents will be used in this inferential analysis to compute and evaluate the result. Pearson Correlation Analysis and Multiple Linear Regression Analysis are two of the primary analytical techniques used.

4.3.1 Multiple Linear Regression Analysis

The objective of multiple linear regression analysis is to estimate and analyse the relationship between the dependent variable and independent variables as well as to predict the outcome of a dependent variable (Schneider, Hommel, and Blettner, 2010).

4.3.1.1 Model Summary

Table 4.8: Model Summary of Multiple Linear Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error Estimate
1	.833ᵃ	.694	.684	.38169

a. Predictors: (Constant), Job characteristics, organizational culture, teamwork, and top management support.

The percentage of the variance of the dependent variable was shown using R Square, and the variance had been supported by independent variables in the regression model. According to Table 4.8, the R Square was presented 0.694. This could be defined as there were 69.4% of the dependent variable, work

engagement explained by the independent variables included job characteristics, organizational culture, teamwork, and top management support.

4.3.1.2 ANOVA

Table 4.9: ANOVA of Multiple Linear Regression Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.567	4	10.892	74.762	.000[b]
	Residual	19.230	132	0.146		
	Total	62.798	136			

a. Dependent Variable: Work Engagement

b. Predictors: (Constant), Job characteristics, organizational culture, teamwork, and top management support.

According to Table 4.9, the F-value was shown as 74.762 and the P-value of ANOVA was 0.000, which was less than 0.050. This research shown that the dependent variable, which is work engagement, can be predicted by utilizing the independent variables, including job characteristics, organizational culture, teamwork, and top management support. Furthermore, this can be demonstrated that the independent variables in this research had a relationship with the dependent variable and the variance had been supported by independent variables in the regression model.

4.3.1.3 Multiple Linear Regression Analysis Coefficients

Table 4.10: Coefficient Table

Unstandardized Coefficients						
Model		B	Std. Error	Standardized Coefficients Beta	T	Sig
1	(Constant)	-0.107	0.247		-0.434	0.665
	Job Characteristics	0.506	0.077	0.449	6.577	0.000
	Organizational Culture	0.288	0.110	0.258	2.619	0.010
	Teamwork	0.250	0.081	0.264	3.086	0.002
	Top Management Support	-0.046	0.088	-0.043	-0.524	0.601

a. Dependent Variable: Work Engagement

According to the Table 4.10, the outcomes shown that the job characteristics had the highest coefficient among the other variables since Y would increase 0.506 units when every 1 unit increase in X1. Organizational culture will come following which increasing 1 unit in X2, Y would increase 0.288 units. Third was Teamwork as Y would increase 0.250 units for every 1 unit increase in X3. In contrast, for top management support, when every 1 unit increase in X4, the Y would decrease 0.046 units. Besides, the P-values for each of the

aforementioned variables were all less than the significant level of 0.005, indicating that the values were significant.

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[1] Based on Table 15, the Multiple Linear Regression Model was Y= -0.107 + 0.506 X1 + 0.288 X2 + 0.250 X3 + (-0.046) X4. In this model, the Y stands for Work Engagement while X1 was Job Characteristics, X2 was Organizational Culture, X3 was Teamwork, and X4 was Top Management Support.

4.3.2 Pearson Correlation Analysis

Pearson Correlation Analysis was used to determine the strength of linear relationship between the dependent and independent variables (Schober, Boer, and Schwarte, 2018). As shown in table 4.11, the degree and interpretation of the correlation coefficient were listed.

Table 4.11: Pearson Correlation Analysis Result

		DV	IV1	IV2	IV3	IV4
DV	Correlation	1	.758**	.748**	.712**	.638**
	Sig. (2tailed)		.000	.000	.000	.000
	N	137	137	137	137	137
IV1	Correlation	.758**	1	.688**	.600**	.642**
	Sig. (2tailed)	.000		.000	.000	.000
	N	137	137	137	137	137

IV2	Correlation	.748**	.688**	1	.812**	.779**
	Sig. (2tailed)	.000	.000		.000	.000
	N	137	137	137	137	137
IV3	Correlation	.712**	.600**	.82**	1	.725**
	Sig. (2tailed)	.000	.000	.000		.000
	N	137	137	137	137	137
IV4	Correlation	.638**	.642**	.779**	.725**	1
	Sig. (2tailed)	.000	.000	.000	.000	
	N	137	137	137	137	137

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

Where,

DV = Work Engagement

IV1 = Job Characteristics

IV2 = Organizational Culture

IV3 = Teamwork

IV4 = Top Management Support

According to Table 4.11, there was a correlation of r = 0.758 showed between

DV and IV1, and r = 0.748 between DV and IV2. Next, the correlation between

DV and IV3 evaluated r = 0.712. Lastly, the correlation between DV and IV4 is

shown to be r = 0.638. Simply put, there was a high positive correlation between all the correlation of all the independent variables, including job characteristics, organizational culture, teamwork, and top management support with the dependent variables which is work engagement, as the correlation ranged between 0.6-0.79. Furthermore, all of the P- values of the correlations were less than the significant level of 0.01. Consequently, it was possible to determine that every independent variable in this research had performed a statistically positive and high relationship with the dependent variable.

4.4 Hypothesis Testing

Table 4.12: Summary of Hypothesis Testing

Hypothesis Testing		Status
H1	Job Characteristics has a positive effect on the relationship between work engagement.	Supported
H2	Organizational Culture has a positive effect on the relationship between work engagement.	Supported
H3	Teamwork has a positive effect on the relationship between work engagement.	Supported
H4	Top Management Support has a positive effect on the relationship between work engagement.	Supported

4.5 Conclusion

SPSS statistical software was used to analyse the findings of the descriptive analysis, reliability analysis, multiple linear regression analysis, ANOVA, Pearson correlation analysis, and multiple linear regression analysis coefficients. In this research, the dependent variable and independent variables were both shown to be statistically significant by all of the analysis results. In conclusion, the dependent variable, which is work engagement, was positively affected by the independent variables, such as job characteristics, organizational culture, teamwork, and top management support.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.0 Introduction

In this chapter, it discussed about the result of the previous chapter which have been analysed and summarised it. The discussion of major findings is related to the level of work engagement of Generation Z that involved in logistics business organizations at Selangor area which determined by using job characteristics, organizational culture, teamwork and top management support. In addition, this chapter also included contribution of research, limitation of research and recommendation of the future research.

5.1 Recapitulate of Research

This research was conducted in Selangor, Malaysia area and the target respondents was the generation Z which involved in logistics business organizations. This research has conducted from June 2022 to April 2023 which have researched almost one year. According to the findings, it had determined the level of work engagement by using some factor which included job characteristics, organizational culture, teamwork and top management support.

From the previous chapters, the researchers had discussed the background of study, problem statement, significance of study, scope and limitation of the study, the literature review of each dependant variable and independent

variables and the hypothesis development. Furthermore, the researchers had described their sampling design and analysis their data by using descriptive analysis, reliability analysis and inferential analysis which consists of Pearson Correlation analysis and Multiple Linear Regression analysis.

5.2 Discussion of the Research Questions

Since the population of the Generation Z has involved in the workplace especially in the logistics business organization, therefore it was important to investigate the effectiveness and efficiency of the work engagement of Generation Z. Based on the findings and analysis, the relationship between these variables has significant impact to the effectiveness of work engagement of generation Z. In this research, the factors such as job characteristics, organizational culture, teamwork and top management support which may affected the work engagement of generation Z. Therefore, the conceptual framework was conducted and demonstrated the research question as below:

1. How the job characteristics affected the work engagement for Generation Z on logistics business organisation?

    According to the Pearson's correlation analysis, it showed that the result of the correlation value was 0.758 and P-value was <0.01. This result indicated that the factor of job characteristics had a positive correlation with the work engagement for Generation Z on logistics business organisation.

The job characteristics which provided by the logistics business organization may influence the level of work engagement of the Generation Z. Through this research, the variables of job characteristic have significantly influenced the work engagement which included job autonomy, feedback, skill variety, task significance and task identity. The feedback of the employees was important that the organization may realise the need and want of the employees. Many of the employees would feel boring and undervalued of the organizations, thus the organization may have significantly task would let the employee feel valued to the organization and provide skill variety to increase the use of variety ability which could increase the work engagement. Therefore, the logistics business organization may be realised the work engagement of Generation Z and they may improve their characteristics based on the result.

Based on the discussion above, it shown that the job characteristics had significant positive relationship with the work engagement for Generation Z on logistics business organisation. As a result, the research question (RQ1) was answered, and hypothesis (H1) was supported.

2. How the organizational culture affected the work engagement for fresh graduate on logistics business organisation?

According to the Pearson's correlation analysis, it showed that the result of the correlation value was 0.748 and P-value was <0.01. This result

indicated that the factor of organisational culture had a positive correlation with the work engagement for Generation Z on logistics business organisation.

The organizational culture which promoted by the logistics business organization may influence the level of work engagement of the Generation Z. Through this research, the aspects of organizational culture have significantly influenced the effectiveness of the work engagement which included consistency, engagement, flexibility and mission. A better organizational culture may be increased the employee's sense of mission which would also increase their engagement to the organization. In addition, a positive organizational culture may influence the employee's enthusiastic and motivation to complete the job actively which able to enhance the employee's loyalty, commitment and trust and result in increased the level of work engagement.

Based on the discussion above, it shown that the organizational culture had significant positive relationship with the work engagement for Generation Z on logistics business organisation. As a result, the research question (RQ2) was answered, and hypothesis (H2) was supported.

3. How teamwork affected the work engagement for fresh graduate on logistics business organisation?

According to the Pearson's correlation analysis, it showed that the result of the correlation value was 0.712 and P-value was <0.01. This result indicated that the factor of teamwork had a positive correlation with the work engagement for Generation Z on logistics business organisation.

The teamwork of a group in the logistics business organization may influence the level of work engagement of the Generation Z. Teamwork had significantly affected the work engagement of employees which also would influence the organization performance. A teamwork important criterion was team trust and communication among the team members which will lead the job effectively and efficiency and result in assists the organization to fulfil their goal, vision, mission and strategies. In addition, teamwork also able to increase the productivity, creativity and faster decision making. The leader also needs to allocate task according to their ability and skill which will lead to the teamwork effectiveness and result in increased the work engagement. Therefore, a high teamwork organization had a high level of work engagement of their employees.

Based on the discussion above, it shown that the teamwork had significant positive relationship with the work engagement for

Generation Z on logistics business organisation. As a result, the research question (RQ3) was answered, and hypothesis (H3) was supported.

4. How top management support affected the work engagement for fresh graduate on logistics business organisation?

According to the Pearson's correlation analysis, it showed that the result of the correlation value was 0.638 and P-value was <0.01. This result indicated that the factor of top management support had a positive correlation with the work engagement for Generation Z on logistics business organisation.

The top management support in the logistics business organization may influence the level of work engagement of the Generation Z. Through this research, the aspects of top management support have significantly influenced the effectiveness of the work engagement which included emotional support, material support and informational support. The top management provided the psychological support to the Generation Z employees would lead them fell they have pay closely attention from top management. Top management also need to used the work performance evaluation system to investigate the level of work engagement of their employees and also know their feedback from the evaluation. Therefore, the top management support which included the trust between the employees and result in increased the level of work engagement.

Based on the discussion above, it shown that the top management support had significant positive relationship with the work engagement for Generation Z on logistics business organisation. As a result, the research question (RQ4) was answered, and hypothesis (H4) was supported.

5.3 Contribution of Research

Regarding to the table 4.4 shown that the department with the most Generation Z employees is other column which has 36.5% because it included many departments such as IT department, research and development department, quality control department and others. Apart from that, the warehouse department, logistics department and import and export department which followed by 12.4%, 9.5% and 8% are common in the logistics business organization for the Generation Z to work in. Other than that, the table also shown that students who are not study in logistics will also enter the logistics industry for employment. This is because that most of the respondents was worked in the department which not related to logistics such as accounting department, human resources department and others. It is an opportunity for Generation Z to start a career in logistics business organizations.

