

THE IMPACT OF DIGITAL INNOVATION ON WORK-LIFE BALANCE IN HYBRID WORKPLACES



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I hereby acknowledge that this project paper has been accepted as part of fulfilment for the degree of Bachelor of Technology Management (High Technology Marketing) with Honours.

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JANUARY 2024

DECLARATION OF ORIGINAL WORK

I hereby declare that all the work of this thesis entitled "THE IMPACT OF DIGITAL INNOVATION ON WORK-LIFE BALANCE IN HYBRID WORKPLACES" is original done by myself and no portion of the work encompassed in this research project proposal has been submitted in support of any application for any other degree or qualification of this or any other institute or university of learning.



DEDICATION

I would like to appreciate the dedication of my beloved family members who educated me and motive me to learn until degree level. And also, I express a deep sense of gratitude to my lecturer whom also my supervisor for my final year project, Datin Dr. Suraya Binti Ahmad, and my fellow friends. They have provided me fully support and advice throughout this research. Without their blessing and encouragement, this research is impossible to complete within short period of time.



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ABSTRACT

Hybrid work is a working model that combines office work and remote work and has important implications for organizations and employees. However, there are challenges in a hybrid work environment, such as communication, coordination, connection, creativity, and culture. At the same time, applying digital innovations in a hybrid workplace has advantages and disadvantages. This research aims to identify the types of digital innovations that can enhance work-life balance, explore the positive effects of digital innovations on work-life balance in hybrid workplaces, and explore the negative effects of digital innovations on work-life balance in hybrid workplaces. By collecting data through questionnaires conducted with 384 employees in the Central Region of Malaysia and conducting detailed data analysis, this study aims to provide employees and employers with an in-depth understanding of the impact of digital innovation on work-life balance. The findings of this study provide employees with guidance to manage their work-life balance better and help them increase productivity, reduce workplace stress, and enhance their quality of life. For employers, the findings of this study will help them understand the positive and negative impacts of digital innovations on employees' work-life balance so that they can adopt corresponding measures and policies to improve employee benefits, job satisfaction, and performance. Positive effects include improved integration of work and personal life, reduced commuting impact, and lower psychological burden through flexible arrangements. Negative impacts encompass potential overtime, coordination difficulties, and increased work pressure. Some analysis methods used in this research are Cronbach's Alpha, Descriptive, Pearson's Correlation, and Multiple Regression analysis. The SPSS output showed a significant relationship between flexibility time, mental well-being, adaptation challenges, and productivity with work-life balance. Thus, hypotheses testing is accepted. Ultimately, the results of this study will provide future researchers with valuable information and references about the relationship between digital innovation and work-life balance and provide a basis for in-depth exploration of issues in this field. By deepening our understanding of the impact of digital innovations on the hybrid workplace, we can contribute to creating healthier, balanced, and sustainable work environments.

Keywords: Digital innovation, work-life balance, hybrid workplaces, flexibility time, mental well-being, adaptation challenges, productivity

ABSTRAK

Kerja hibrid ialah model kerja yang menggabungkan kerja pejabat dan kerja jauh dan mempunyai implikasi penting untuk organisasi dan pekerja. Walau bagaimanapun, terdapat cabaran dalam persekitaran kerja hibrid, seperti komunikasi, penyelarasan, sambungan, kreativiti dan budaya. Pada masa yang sama, mengaplikasikan inovasi digital di tempat kerja hibrid mempunyai kelebihan dan kekurangan. Penyelidikan ini bertujuan untuk mengenal pasti jenis inovasi digital yang boleh meningkatkan keseimbangan kerja-kehidupan, meneroka kesan positif inovasi digital terhadap keseimbangan kerja-kehidupan di tempat kerja hibrid, dan meneroka kesan negatif inovasi digital terhadap keseimbangan kerja-kehidupan di tempat kerja hibrid. Dengan mengumpul data melalui soal selidik yang dijalankan dengan 384 pekerja di Wilayah Tengah Malaysia dan menjalankan analisis data terperinci, kajian ini bertujuan untuk memberikan pekerja dan majikan pemahaman yang mendalam tentang kesan inovasi digital terhadap keseimbangan kerja-kehidupan. Dapatan kajian ini memberi panduan kepada pekerja untuk mengurus keseimbangan kerjakehidupan mereka dengan lebih baik dan membantu mereka meningkatkan produktiviti, mengurangkan tekanan di tempat kerja dan meningkatkan kualiti hidup mereka. Bagi majikan, penemuan kajian ini akan membantu mereka memahami kesan positif dan negatif inovasi digital terhadap keseimbangan kerja-kehidupan pekerja supaya mereka boleh menerima pakai langkah dan dasar yang sepadan untuk meningkatkan faedah pekerja, kepuasan kerja dan prestasi. Kesan positif termasuk penyepaduan kerja dan kehidupan peribadi yang lebih baik, mengurangkan impak perjalanan dan menurunkan beban psikologi melalui pengaturan yang fleksibel. Kesan negatif merangkumi potensi lebih masa, kesukaran penyelarasan dan peningkatan tekanan kerja. Beberapa kaedah analisis yang digunakan dalam penyelidikan ini ialah analisis Alpha Cronbach, Deskriptif, Korelasi Pearson, dan Regresi Berganda. Output SPSS menunjukkan hubungan yang signifikan antara masa fleksibiliti, kesejahteraan mental, cabaran penyesuaian, dan produktiviti dengan keseimbangan kerja-kehidupan. Oleh itu, ujian hipotesis diterima. Akhirnya, hasil kajian ini akan menyediakan penyelidik masa depan dengan maklumat dan rujukan yang bernilai tentang hubungan antara inovasi digital dan keseimbangan kerjakehidupan dan menyediakan asas untuk penerokaan isu-isu dalam bidang ini secara mendalam. Dengan memperdalam pemahaman kami tentang kesan inovasi digital pada tempat kerja hibrid, kami boleh menyumbang untuk mewujudkan persekitaran kerja yang lebih sihat, seimbang dan mampan.

Kata Kunci: Inovasi digital, keseimbangan kerja-kehidupan, tempat kerja hibrid, masa fleksibiliti, kesejahteraan mental, cabaran penyesuaian, produktiviti

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LIST OF ABBREVIATIONS

ABBREVIATION MEANING

WLB Work-Life Balance

IR 4.0 Industry Revolution 4.0

AI Artificial Intelligence

IoT Internet of Things

VPN Virtual Private Network

ICT Information and Communication Technology

SPSS Statistical Package for the Social Sciences

FT Flexibility Time

MWB Mental Well-Being

AC Adaptation Challenges

P Productivity

MRA Multiple Regression Analysis

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

This chapter will discuss the impact of digital innovation on work-life balance in hybrid workplaces. The background of the study, problem statement, research questions, research objectives, scope and limitation, significance of the study, and thesis outline will be discussed in this chapter.

1.2 BACKGROUND OF STUDY

Digital innovation is changing how products and services are developed, produced, and used. These innovations disrupt traditional markets, including media and entertainment, car rental and sales, and even the temporary labour market. With the surge of digital innovation, digital artifacts increasingly provide more opportunities for digitalization (Bogers, Garud, Thomas, Tuertscher, & Yoo, 2021). Fundamentally speaking, most digital technologies provide possibilities for improving efficiency and enhancing customer intimacy. However, if employees and employers lack the correct mentality of change and there are defects in current organizational practices, digital transformation will only amplify these defects and affect work efficiency (Tabrizi, Lam, Girard, & Irvin, 2019).

Moreover, having a good work-life balance (WLB) has many positive impacts, including reducing stress, fatigue risk, and happiness (Chancey, 2019). He also said that employers committed to providing employees with an environment that supports work-life balance could save costs, reduce absenteeism, and have more loyal and productive employees. Therefore, employers who offer hybrid work or flexible working hours can help employees better balance their work and life. This is beneficial not only to employees but also to employers. Through Harvard Business Review, we can learn that overwork is unsuitable for employees or their companies, and overcoming these unhealthy working habits is difficult. Lupu & Ruiz-Castro (2021)

learned through interviews that although most interviewees think long working hours are inevitable, few can resist this pressure. Therefore, a healthier balance can only be achieved by raising awareness, consciously readjusting priorities, and implementing public and private changes. They also stressed that employees must regard this process as a cycle to achieve lasting changes in work-life balance.

The hybrid workplace mode combines remote employees with on-site employees; some or all employees can flexibly choose their workplace and time. Office hours can be allocated by day, team, or on demand. Wiles (2020) once said at Gartner that when and where to finish the work will depend on what is most meaningful to promote the highest level of productivity and participation. Of course, the hybrid workplace mode is suitable for some workplaces or industries. It is most suitable for employees whose work is based on computers and does not need to be conducted on the spot. In addition, it is not a temporary mode. On the contrary, it is the future of work and the future of an agile and flexible workplace. SAP Insight (2021) states that a hybrid workplace with cloud-based services, more substantial security infrastructure, and enhanced collaboration tools will better meet employees' expectations.

The nature of digital work helps to manage the balance between work and life, which helps to improve the work performance of individuals in the organization (Richter, 2020). It provides more autonomy, strengthens coordination and communication, and improves knowledge-sharing and decision-making. In order to better understand digital work and its influence on personal performance, it is necessary to explore the affordability of digital innovation to digital work. This study explores the impact of digital innovation on work-life balance in hybrid workplaces. Hybrid workplace mode includes digital technology, remote location, contract arrangement between individuals and organizations, and flexible working hours. In this context, digital technologies include artificial intelligence, big data, corporate social media, and digital platforms such as Microsoft Teams and Zoom, which have been increasingly used in digital work. (Duan, Deng, & Wibowo, 2023)

During the COVID-19 epidemic, hybrid work emphasized that a day's work does not have to replicate the nine-to-five days. Many workers can enjoy the extra time to exercise, develop hobbies and fulfil family obligations. Therefore, more

organizations are open to new working methods; some use flexible methods to solve work-life conflicts. For example, Tanzeem (2021) introduced several best tools for improving work-life balance. These tools can help employees manage their time better, stay focused, automate tasks, and promote physical and mental health, including telecommuting, hybrid workweeks (separate workdays at the office and home), condensed workweeks (such as 10 hours over four days and 80 hours over nine days), job sharing or part-time schedules, to keep people in the workforce. For those struggling or just wanting to improve their work-life balance, these alternatives may help them maintain productivity, flexibility, and value to the organization in the short or long term.