According to the research, the highest significant influence the work engagement of the Generation Z is the job characteristics which consist of 0.758. This shown that the Generation Z is more focused on the job characteristic

which included the job autonomy and skill variety. Generation Z is more prefer on the more challenging job which have own decision power on the task and flexibility of the working hour. A flexible and attractive job will influence Generation Z to have effort in job and increase their work engagement. Apart from that the top management support is the lowest significant influence toward the work engagement of the Generation Z which consist of 0.638. This shown that the Generation Z do not focus on the support by top management because they may be able to self-management and self-improvement. Most of them have a strong working ability and variety of skill to solve any problems.

The relationship between the work engagement and the independent variables such as job characteristics, organizational culture, teamwork and top management support has been analysed. Thus, the Generation Z employees working behaviour is relate with the social exchange theory which is a bilateral exchange among the employees and the organization. According to the correlation value, it could be significant reflect the Generation Z is more prefer on maximize the rewards and minimize the costs. As shown that the job characteristics is the highest influence such as job autonomy which the employees may feel more affordable have the autonomy to allocate their own time to complete their job. This will increase the Generation Z employees' motivation and the level of work engagement. In a result that the social exchange relationship is reflect on the employees' contribution will be proportional to the reward from the organization.

In this research, the result of the level of work engagement which conducted in the Selangor area would benefit to the government policy maker, logistics business organization especially their human resource department, and society. Regarding to the analysis, the government policy maker may know the working pattern of the Generation Z in Selangor area which will lead to them to generate a better policy for enhancing a secure work environment to the employees and result in increased the generation Z's work engagement. Furthermore, the government policy maker also generates a set of instruments to guide the organization on how to treat their employees. A good regulatory and policy was able to protect the employee benefits and let them fell like being respected thus will increase the level of work engagement.

In addition, this research was also benefit to the logistics business organization especially their human resources department which department is recruit and evaluate the talent individual by using a new work performance evaluation system. This research also a reference to the organization to realise the characteristics of working and the attitude towards the work engagement. Therefore, according to the analysis of this research, they able to provide a better choose or opportunity to the Generation Z which may fulfil the demands of generation Z because the organization needs to keep up with the times.

5.4 Limitation of Study

During doing this research, the researchers faced numerous challenges. First limitations were the small sample size of respondents. A limited number of participants can reduce the generalizability of the study's results to a larger population. Furthermore, relying on the perceptions and experiences of a small group of respondents may decrease the reliability of the data collected.

Another limitation was the difficulty in obtaining accurate employment data, which may be due to a lack of available information or inaccurate data sources. Inaccurate employment data can negatively impact the credibility of the study's findings. Additionally, the study also found a lack of information on the employment rate of generation Z and the factors that influence their employment rate and work engagement. This lack of information may make it difficult to draw meaningful conclusions about this demographic and its relationship with employment and work engagement.

Additionally, the researchers faced time constraints while collecting survey data, and some respondents may have responded slowly or not responded at all. This may have impacted the completeness and accuracy of the data collected, which could affect the validity of the study's conclusions.

5.5 Recommendation for Future Research

There are a few recommendations for future researchers to improve the results on this relevant topic. To address the limited of sample size which can expand the survey to other state to include additional logistics business units and junior workers of other it will give a broader spectrum of viewpoints on employee engagement. This is because greater population sample sizes might provide future researchers more dependable and precise study results, boosting accuracy, representativeness, and consistency.

In addition, to solve the lack of accurate data, researchers should collect more precise data by using numerous information sources. For example, researchers may examine government statistics, industry reports, and corporate files to confirm the accuracy of the survey results. This will assist in ensuring that the study findings depend on real and reliable data. After conducted this research, we found that the questionnaire survey method is more appropriate mean to similar researcher for further.

To overcome time constraints, researchers can decide to lengthen the survey timeframe or provide respondents with incentives for timely completion, or the researchers may utilise alternate data gathering techniques, including as interviews or focus groups, to acquire more in-depth information on employee engagement. It also able to collect the data through social media such as Facebook, LinkedIn, and others.

5.6 Conclusion

This research study's major objective is to explore the factors that influence Generation Z employees' work engagement in Selangor, Malaysia's logistics industry organisations. According to the findings, all the independent variables (job characteristics; organizational culture; teamwork; and top management support) have a significantly influence over the dependent variable (work engagement). However, there were some limitations found in the study which are time constraints, lack of accurate information, and limited sample size. To solve this problem, several recommendations been provided to overcome the limitation including expand the survey to other state and lengthen the time for the data collection. This research necessary and important for the future researchers which are desire to investigate the work engagement of Generation Z and related topic.

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APPENDIX

Appendix A

Research Questionnaire

UNIVERSITI TUNKU ABDUL RAHMAN

KAMPAR CAMPUS

RESEARCH QUESTIONNAIRE

TOPIC:

THE EVALUATION OF WORK ENGAGEMENT AMONG GENERATION Z THAT INVOLVED IN LOGISTICS BUSINESS ORGANIZATIONS IN SELANGOR.

Dear respondents,

We are Year 3 Sem 1 students from Universiti Tunku Abdul Rahamn, currently studying in Bachelor of Science (HONS) Logistics and International Shipping. Currently, we are conducting research for our final year project with the topic "The level of work engagement of generation Z that involved in logistics business organizations". The purpose of this research is to analyse the factors that affect the work engagement of generation Z employees.

The survey consists of few sections which has six sections required 5 minutes to complete the questionnaire survey form. Kindly fill in all the questions as genius as possible.

Section A: Socio – Demographic profile.

Section B: Work Engagement in logistics business organizations.

Section C: Job Characteristics in logistics business organizations.

Section D: Organizational Culture in logistics business organizations.

Section E: Teamwork in logistics business organizations.

Section F: Top management Support in logistics business organizations.

Section A: Demographic Information

1. Gender

☐ Male   ☐ Female

2. Age

☐ 18 -19

☐ 20 - 21

☐ 22 - 23

☐ 24 - 25

3. Year of employment

☐ < 1 Year

☐ 1 – 2 Years

☐ 3 - 4 Years

☐ 5 - 6 Years

☐ > 6 Years

4. Work Position (Department involve)

_____

5.   Location

☐ Klang valley

☐ Hulu Selangor

☐ Kuala Langat

☐ Kuala Selangor

☐ Sabak Bernam

☐ Sepang

☐ Putrajaya

☐ Labuan

☐ Others

6.   Does the respondent involve in Logistic industry?

☐ Yes   ☐No

Section B: Work Engagement in logistics business organizations

1. My job inspires me.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

2. I am enthusiastic about my job.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

3. I feel delightful when I am working intensely.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

4. I able to continue working for very long period at a time.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

5. I got the sense of achievement on the work that I have done.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

Source: Adopt from (Umair Mughal, 2020).

<u>Section C: Job Characteristics in logistics business organizations</u>

1. My job is meaningful for me.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

2. My job requires doing a variety of task.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

3. My job provides autonomy in making decisions.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

4. I was able to realize the entire work process of the project.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

5. My job performance's effectiveness (e.g., quality and quantity) always been provided direct and clear information.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

Source: Adopt from (Morgeson and Humphrey, 2006).

Section D: Organizational Culture in logistics business organizations

1. My organization is very responsive on solving problems.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

2. I deem failure as an opportunity for learning and improvement.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

3. My organization's decisions directly influenced by the customer feedback.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

4. My organization continuously contributing effort in strengthening the skills of employees.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

5. My organization has a clear and consistent set of values to governs the way that I complete my working task.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

Source: Adopt from (Gillespie et al., 2008).

Section E: Top Management Support in logistics business organizations

1. My top management is open to new ideas and initiatives.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

2. My top management have well defined the company's environment policy.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

3. My top management actively seeks employee's opinions and ideas on strategic issues.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

4. My top management appreciate that employee's experiments with new ideas and products.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

5. My top management ensures that the interest of employee is considered when making strategic decisions.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

Source: Adopt from (Sax and Torp, 2015) and (Ilyas, Hu and Wiwattanakornwong, 2020).

Section F: Teamwork in logistics business organizations

1. I trust my team members.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

2. My team members and I have mutual respect with each other.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

3. I feel worthwhile when I am working with my team members.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

4. My team members willing to listen about what I am going to say.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

5. I encourage people to express their own opinions within the group.

   Strongly Disagree -1

   Disagree – 2

   Neutral – 3

   Agree - 4

   Strongly Agree - 5

Source: Adopt from (Umair Mughal, 2020).

Appendix B

Turnitin - similarity report

THE EVALUATION OF WORK ENGAGEMENT AMONG GENERATION Z THAT INVOLVED IN LOGISTICS BUSINESS ORGANIZATIONS IN SELANGOR

by lingssshl0424 1

CHAPTER 1

INTRODUCTION

1.0 Introduction

This research focused on investigating and comprehending the most common elements that significantly affected Generation Z's work engagement in the logistics industry. The chapter started with the background of the study, which was to understand the work engagement in the logistics industry of Generation Z with the relationship between the job characteristics, organisational culture, teamwork, and top management support. Moving on, the chapter consisted of the problem statement describing the main issues affecting Gen Z's work engagement. Following that, the research objectives, research questions, significance of the study, the definition of the term, scope and limitations, and the conclusion had been discussed.

1.1 Background of Study

For a while now, the study on millennials has occupied the spotlight. The millennial generation is characterized as being youthful, educated, forceful, and extroverted. Though millennial research is ongoing, a new generation, known as "Generation Z," has started to catch the interest of a variety of stakeholders, including corporate executives, entrepreneurs, and human resources professionals. A total population of Malaysians, accounting for 29% of Generation Z has started to engage in the workplace. Along with Generation Z being hired and entering the workplace, more than 1/3 of Generation Z is

predicted to surpass the millennials. Many business organizations comprehended the new positions and developed strategies to integrate Generation Z into the workplace to deal with intergenerational challenges (Chillakuri, 2020).

Generation Z, who was born from mid-1990 to 2010, and was raised in a "digital technology" environment (Benítez-Márquez et al., 2022). There are four "E" characteristics of Malaysian Generation Z has been identified as Electronically engaged, Educated, Entrepreneurial, and Empowered. It is to be seen that they are digitally native that they have never lived without the Internet and digital technology to stay interacting with people in real life, even family members. Thus, they are active learners and keen to obtain particular skills, which has indirectly developed their entrepreneurial aspirations. A survey found that 31% of Malaysian Generation Z respondents were expressed interest in becoming entrepreneurs. As a result, entrepreneurship is more lucrative for Malaysian Generation Z than working for an organization (Tjiptono et al., 2020).

Figure 1.1: Average number of Job Changes by Age in 2022

Sources: Adopt from (Boskamp, 2022)

In **figure 1.1**, Generation Z, from the age range of 18 years old to 24 years old, has become the most likely generation that intended to change jobs. In comparison to Generation Y, there is a huge gap intended for changing jobs between these two generations. There are many factors that affected the idea of Generation Z and Generation Y which motivated them to have different preferences in their work. According to ÇORA (2019) has been found that Generation Z is impatient and disloyal, meanwhile, they express their ideas and emotions directly. Hence, they wish their managers would listen and value feelings in order to create an effective working environment. In addition, Gaidhani, Arora, and Sharma (2019) mentioned that Generation Z prefers a working environment that is able to develop professional skills and encourages their entrepreneurial skills, as they have the freedom to identify what they like. On the contrary, Gen Y prefers a stable and routine working environment because they have responsibilities for taking care of their families.

Other than that, Generation Z in Malaysia is inquisitive and open-minded. To the extent of the challenges they faced at work, they believed it would be beneficial for them, as they were willing to embrace the challenges. Work life balance empathizes with the expectations of Malaysian Generation Z and enables them to schedule time for both their personal and work lives. If they felt there was a work life imbalance, they may reject leadership positions or even the job altogether. Through various types of behaviours in the workplace, relationships with teams, communication, digitalization at the workplace, and leadership or entrepreneurship were the essential factor that affected work engagement, as supported by Tjiptono et al. (2020). They were keen to have face-to-face communication with colleagues instead of texting or e-mailing to get sufficient interaction with them. It is vital to their future career and increasing level of work efficiency as 46% of Malaysians in Generation Z prefer teamwork and collaboration as what they expect, thus affecting their work engagement in the workplace afterwards (Tjiptono et al., 2020).