1.3 PROBLEM STATEMENT

The most familiar impacts or challenges related to hybrid work are the "5C challenges": communication, coordination, connection, creativity, and culture (Haas, 2022). Hybrid work allows an organization's employees to combine in-office and remote work. In a hybrid work environment, some employees will work remotely, some in the office, and some in the office, working from home or in another location, such as a coffee shop. Although some organizations choose to let all employees work remotely, most organizations find that hybrid work is an ideal solution; It is beneficial for the company to recall employees to the office and provides remote work flexibility for employees who do not need to go there.

With the continuous innovation of new workplaces and cloud support tools, employees working in various locations can easily cooperate and communicate, and hybrid work becomes one of the feasible options. To provide secure application access to office and remote employees, it is necessary to carefully review the access methods, especially those adopted by remote users. Hybrid work must face the same challenges as remote work, including lack of network perimeter, support of various devices accessing from any place, and protect the infrastructure at the end of the ground.

In Accenture Future of Work Study 2021, 83% of employees prefer hybrid workplace mode, and they can allocate time between the office and remote environment. However, although people enjoy greater flexibility and freedom, the time spent watching the screen has increased, the team has become more isolated, and

digital fatigue has become an aggressive and unsustainable threat. Most importantly, the gap between remote and office workers has brought new pressure to the team.

As employees continue to create and collaborate in the digital space, one of the best things employers can do is to let go. Give up preconceived schedules, always know what someone is doing and decide when and how to finish the project. Instead, focus on hiring productive and capable employees and believe that they will do their job well. Use benchmarks and deadlines to evaluate effectiveness and success. This will make employees feel more empowered and trusted. According to Gartner's assessment, a people-oriented working style can improve the overall performance of employees by 28% and reduce employee fatigue by 44%. Data support the importance of identifying and reducing the impact of digital exhaustion.

Using digital innovation in telecommuting can improve productivity, increase autonomy, and reduce commuting time and cost (Duan et al., 2023). It can reduce traffic congestion and air pollution. In addition, flexible contractual arrangements between individuals and organizations can freely arrange time, reduce stress, improve job satisfaction, and increase employment opportunities for women with children, students, and disabled people. Therefore, adopting digital innovation can achieve a better work-life balance, thus bringing better work performance to individuals in the organization.

The impact of digital innovation on work-life balance in hybrid workplaces has both advantages and disadvantages (Raković, Sakal, & Matković, 2022). The application of digital innovation in work leads to the blurred boundary between public and private fields in our daily life. It will increase stress and burnout because individuals are separated, and there is no ordinary social interaction between them. This shows that it is necessary to study the impacts of digital innovation on work-life balance in hybrid workplaces.

1.4 RESEARCH QUESTIONS

In this study, the researcher established three research questions:

i. What are the types of digital innovations that can enhance work-life balance?

- ii. What are the positive impacts of digital innovation on work-life balance in hybrid workplaces?
- iii. What are the negative impacts of digital innovation on work-life balance in hybrid workplaces?

1.5 RESEARCH OBJECTIVES

In this research, there are three research objectives to be determined:

- i. To identify the types of digital innovation that can enhance work-life balance.
- ii. To explore the positive impacts of digital innovation on work-life balance in hybrid workplaces.
- iii. To explore the negative impacts of digital innovation on work-life balance in hybrid workplaces.

1.6 SCOPE AND LIMITATION OF THE STUDY

This research paper focuses on the impact of digital innovation on work-life balance in hybrid workplaces. Data will be collected from 384 employees randomly selected from the Central Region of Malaysia's hybrid workplace in any industry sector. This study will distribute questionnaires to respondents through online platforms such as Google Forms.

The limitation of this study lies in the uncertainty of data collection of employees in a hybrid workplace because it is still being determined whether the respondents agree and allow the investigation. Each respondent is given the same questionnaire to answer. The results of this study will only apply to the respondents in this study. They will not be used to measure the impact of digital innovation on worklife balance that does not belong to this study population.

1.7 SIGNIFICANCE OF STUDY

This research will benefit employees and employers because they will know the impact of digital innovation on work-life balance in hybrid workplaces. In this study, employees can realize the influence of work-life balance on them. This study will also benefit employers because they will be able to understand the changes in the work efficiency of employees involved in stress. This research will benefit future researchers because they can get some information that may be needed, and some of their questions may answer this research.

1.8 THESIS OUTLINE

Overall, the chapter provided an overview of the study. The study explored the impact of digital innovation on work-life balance in hybrid workplaces.

This thesis is organized as follows:

- Chapter 1 will conduct the problem statement, research questions, research objectives, scope and limitation of the study, and significance.
- Chapter 2 will conduct a literature review of digital innovation, hybrid workplaces, work-life balance, etc. There are also will research on the related theoretical models.
- Chapter 3 will examine the methodologies used to acquire the data and information for this study.
- Chapter 4 will conduct the analysis data and discussion that collected from SPSS software of this study.
- Chapter 5 will conclude and recommend according to the discussion and result from this study.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter will examine the literature review and related theoretical models. The researcher discussed the impact of digital innovation on work-life balance in hybrid workplaces. The dependent and independent variables are defined by investigating the existing literature and comprehensive empirical research. In addition, this chapter also needs a literature review to develop appropriate research methods. At the end of this chapter, the proposed research framework can describe the theory and development assumptions.

2.2 INNOVATION

Humans expand their cognitive and behavioral capacities to the real world and themselves to suit their needs. This process is known as innovation. More specifically, innovation refers to people's actions to update and develop things by changing them entirely or partly for a specific reason and following the law of things' development. Creating or improving existing things, including but not limited to different products, methods, elements, paths, and surroundings, is also called innovation. We can meet idealization or society's needs and achieve specific good outcomes by applying the available knowledge and materials in a particular context. In established businesses, innovation is challenging. Innovation requires a set of cross-practices and processes to build, organize, and promote because it is a complicated, organizational-wide activity. (Jong, Marston, & Roth, 2015)

2.3 DIGITAL INNOVATION

Industry Revolution 4.0 (IR 4.0) have significantly impacted digital innovation. It spearheaded significant advances in the industrial and service sectors and supported

the growth of automation, intelligence, and digitalization. Industry Revolution 4.0 has accelerated the pace and scope of innovation, broken down the barriers between traditional industries, and encouraged the emergence of new business models and market opportunities by integrating cutting-edge technologies like artificial intelligence, robotics, the Internet of Things, and extensive data analysis. It also presents problems like data privacy, human-machine interaction, and the need for new skill sets, necessitating combined efforts from businesses and society to adapt and deal with.

Digital innovation employs software and technology to enhance the consumer experience, boost staff performance, and offer new goods or business models. (Erdem, 2021) The idea of digital innovation is strongly tied to other ideas, such as digitalization. Numerous businesses know that to be competitive in today's expanding market, they must reform, innovate, and adopt new technology. As digital innovators, enterprises will consider applying new techniques to tackle old challenges. Deciding to transition from analog to digital processes, adopting and implementing new software or platforms, or developing a new technology strategy are all digital innovation plans.

It involves innovative digital tools and platforms, including cloud computing, artificial intelligence (AI), the Internet of Things (IoT), and digital technology. Utilizing contemporary digital technology to streamline operations, improve customer experiences, create new business models, and increase service delivery and product creation is at the heart of digital innovation. With the advancement of digital innovation, the strategy's nature has also evolved. Additionally, digital innovation opens up new possibilities for enhancing productivity, fostering customer relationships, and encouraging creativity (Volberda, Khanagha, Baden-Fuller, Mihalache, & Birkinshaw, 2021).

Furthermore, digital innovation is appropriate for every business, regardless of size or industry, which wants to produce appealing products and services for customers to be profitable and competitive. The sole purpose of IT is no longer to develop business applications at the functional level. Business users in marketing, operations, finance, human resources, and other divisions can create cutting-edge apps using cutting-edge platforms like low code. (DiCesare, 2022)

While digital innovation offers some benefits, it also has some drawbacks. Many business executives are concerned that innovation may hurt their primary industry. Although it is reasonable, aversion to change can also prevent development. There are several accounts of businesses failing because they refused to innovate. Lidl's unsuccessful attempt to adopt an enterprise resource planning system is a well-known illustration of this. (Erdem, 2021) While others believe that Lidl is to blame for failing to comply with the standards and requirements of contemporary software, SAP Insight (2021) claims that the program itself is to blame. This clearly illustrates what may occur if strategic planning and digital strategy are not carefully implemented.

Industries are being undermined one by one by technology, and this subversion will never stop. The best option for businesses looking to grow and stay competitive is digital innovation. Here are a few digital innovation subcategories that help improve work-life harmony in a diverse workplace.