Moreover, logistics is the activity of coordinating the flow of goods, information, and other resources from the point of origin (supplier) to the point of consumption (consumer) to satisfy customer demand (Anca, 2019). Meanwhile, the logistics business would be defined as a structure for company planning that involves material procurement, inventory management and control. In short, it included inbound and outbound shipping, materials management, and physical distribution from the procurement process. The key

stakeholders included shippers, suppliers, transport carriers, warehousing, freight forwarders, and terminal operations. Since it was able to generate the value for the company and its key stakeholders as a function of time and location, it was vital for logistics to grow in importance as a process that adds value (Zigu, 2020).

In Malaysia, the logistics industry has been proven that it has a significant contribution to national trade and drives the GDP within Malaysia's economy (Karia, 2018). There were 6,065 logistic companies in Malaysia, while there were an exceedingly high 1,079 logistic companies in the Selangor area (businesslist, 2023). According to Tjiptono et al. (2020), Generation Z is the youngest, most ethnically diverse, and largest generation, who can create a monthly disposable income of MYR 327 million. However, there was only consists of 16% of Malaysian workers who stay less than one year with their present company, are planning to shift their jobs (Writer, 2020). This is partly due to Generation Z's clearly about their choices between a high-paying boring job and a low-paying interesting job (Gomez, Mawhinney, & Betts, 2020), but the logistics industry is among the higher-paying boring jobs. In Malaysia, the logistics industry has a salary range of around RM3000 to RM3700 (JobStreet, 2022), the logistics industry's scope of work is systematized, making new changes difficult. Especially the job task of the logistics industry is requiring a lot of physical effort to complete it. Hence, they are dissatisfied with their jobs and will change jobs within a short period, resulting in rapid manpower turnover.

Meanwhile, within the evolution of the era, technology is becoming more advanced as generations progress, and generation Z's social lives are very digitally focused (Emran and Rahim, 2016), with 80 percent of them spending an average of 8 hours a day on the internet (Dhesi, 2018). New technologies seem to be a regular part of life, according to Dolot (2018), 56% of Generation Z are particularly interested in learning about and using them. This means that they can easily get a lot of useful information through the internet, causing them to have a wide range of knowledge and interests. Since it would create the interests as much from internet, it makes them easily get bored, thus resulting it will be presented in their working attitude.

Last but not least, enhanced employee work engagement is a crucial need for an organization to perform well as well as to get a competitive advantage in the marketplace (Bakker and Albrecht, 2018). In particular, the percentage of work engagement in an organization is often not very high, thereby, it is crucial to seek ways to improve employees' job engagement in the organization (Statnickė, Savanevičienė and Šakys, 2019). Based on the research by Randstad Malaysia (2022), it is illuminated Generation Z has a high frequency of changing jobs compared with the other generations.

1.2 Problem Statement

Work engagement is one of the main factors to evaluate the employees in the logistics business organizations. This is because that the high work engagement helped the logistics business organization to retain the employees and

maximized the loyalty of the employees. However, the low work engagement often led to the employees resign and changes their job to the other organizations. According to the survey of Randstad Malaysia (2022), there are 3 in 10 respondents in Malaysia said that they planned to change their jobs which have marking a 7% increase from 2021 which led to a high turnover. This circumstance arose may be caused a serious problem that we have faced that the Gen Z employee rapidly changes their job within one year on logistics business organizations.

The most factor that motivating the Malaysian employees changing jobs which are job characteristics, company culture, teamwork and top management support. According to Prameswari (2019), the characteristics of job may increase in high work engagement by increased the satisfaction and motivation. Regarding to Pandita and Kumar (2021), the work engagement may be affected by top management support and teamwork which would lead to a cost and rewards basic. Apart from that, company culture also an important factor which the employee focused on especially Gen Z employees. The organisation's culture which was not consistent with the employees will led to the employee changing job in high percentage.

Work engagement of employee benefited to the logistics business organization, but most of the management did not understand employee work engagement. Although there has research on employee work engagement, but none have been research on the logistics business organization especially the generation Z

employee. Due to the knowledge gap, conducted this research on the factors that may affected the work engagement of generation Z on logistics business organization. By conducting this research, expected to help the management to understand the wants and needs of the employee which actually can engage and disengage them. Thus, the issues would be taken into our studies to investigate the work engagement of generation Z on logistics business organizations.

1.3 Research Objective

The research objective consists of:

1. To identify how the job characteristics affect work engagement among Generation Z in logistics business organizations.

2. To determine how the organisational culture affects work engagement among Generation Z in logistics business organizations.

3. To determine whether teamwork affects work engagement among Generation Z in logistics business organizations.

4. To investigate whether top management support affects work engagement among Generation Z in logistics business organizations.

1.4 Research Question

The research question is:

1. How the job characteristics affected the work engagement for Generation Z in logistics business organizations?

2. How the organisational culture affected the work engagement for Generation Z in logistics business organizations?

3. How teamwork affected the work engagement for Generation Z in logistics business organizations?

4. How top management support affected the work engagement for Generation Z in logistics business organizations?

1.5 Significance of Study

The motive for carrying out this research study was to study Generation Z, which would have an essential impact on their future careers. Based on this research study, the reasons or factors behind working engagement in logistics careers would be explored that how work engagement affected Generation Z. According to the research, it was proven that the current trend in the business market is a high demand for an employee in a logistics career. Besides, Malaysia's logistics industry still operates more in the traditional manner, which means it needs a number of employees to fulfil the demand and enhanced the logistics operation with efficiency.

The significance of this research study would be advantageous for a few sectors. The government policy maker, the company human resources department, and the future researcher would be included. Firstly, this research study provided the government policy maker to set up the policy to enhance or get focused on the employees of Generation Z. A suitable procedure was the only solution to improve employee work engagement and provide a healthy working environment. Next, another sector that would benefit was the logistics

company's human resources department since the person in charge was able to understand the current situation of working engagement by Generation Z and provide suitably and fulfil the demand the generation needs and wants. Regarding the research study, it was especially for the management of the company can be used as a reference which helps them avoid misunderstanding generation Z's characteristics and working attitude towards the workplace.

1.6 Scope

The scope of this research was set at Selangor, Malaysia which target on the generation Z that involved in logistics business organizations. This research has chosen the samples of the individuals especially generation Z who worked as a junior employee which engaged in logistics business organizations.

1.7 Research gap

A research gap was found in this study, with fewer researchers examining the work engagement in the logistics business organizations especially generation Z. Most of the research was on other industries or other countries, and there are little research reports on the logistics business organizations in Selangor, Malaysia. In addition, this research has only emerged in the last two decades. Most previous researchers have not ventured into this area, resulting in a lack of information for this study. It was difficult for the researcher to find citations and references for the literature review.

1.8 Definition of term

1.8.1 Work engagement

The opposite of job burnout, work engagement is a positive, satisfying, emotional condition of well-being associated with work. Employees that are actively immersed in their job exhibit high levels of energy (Bakker, 2010).

1.8.2 Job characteristic

Job characteristics include five basic job dimensions: skill diversity, task identity, task significance, autonomy, and feedback (Yoo et al., 2018).

1.8.3 Organizational culture

Organizational culture is the "set theory" of significant values, beliefs, and understandings that members share. Culture provides greater methods of thinking, perceiving, and behaving that could assist managers in making decisions and coordinating organisational operations (Sun, 2009).

1.8.4 Teamwork

The term "teamwork" refers to interactions among team members who pool their resources to meet task objectives (Schmutz, Meier and Manser, 2019).

1.8.5 Top management support

The level of top management support is defined as the expectation of workers that they will get support, encouragement, and care from their managers (Contreras et al., 2020).

1.8 Conclusion

The first chapter was about the overview of the work engagement of Gen Z in the logistics industry and it consists of the background of the study, problem statement, research objectives, research questions, the significance of the study, definition of term, scope, and limitation. Chapter two were further discussing the literature review, the relevant theory, a conceptual framework, and the hypotheses development about the topic.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

Chapter 2 was the literature review for our research topic consists of the findings and studies from various parties. It presented the existing literature review on the work engagement of Generation Z in logistics business organisations. Apart from that, this research also proposed an academic theory, the social exchange theory, to relate work engagement and the factors that may affect work engagement, such as job characteristics, company culture, teamwork, and top management support. This chapter also discussed the theoretical framework and hypothesis development.

2.1 Social Exchange Theory

The most precise definition of the social exchange theory was restricted to the actions that are dependent on rewarding each other, and it implies a bilateral exchange and reciprocal process involving "transactions" or "simple exchange" (Blau, 1964; Emerson, 1976). Social exchange theory was distincted from two economic and social perspectives (Blau 1964; Moorman et al. 1998; Standford 2008). The financial branch related to the agreement, which the organization and the employees agree upon and sign with economic gain and physical effort (Deckop et al. 2003). In contrast, the social branch related to personal self-interest and satisfaction, providing social and emotional comfort to the employees (Slack, Corlett and Morris, 2014).

According to Blau (1964), the social exchange theory was driven by self-interest by integrating individual social rationality, showing self-centred and selfish thinking. Apart from that, the employees receive rewards from the organization to repay the cost to the organization with greater engagement (Umair Mughal, 2020). Therefore, the social exchange theory aimed to maximize the rewards and minimize the costs (Yin, 2018). The social exchange theory influenced the employee's work engagement through job characteristics, organizational culture, teamwork and top management support.

The social exchange relationship between the work engagement and Gen Z employees would show on the job characteristics such as job identity, job autonomy, job task significance and job feedback. A quality job characteristic would increase employee motivation and engagement, making them feel responsible and actively put their effort into the assigned task (Garg and Dhar, 2017). Thus, the employees, especially Gen Z, preferred the job characteristics with creativity and innovation of advanced technology (Briken et al., 2017). Moreover, the other features, such as flexible work arrangements for the employees, were generally a job reward to the employees, which balances with their efforts (Chernyak-Hai and Rabenu, 2018).

Apart from that, the main characteristics of organizational culture were beliefs and shared values which may affected employee behaviour in the organization. The reward related to the corporate culture would impact employee effectiveness and influenced the work engagement level. Thus, innovative

behaviours in the workplace need a promising, supportive, and inspiring organizational culture to build a positive workplace environment. It would led to the employees achieving their personal goals and being willing to contribute their time to their respective tasks, which would get paid and incentives from the organization (Nazir et al., 2018).

According to Whitener, et al (1998), interpersonal trust was the fundamental element of social exchange relationships among the employees on teamworking which contribute paramount significance to performance, communication, and behaviour. Teamwork strengthens the team's trust among the employees, empowering their personalities and developing their skills and talents (Sanyal and Hisam, 2018). As a result, teamwork was an element of the social exchange relationship, and two parties could be protected their self-interests by maximizing both benefits and minimizing the cost and risk (Memon, Ghani and Khalid, 2020).

Furthermore, the top management support was an essential element of social exchange relationship, including giving training to their employees, which respond through organizational commitment (Mora Cortez and Johnston, 2020). The top management may transmit the corporate values and climate that could be strengthen the internal cohesion and the subordinates' sense of belonging to the company (Gabrielli, Russo and Ciceri, 2019). Therefore, the top management support, such as encouragement, can increased the employee's

positive expectations, leading them to long-term benefits (Mehboob and Othman, 2020).

In conclusion, the social exchange relationship would reflect the work engagement level of the Generation Z employees by a high quality of job characteristics, the high moral value of organizational culture, teamwork between the colleagues and top management support towards the subordinates, which the employee cost would be proportional to the reward.

2.2 Work Engagement

More than a third of the world's population will soon identify as Gen Zers, replacing the senior workforce as the most common generation. Hence, it led to an upsurge in the number of studies examining the employee engagement of generation Z. According to Kahn, the notion of work engagement was first introduced in a 1990 paper. He characterized it as a degree of active, energizing involvement in a working position in which employees are attentive in expressing their opinions and establishing connections. Work engagement is also defined as a good, motivating, and satisfying state of work-related well-being (Blanch and Aluja, 2009).