2.3.1 Types of Digital Innovation

i) Remote Collaboration and Communication Tools

Remote collaboration refers to team members' ability to work together worldwide. Collaboration is crucial to promote communication between team members and achieve common goals. The use of digital communication tools supports remote collaboration. These tools have created a new business model. (Talbert, 2022)

In a hybrid workplace, remote collaboration and communication tools can significantly improve the work-life balance. As Talbert (2022) said, effective collaboration enables remote teams to communicate effortlessly and enhance productivity through simplified results. Communication tools include a video conference platform, real-time collaboration tools, and project management software, which can help team members to share files, communicate and collaborate conveniently anytime and anywhere. These tools eliminate time and space constraints, enable employees to collaborate remotely, reduce the need for frequent face-to-face meetings, and support flexible work arrangements. The following are some examples of remote collaboration and communication tools:

a) Video Conference Platform

Employees can use Zoom (Kirkwood, 2018), Microsoft Teams, Google Meet, and other video conferencing platforms to conduct remote meetings and

discussions through video and audio. These tools provide a face-to-face communication experience, enabling team members to participate in meetings remotely, share screens, show presentations, and so on.

b) File Sharing and Collaboration Platform

The digital file is essential for the operation of any enterprise. This is very important for remote-oriented companies because geographically dispersed employees can access files alone when they cannot contact their colleagues. (Kirkwood, 2018) Nowadays, many file-sharing and collaboration platforms, such as Google Drive, Microsoft OneDrive, and Dropbox, enable teams to share and edit files remotely. These platforms provide cloud storage and online document editing functions, and team members can access and edit files simultaneously and work together in real time. The file-sharing and collaboration platform simplifies the file-sharing process and improves the collaboration efficiency among team members.

ii) Flexible Working Hours and Remote Work Arrangements

Digital innovation provides employees with the flexibility to manage working hours and workplaces. Employees can better balance their work and personal lives through telecommuting and flexible working hours. This flexibility helps attract, retain, and motivate high-performance and experienced employees. It also helps to improve the diversity and inclusiveness of the workplace. These options can reduce absenteeism, improve productivity, reduce overhead costs, and maintain operations in an emergency. (Birt, 2023) Digital tools and technologies enable employees to remotely access working documents and systems, freely arrange working hours and adjust working schedules according to personal needs and commitments.

a) Flexible Working Hours

Flexible working hours mean employees can choose working hours within certain limits according to their needs and preferences. Citrix's research (2019) shows that the total potential economic benefits of flexible work culture to the United States may reach about 2.36 trillion US dollars annually (in total added value). Digital innovation provides employees with flexible working hours through various tools and technologies. For example, employees can use time-tracking tools or time management applications to manage and plan their

working hours. These tools can help employees better understand their work patterns and time usage to arrange their work and personal life more effectively.

b) Remote Work Arrangement

Remote working arrangements allow employees to work in flexible locations using digital tools and technologies without staying in the office. Digital innovative solutions for teleworking include cloud computing, a virtual private network (VPN), remote desktops, and secure access tools. These tools enable employees to remotely access company documents, systems, and tools, communicate and collaborate with team members, and complete work tasks. Remote working arrangements provide greater freedom, allowing employees to work in the environment where they feel most comfortable and efficient. Compared with office counter components, remote workers have a much lighter burden, lower absenteeism rate, and higher health and happiness (Gigi & Sangeetha, 2021).

iii. Health and Well-Being Applications

Some digital innovations focus on delivering health and well-being apps that support employees' physical and mental health. These apps may include fitness trackers, smart watches, sleep-tracking devices, or mental health apps. The management of employees' health and well-being is to ensure that employees are free from diseases but also to continuously check employees' physical and mental health, satisfaction, happiness level, and workplace relations. (Izza, 2023) By helping employees manage their health, exercise, and sleep and providing personalized health advice, these digital tools contribute to their overall work-life balance and support them in maintaining a healthy lifestyle. The following are some examples of health and well-being applications:

a) Health Tracker

"Activity tracking helps people realize the importance of balancing exercise, sleep, and eating habits. Devices with self-tracking functions can help health-conscious individuals monitor their health level through applications and messages," said Cocian (2021). It is an application or device that tracks personal health data, such as steps, heart rate, sleep quality, etc. These applications are usually used with smartwatches, smartphones, or special devices. Employees can use the health tracker to monitor their physical activity

level and obtain data about their health status and living habits. Employees can better manage their health, set health goals, track progress, improve physical activity, and increase health concerns through these data.

b) Posture Correction and Eye Protection Tools

Sitting in front of the computer for a long time may pressure employees' posture and eyes. Posture correction and eye protection tools help employees improve their posture and protect their eyes. These tools can provide regular reminders to help employees maintain correct posture and provide eye rest reminders, including eye and relaxation exercises. These tools help reduce poor posture, eye fatigue, improve employees' comfort, and work efficiency.

iv. Personal Productivity Tools

Digital innovations offer a variety of personal productivity tools to help employees manage work tasks and time effectively. Tools like task management apps, time trackers, reminders, and calendar apps can help employees organize and optimize their work to be more productive. Streamlining workflow and enabling effective time management help employees achieve work-life balance, reduce workplace stress, and increase control over their workload. Here are some examples of standard personal productivity tools:

a) Task Management Application

Task management applications such as Todoist, Any.do, Microsoft To-Do, etc., can help employees manage and track tasks. These applications usually provide a task list, priority setting, deadline reminder, label classification, and other functions to record and organize tasks, track the progress of jobs, and ensure that tasks are completed on time.

b) Note Application

Note-taking applications such as Evernote, OneNote, and Notion provide a convenient digital way to record, organize and retrieve information. Employees can use the note-taking application to record meeting notes, inspirations, to-do items, reference materials, etc. These applications usually have tags, folders, and search functions, so they can easily organize and find notes.

2.4 WORK-LIFE BALANCE

Work-life balance refers to achieving health, harmony, and satisfaction between an individual's professional work and personal life. The balance between work and life has become a buzzword in the post-pandemic world. The survey also found that employees prefer a healthy work-life balance to a higher salary (Kumari, 2022). This is because it emphasizes the importance of coordinating and balancing work with other areas of life, such as family, health, leisure, socializing, personal interests, etc. Work-life balance does not mean a complete and equal allocation of time or resources but an appropriate balance between different roles and responsibilities to meet the needs of personal and professional development and maintain a healthy state of mind and body.

Organizations should adopt a work-life balance policy as it can bring many benefits. For example, improve work efficiency, attract talents, reduce turnover and absenteeism rates, reduce management costs, improve customer satisfaction, and build a more pleasant, fair, and dynamic workplace. Thus, in a hybrid workplace, work-life balance has several aspects of importance.

First, work-life balance is critical to an individual's health and well-being (Moulder, 2021). Overcommitment to work can lead to physical and mental health problems such as prolonged sitting, lack of exercise, irregular eating, lack of sleep, and increased stress and anxiety. By balancing work and life, people can take better care of their health and well-being and maintain a positive mindset and a good quality of life.

Second, work-life balance is essential to an individual's relationships and family. (Saini, 2023) Overwork can lead people to neglect communication and interaction with family, friends, and partners. By allocating time and energy wisely, people are better able to build and maintain relationships with relatives and friends, enhancing family cohesion and social support systems. This helps create a positive family atmosphere and fulfills one's social needs.

Third, work-life balance can help improve productivity and creativity. Working continuously for long periods can lead to fatigue and distraction, reducing work quality and efficiency. With proper scheduling of rest and recreational activities, people can improve focus and energy and enhance creativity and problem-solving skills. A sound work-life balance can help employees reduce the commuting cost of staff while

increasing personal leisure time by allowing them to better manage the work-life balance (Citrix, 2019).

Finally, work-life balance is also critical to long-term sustainability. Employee burnout will seriously disrupt employee retention rates and make it difficult for companies to keep indirect costs to a minimum. When employees are overworked and do not have a good work-life balance, they are more likely to quit instead of choosing to cooperate with the company when looking for a job or showing a sharp decline in productivity (Law Technology Today, 2023). Hence, a proper work-life balance can increase job satisfaction and motivation, reduce employee turnover, and facilitate career development and growth. Maintaining an appropriate work-life balance can help employees better manage work stress and increase commitment and commitment to work.

In a nutshell, work-life balance is crucial in a hybrid workplace. It positively impacts an individual's health, well-being, relationships, productivity, creativity, long-term sustainability, and overall life satisfaction. Organizations and individuals should work together to create environments and cultures that support work-life balance to promote overall employee well-being and job performance.

2.5 HYBRID WORKPLACE

Kirkham (2022) said that a hybrid workplace is a working model where employees work simultaneously between an office and a remote work location, such as a home, coffee shop, etc. In addition, a hybrid workplace requires better coordination of resources at home and in the office. The home office needs a fully functional permanent workstation to maximize personal productivity. At the same time, offices and conference rooms need to become collaboration stations with remote functions so that remote participants can fully participate in team interaction (Wigert & White, 2022). In a hybrid workplace, employees can switch between in-office and remote work locations depending on the nature of tasks and individual needs.

Developments in digitalization and information technology often drive hybrid workplaces. Employees can stay connected and collaborate with colleagues and teams regardless of geographic location through remote working technology and communication tools such as video conferencing, online collaboration platforms, and instant messaging applications.

A hybrid workplace can provide flexibility and enable employees to play their advantages, thus improving productivity (Mäkitalo, 2021). For employees, it can provide flexibility in when and where they can work, reduce commuting time and costs, and improve work-life balance. For organizations, a hybrid workplace can reduce office space costs, expand talent pools, and improve employee satisfaction and productivity.

However, a hybrid workplace also presents some challenges. For example, communication and collaboration can be affected by time zone differences, technical issues, and lack of face-to-face interaction. Management teams need to take steps to ensure that teamwork and employee engagement are functioning efficiently. Additionally, employees must have self-discipline and self-management skills (Kester, 2022) to take full advantage of remote work and remain productive.

Overall, a hybrid workplace is a flexible and adaptable work model that meets the needs of employees and organizations and provides a better work-life balance. With the continuous development of digital technology and more and more organizations adopting this work model, the hybrid workplace will continue to be an important trend in the future of work.

2.5.1 Example of Hybrid Workplaces MALAYSIA MELAKA

Here are some examples of hybrid workplaces in Malaysia:

i) Google Malaysia

According to Business Today Editorial (2021), employees of Google Malaysia have all been working remotely since early 2020 and have been dealing with the challenges of this new normal, the Google way. They provide a work environment suitable for collaboration and support for remote and face-to-face work.

ii) Maybank

As one of the largest banks in Malaysia, Maybank has implemented a mixed working arrangement for its employees. They have adopted a flexible working policy whereby employees can work from home for several days while utilizing the office facilities for meetings and collaborative work. In an interview with Datuk Nora Manaf (Group

Chief Human Capital Officer at Maybank) via Sunil (2022), Datuk Nora said that as the situation evolves, so do Maybankers and they can adapt and manage changes flexibly to ensure all security needs are met while continuing to provide the best level of service to our customers and community.

iii) Petronas

Petronas, Malaysia's national oil and gas company, has implemented a mixed work policy for its employees. They offer flexible work arrangements that allow employees to choose where they work based on their roles and responsibilities. They also provide ICT's virtual office program to enable employees to work away from the office at any convenient location (LIFE AT WORK Awards, 2015)

2.6 IMPACT OF DIGITAL INNOVATION ON WORK-LIFE BALANCE

Digital innovation gives employees more flexibility, choice, and efficiency and helps achieve work-life balance. Telecommuting, flexible working hours, and digital tools enable employees to control their work and personal life better and better meet their needs and goals. This balance helps to improve employee's job satisfaction, happiness, and overall quality of life.

ويونرسين تيكنيكل ما 2.6.1 Flexibility Time

Digital innovation has impacted work-life balance, in which flexible time is crucial. Flexible time means that employees can arrange their working hours freely and are no longer limited by fixed office hours. Digital innovation provides opportunities for telecommuting and flexible work arrangements, which benefits employees and organizations but may also bring some challenges.

First, the advantage of flexible time is that employees can better balance work and personal life needs (Waltower, 2023). Through digital innovation, employees can arrange their working hours according to their needs and preferences. They can choose to work at the most efficient or suitable time, considering family responsibilities, personal interests, and other requirements in life. This balance can reduce the pressure on employees and improve their job satisfaction and happiness.

Secondly, flexible time can improve the flexibility and adaptability of work. Employees can use telecommuting and flexible working arrangements at different times and places. For example, employees who need quiet to concentrate or thrive in an office environment can choose to work where and when they are most efficient (Mäkitalo, 2021). This flexibility helps employees to integrate their work and personal lives better and reduce the impact of commuting time and traffic congestion on their lives.

However, flexible time may also bring some challenges and adverse effects. First, employees may face a blurred boundary between work and personal life (Pluut & Wonders, 2020). When working hours and personal time are mixed, it may be difficult for employees to distinguish the boundaries between them. This may lead to overtime and failure to relax, affecting employees' job satisfaction and quality of life.

Secondly, flexible time may make it difficult to maintain coordination and collaboration between work and team (Advantages and Disadvantages of Flexible Working, 2022). When employees work according to their schedules, the communication and collaboration between team members may be affected. This may lead to communication and coordination challenges and affect the efficiency and cooperation of the team.

The impact of digital innovation on work-life balance is mainly reflected in the introduction of flexible time. Flexible hours can bring many benefits, such as better work-life balance, improved work flexibility, and enhanced adaptability. However, it should be noted that flexible time may also get some challenges, such as blurred boundaries, teamwork problems, and so on. By reasonably planning and managing flexible time, we can enjoy its benefits to the maximum extent and avoid potential adverse effects.

2.6.2 Mental Well-Being

The impact of digital innovation on work-life balance is not limited to flexible time but also involves mental well-being. Digital innovation gives employees more flexibility and autonomy, positively impacting mental well-being (Wigert & White, 2022). Employees can better balance their work and personal life needs and reduce their work pressure and psychological burden through telecommuting and flexible work arrangements. They can freely arrange their working hours and places according to their preferences and needs, avoiding the stress and anxiety caused by commuting time and the office environment.

Secondly, digital tools and technologies make communication and collaboration more convenient (Glossop, 2021) and efficient, thus helping to reduce work pressure and psychological burden. Employees can use instant messaging tools, online collaboration platforms, and video conferencing to communicate and cooperate with team members, no matter where they are. Such convenience can reduce work-related stress and anxiety and improve work efficiency and satisfaction.

However, digital innovation brings the challenge of 24/7 connectivity, which makes it difficult for employees to cut off the boundaries between work and personal life. This may cause employees to stand by and work more frequently than in the office. Although this may enable employees to complete more work, it may also lead to a decline in the quality of work (Villatte, 2022). Whenever and wherever, employees may be disturbed by work-related information and tasks, resulting in increased work pressure and difficulty in relaxation and recovery. This constant work pressure may damage mental health, such as anxiety, depression, and fatigue.

Therefore, it is necessary to take some measures to enjoy the mental well-being benefits brought by digital innovation to the greatest extent and reduce the potential adverse effects. This includes setting clear boundaries between work and personal life and delineating working hours and rest hours; Cultivating a good habit of digital separation to ensure timely disconnection from work; Actively participating in social activities and teamwork to compensate for the lack of face-to-face communication. In addition, organizations should also provide appropriate support and resources, such as mental well-being training, employee counseling, and workload management, to help employees maintain good mental well-being.

2.6.3 Adaptation Challenges

Digital innovation has a far-reaching impact on work-life balance, one of which is to help people adapt to challenges. Digital innovation provides new tools and technologies to enable employees to better cope with the difficulties in work and life, but it may also bring some adverse effects.

First of all, digital innovation provides employees with higher work flexibility and autonomy (Snell, 2020), which helps them to cope with work challenges. Employees can arrange working times and places according to their needs and preferences through telecommuting and flexible working arrangements. This enables

employees to balance their work and personal lives better and deal with family responsibilities, individual needs, and other essential matters. This kind of work flexibility helps employees to better cope with challenges, reduce work pressure and improve work efficiency and satisfaction.

Secondly, digital innovation provides more opportunities for learning and development and helps employees adapt to the ever-changing working environment and requirements (Newman, 2017). Employees can constantly improve their skills and knowledge to adapt to new job requirements and technological development through online training, virtual learning platforms, and digital knowledge resources. This learning and development opportunity enables employees to better adapt to challenges, maintain competitiveness and lay a solid foundation for personal career development.

However, digital innovation may also bring some challenges and adverse effects. First, digital innovation may cause problems of work stress and overwork. With the increase in telecommuting and 24/7 connectivity, employees may face more work tasks and expectations, and it is not easy to draw a clear line between work and personal life. This may lead to long working hours (Jaafar & Rahim, 2022), inability to relax and rest on time, and adversely affect employees' psychological and physical health.

The impact of digital innovation on work-life balance is closely related to adapting to challenges. It provides work flexibility and learning opportunities to help employees better cope with challenges and changes. However, it may also bring challenges of technical requirements and work pressure. Through proper training, clear boundaries, and healthy work culture, we can make the best use of the benefits of digital innovation and reduce its potential adverse effects so that employees can better adapt to the challenges in work and life.

2.6.4 Productivity

The impact of digital innovation on work-life balance involves both good and bad effects on productivity. One of the good effects of digital innovation on work-life balance is to improve productivity. Through digital tools and technologies, employees can complete their tasks more efficiently and improve their work efficiency.

First, digital innovation provides more flexibility and telecommuting options, enabling employees to arrange working hours and places according to their needs and preferences. This flexibility helps employees better to manage the balance between work and personal life, thus reducing distraction and time waste, focusing on work tasks, and improving productivity (Waters, 2020).

Secondly, digital tools and technologies provide a more convenient way of communication and collaboration so that team members can cooperate effectively anytime and anywhere. Through instant messaging, online collaboration platforms, and teleconferencing tools, employees can communicate, share files, and work together in real time, no matter where they are (Needle, 2022). This kind of efficient communication and collaboration helps reduce communication barriers and information lag, improve the team's collaborative efficiency, and enhance productivity.

However, digital innovation may also have some adverse effects on productivity. First, telecommuting and 24/7 connectivity may make it difficult for employees to draw a clear line between work and personal life (Jaafar & Rahim, 2022). Employees may fall into a state of long working hours and overwork, harming productivity. Lack of regular rest and recovery time may lead to fatigue, distraction, and decreased efficiency.

Secondly, the overuse or dependence on digital tools and technologies may lead to information overload and distraction. Pettit (2018) said that employees might be distracted by constant notifications, emails, and online messages and need help to focus on crucial tasks. This kind of distraction and information overload may affect the quality and efficiency of work and reduce productivity.

To sum up, the impact of digital innovation on work-life balance involves both good and bad effects on productivity. It helps to improve productivity by providing flexibility and efficient communication and cooperation. However, over-reliance on digital tools and technologies and difficulty drawing a clear line between work and personal life may harm productivity. By making rational use of the advantages of digital innovation and taking corresponding measures, we can maximize productivity and reduce potential adverse effects.

2.7 PROPOSED RESEARCH FRAMEWORK

In this research, the impact of digital innovation in a hybrid workplace, such as flexibility time, mental well-being, adaptation challenges, and productivity, as the independent variables, while work-life balance is the dependent variable.

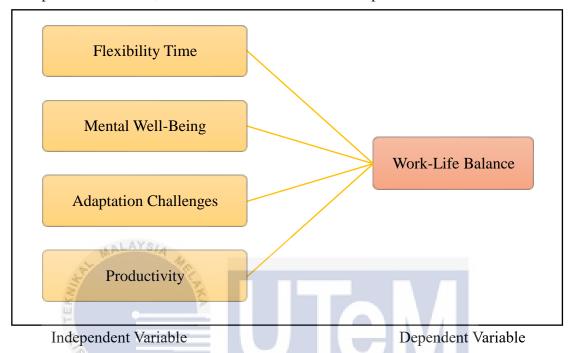


Figure 2.1: Proposed Research Framework of The Impact of Digital Innovation on Work-Life Balance in Hybrid Workplaces

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2.8 HYPOTHESES

The following are the hypotheses in this study:

i. Flexibility Time

H1: There is a significant relationship between flexibility time and work-life balance.

H0: There is no significant relationship between flexibility time and work-life balance.

ii. Mental Well-Being

H2: There is a significant relationship between mental well-being and work-life balance.

H0: There is no significant relationship between mental well-being and work-life balance.

iii. Adaptation Challenges

H3: There is a significant relationship between adaptation challenges and work-life balance.

H0: There is no significant relationship between adaptation challenges and work-life balance.

iv. Productivity

H4: There is a significant relationship between productivity and work-life balance.

H0: There is no significant relationship between productivity and work-life balance.

2.9 SUMMARY

In this chapter, the researcher discusses the impact of digital innovation on work-life balance in hybrid workplaces. The proposed research framework consists of dependent variables and independent variables. Flexible time, mental well-being, adaptation challenges, and productivity form the independent variables of this study through the dependent variables of work-life balance. In addition, the researcher also discussed digital innovation, work-life balance, and hybrid workplaces. Last but not least, the next chapter will discuss the research methods of this thesis.

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CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

In this chapter, the researcher will discuss the research methods. Research methods refer to systems and technologies used to collect, analyse, and interpret data. They are the basis of scientific research and help researchers to answer research questions, test hypotheses and obtain reliable results. In addition, the research methods include research design, methodological choices, primary and secondary data sources, research location, research strategy, time horizon, reliability and validity, and data analysis methods. Research design determines the research plan and structure, and methodological choice is the appropriate data collection and analysis method. The primary and secondary data sources determine the way of data acquisition, while the research location determines the implementation site and chooses appropriate methods and strategies through research strategy. Through the time horizon, the researcher can determine the study's time range to ensure the results' reliability and validity. Finally, the data analysis method is used to analyse the collected data. The introduction of this chapter is helpful for readers to understand the methodological basis of research and ensure scientific and reliable research.