Engaged workers identify themselves through their job, and as a result, they exhibit high levels of vigour, dedication, and a sense of dedication to engagement in their job (Timms et al., 2015). In addition, vigour indicates energy, identity, and dedication, while absorption refers to complete focus on

and concentration on work (Mauno, Kinnunen and Ruokolainen, 2007). According to Borst et al. (2019), when workers feel engaged, they are most able and motivated to apply high levels of effort, resulting in enhanced performance. In addition, engaged employee increase their engagement by developing their professional and personal capabilities (Bakker and Demerouti, 2008) and transmitting their engagement to others (van Mierlo and Bakker, 2018). Based on the studies, the article elaborated that work engagement may be predicted to be influenced by a few elements there will be as below: job characteristics, organizational culture, teamwork and top management support.

2.3 Job Characteristics

Employee engagement was essential to achieving corporate goals since workers are the organization's main driving variable (Bakker, 2011). Employees who are highly engaged would put greater effort into achieving organizational objectives (Prameswari, 2019). Job characteristics are one of the components of establishing employee work engagement (Saks, 2006). According to Hackman and Oldham (1975), theory of job characteristics, there are five dimensions of job characteristics which are autonomy is job encourages the worker to have freedom and independence, feedback refers to the job activities deliver the employees with direct and precise data about their performance, skill variety refers to the wide range of tasks and abilities needed for the work, task identity allows an employee to see a project throughout the entire work process from beginning to end, and task significance refers to the degree to which workers perceive their work in being meaningful. This research will be based on job characteristics theory to elaborate on how it affects employee engagement.

Previous research has established that all the variables of job characteristics positively and significantly influence work engagement (Hidayah, Nadhir and Puteh, 2017; Prameswari 2019; George, Jonathan and Lendai, 2020; Kumar, Reddy and Das, 2021). The autonomy dimension significantly positively influences work engagement (Malinowska, Tokarz and Wardzichowska, 2018). Allowing workers greater autonomy would make them feel more trusted and respected by the company in carrying out their duties, increasing their sense of engagement with their employer and job (Saragih, 2011; Prameswari, 2019).

On the opposite side, Knight et al. (2017) have argued that autonomy is significant and negatively influences job engagement. This is because high workloads or a lack of personnel or time have a detrimental impact on people's feeling of freedom to complete their work in the most satisfying manner and their consequent level of work engagement. Several studies found that autonomy is insignificant with work engagement. Workers may assume they have job autonomy, but if their supervisors do not engage them, there may be no link between autonomy and engagement. Engagement decreases when workers do not find value in their autonomy (Lin and Ping, 2016; Hidayah, Nadhir and Puteh, 2017).

The results showed a significant positive link between employee engagement for the feedback component. Feedback on their performance is essential for workers to know whether they are doing well (Lee, Idris and Tuckey, 2018; Mol et al., 2018). On the other side, Hazalizah et al. (2022) found no significant

relationship between employee engagement and the feedback from performance evaluations because the workers may feel it is just printed and copied for everyone in the e-mail.

The finding for the skill variety dimension indicates that as skill variety rises, so does employee engagement. Employee engagement may increase if given a chance and the ability to use a variety of abilities in the work so that boredom may be reduced (Kim, 2017; Kim, Han and Park, 2019; George, Jonathan and Lendai, 2020). However, it was shown that skill variety was unrelated to job engagement due to the workers having a heavy burden job in their work environment (Othman and Nasurdin, 2019).

On the dimension of task significance, when workers believe their work has value for the business, they will have a strong feeling of responsibility in performing their tasks. This feeling of duty will motivate workers to work harder to complete their work (Bernadeta and Ilona, 2015; Grobelna, 2019). Regarding task identity, workers who had the chance to initiate, manage, and finish a specific job independently would be more motivated, hence experiencing better engagement. Task identity motivated people to achieve work objectives, encouraging greater employee engagement (George, Jonathan and Lendai, 2020; Karim, 2022). Nurul Hidayah and Fadilah (2022) stated that there is no significant relationship between task identity and work engagement because employees may disagree with a task identity that allows the job to be

completed without communicating to or interacting with others because they prefer to work in teams and via teamwork.

Based on the studies reviewed, fifteen journals and articles have proven that job characteristics and work engagement have a significant positive relationship. However, five of the research indicate that all elements accept task significance in the job characteristics having an insignificant relationship, and just one of the journals points out autonomy has a significant negative relationship with job engagement. As a result, this study assumes that the job characteristics favour work engagement in the logistics business organization.

2.4 Organizational Culture

Organizational culture should consider they are internal within the distinct and palpable character (Michael Morcos, 2018). It does not have a standard definition as it can be defined as less or more visible rather than bad or good in a workplace (Szydło and Grześ-Bukłaho, 2020). On the contrary, the characteristic of culture is not visible, unless it is made visible by its depiction (Van Maanen, 1988). Moreover, according to Denison and Mishra (1995), the study clearly indicates that there is a positive relationship between organizational culture and effectiveness. They discovered the four aspects of organizational culture, for instance, consistency, engagement, flexibility and mission may influence effectiveness of the employees, thus improving their work engagement.

Efficient communication between the employees and management in a positive culture leads to enhancing the employee's engagement. Since the employees feel trust in the workplace and it sustains them in the company for intended periods of time, this is supported by Najeemdeen et al. (2018). Meanwhile, Diamantidis (2018) argued that the adverse influence on culture has contributed to the low work performance of the employees. The training culture in a company included frequent absenteeism and poor motivation, however, resulting in a poorer level of the employees' skill flexibility and adaptability.

Despite that, (Meng and Berger, 2019; Likert and Likert, 1976) have the opposite perspective with the article above. Company culture can be defined as beliefs, values, and assumptions that are built by company members. These shares were able to influence the behaviours of the members because they rely on the value as the mean of decision-making and personal behaviours which may enhance effectiveness of the company. Next, MohaMohanty and P (2020) mentioned that psychological safety has a strong relationship with work engagement. In the workplace, psychological safety means the company members rally agree that a team is a secure place for taking an interpersonal risk. It benefits members' engagement which allows them to cooperate with each other easily. In other words, psychological safety allows them to fully focus on their work task without any unnecessary interference.

Furthermore, Al Shehri et al. (2017) said that implication of social exchange theory produces positive relationship with work engagement. Mutually

beneficial relationship between the employer and the employee will enhance the level of loyalty, commitment and trust over the year, the positive work ethic is the return of the company. Besides, article from Chaudhary (2017) define company culture as the personality of the company. It behaves as the mean of guidance for the employees to think and act towards it jobs. It is virtual but act as a backbone of the company which impact the behaviour of the employees.

2.5 Teamwork

A team is a collection of people who work together to attain the same aims and objectives, such as providing high-quality services. According to the research, teamwork assists in developing employees' skills and perspectives by automatically exchanging positive opinions, feedback, experiences, and viewpoints among team members. This process results in continuously developing the organization's services and employees' work performances. As a result, firms should improve the notion of cooperation among their employees in order to promote productivity and creativity, gain a competitive edge, and enhance each employee's performance. Besides, some researchers identified teamwork as a critical occupational skill since it is essential to fulfilling the business's visions, goals, strategies, and objectives in order to activate and enhance employee engagement (Sanyal and Hisam, 2018). Therefore, this research will focus on team trust and the team's psychological effects on work engagement.

Sanyal and Hisam (2018) mentioned that trust and work engagement correlate positively. Team trust develops when team members have confidence in one

another's skills and proficiencies. The ability of a team to trust one another has the potential to reinforce teamwork behavioural ideas, such as enhancing personalities skill and talent development. Edmondson (1999) pioneered the notion of team psychological safety. She defined it in her study as "a common sense that the team is safe for interpersonal risk-taking." Umair Mughal (2020) had mentioned that teamwork significantly affected employees work engagement. From another perspective, employees have less chance to increase work engagement when not working in a team. Hence, the result shows an almost 25% decrease in the worker's work engagement. Therefore, teamwork fosters good motivation and a strong concentration on work and proves that it significantly impacts the level of personal involvement in the work (Rasmussen and Jeppesen, 2006).

Bakker (2022) indicated that work engagement increases when a team has a strong level of enthusiasm and devotion. Furthermore, Fujita et al. (2016); Meng et al. (2018) mentioned a correlation between the team level and improved coordination of work and communication. It is resulting in more streamlined production processes, which are expected to impact work engagement positively. Furthermore, this process has a 'dark side' known as the contagion effect. For instance, if someone has a negative work engagement level it will affect the others (Westman et al., 2011).

In conclusion, six researcher point out that it is positively significant between teamwork and work engagement. Besides, that just one of the journals showed

negatively substantial. Based on all this evidence, it seems that teamwork is a crucial element that will significantly affect work engagement. As a result, this study will assume teamwork has positively affected work engagement in the logistic business organizations.

2.6 Top Management Support

Top management support (TMS) refers to the level of top management commitment toward a certain project. This represents their engagement and desire to invest important organisational resources (Holland and Light, 1999). Regarding to the Contreras et al. (2020), there are three different kinds of top management assistance that might exist in the workplace, such as emotional support which is caring their mental health, material support refers to rewards, and informational support which is information exchange. Thus, the purpose of their job tasks which regulates the strategy and growth of the organization in good development (Albrecht, 2018). When the resources have been supported by top management as much, the employees increased commitment and loyalty to the organization which affects their engagement.

Moreover, Geisler, Berthelsen and Muhonen (2019) have demonstrated a positive relationship between the social support, for instance, managers caring the employees for providing psychological needs which closely positively affected to the employee's engagement and greater job satisfaction. According to Memon et al. (2019), it discussed that Performance Appraisal Satisfaction (PAS) is closely influence the work performance of the employees. Top management must determine and communicate how to execute the system, PAS

able to keep the performance level and arouse the poor employee to progress, eventually it helps the company to sustain the quality of work then success. In this regards, the top management supervises the employees by using PAS system and the employees work more actively. Since the employees have performance a good job, the management rewards them as an action of supporting the employees, thus resulting the employees engaged positively and actively towards the workplace.

Trust is based on top management's support for the employees and equally the employees' unconditional trust in management when they are exchanging and sharing efficient knowledge. Top management support may regard as a source of trust among the employees (Fernández-Pérez, Jesús García-Morales and Fernando Bustinza-Sánchez, 2012). The greater of trust, the more effectiveness of communication between top management and the employees, thus resulting minimizes the uncertainty (Daghfous, Belkhodja and Ahmad, 2018). Based on this, this encourages the employees gain more knowledge from sharing information, leads to improving engagement.

Futhermore, according to Chughtai and Buckley (2008), this paper analyses the impact of state trust such as top management, immediate supervisor and co-workers affected on the work engagement. The result shows a positive affect that upper level of trust in the employees, it will encourage the work engagement. Towards the workplace, it is a significant phenomenon that the employees should be routinely foster a culture of trust and empowerment

supported by the top management (Bakker, 2017). Therefore, when the employees feel the trust from the top management in the company, for instance the manager delegating the project to the employees by dependent to complete it, they will be more motivated and engaged in their works.

2.7 Conceptual Framework


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┌─────────────────────┐
│  Job Characteristics │──────────┐  H1
└─────────────────────┘           │
                                  │  H2
┌─────────────────────┐           │         ┌──────────────┐
│    Organisational    │──────────┤  H3     │     Work     │
│       Culture        │          ├────────▶│  Engagement  │
└─────────────────────┘           │  H4     └──────────────┘
┌─────────────────────┐           │
│      Teamwork        │──────────┤
└─────────────────────┘           │
┌─────────────────────┐           │
│   Top Management     │──────────┘
│      Support         │
└─────────────────────┘
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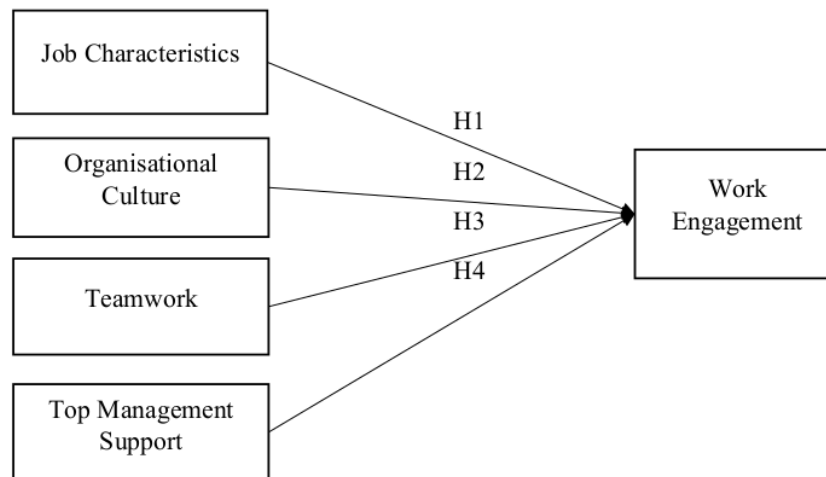
Figure 2.1: Conceptual Framework

Based on the findings and studies, the factors that may affected the work engagement of generation Z has shown on the research framework according to the figure 1. The factors that influenced the work engagement on logistics business organizations which included job characteristics, company culture, teamwork and top management support. This research is aimed to investigate the relationship between these variables which determined the efficiency and effectiveness for work engagement of generation Z.

2.8 Hypothesis Development

2.8.1 The relationship between Job Characteristics and Work Engagement

The characteristics of job have special impact on increasing job satisfaction, increasing employee intrinsic motivation and reducing the pressure on demands of job, thus that they can complete their work efficiency (Prameswari et al, 2019). Not only the effectiveness will affect the work engagement, it also be able to provide a work environment that need to meet the employees' individual needs through job design (Noe, et al, 2015). According to Bakker (2011) established job characteristics resources such as autonomy, task variety, feedback, task significance, skill variety, task identity and social support to contribute to higher levels of job satisfaction and work engagement (Rai and Maheshwari, 2020).

H0: The job characteristics does not affect the work engagement of generation Z on logistics business organizations.

H1: The job characteristics does affect the work engagement of generation Z on logistics business organizations.

2.8.2 The relationship between Organizational Culture and Work Engagement

The employee work engagement drivers on employee-friendly corporate culture which may provide an innovative pathway, good career opportunities, managing performance, pay and reputation of the organizations (Evangeline and Gopal Ragavan, 2016). According to the Global Human Capital Trends 2015 reports that show an organization with high transparency, greater turnover rate and severe experience shortage, there have main issues faced by the organizations which are the work engagement and retention of Gen Z employees. Therefore, the organization's culture provides a work environment to motivate high engagement which will lead to the employees balancing their work tasks and personal goals, having high performance and high engagement of Gen Z employees (Taneja, Sewell and Odom, 2015).

H0: The organizational culture does not affect the work engagement of generation Z on logistics business organizations.

H2: The organizational culture does affect the work engagement of generation Z on logistics business organizations.

2.8.3 The relationship between Teamwork and Work Engagement

Teamwork which means colleagues who are willing to support one another such as warm, empathetic, cooperative, kind, approachable, not gossiping, or slanderous, grateful, respectful, and helpful as social support in the organisation (Pandita and Kumar, 2021). All employees need to be aware on the importance of teamwork in order to achieve rapid and innovative outcomes which able to promote sustainable development. The collaboration of team may be stronger and higher quality was able to contribute by provide the knowledge. Due to reciprocity among employees, the employees exchange their knowledge and trustworthy with each other (Navajas-Romero et al., 2022).

H0: The teamwork does not affect the work engagement of generation Z on logistics business organizations.

H3: The teamwork does affect the work engagement of generation Z on logistics business organizations.

2.8.4 The relationship between Top Management Support and Work Engagement

The top management support is very important especially managers, who as a mediator of the company to strengthen the relationship with the workers (Pandita and Kumar, 2021). The top management can support the employees in dealing with their occupational stress, and it sends the valuable message to the generation Z employees that they are valued, liked, respected, and fit into the reciprocity commitments (Agarwal, 2016). Nonetheless, the antithesis of the top management support is the managers sent negative behaviour to the employees such as power inequalities and led to subordinate performance decline (Tepper and Duffy, 2011), thus continue a negative impact for employee well-being and mental health, including personal depression and emotional fatigue (Pandita and Kumar, 2021).

H0: The top management support does not affect the work engagement of generation Z on logistics business organizations.

H4: The top management support does affect the work engagement of generation Z on logistics business organizations.

2.9 Conclusion

In conclusion, this chapter conclude on the pass journals that are related to the work engagement and this literature review give a better understanding of this studies. Throughout the literature review and research found that have many factors may influence the work engagement of employees especially Gen Z on logistics business organizations which supported by the previous researchers. The factor that most significantly impacted is the job characteristics, organizational cultures, teamwork and top management support. Apart from that, in this chapter also discuss about the Social Exchange Theory and the relationship between the dependent and independent variables. Therefore, an appropriate research method would be used on next chapter to clarify the relationship between work engagement and its factors.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

In this chapter, the research methodology describes collecting raw data and information, which becomes detailed and valuable information through analysis. It is used to determine the conceptual framework as the hypotheses are developed. This research would discuss on several aspects, including research design, data collection, sampling design, research instruments, data processing, and data analysis.

3.1 Research Method

In this research, quantitative research was used in the research method, which was collecting and analysing the structure of data and information that can be presented numerically and goals to build accurate and reliable measurements (Goertzen, 2017). In addition, it allowed researchers to study the population's demographics, which have collected the survey form from the respondents. Thus, this research conducted a quantitative analysis to prove the null and alternative hypotheses and determined the relationship between the dependent variables (work engagement) and independent variables, including job characteristics, organizational culture, teamwork and top management support.

3.1.1 Research Design

This research has been conducted through questionnaires using the quantitative research method. This quantitative approach involved both descriptive and

exploratory research. Exploratory research is a research design that determines and examines the research problem that is unclear and misunderstood. The key characteristics of the exploratory research design were unstructured and open-ended questions, thus being flexible for this research. Descriptive research described a deeper understanding of the phenomenon and its different characteristics without addressing why it happened. Hence, this research was able to use exploratory and descriptive research to discover the factors that affected the work engagement of generation Z in logistics business organizations.

3.2 Data Collection

Data collection is the process of gathering and analyzing information to verify findings and conduct research. It was performed to diagnose a problem and learn about its outcome and future tendencies. When attempting to answer a question, data collection methods can assist in predicting the outcome. Based on the information, both primary and secondary data collecting methods were helpful in various situations. Secondary data might be used to save time, and primary data could be used to obtain reliable findings (Priya, 2021).

3.2.1 Primary Data

The primary data is original and is directly collected by the researcher from sources including first-hand observations, surveys, questionnaires, case studies, and interviews (Ajayi, 2017). In that case, the target respondents were used as the primary data in a questionnaire survey methodology. This study aimed to

investigate the level of work engagement among Generation Z employees in the logistics business organisation.

3.3 Sampling Design

3.3.1 Target Population

The targeted population is defined as a group of respondents that the researchers need to investigate, thus conducting research to evaluate the research questions. In this research, the target population was identified as generation Z in Selangor, Malaysia. According to the Department of Statistics Malaysia (2021), the population of Selangor consisted of a total of 6,555,400 residents in the year 2021, and there have SS of the born range between 1997 – 2012, which consisted of generation Z.

3.3.2 Sampling Size

A sample size that is bigger than required will more accurately reflect on the population which lead to more reliable results; however, the accuracy would only slightly improve beyond a certain point (Andrade, 2020). The process of sample size calculation and power analysis is too difficult and complex and avoid the need for studying the knowledge of statistics and software programming, thus using the G*Power software to calculate the sample size which has a graphical user interface (GUI) (Kang, 2021). Firstly, by using the research goals and hypotheses including the null and alternative that discussed in previous chapter. Secondly, chose an appropriate statistical test that G*Power software has provided two methods which are distribution-based approach and

design-based approach. In this research, chose the T-test based on the distribution-based approach or choosing the correlation point biserial model based on the design-based approach. Thirdly, chose one of five possible power analysis methods according to Table 3.1. Thus, used the type of power analysis which is a priori: compute required sample size – given alpha, power and effect size. After that, assumed that the input parameters as two tails test, the effect size of |p| is 0.3, the alpha of error probability is 0.05 and the power which one minus beta of error probability is 0.95. Therefore, the G*Power software determined that the total sample size is 134 in this research that need to use as reference on figure 3.1.
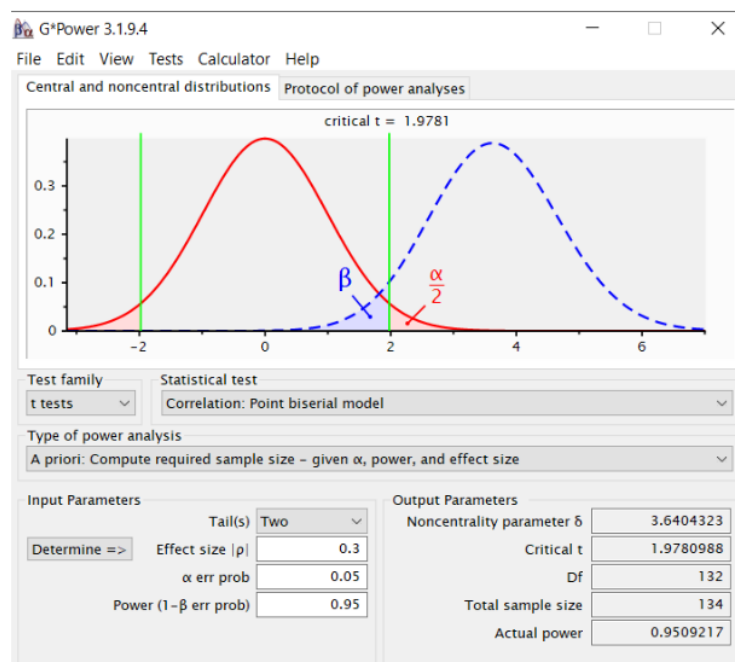

Figure 3.1: Calculate total sample size by using G*Power software.

Source: Adopt from (Faul et al., 2009)

3.3.3 Sampling Process

In this research, the questionnaire survey form was conducted in electronic form to targeted respondents. The questionnaire survey form was generated as an online survey form by using Google Form which may be minimize the cost of conducting this research. The respondents were given to access the Google Form Link and complete the survey form based on their opinion. The data will be collected from September 2022 to December 2022 and the respondents will be the generation Z that involved in logistics business organizations at Selangor.

3.3.4 Sampling Techniques

Probability sampling is the gold standard in sampling methodology and ensures that research findings could be generalized to the target population. It includes simple random sampling, systematic random sampling, stratified random sampling, and cluster sampling. According to Acharya et al. (2013), each member of the population has an equal chance of being chosen for the research. In general, stratified random sampling separated the data into sub-groups (strata) with similar characteristics such as age, gender, race, income, education, and ethnicity. Hence, stratified random sampling would be the most suitable because it was able to evaluate each stratum's properties and compared them. Furthermore, a research organization may be divided the population into several non-overlapping, homogenous groups (strata). It randomly picked final participants from the different strata using stratified random sampling, leading to cost-effectiveness and efficiency. Therefore, Generation Z in logistics business organizations became the respective group of the sample.

3.4 Research Instrument

By conducting this research, the most useful tool for the research instrument was the questionnaire survey which was created in electronic form and collected the survey form from the targeted respondents by using the stratified random sampling technique. It was beneficial for the researchers because it is able to conduct the research more cost-saving, efficient and effective compared to other methods. Thus, the questionnaire arranged the questions using the fixed-alternative approach and the level of measurement, which consists of a nominal scale, ordinal scale, interval scale and ratio scale to maintain the data more integrity and consistency. The questionnaire was modified from other journal questionnaires related to this research objectives. The questionnaire was divided into six sections:

1. Section A: Socio – demographic profile.
2. Section B: Work engagement on logistics business organizations.
3. Section C: Job characteristics on logistics business organizations.
4. Section D: Organizational culture on logistics business organizations.
5. Section E: Teamwork on logistics business organizations.
6. Section F: Top management support on logistics business organizations.