3.2 RESEARCH DESIGN

Research design is the blueprint of empirical research, which aims to answer specific research questions or test specific research hypotheses. It must explain the data collection, scale development, and sampling processes in detail.

At the beginning of the research, the researcher will choose research methods and technologies, which contain documents of basic details of technologies, methods, and projects. Experts define research design as the adhesive that binds research projects together. It helps to provide a structure and direction for research and produce favourable results. The following are some principles of reasonable research design,

such as identifying the problem, reviewing the literature around the problem, specifying assumptions, describing the data source, and defining how to interpret the data. (Emeritus, 2023)

The researcher chooses to use descriptive study and explanatory study because descriptive study aims to objectively describe and summarize phenomena, groups, or events in order to understand their characteristics, frequency, and distribution, while explanatory study's goal is to explore and explain the causal relationship between phenomena, and to find the relationship between cause and effect. It looks for possible explanations of the phenomenon by analysing the relationship between data and related variables. The researcher will also determine the relationship between digital innovation and hybrid workplaces on work-life balance.

3.3 METHODOLOGICAL CHOICES

The researcher chooses quantitative methods to study the impact of digital innovation on work-life balance in hybrid workplaces, which means they will use quantitative data and statistical analysis methods to explore the relationship between digital innovation and work-life balance. By collecting a large number of data, such as questionnaires or other scale tools, the researcher can obtain a wide range of views and opinions and analyse these data statistically. This method can help them quantify the impact of digital innovation on hybrid workplaces and reveal the correlation and trend between digital innovation and work-life balance. Using statistical analysis techniques, such as descriptive statistics, correlation analysis, and regression analysis, the researcher will be able to provide objective and quantifiable results to draw specific conclusions and suggestions on the work-life balance of digital innovation in hybrid workplaces. This quantitative method will provide reliable data support for research and provide important insights to comprehensively understand digital innovation's impact on work-life balance in hybrid workplaces.

3.4 PRIMARY AND SECONDARY DATA SOURCES

The researcher uses primary and secondary data sources when examining the impact of digital innovations on work-life balance in hybrid workplaces. Primary data sources

refer to raw data collected directly from actual research subjects, such as employees in a hybrid workplace. For example, researchers might use questionnaires, interviews, or observations to gather employees' opinions, experiences, and perspectives on the relationship between digital innovation and work-life balance. Primary data sources provide direct, individualized observations and feedback that provide insight into employees' experiences and feelings in a hybrid workplace.

In addition, the researcher uses secondary data sources previously collected by others to support the context, theoretical framework, or findings of previous research. Secondary data sources include published academic articles, reports, statistics, industry research reports, etc. For example, the article "Exploring the impact of digital work on work—life balance and job performance: a technology affordance perspective" by Duan, Deng & Wibowo (2023) has been published in Emerald Insight. By synthesizing and analysing this secondary data, researchers gained insights into previous research findings and industry trends on the relationship between digital innovation and work-life balance.

By combining primary and secondary data sources, the researcher obtained comprehensive information and insights into the impact of digital innovations on work-life balance in hybrid workplaces. This integrated use of different types of data sources helps improve the research's reliability and validity. It provides a more comprehensive perspective on understanding the relationship between digital innovation and work-life balance.

3.5 RESEARCH LOCATION

The study will be conducted by researchers in Selangor, the Federal Territory of Kuala Lumpur, and Putrajaya in the central region of Malaysia. This is due to the growing number of hybrid workplaces, each with a unique operating model. In this study, central region Malaysia was chosen as the study location because the researcher wanted to understand the impact of digital innovations on work-life balance in hybrid workplaces. The development of technology and digitalization in these three regions is relatively good. Many enterprises and organizations have adopted digital tools and technologies to improve work efficiency and productivity. This makes the region ideal

for studying the impact of digital innovations on work-life balance in hybrid workplaces.

3.6 RESEARCH STRATEGY

Research strategy refers to the action plan the researcher points out step by step according to the thinking process. It enables researchers to plan their studies systematically. When a researcher chooses an appropriate strategy, several considerations must be made, such as the research question, objectives, available time, resources at the researcher's disposal, and the researcher's philosophical foundation. (Chetty & Walia, 2020) The researcher chooses to use the survey strategy in this study because it can efficiently collect a large amount of data, obtain the views and information of the subjects, and is flexible and customizable. By reasonably designing questionnaires and selecting samples, the researcher can overcome the possible limitations of survey strategies and provide valuable data support for research.

3.6.1 Questionnaire Design

Bhandari stated that (2021) questionnaires are specific data collection tools. Questionnaire design refers to the process of formulating and constructing questionnaires in research. It is a key link, which involves determining the research objectives, designing appropriate questions, choosing appropriate question types, and answering options, and ensuring the clarity and effectiveness of the questionnaire. The researcher conducted the questionnaire through online Google Forms, whether the respondents can use the web or mobile to answer the question.

The questionnaire contains three parts. The first part concerns the respondents' demographics, including gender, age, education, working area, industry and working mode. The second part focuses on the independent variables: the impact of digital innovation in a hybrid workplace (flexibility time, mental well-being, adaptation challenges, productivity). The last part of the questionnaire asks about the dependent variable, work-life balance. Multiple choice questions and a Likert scale are applied in the questionnaire. The Likert scale in the second part and the third part is based on five points rating scale, in which 1 represents "strongly disagree," 2 represents "disagree," 3 represents "neutral," 4 represents "agree," and 5 represents "strongly agree."

Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
1	2	3	4	5

Table 3.1: Five points Likert scale

3.6.2 Questionnaire Development and Sources

The following are the items in questionnaire survey and their sources:

No.	Items	Sources
]	MPACT OF DIGITAL INNOVATION ON WORK-LIF	FE BALANCE
	Flexibility Time	
1	Helps employees to integrate their work and personal lives better.	Waltower, 2023
2	Reduce the impact of commuting time and traffic congestion on their lives.	Mäkitalo, 2021
3	Lead to overtime and failure to relax, affecting employees' job satisfaction and quality of life.	Ko & Choi, 2018
4	Difficult to maintain coordination and collaboration	Morrison-Smith
	between work and team.	& Ruiz, 2020
	Mental Well-Being	اوبي
1	Reduce their work pressure and psychological burden through telecommuting and flexible work arrangements.	Shiri et al., 2022
2	Digital tools and technologies make communication and collaboration more convenient.	Glossop, 2021
3	Disturbed by work-related information and tasks, resulting in increased work pressure and difficulty in relaxation.	Rao & Chandraiah, 2012
4	Employees need to stand by 24/7 and cause problem mental health, such as anxiety, depression, and fatigue.	Teepe et al., 2023
	Adaptation Challenges	
1	Digital innovation provides employees with higher work flexibility and autonomy, which helps them to cope with work challenges.	Snell, 2020

2	Digital innovation provides more opportunities to employees for learning and development.	Newman, 2017
3	Helps employees adapt to the ever-changing working environment and requirements.	Newman, 2017
4	Digital innovation brings challenges of technical requirements and work pressure.	Lara-Prieto & Flores-Garza, 2022
	Productivity	
1	Better manage the balance between work and personal life, thus reducing distraction and time waste, and improving productivity.	Waters, 2020
2	Efficient communication and collaboration help reduce communication barriers and information lag.	Zuriel, 2023
3	Employees difficult to draw a clear line between work and personal life.	Jaafar & Rahim, 2022
4	Employees might be distracted by constant notifications, emails, and online messages and need help to focus on crucial tasks.	Pettit, 2018
	يؤمر سيني بيكسيكل مليسيا مالاك	اود
1	Employees prefer a healthy work-life balance to a higher salary.	Kumari, 2022
2	Work-life balance create a positive family atmosphere and fulfils one's social needs.	Gragnano et al., 2020
3	Help employees reduce the commuting cost of staff while increasing personal leisure time.	Citrix, 2019
4	Maintaining an appropriate work-life balance can help employees better manage work stress and increase commitment to work.	Susanto et al., 2022

3.6.3 Sampling Design

Sampling design refers to the method and process of determining how to select a sample from the population in research. In practical research, it is often difficult to investigate the whole population, so researchers need to select some samples by sampling to represent the population. However, there are two main types of sampling methods in the study, namely probability sampling and non-probability sampling. (McCombes, 2019) In this study, the researcher chooses simple random sampling as the sampling design. Simple random sampling is a probability sampling method in which each individual has an equal and known chance to be selected as a sample in the population. The reason why the researcher wants to use simple random sampling is to ensure the representativeness and reliability of the sample.

According to the Statista Research Department, the total population of Central Region Malaysia in 2022 is estimated at 9.12 million. Krejcie and Morgan (1970) provided a classic method to determine the appropriate sample size; this table is based on statistical principles and helps researchers to determine the required sample size based on the population size. Krejcie and Morgan calculated that there should be 384 respondents from a population sample size of 1,000,000. The researcher surveyed more than 384 respondents among employees working in hybrid workplaces.

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Population Size (N)	Sample Size (S)
UNIVERSION TEKNIKAL N	IALAYSIA ME80KA
200	132
300	169
400	196
500	217
600	234
700	248
800	260
900	269
1 000	278
2 000	322
3 000	341
4 000	351

5 000	357
6 000	361
7 000	364
8 000	367
9 000	368
10 000	370
15 000	375
20 000	377
30 000	379
40 000	380
50 000	381
75 000	382
1 000 000	384

Table 3.2: Determining the sample size of a known population.

3.6.4 Pilot Test

Pilot testing plays a key role in obtaining high-quality research results. It is a preliminary study before the main study, aiming at evaluating the feasibility of the main study and making necessary modifications. Pilot testing is usually a small-scale study, which helps plan and improve major studies' design and implementation. By conducting pilot tests, researchers can ensure the quality and reliability of major research and maximize the effectiveness of research. (In, 2017) The researcher will select 30 respondents for this study and conduct pilot tests within a week. Their feedback and opinions will be considered in the final questionnaire of this study.