Table 3.1: Questionnaire framework

Section	Variable	Measurement	Scale Technique
Section A	Gender	Nominal	-
	Age	Ordinal	-
	Location	Nominal	-
	Work position	Nominal	-
	Year of employment	Ordinal	-
	Does the respondent	Nominal	-

	involve in logistics business organizations?		
Section B	Work engagement on logistics business organizations.	Ordinal	5-points Likert scale
Section C	Job characteristics on logistics business organizations.	Ordinal	5-points Likert scale
Section D	Organizational culture on logistics business organizations.	Ordinal	5-points Likert scale
Section E	Teamwork on logistics business organizations.	Ordinal	5-points Likert scale
Section F	Top management support on logistics business organizations.	Ordinal	5-points Likert scale

3.4.1 Pilot Test

A pilot test was defined as a preliminary study whose primary purpose was to examine the suggested greater study's validity, such as the research project's cost, time, performance and risk. The objective of the pilot test was to evaluate the feasibility, reliability and validity of sampling techniques and questionnaires. Additionally, conducting a pilot test was to help the researchers modify the design of the questionnaires flaw when the respondents of the survey felt difficulty in completing the questionnaires (Fraser et al., 2018).

This research used the Statistical Package for Social Sciences (SPSS) program to analyse the result of the pilot test and examine the validity of the questionnaire through Cronbach's Alpha Coefficients which need to test the consistency of the dependent and independent variables. The value of

Cronbach's Alpha Coefficients is recommended at 0.70 and above, leading to high reliability and validity satisfaction (Taber, 2017). Thus, the values of Cronbach's Alpha Coefficients are used to test the validity of the variables based on the Rules of Thumb, which showed in Table 3.2 (Mat Nawi et al., 2020).

Table 3.2: Cronbach's Alpha Rules of Thumb

Alpha Coefficient Range	Strength of Association
$\alpha < 0.5$	Unacceptable
$0.5 \leq \alpha < 0.6$	Poor
$0.6 \leq \alpha < 0.7$	Questionable
$0.7 \leq \alpha < 0.8$	Acceptable
$0.8 \leq \alpha < 0.9$	Good
$\alpha \geq 0.9$	Excellent

Source: Adopt from (Habidin et al., 2015).

3.5 Data Processing

The data processing is gathering and transforming the data into usable information. Data collection is the first step of data processing. Data must be processed step-by-step to convert the collected data into the required form. According to Afshan (2019), the following step includes storage of data, sorting of data, processing of data, data analysis and data presentation.

3.5.1 Data Reliability and Validity

The principles of reliability and validity were used to evaluate the quality of research and indicate the accuracy of the methodology. Validity was concerned with the measure's accuracy, while reliability was concerned with the

consistency of the research. When established the research design, planning techniques, and writing up the study findings, it is essential to consider reliability and validity, particularly in quantitative research (Middleton, 2019).

3.6 Data Analysis

Data analysis was the process of analysing the data collected from the questionnaire survey form. In this research, a computer software program, the Statistical Package for Social Sciences (SPSS) 28.0, has been used; this research aims to examine the research questions. The generated result has supported the four hypotheses of this research. Thus, this research has used descriptive analysis, reliability analysis and inferential analysis, which consists of Pearson's Correlation Coefficient Analysis and Multiple Linear Regression Analysis.

3.6.1 Descriptive analysis

Descriptive analysis was a type of analysis that helps to describe, organise and summarise the data, allowing the researchers to better understand the data. This analysis delivers a basic summary of the sample, which was determined by transforming unanalysed data into a simple pattern and easier to understand (Kemp, Hort and Hollowood, 2018). In addition, the analysis transformed the non-numerical data into informative data using the frequency and percentage distribution, which consists of socio-demographic distribution and Likert scale distribution of the respondents.

3.6.2 Reliability analysis

Reliability analysis was used for the quantitative approach to evaluate the reliability of the questionnaire survey form, which ensures a high quality of research. In addition, the reliability analysis procedure generated a regular number by using the measurement of scale reliability to provide data about the relationship between the scale's component items (George and Mallery, 2018). The degree of Cronbach's Alpha Coefficient was used to determine the internal consistency of the variables in reliability analysis. According to the Rules of Thumb of Cronbach's Alpha Coefficient, the acceptance of the internal consistency range is 0.7 and above, which was used to ensure the acceptable reliability level of the questionnaires (Habidin et al., 2015).

3.6.3 Inferential analysis

Inferential analysis defined as a statistical analysis tool whereas the goal is to generate about the population by determining random samples. It consists of two statistic which are hypothesis testing and regression analysis. Apart from that, the inferential analysis was very cost-effective and useful which may inference the population without complete data collection (Hair et al., 2008). In order to conclude the hypotheses and research questions that discussed in previous chapter, the Pearson's Correlation Coefficient Analysis and Multiple Linear Regression Analysis were selected to examine the relationship between dependent variables whereas the work engagement and independent variables includes job characteristics, organizational culture, teamwork and top management support.

3.6.3.1 Pearson Correlation Coefficient Analysis

The Pearson's Correlation Coefficient Analysis is determining the strength of the linear relationship between the dependent and independent variables. The scale of the Pearson's Correlation Coefficient Analysis indicates as "r" which range from -1 to $+1$. When the $r = 0$ indicates that the two variables have not linear correlation. Apart from that, when the correlation coefficient is $r = \pm 1$, it indicates that have perfectly linear between two variables which the value with $+$ sign referred as positive relationship while the value with $-$ sign referred as a negative relationship between two variables (Schober, Boer and Schwarte, 2018). In this research, the Pearson's Correlation Coefficient Analysis has been chosen because it suitable for examine the relationship between the dependent variables whereas the work engagement and independent variables includes job characteristics, organizational culture, teamwork and top management support based on the interpretation of the scale of Pearson's Correlation Coefficient which shown on table 3.3.

Table 3.3: The scale of Pearson's Correlation Coefficient

Scale of correlation coefficient	Value
$0 < r \leq 0.19$	Very Low Correlation
$0..2 \leq r \leq 0.39$	Low Correlation
$0.4 \leq r \leq 0.59$	Moderate Correlation
$0.6 \leq r \leq 0.79$	High Correlation
$0.8 \leq r \leq 1.0$	Very High Correlation

Source: Adopt from (Selvanathan et al., 2020).

3.6.3.2 Multiple Linear Regression Analysis

The multiple linear regression analysis was formulated by linear relation equation between one dependent variable and more than two independent variables. The purpose of the regression analysis was to estimate and analyse the relationship between the dependent variables and independent variables which able to predict the covariance of the variables. The multiple linear regression analysis indicated the predictor variable X (independent variables) was used to model the response variable Y (dependent variables). The equation of multiple linear regression was shown as below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

where $Y = Work\ engagement\ of\ Generation\ Z$

$X_1 = Job\ Characteristics$

$X_2 = Organizational\ Culture$

$X_3 = Teamwork$

$X_4 = Top\ Management\ Support$

$\beta_0 = y - intercept\ (constant\ term)$

$\beta_1 = slope\ coefficients\ for\ each\ explanatory\ variable$

$\in = the\ model's\ error\ term\ (also\ known\ as\ the\ residuals)$

3.7 Ethical consideration

During the data collecting stage, ethics was taken into account. Every effort has been made to search and retrieve the primary research for this review in order to be accurate, fair and honest and not to deliberately misinterpret its conclusions.

1.Participants may withdraw from the research at any time.

2.All data or information gathered will be utilised only for this research.

3. Participants' privacy will be protected, and all communications with them will be transparent and honest.

3.8 Timeline of research

Table 3.4: Gantt chart

Detail (week no)	13/06/2022 1	20/06/2022 2	27/06/2022 3	4/7/2022 4	11/7/2022 5	18/07/2022 6	25/07/2022 7	1/8/2022 8	8/8/2022 9	15/08/2022 10	22/08/2022 11	29/08/2022 12	3/2/2023 13	15/2/2023 14	2/3/2023 15	10/3/2023 16	24/03/2023 17	19/04/2023 18	27/04/2023 19	5/5/2023 20
FYP 1 Briefing	▨																			
Forming group	▨																			
Research & Define Project Title	▨	▨	▨																	
FYP 1 Workshop			▨																	
Supervisor Meeting				▨																
Chapter 1 Task Allocation				▨																
Supervisor Meeting					▨															

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Gantt chart (schedule). Time progresses left-to-right; shaded (yellow) cells indicate the scheduled period for each task.

Task	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5
Setting RO & RQ	▓	▓			
Supervisor Meeting		▓			
Decide the Research Framework, IV & DV		▓	▓		
Chapter 1	▓	▓	▓		
Supervisor Meeting			▓		
Chapter 1 Draft Checking			▓		
Chapter 2 Task Allocation			▓		
Define Social Exchange Theory			▓	▓	
Supervisor Meeting				▓	
Chapter 2				▓	▓
Supervisor Meeting					▓
Chapter 2 Draft Checking					▓

Task	Timeline
Chapter 3 Task Allocation	■
Setting Questionnaire	■ ■
Chapter 3 Draft	■
Chapter 3 Draft Checking	■
Supervisor Meeting	■
FYP 1 Draft Review	■
FYP 1 Report Submission	■
Sent the Questionnaires	■
Supervisor Meeting	■
Chapter 4 & 5 Task Allocation	■
Run the Pilot Test	■
Data Collection	■
Analysis of Questionnaires	■

Task																					Weeks
Supervisor Meeting																		■			
Chapter 4 & 5 Draft Checking																		■			
Supervisor Meeting																			■		
FYP 2 Draft Review																			■		
FYP Presentation																				■	
FYP Submission																					■

3.9 Conclusion

In conclusion, the research method of this research methodology was quantitative approach which conduct through questionnaires survey form. The quantitative research was used the descriptive and explanatory research of the research design. In addition, the data collection and sampling design has been discussed on this research. The target population was set at Selangor, Malaysia and the sampling size was developed of 134 set of questionnaires which distributed 14 set of questionnaires as the pilot test. The questionnaires were generated as Google Form by using nominal scale, ordinal scale, ratio scale and rating 5-points Likert scale approach. The data analysis such as descriptive analysis, reliability analysis, Pearson's Correlation Coefficient analysis and Multiple Linear Regression analysis are processed using the SPSS version 28.0 to check the reliability and validity of the research.

CHAPTER 4

RESEARCH RESULTS

4.0 Introduction

In this chapter, the research was found by using various analyses of the target respondents' conduct with questionnaires. The respondents had been discussed in this research to analyze the relationship between the dependent variable, work engagement and four independent variables which are job characteristics, organizational culture, teamwork, and top management support. Furthermore, the results of this research were established using the SPSS computing software.

4.1 Stage 1 Descriptive Analysis

In this research, a total of 137 questionnaires had been issued to the target respondents which are the Generation Z who involved in logistics business organization in Selangor, Malaysia and all the questionnaires were fully collected from them. Apart from here, this research completely utilized the tabulation, tables, and chart to present the demographic profile and overall statistics. The data of demographic phase that were being collected from the 137 target respondents were gender, age, the year of employment for the respondent, the working department of respondent in the company, location of the company, and does the respondent involved in logistic industry.

4.1.1 Gender

Table 4.1 showed the number of male and female participants that responded to the survey. There were 66 (48.2%) male respondents and 71 (51.8%) female respondents filled out the questionnaire. From this analysis, shown that the respondent who responded the questionnaire was almost equal between the male and female thus the questionnaire would gather the different gender's opinion.

Table 4.1: Gender

	Frequency	Percentage (%)
Male	66	48.2
Female	71	51.8

Figure 4.1: Gender

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4.1.2 Age

Table 4.2 showed the age of respondents, which were categorized into 4 groups based on below: 18 – 19 years old, 20 – 21 years old, 22 – 23 years old, and 24 -25 years old. In this research, the respondents between 22 – 23 years old made up the majority of respondents, contributing 85 respondents (62%). Accordingly, the age group of 24 – 25 years old came in second which contributed 25 respondents (18.2%). Third was the age group of 20 – 21 years old with 24 respondents (17.5%) while in last was the youngest age group of 18 – 19 years old which had contributed 3 respondents (2.2%) in this questionnaire. By conducting this research that known that the generation Z who responded to our survey form was 22-23 years old thus that the result will more closely to their work engagement.