3.7 TIME HORIZONS

Time horizon refers to the time range or period involved in the research, usually longitudinal and cross-sectional. It represents the length of time that the researcher observes and collects data. A longitudinal study has a long-time span and usually covers a long period. In longitudinal research, the researcher will collect data many times to observe and record the changes and development of the research object in time. The time horizon of a cross-sectional study is relatively short and usually only

covers a specific time point or period. In the cross-sectional study, the researcher collects data for a short time and mainly pays attention to the subjects' characteristics, attitudes, or behaviours at a specific time. In this study, the researcher opted for a cross-sectional study due to time constraints, as the researcher needed to complete Chapters 1 to Chapter 3 within four months.

3.8 RELIABILITY AND VALIDITY

Validity refers to, in quantitative research, the degree to which a measurement tool is accurate to the concept or phenomenon under study. It measures the relevance and accuracy of measurement tools to reality. Measurement instruments have high validity when accurately reflecting what is being studied and showing consistent relationships with other relevant variables. Reliability refers to the consistency and stability of measurement tools. When a measurement tool is used repeatedly under the same conditions, if similar or similar results can be obtained, it can be said that the measurement tool has high reliability. Reliability reflects the measurement error and consistency of the tool, which can provide stable measurement results. Therefore, when conducting quantitative research, researchers need to pay attention to and evaluate the validity and reliability of measurement tools to ensure that the obtained data are of high quality and credibility. (Heale & Twycross, 2015)

The researcher uses Cronbach's Alpha to measure the reliability of variables. Cronbach's Alpha coefficient ranges from 0 to 1. When Cronbach's Alpha coefficient is greater than 0.7, it is considered acceptable; When it is greater than 0.9, it is considered good; When it is greater than or equal to 0.9, it is considered excellent. When Cronbach's Alpha coefficient is less than 0.6, it is considered poor; When it is less than 0.5, it is considered unacceptable. When the value of Cronbach's Alpha coefficient is negative, there is something wrong with the data. By calculating Cronbach's Alpha coefficient and explaining it according to its value range, the researcher can judge the degree of internal consistency and reliability of measuring tools and further determine whether it needs to be revised or improved.

Cronbach's Alpha Coefficient Range	Strength of Association
$\alpha \ge 0.9$	Excellent

$0.9 > \alpha \ge 0.8$	Good
$0.8 > \alpha \ge 0.7$	Acceptable
$0.7 > \alpha \ge 0.6$	Questionable
$0.6 > \alpha \ge 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Table 3.3: Cronbach's Alpha Coefficient Range and Strength of Association Sources: Saunders et al. (2016)

3.9 DATA ANALYSIS METHOD

The researcher used Statistical Package for the Social Sciences (SPSS) as the data analysis method in the study. SPSS is a statistical software widely used for data analysis in social sciences and other fields. It provides a wide range of statistical techniques and analysis tools, which can be used for data sorting, transformation, descriptive statistical analysis, inferential statistical analysis, correlation analysis, regression analysis, etc. The researcher used descriptive analysis, Pearson's correlation analysis, and multiple regression analysis in this study.

3.9.1 Descriptive Analysis

Descriptive analysis is the process of identifying trends and relationships using current and historical data. (Cote, 2021) Its purpose is to describe and summarize these variables in general to understand interviewees' basic characteristics and distribution. By using descriptive statistical indicators, such as frequency, percentage, mean value, and standard deviation, the researcher can obtain information about respondents' overall characteristics and trends. These results will provide the basis and reference for the follow-up research and analysis, help the researcher to deeply understand the demographic characteristics of respondents, and further explore the relationship with other variables. In this study, the researcher used descriptive analysis to analyse demographic data such as gender, age, education, occupation, work experience, company size, working mode, and working hours of the respondents.

3.9.2 Pearson's Correlation Analysis

Pearson's correlation measures the strength of the linear relationship between two variables. (Williams, Halloin, Löbel, Finklea, Lipke, Zweigerdt, & Cremaschi, 2020) Pearson's correlation analysis is a statistical method to measure the strength and direction of a linear relationship between two continuous variables. It calculates the correlation coefficient between these two variables, namely the Pearson's correlation coefficient. Pearson's correlation coefficient ranges from -1 to 1, where -1 means complete negative correlation, 1 means complete positive correlation, and 0 means no correlation.



Figure 3.1: Value of the Correlation Coefficient

Source: Toresano (2016)

3.9.3 Multiple Regression Analysis

Multiple regression is a statistical technique that can be used to analyse the relationship between a dependent variable and several independent variables. The purpose of multiple regression analysis is to use independent variables with known values to predict the value of a single dependent variable. Each prediction value is weighted, which indicates their relative contribution to the overall prediction. (Moore, Anderson, Das, & Wong, 2006) In this research, the researcher needs to understand the relationship between the independent variables (impact of digital innovation in hybrid workplaces) toward the dependent variable (work-life balance). The multiple regression analysis helps the researcher to determine the independent variables with the greatest impact on the dependent variable. The following is the equation of multiple regression analysis:

Equation of MRA:
$$Y = a + bX1 + cX2 + dX3 + eX4$$

Where:

Y = Dependent Variable (Work-Life Balance)

a = Constant value or Intercept

b = Influence of X1 (Flexibility Time)

c = Influence of X2 (Mental Well-Being)

d = Influence of X3 (Adaptation Challenges)

e = Influence of X4 (Productivity)

X1, X2, X3, X4 = Independent variables

3.10 SUMMARY

To sum up, this explanatory study must distribute questionnaires to the respondents. 200 respondents from the Central Region of Malaysia must answer the questionnaire via Google Forms. This study was a cross-sectional time study, and data were collected only once. Pilot testing will be conducted before the questionnaire is distributed to respondents. In addition, the researchers consulted secondary sources from online journals, articles, reports, and books. Cronbach's alpha is used to measure the reliability of variables. After obtaining the data, researchers need to analyse the data using descriptive analysis, Pearson's correlation analysis, and multiple regression analysis. The following data analysis and discussion will be discussed in Chapter 4.

CHAPTER 4

DATA ANALYSIS AND DISCUSSION

4.1 INTRODUCTION

In Chapter 4, the researcher will discuss and present the result of data analysis collected from the respondents. The acquired data is analysed using IBM Statistical Package for the Social Sciences (SPSS) version 27.0. To identify the relationship between the dependent variable and the independent variables, this chapter employs descriptive analysis, Pearson's correlation analysis, multiple regression analysis and ANOVA analysis. The questionnaire is distributed to 384 respondents via an online survey powered by Google Forms. There are three sections in the questionnaire:

- > Section A is the demographic profile of respondents.
- > Section B is about the impact of digital innovation on work-life balance.
- Section C is about the work-life balance.

4.2 PILOT TEST

A pilot test is a preparatory experiment made before a formal research project begins. It is an indispensable part of the research and design method to evaluate the experimental method in advance and explore the feasibility of the project.

4.2.1 Validity Test

Researcher has conducted validity test in this research and tested 20 items that included in this questionnaire. Thus, the internal validity can be observed in this pilot test which is determining the relationship between the independent variables and dependent variable.

4.2.2 Reliability Test

Cronbach's Alpha is used to assess consistency during the reliability test. According to the Cronbach's Alpha method, a result is considered acceptable if the value is 0.7

or greater than 0.7 between 0 and 1, a value equal to 0.9 is considered good, and a value greater than 0.9 is considered exceptional.

Table 4.1: Cronbach's Alpha for Pilot Test (Source: SPSS Output)

Reliability Statistics

		Cronbach's Alpha Based		
	Cronbach's Alpha	on Standardized Items	N of Items	
Flexibility Time	.558	.585		4
Mental Well-Being	.620	.571		4
Adaptation Challenges	.319	.567		4
Productivity	.636	.696		4
Work-Life Balance	.469	.492		4

Table 4.2: Cronbach's Alpha for Pilot Test
(Source: SPSS Output)

Reliability Statistics
Cronbach's Alpha Based on
Standardized Items

N of Items

852

860

20

Table 4.1 shows the reliability analysis results for this research. The Cronbach's Alpha values for Mental Well-Being and Productivity fall within the range of 0.6 to 0.7, indicating a questionable strength of association. Simultaneously, Cronbach's Alpha for Flexibility Time exhibits a poor strength of association with a value of 0.558. Notably, the independent variable, Adaptation Challenges, and the dependent variable, Work-Life Balance, are reported at 0.319 and 0.469, respectively, without deleting any items, rendering these values unacceptable.

Table 4.2 illustrates the Cronbach's Alpha reliability test results encompassing all dependent and independent variables. Despite certain independent and dependent variables being considered poor and unacceptable individually, the overall Cronbach's Alpha for the pilot test stands at 0.852. This value exceeds the threshold of 0.7, signifying good reliability for the questionnaire. The pilot test involved 30 respondents impacted by digital innovation on work-life balance in hybrid workplaces, with 20 questionnaire items contributing to the analysis. These findings suggest that,

collectively, the questionnaire demonstrated sound internal consistency despite certain variables exhibiting weaker reliability when considered in isolation.

4.3 DESCRIPTIVE STATISTICS ON DEMOGRAPHIC BACKGROUND

Researcher uses the descriptive statistics to analyse respondents' demographic background such as gender, age, working area, industry and working mode. The questionnaire was given to target respondents via Google Form and there was a total of 384 respondents for this questionnaire. SPSS outputs the frequency, percentage, valid, and cumulative percent of respondents.

4.3.1 Gender

Table 4.3: Gender of Respondents (Source: SPSS Output)

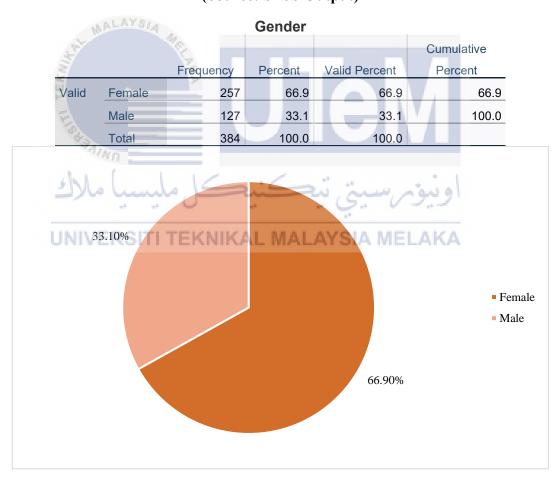


Figure 4.1: Gender of Respondents

Table above shows the gender of 384 respondents in this research. From the table above, there are 257 female respondents which are 66.9%, and 127 male respondents which are 33.1%. Therefore, the majority of respondents are female.

4.3.2 Age

Table 4.4: Age of Respondents (Source: SPSS Output)

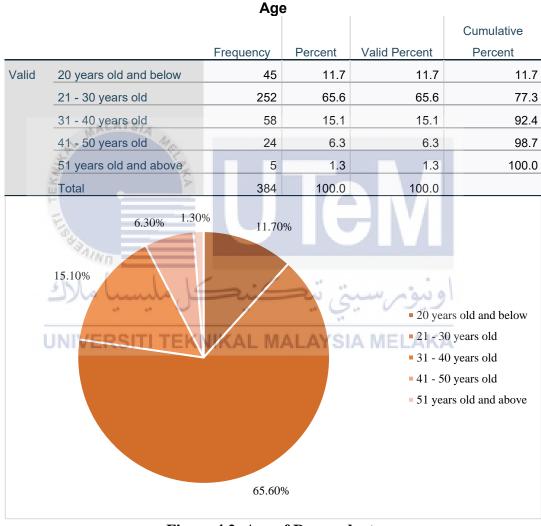


Figure 4.2: Age of Respondents

Table above shows the age range of 384 respondents is 20 years old and below to 51 years old and above. The majority of respondents were aged 21 to 30 years old, there are total 252 respondents (65.6%), followed by aged 31 to 40 years old, which contains 58 respondents (15.1%). Besides, respondents who age 20 years old and below comprise 45 respondents (11.7%), whereas for age range from 41 to 50 years

old contains 24 respondents (6.3%). In the age range of 51 years old and above, there are only 5 respondents (1.3%).

4.3.3 Working Area

Table 4.5: Working Area of Respondents (Source: SPSS Output)

Working Area Cumulative Frequency Percent Valid Percent Percent Valid 159 41.4 41.4 41.4 Selangor Federal Territory of Kuala 127 33.1 33.1 74.5 Lumpur Federal Territory of 98 25.5 25.5 100.0 Putrajaya 384 100.0 100.0 Total 25.50% Selangor 41.40% Federal Territory of Kuala Lumpur Federal Territory of Putrajaya 33.10%

Figure 4.3: Working Area of Respondents

As illustrated in table above shows the working area of 384 respondents. The most respondents' working area are located in Selangor which is 159 respondents with 41.4% in this research. Moreover, the second working area is located in Federal Territory of Kuala Lumpur which contains 127 respondents with 33.1%, whereas Federal Territory of Putrajaya only comprises 98 respondents which is 25.5%.

4.3.4 Industry

Table 4.6: Industry of Respondents (Source: SPSS Output)

Industry

	Indust	,		
				Cumulative
	Frequency	Percent	Valid Percent	Percent
hnology/ Information	216	56.3	56.3	56.3
hnology				
alth Care	12	3.1	3.1	59.4
ıcation	60	15.6	15.6	75.0
ance	40	10.4	10.4	85.4
nufacturing Industry	29	7.6	7.6	93.0
ail	11	2.9	2.9	95.8
vice Industry	13	3.4	3.4	99.2
er ALAYS/A	3	.8	.8	100.0
al	384	100.0	100.0	
Technology/Informatechnology Health Care Education Manufacturing Indus Retail 15.60% Service Industry Other				gy are n turing Industry
	7.60% VERSITI TF/N	chnology/ Information 216 chnology alth Care 12 dication 60 ance 40 nufacturing Industry 29 ail 11 vice Industry 13 er 3 at 384 VERSITITE/NIKAL MA	chnology Information 216 56.3 chnology alth Care 12 3.1 ication 60 15.6 ance 40 10.4 inufacturing Industry 29 7.6 ail 11 2.9 vice Industry 13 3.4 ication 384 100.0 ication 2.90% 3.40% 0.80% 7.60% 3.40% 0.80% 7.60%	### Section

Figure 4.4: Industry of Respondents

The table above shows the types of industry for 384 respondents. The majority of respondents are working in the technology/information technology industry which is 216 respondents with percentage of 56.3%. Then, followed by education and finance industries which are 60 respondents (15.6%) and 40 respondents (10.4%) each. There are also 29 respondents working in the manufacturing industry with 7.6% and 13 respondents working in the service industry with 3.4%. For the health care industry, there are 12 respondents (3.4%), while there are 11 respondents (2.9%) working in the

retail industry. There are only 3 respondents from other industries such as marketing with the percentage of 0.8%.

4.3.5 Working Mode

Table 4.7: Working Mode of Respondents (Source: SPSS Output)

Working Mode Cumulative Valid Percent Frequency Percent Percent Valid Physical Work 30 7.8 7.8 7.8 Work From Home 97 25.3 25.3 33.1 Hybrid Work 257 66.9 66.9 100.0 384 100.0 100.0 7.80% 25.30% Physical Work Work From Home Hybrid Work KNIKAL MALA 66.90%

Figure 4.5: Working Mode of Respondents

Based on the table above, it shows the working mode of 384 respondents. The majority of respondents are in the hybrid work mode, which are 257 respondents with 66.9%. Then, followed by the work from home mode consisting of 97 respondents with the percentage of 25.3%. There are only 30 respondents with the percentage of 7.8% are working in the physical work mode.

4.4 DESCRIPTIVE STATISTICS ON INDEPENDENT VARIABLES AND DEPENDENT VARIABLE

Researcher used descriptive method analysis to analyse the dependent variable and the independent variables in this research. A central tendency measurement was conducted and the mean, median and mode of variables is identified by descriptive analysis.

Table 4.8: Descriptive Statistic of Independent Variable and Dependent Variable

(Source: SPSS Output)

		FT	MWB	AC	Р	WLB
N	Valid	384	384	384	384	384
	Missing	0	0	0	0	0
Mean		3.3184	3.1855	3.5872	3.0768	4.0957
Std. Error o	f Mean	.02958	.02921	.03158	.03208	.04624
Mode	MALATS	3.25	2.75	3.50	2.75	4.50
Std. Deviati	on	.57955	.57236	.61890	.62864	.90606
Minimum		1.00	1.00	1.00	1.00	1.25
Maximum		5.00	5.00	5.00	5.00	5.00

Table 4.8 showed the descriptive statistical analysis for independent variables and dependent variable. Independent variables from the table above are flexibility time, mental well-being, adaptation challenges and productivity, while the dependent variable is work-life balance. Among the independent variables, adaptation challenges have the highest mean which is 3.5872 followed by flexibility time which is 3.3184. Adaptation challenges was the highest mean because majority of respondents perceived the intricate adjustments required for digital innovation in hybrid workplaces as having a more significant impact on their overall work-life balance. However, for mean of mental well-being and productivity are respectively 3.1855 and 3.0768. It showed that there are few respondents concern on these variables. The mean for the dependent variable, work-life balance is 4.0957.

Moreover, the standard deviation of the highest independent variable is productivity, which is 0.62864, followed by adaptation challenges which is 0.61890. Whereas flexibility time had the standard deviation for 0.57955 and mental well-being with 0.57236 which is the lowest standard deviation among these independent variables. Productivity showed the highest standard deviation, as respondents had greater variation in their perceptions of its impact, while mental health had the lowest

standard deviation, indicating that participants had a greater perception of its impact on work-life balance in a hybrid workplace. The standard deviation for work-life balance is 0.90606. Lastly, the minimum and maximum value of the flexibility time, mental well-being, adaptation challenges and productivity were 1.00 and 5.00 respectively, while the work-life balance has the minimum with 1.25 and maximum with 5.00.

4.5 PEARSON'S CORRELATION COEFFICIENTS ANALYSIS

Researcher uses Pearson's Correlation Coefficients (r), a statistical tool for data analysis. This coefficient is widely used to measure the linear relationship strength between dependent variable and independent variables, and to evaluate the relationship strength between data variables (Saunders et al., 2016). Table 4.8 shows the guidelines of Pearson's Correlation Coefficient to interpret the correlation range of R value in data analysis.

Table 4.9: Pearson's Correlation Coefficients (Source: Saunders, Lewis, and Thornhill, 2016)

Pearson's Correlation Coefficients (R values)	Interpretation
ســــــــــــــــــــــــــــــــــــ	Very strong relationship
±0.40 to ±0.69	Strong relationship
±0.30 to ±0.39	Moderate relationship
±0.20 to ±0.29	Weak relationship
±0.01 to ±0.19	No relationship

Table 4.10: Correlation Analysis for All Variables (Source: SPSS Output)

Correlations

		FT	MWB	AC	Р	WLB
FT	Pearson Correlation	1	.628**	.492**	.607**	.331**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	384	384	384	384	384
MWB	Pearson Correlation	.628**	1	.373**	.677**	.139**
	Sig. (2-tailed)	.000		.000	.000	.006
	N	384	384	384	384	384

AC	Pearson Correlation	.492**	.373**	1	.450**	.672**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	384	384	384	384	384
Р	Pearson Correlation	.607**	.677**	.450**	1	.188**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	384	384	384	384	384
WLB	Pearson Correlation	.331**	.139**	.672**	.188**	1
	Sig. (2-tailed)	.000	.006	.000	.000	
	N	384	384	384	384	384

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

Remarks: AC: Adaptation Challenges

FT: Flexibility Time P: Productivity

MWB: Mental Well-Being WLB: Work-Life Balance

From Table 4.10, the independent variables in this research are flexibility time, mental well-being, adaptation challenges and productivity, while the dependent variable is work-life balance. The correlation value for the flexibility time was 0.331 with significant level 0.000 (p<0.01). This showed that there was a moderate relationship between flexibility time and work-life balance. Moreover, the correlation between mental well-being and work-life balance was 0.139 with significant level 0.006 (p<0.01), this showed that there was no relationship between mental well-being and work-life balance. Next, the correlation for adaptation challenges was 0.672 with significant level 0.000 (p<0.01), this showed that there was a strong relationship between adaptation challenges and work-life balance. Lastly, the correlation between productivity and work-life balance was 0.188 with significant level 0.000 (p<0.01), this also showed that there was no relationship between productivity and work-life balance.