Table 4.2: Age

	Frequency	Percentage (%)
18 – 19 years old	3	2.2
20 – 21 years old	24	17.5
22 – 23 years old	85	62
24 – 25 years old	25	18.2

Figure 4.2: Age

4.1.3 The year of employment for the respondent

Table 4.3 showed the year of employment for the respondent, which were categorized into 4 groups, there were less than 1 year, between 1 – 2 years, between 3 – 4 years, and more than 6 years. In this research, most of the respondents had worked less than 1 year, which had contributed 66 respondents (48.2%). Accordingly, the 53 respondents (38.7%) had worked between 1 – 2 years came in second. Third was following by the respondents had worked between 3 – 4 years which had 13 respondents (9.5%) while in last was the 5 respondents (3.6%) that work more than 6 years which had filled out this questionnaire.

Table 4.3: The year of employment for the respondent

	Frequency	Percentage (%)
Less than 1 year	66	48.2
Between 1 – 2 years	53	38.7
Between 3 – 4 years	13	9.5
More than 6 years	5	3.6

Figure 4.3: The year of employment for the respondent

4.1.4 Work department in the company

Table 4.4 showed the work department of the respondent in the company, which were categorized into few groups: accounting, customer service, documentation, human resource, import and export, logistics, procurement, sales, warehouse and others department. In this research, warehouse department was the most respondents which had 17 respondents (12.4%) worked in the logistics industry. Accordingly, it was following by the logistics department which had 13 respondents (9.5%); customer service department & import and export department which had the same responses of 11 respondents (8.0%); sales department which had 9 respondents (6.6%); documentation department & procurement department which had the same responses of 7 respondents (5.1); accounting department & human resource department which had the same responses of 6 respondents (4.4%). Lastly, there were 50 respondents (36.5%) consisted of varies department such as administrative, engineering, finance, information processing, inventory control, marketing, material handling, operations, outbound, packaging, production planning, quality control, regional control tower, shipping and receiving, software developing and engineering, storage, and transportation department that categorized into others department.

Table 4.4: Work department in the company

	Frequency	Percentage (%)
Accounting	6	4.4
Customer Service	11	8.0
Documentation	7	5.1
Human Resource	6	4.4
Import and Export	11	8.0

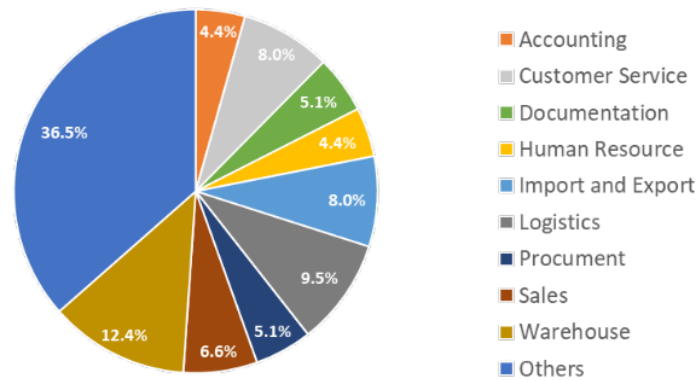| Logistics | 13 | 9.5 |
Procurement	7	5.1
Sales	9	6.6
Warehouse	17	12.4
Others	50	36.5

Figure 4.4: Work department in the company

4.1.5 Location of the company

Table 4.5 showed the location of the company. Based on the result, 100% of the respondents' company located in Selangor, which were categorized into 7 areas such as Klang Valley, Hulu Selangor, Kuala Langat, Kuala Selangor, Sabak Bernam, Sepang and other areas. In this research, the most respondents' company located in Klang Valley area which had 52 respondents (38.0%). Accordingly, Hulu Selangor area came to the second which had 28 respondents (20.4%). Third was Kuala Selangor area which had 25 respondents (18.2%). Furthermore, it was following by the Kuala Langat and Sepang area which had the same responses of 10 respondents (7.3%); Sabak Bernam area which had 4 respondents (2.9%). Lastly, the other areas were included 8 respondents (5.8%) where located from Bandar Utama, Hulu Langat, and Putrajaya areas.

Table 4.5: Location of the company

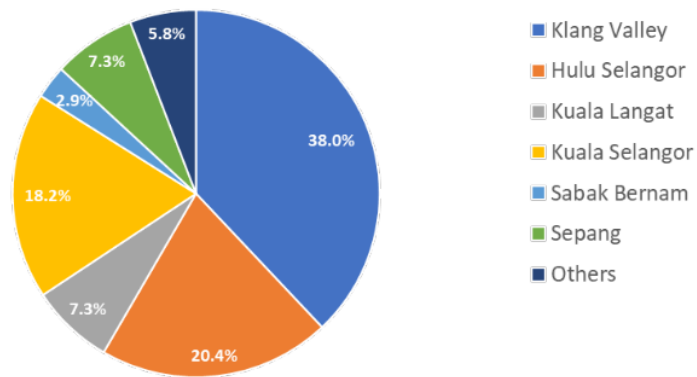|	Frequency	Percentage (%)
Klang Valley	52	38.0
Hulu Selangor	28	20.4
Kuala Langat	10	7.3
Kuala Selangor	25	18.2
Sabak Bernam	4	2.9
Sepang	10	7.3
Others	8	5.8

Figure 4.5: Location of the company

4.1.6 Does the respondent involved in logistics industry?

Table 4.6 showed does the respondent involved in Logistics industry. According to the results, 100% of the respondents (137 respondents) are involved in Logistics industry.

Table 4.6: Does the respondent involved in logistics industry?

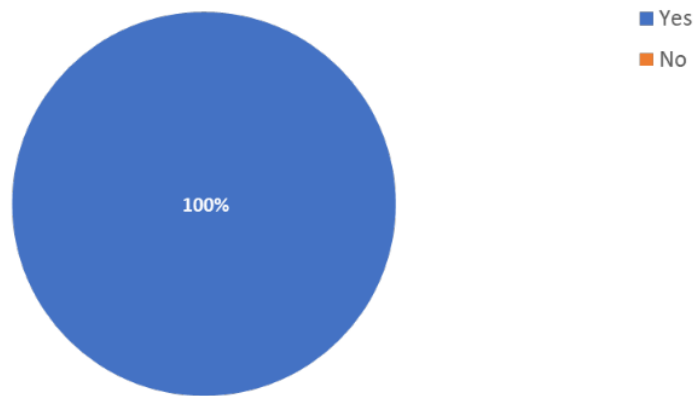|	Frequency	Percentage (%)
Yes	137	100
No	0	0

Figure 4.6: Does the respondent involved in logistics industry?

4.2 Reliability analysis

Table 4.7: Result of Reliability Analysis

Variables	Cronbach's Alpha	No. Of Items
Dependent		
Work Engagement	0.807	5
Independent		
Job Characteristics		
Organizational Culture	0.738	5
Teamwork	0.788	5
Top Management Support	0.832	5
	0.848	5

Cronbach's Alpha Coefficient was utilized as a reliability analysis approach to determine the reliability of the questionnaire. Based on the Rules of Thumb, the values of Cronbach's Alpha Coefficients were classified as unacceptable, poor, questionable, acceptable, good, and excellent, as shown in Table 3.2. According to Table 4.7, it shown the independent variables in this questionnaire were job characteristics, organizational culture, teamwork, and top management support. Two of the independent variables were classified as acceptable, which is job characteristics and organizational culture as the values between $0.7 \leq \alpha \leq 0.8$ of Cronbach's Alpha range. Next, teamwork and top management support were classified as good, as two of these independent variables had the value between $0.8 \leq \alpha \leq 0.9$. Furthermore, the dependent variable, which is work engagement was classified as good, as it falls within the range of $0.8 \leq \alpha \leq 0.9$ for Cronbach's Alpha. In conclusion, all the independent variables and the dependent variable in this research were ensured the reliability by implementing Cronbach's Alpha Rules of Thumb.

4.3 Inferential Analysis

In this research, the data collected from the 137 target respondents will be used in this inferential analysis to compute and evaluate the result. Pearson Correlation Analysis and Multiple Linear Regression Analysis are two of the primary analytical techniques used.

4.3.1 Multiple Linear Regression Analysis

The objective of multiple linear regression analysis is to estimate and analyse the relationship between the dependent variable and independent variables as well as to predict the outcome of a dependent variable (Schneider, Hommel, and Blettner, 2010).

4.3.1.1 Model Summary

Table 4.8 : Model Summary of Multiple Linear Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error Estimate
1	.833[a]	.694	.684	.38169

a. Predictors: (Constant), Job characteristics, organizational culture, teamwork, and top management support.

The percentage of the variance of the dependent variable was shown using R Square, and the variance had been supported by independent variables in the regression model. According to Table 4.8, the R Square was presented 0.694. This could be defined as there were 69.4% of the dependent variable, work

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engagement explained by the independent variables included job characteristics, organizational culture, teamwork, and top management support.

4.3.1.2 ANOVA

Table 4.9: ANOVA of Multiple Linear Regression Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	43.567	4	10.892	74.762	.000[b]
	Residual	19.230	132	0.146		
	Total	62.798	136			

a. Dependent Variable: Work Engagement

b. Predictors: (Constant), Job characteristics, organizational culture, teamwork, and top management support.

According to Table 4.9, the F-value was shown as 74.762 and the P-value of ANOVA was 0.000, which was less than 0.050. This research shown that the dependent variable, which is work engagement, can be predicted by utilizing the independent variables, including job characteristics, organizational culture, teamwork, and top management support. Furthermore, this can be demonstrated that the independent variables in this research had a relationship with the dependent variable and the variance had been supported by independent variables in the regression model.

4.3.1.3 Multiple Linear Regression Analysis Coefficients

Table 4.10: Coefficient Table

Unstandardized Coefficients					
Model	B	Std. Error	Standardized Coefficients Beta	T	Sig
1 (Constant)	-0.107	0.247		-0.434	0.665
Job Characteristics	0.506	0.077	0.449	6.577	0.000
Organizational Culture	0.288	0.110	0.258	2.619	0.010
Teamwork	0.250	0.081	0.264	3.086	0.002
Top Management Support	-0.046	0.088	-0.043	-0.524	0.601

a. Dependent Variable: Work Engagement

According to the Table 4.10, the outcomes shown that the job characteristics had the highest coefficient among the other variables since Y would increase 0.506 units when every 1 unit increase in X1. Organizational culture will come following which increasing 1 unit in X2, Y would increase 0.288 units. Third was Teamwork as Y would increase 0.250 units for every 1 unit increase in X3. In contrast, for top management support, when every 1 unit increase in X4, the Y would decrease 0.046 units. Besides, the P-values for each of the

aforementioned variables were all less than the significant level of 0.005, indicating that the values were significant.

_____

[1] Based on Table 15, the Multiple Linear Regression Model was $Y= -0.107 + 0.506 X_1 + 0.288 X_2 + 0.250 X_3 + (-0.046) X_4$. In this model, the Y stands for Work Engagement while X1 was Job Characteristics, X2 was Organizational Culture, X3 was Teamwork, and X4 was Top Management Support.

4.3.2 Pearson Correlation Analysis

Pearson Correlation Analysis was used to determine the strength of linear relationship between the dependent and independent variables (Schober, Boer, and Schwarte, 2018). As shown in table 4.11, the degree and interpretation of the correlation coefficient were listed.

Table 4.11: Pearson Correlation Analysis Result

		DV	IV1	IV2	IV3	IV4
DV	Correlation	1	.758**	.748**	.712**	.638**
	Sig. (2tailed)		.000	.000	.000	.000
	N	137	137	137	137	137
IV1	Correlation	.758**	1	.688**	.600**	.642**
	Sig. (2tailed)	.000		.000	.000	.000
	N	137	137	137	137	137

IV2	Correlation	.748**	.688**	1	.812**	.779**
	Sig. (2tailed)	.000	.000		.000	.000
	N	137	137	137	137	137
IV3	Correlation	.712**	.600**	.82**	1	.725**
	Sig. (2tailed)	.000	.000	.000		.000
	N	137	137	137	137	137
IV4	Correlation	.638**	.642**	.779**	.725**	1
	Sig. (2tailed)	.000	.000	.000	.000	
	N	137	137	137	137	137

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

Where,

DV = Work Engagement

IV1 = Job Characteristics

IV2 = Organizational Culture

IV3 = Teamwork

IV4 = Top Management Support

According to Table 4.11, there was a correlation of r = 0.758 showed between DV and IV1, and r = 0.748 between DV and IV2. Next, the correlation between DV and IV3 evaluated r = 0.712. Lastly, the correlation between DV and IV4 is

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shown to be r = 0.638. Simply put, there was a high positive correlation between all the correlation of all the independent variables, including job characteristics, organizational culture, teamwork, and top management support with the dependent variables which is work engagement, as the correlation ranged between 0.6-0.79. Furthermore, all of the P- values of the correlations were less than the significant level of 0.01. Consequently, it was possible to determine that every independent variable in this research had performed a statistically positive and high relationship with the dependent variable.

4.4 Hypothesis Testing

Table 4.12: Summary of Hypothesis Testing

Hypothesis Testing		Status
H1	Job Characteristics has a positive effect on the relationship between work engagement.	Supported
H2	Organizational Culture has a positive effect on the relationship between work engagement.	Supported
H3	Teamwork has a positive effect on the relationship between work engagement.	Supported
H4	Top Management Support has a positive effect on the relationship between work engagement.	Supported

4.5 Conclusion

SPSS statistical software was used to analyse the findings of the descriptive analysis, reliability analysis, multiple linear regression analysis, ANOVA, Pearson correlation analysis, and multiple linear regression analysis coefficients. In this research, the dependent variable and independent variables were both shown to be statistically significant by all of the analysis results. In conclusion, the dependent variable, which is work engagement, was positively affected by the independent variables, such as job characteristics, organizational culture, teamwork, and top management support.

CHAPTER 5

DISCUSSION AND CONCLUSION

5.0 Introduction

In this chapter, it discussed about the result of the previous chapter which have been analysed and summarised it. The discussion of major findings is related to the level of work engagement of Generation Z that involved in logistics business organizations at Selangor area which determined by using job characteristics, organizational culture, teamwork and top management support. In addition, this chapter also included contribution of research, limitation of research and recommendation of the future research.

5.1 Recapitulate of research

This research was conducted in Selangor, Malaysia area and the target respondents was the generation Z which involved in logistics business organizations. This research has conducted from June 2022 to April 2023 which have researched almost one year. According to the findings, it had determined the level of work engagement by using some factor which included job characteristics, organizational culture, teamwork and top management support.

From the previous chapters, the researchers had discussed the background of study, problem statement, significance of study, scope and limitation of the study, the literature review of each dependant variable and independent

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variables and the hypothesis development. Furthermore, the researchers had described their sampling design and analysis their data by using descriptive analysis, reliability analysis and inferential analysis which consists of Pearson Correlation analysis and Multiple Linear Regression analysis.

5.2 Discussion of the Research Questions

Since the population of the Generation Z has involved in the workplace especially in the logistics business organization, therefore it was important to investigate the effectiveness and efficiency of the work engagement of Generation Z. Based on the findings and analysis, the relationship between these variables has significant impact to the effectiveness of work engagement of generation Z. In this research, the factors such as job characteristics, organizational culture, teamwork and top management support which may affected the work engagement of generation Z. Therefore, the conceptual framework was conducted and demonstrated the research question as below:

1. How the job characteristics affected the work engagement for Generation Z on logistics business organisation?

   According to the Pearson's correlation analysis, it showed that the result of the correlation value was 0.758 and P-value was <0.01. This result indicated that the factor of job characteristics had a positive correlation with the work engagement for Generation Z on logistics business organisation.

The job characteristics which provided by the logistics business organization may influence the level of work engagement of the Generation Z. Through this research, the variables of job characteristic have significantly influenced the work engagement which included job autonomy, feedback, skill variety, task significance and task identity. The feedback of the employees was important that the organization may realise the need and want of the employees. Many of the employees would feel boring and undervalued of the organizations, thus the organization may have significantly task would let the employee feel valued to the organization and provide skill variety to increase the use of variety ability which could increase the work engagement. Therefore, the logistics business organization may be realised the work engagement of Generation Z and they may improve their characteristics based on the result.

Based on the discussion above, it shown that the job characteristics had significant positive relationship with the work engagement for Generation Z on logistics business organisation. As a result, the research question (RQ1) was answered, and hypothesis (H1) was supported.

2. How the organizational culture affected the work engagement for fresh graduate on logistics business organisation?

According to the Pearson's correlation analysis, it showed that the result of the correlation value was 0.748 and P-value was <0.01. This result

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indicated that the factor of organisational culture had a positive correlation with the work engagement for Generation Z on logistics business organisation.

The organizational culture which promoted by the logistics business organization may influence the level of work engagement of the Generation Z. Through this research, the aspects of organizational culture have significantly influenced the effectiveness of the work engagement which included consistency, engagement, flexibility and mission. A better organizational culture may be increased the employee's sense of mission which would also increase their engagement to the organization. In addition, a positive organizational culture may influence the employee's enthusiastic and motivation to complete the job actively which able to enhance the employee's loyalty, commitment and trust and result in increased the level of work engagement.

Based on the discussion above, it shown that the organizational culture had significant positive relationship with the work engagement for Generation Z on logistics business organisation. As a result, the research question (RQ2) was answered, and hypothesis (H2) was supported.

3. How teamwork affected the work engagement for fresh graduate on logistics business organisation?

According to the Pearson's correlation analysis, it showed that the result of the correlation value was 0.712 and P-value was <0.01. This result indicated that the factor of teamwork had a positive correlation with the work engagement for Generation Z on logistics business organisation.

The teamwork of a group in the logistics business organization may influence the level of work engagement of the Generation Z. Teamwork had significantly affected the work engagement of employees which also would influence the organization performance. A teamwork important criterion was team trust and communication among the team members which will lead the job effectively and efficiency and result in assists the organization to fulfil their goal, vision, mission and strategies. In addition, teamwork also able to increase the productivity, creativity and faster decision making. The leader also needs to allocate task according to their ability and skill which will lead to the teamwork effectiveness and result in increased the work engagement. Therefore, a high teamwork organization had a high level of work engagement of their employees.

Based on the discussion above, it shown that the teamwork had significant positive relationship with the work engagement for

Generation Z on logistics business organisation. As a result, the research question (RQ3) was answered, and hypothesis (H3) was supported.

4. How top management support affected the work engagement for fresh graduate on logistics business organisation?

According to the Pearson's correlation analysis, it showed that the result of the correlation value was 0.638 and P-value was <0.01. This result indicated that the factor of top management support had a positive correlation with the work engagement for Generation Z on logistics business organisation.

The top management support in the logistics business organization may influence the level of work engagement of the Generation Z. Through this research, the aspects of top management support have significantly influenced the effectiveness of the work engagement which included emotional support, material support and informational support. The top management provided the psychological support to the Generation Z employees would lead them fell they have pay closely attention from top management. Top management also need to used the work performance evaluation system to investigate the level of work engagement of their employees and also know their feedback from the evaluation. Therefore, the top management support which included the trust between the employees and result in increased the level of work engagement.

Based on the discussion above, it shown that the top management support had significant positive relationship with the work engagement for Generation Z on logistics business organisation. As a result, the research question (RQ4) was answered, and hypothesis (H4) was supported.

5.3 Contribution of research

Regarding to the table 4.4 shown that the department with the most Generation Z employees is other column which has 36.5% because it included many departments such as IT department, research and development department, quality control department and others. Apart from that, the warehouse department, logistics department and import and export department which followed by 12.4%, 9.5% and 8% are common in the logistics business organization for the Generation Z to work in. Other than that, the table also shown that students who are not study in logistics will also enter the logistics industry for employment. This is because that most of the respondents was worked in the department which not related to logistics such as accounting department, human resources department and others. It is an opportunity for Generation Z to start a career in logistics business organizations.

According to the research, the highest significant influence the work engagement of the Generation Z is the job characteristics which consist of 0.758. This shown that the Generation Z is more focused on the job characteristic

which included the job autonomy and skill variety. Generation Z is more prefer on the more challenging job which have own decision power on the task and flexibility of the working hour. A flexible and attractive job will influence Generation Z to have effort in job and increase their work engagement. Apart from that the top management support is the lowest significant influence toward the work engagement of the Generation Z which consist of 0.638. This shown that the Generation Z do not focus on the support by top management because they may be able to self-management and self-improvement. Most of them have a strong working ability and variety of skill to solve any problems.

The relationship between the work engagement and the independent variables such as job characteristics, organizational culture, teamwork and top management support has been analysed. Thus, the Generation Z employees working behaviour is relate with the social exchange theory which is a bilateral exchange among the employees and the organization. According to the correlation value, it could be significant reflect the Generation Z is more prefer on maximize the rewards and minimize the costs. As shown that the job characteristics is the highest influence such as job autonomy which the employees may feel more affordable have the autonomy to allocate their own time to complete their job. This will increase the Generation Z employees' motivation and the level of work engagement. In a result that the social exchange relationship is reflect on the employees' contribution will be proportional to the reward from the organization.

In this research, the result of the level of work engagement which conducted in the Selangor area would benefit to the government policy maker, logistics business organization especially their human resource department, and society. Regarding to the analysis, the government policy maker may know the working pattern of the Generation Z in Selangor area which will lead to them to generate a better policy for enhancing a secure work environment to the employees and result in increased the generation Z's work engagement. Furthermore, the government policy maker also generates a set of instruments to guide the organization on how to treat their employees. A good regulatory and policy was able to protect the employee benefits and let them fell like being respected thus will increase the level of work engagement.

In addition, this research was also benefit to the logistics business organization especially their human resources department which department is recruit and evaluate the talent individual by using a new work performance evaluation system. This research also a reference to the organization to realise the characteristics of working and the attitude towards the work engagement. Therefore, according to the analysis of this research, they able to provide a better choose or opportunity to the Generation Z which may fulfil the demands of generation Z because the organization needs to keep up with the times.

5.4 Limitation of study

During doing this research, the researchers faced numerous challenges. First limitations were the small sample size of respondents. A limited number of participants can reduce the generalizability of the study's results to a larger population. Furthermore, relying on the perceptions and experiences of a small group of respondents may decrease the reliability of the data collected.

Another limitation was the difficulty in obtaining accurate employment data, which may be due to a lack of available information or inaccurate data sources. Inaccurate employment data can negatively impact the credibility of the study's findings. Additionally, the study also found a lack of information on the employment rate of generation Z and the factors that influence their employment rate and work engagement. This lack of information may make it difficult to draw meaningful conclusions about this demographic and its relationship with employment and work engagement.

Additionally, the researchers faced time constraints while collecting survey data, and some respondents may have responded slowly or not responded at all. This may have impacted the completeness and accuracy of the data collected, which could affect the validity of the study's conclusions.

5.5 Recommendation for future research

There are a few recommendations for future researchers to improve the results on this relevant topic. To address the limited of sample size which can expand the survey to other state to include additional logistics business units and junior workers of other it will give a broader spectrum of viewpoints on employee engagement. This is because greater population sample sizes might provide future researchers more dependable and precise study results, boosting accuracy, representativeness, and consistency.

In addition, to solve the lack of accurate data, researchers should collect more precise data by using numerous information sources. For example, researchers may examine government statistics, industry reports, and corporate files to confirm the accuracy of the survey results. This will assist in ensuring that the study findings depend on real and reliable data. After conducted this research, we found that the questionnaire survey method is more appropriate mean to similar researcher for further.

To overcome time constraints, researchers can decide to lengthen the survey timeframe or provide respondents with incentives for timely completion, or the researchers may utilise alternate data gathering techniques, including as interviews or focus groups, to acquire more in-depth information on employee engagement. It also able to collect the data through social media such as Facebook, LinkedIn, and others.

5.6 Conclusion

This research study's major objective is to explore the factors that influence Generation Z employees' work engagement in Selangor, Malaysia's logistics industry organisations. According to the findings, all the independent variables (job characteristics; organizational culture; teamwork; and top management support) have a significantly influence over the dependent variable (work engagement). However, there were some limitations found in the study which are time constraints, lack of accurate information, and limited sample size. To solve this problem, several recommendations been provided to overcome the limitation including expand the survey to other state and lengthen the time for the data collection. This research necessary and important for the future researchers which are desire to investigate the work engagement of Generation Z and related topic.

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