4.5.1 Flexibility Time

Table 4.11: Correlation between Flexibility Time and Work-Life Balance (Source: SPSS Output)

		FT	WLB
FT	Pearson Correlation	1	.331**
	Sig. (2-tailed)		.000
	N	384	384
WLB	Pearson Correlation	.331**	1

S	Sig. (2-tailed)	.000	
N	N	384	384

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

Remarks:

FT: Flexibility Time

WLB: Work-Life Balance

Table 4.11 showed the correlation analysis between flexibility time and work-life balance. The correlation value for flexibility time is 0.331, and the significant is at the 0.01 level (2-tailed) and it proved all two perceptions have efficiency of p<0.001. This indicates a moderate relationship between flexibility time and work-life balance. The positive correlation suggests that as flexibility time increases, there is a corresponding improvement in the perceived balance between work and personal life. The statistical significance emphasizes the reliability of this association in the studied sample.

4.5.2 Mental Well-Being

Table 4.12: Correlation between Mental Well-Being and Work-Life Balance (Source: SPSS Output)

	<i>2</i>		MWB	WLB
MWB	Pearson Correlation		1	.139**
	Sig. (2-tailed)		er and	.006
	N		384	384
WLB			.139**	1
	Sig. (2-tailed)	KAL WAL	AYSIA MELA	NA .
	N		384	384

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

Remarks:

MWB: Mental Well-Being WLB: Work-Life Balance

Table 4.12 showed the correlation analysis between mental well-being and work-life balance. The correlation between these variables is 0.139, and there is no relationship between mental well-being and work-life balance. The correlation is significant at the 0.01 level (2-tailed), and it proved all two perceptions have efficiency of p<0.001. In this context, the finding suggests that, within the scope of this study, there is no relationship between mental well-being and work-life balance. The significance underscores the robustness of the conclusion that the observed correlation is not

practically significant in influencing the perceived balance between work and personal life.

4.5.3 Adaptation Challenges

Table 4.13: Correlation between Adaptation Challenges and Work-Life Balance (Source: SPSS Output)

		AC	WLB
AC	Pearson Correlation	1	.672**
	Sig. (2-tailed)		.000
	N	384	384
WLB	Pearson Correlation	.672**	1
	Sig. (2-tailed)	.000	
	N	384	384

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

Remarks: MALAYSIA

AC: Adaptation Challenges

WLB: Work-Life Balance

Table 4.13 showed the correlation analysis between adaptation challenges and work-life balance. The correlation coefficient for adaptation challenges is 0.672, and the significant is at the 0.01 level (2-tailed). It proved all two perceptions have efficiency of p<0.001. This correlation indicates a strong relationship between adaptation challenges and work-life balance. The significance reinforces the conclusion that individuals facing higher adaptation challenges are more likely to experience a positive impact on their perceived equilibrium between work and personal life. The robust correlation coefficient accentuates the strength and significance of this observed relationship in the study sample.

4.5.4 Productivity

Table 4.14: Correlation between Productivity and Work-Life Balance (Source: SPSS Output)

Correlations

		Р	WLB
Р	Pearson Correlation	1	.188**
	Sig. (2-tailed)		.000
	N	384	384
WLB	Pearson Correlation	.188**	1

S	Sig. (2-tailed)	.000	
N	N	384	384

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

Remarks:

P: Productivity

WLB: Work-Life Balance

Table 4.14 showed a correlation between productivity and work-life balance, with a coefficient of 0.188 which means that there was no relationship between productivity and work-life balance. The correlation is significant at the 0.01 level (2-tailed), and it proved all two perceptions have efficiency of p<0.001. This suggests that, in the scope of this study, productivity might not be a decisive factor influencing work-life balance. The simplicity of this correlation hints that factor beyond productivity metrics, such as workplace culture and individual preferences, may play a more substantial role in shaping the perceived balance between work and personal life.

4.6 MULTIPLE REGRESSION ANALYSIS

Multiple regression analysis measures the significant relationship between independent variables (flexibility time, mental well-being, adaptation challenges and productivity) and dependent variable (work-life balance).

Table 4.15: Model Summary of Multiple Regression Analysis (Source: SPSS Output)

Model Summary^b

				Std. Error of the	
Model	R	R Square	Adjusted R Square	Estimate	
1	.693ª	.481	.475	.65629	

a. Predictors: (Constant), Productivity, Adaptation Challenges, Flexibility Time, Mental Well-Being

Table 4.15 showed the model summary that clarify the relationship between the independent variables and the dependent variable. The value of correlation coefficient (R) is 0.693 which means that there was a strong correlation between the variables. Besides, the coefficient of determinant R square showed a value of 0.481, which means that work-life balance was affected by independent variables by 48.1%, while 51.9%

b. Dependent Variable: Work-Life Balance

was explained by the other factors that are not involved in this research. The adjusted R square showed 47.5%.

Table 4.16: ANOVA Analysis (Source: SPSS Output)

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	151.177	4	37.794	87.746	.000b
	Residual	163.244	379	.431		
	Total	314.420	383			

a. Dependent Variable: Work-Life Balance

Table 4.16 showed the F-test value was 87.746 with a significant level 0.000. the significant level was lower than 0.05. Hence, the researcher can conclude that there was a significant relationship between independent variables (flexibility time, mental well-being, adaptation challenges and productivity) and dependent variable (work-life balance). The null hypothesis would be rejected due to the significant level of the regression model is below 0.05.

Table 4.17: Coefficient of Multiple Regression Analysis

(Source: SPSS Output)

Coefficients

	UNIVERS	Standardized Coefficients	AKA			
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	.856	.238		3.595	.000
	FT	.220	.082	.141	2.685	.008
	MWB	197	.086	124	-2.294	.022
	AC	1.037	.064	.709	16.266	.000
	Р	190	.078	132	-2.439	.015

a. Dependent Variable: Work-Life Balance

Table 4.17 showed the beta value of flexibility time was 0.220, beta value of mental well-being was -0.197, beta value of adaptation challenges was 1.037 and beta value of productivity was -0.190. As shown in the table above, adaptation challenges had the most significant beta value. Next, followed by the second significant beta value was flexibility time and productivity had the third significant beta value. Lastly, mental well-being had the least significant beta value. The linear equation of Multiple

b. Predictors: (Constant), Productivity, Adaptation Challenges, Flexibility Time, Mental Well-Being

Regression Analysis (MRA) was Y = a + bX1 + cX2 + dX3 + eX4, thus the MRA was developed as below:

Work-Life Balance = 0.856 + 0.220FT + -0.197MWB + 1.037AC + -0.190P

4.7 HYPOTHESES TESTING

i. Flexibility Time

H1: There is a significant relationship between flexibility time and work-life balance.

H0: There is no significant relationship between flexibility time and work-life balance.

Accept H1

Table 4.17 showed the result of coefficient of multiple regression analysis. The significant value of flexibility time is 0.008. Therefore, there is a significant relationship between flexibility time and work-life balance, as the significant value is less than 0.05. Hence, the alternative hypotheses (H1) are accepted, and the null hypotheses (H0) are rejected.

ii. Mental Well-Being

H2: There is a significant relationship between mental well-being and work-life balance.

H0: There is no significant relationship between mental well-being and work-life balance.

Accept H2

Table 4.17 showed the result of coefficient of multiple regression analysis. The significant value of mental well-being is 0.022. Therefore, there is a significant relationship between mental well-being and work-life balance, as the significant value is less than 0.05. Hence, the alternative hypotheses (H2) are accepted, and the null hypotheses (H0) are rejected.

iii. Adaptation Challenges

H3: There is a significant relationship between adaptation challenges and work-life balance.

H0: There is no significant relationship between adaptation challenges and worklife balance.

Accept H3

Table 4.17 showed the result of coefficient of multiple regression analysis. The significant value of adaptation challenges is 0.000. Therefore, there is a significant relationship between adaptation challenges and work-life balance, as the significant value is less than 0.05. Hence, the alternative hypotheses (H3) are accepted, and the null hypotheses (H0) are rejected.

iv. Productivity

H4: There is a significant relationship between productivity and work-life balance.

H0: There is no significant relationship between productivity and work-life balance.

Accept H4

Table 4.17 showed the result of coefficient of multiple regression analysis. The significant value of productivity is 0.015. Therefore, there is a significant relationship between productivity and work-life balance, as the significant value is less than 0.05. Hence, the alternative hypotheses (H4) are accepted, and the null hypotheses (H0) are rejected.

4.8 DISCUSSION ON FINGDINGS

The data analysis showed positive and negative impacts on flexibility time, mental well-being, adaptation challenges, productivity, and work-life balance in hybrid workplaces.

RO1: To identify the types of digital innovation that can enhance work-life balance.

The first research objective of this research is to identify the types of digital innovation that can enhance work-life balance. In the previous chapter, the researcher explained

that Work-Life Balance is impacted according to Flexibility Time, Mental Well-Being, Adaptation Challenges, and Productivity.

A multifaceted landscape emerges in the pursuit of identifying digital innovations that amplify work-life balance in hybrid workplaces. Firstly, remote collaboration and communication tools unveil the transformative power of platforms such as Zoom (Kirkwood, 2018), Microsoft Teams, and Google Meet. These tools transcend geographical constraints, fostering seamless collaboration, reducing the need for face-to-face meetings, and supporting flexible work arrangements. Moreover, flexible working hours and remote work arrangements highlight how digital innovation empowers employees with the autonomy to manage their working hours and locations, supported by research from Citrix (2019). This flexibility attracts high-performance talent and contributes to diversity and inclusivity, reducing absenteeism and enhancing overall productivity.

Next, health and well-being applications emphasize the role of fitness trackers, smartwatches, and mental health apps (Cocian, 2021). These tools significantly contribute to the overall work-life balance by providing personalized health advice and promoting a healthy lifestyle. Lastly, personal productivity tools encompass applications like task management and note-taking apps. Examples such as Todoist and Evernote enable employees to efficiently organize tasks, track progress, and enhance control over workloads, fostering an environment conducive to achieving a harmonious work-life equilibrium. This in-depth analysis forms a foundational understanding of the diverse digital innovations instrumental in shaping and enhancing the delicate work-life balance in the contemporary hybrid workplace scenario.

RO2: To explore the positive impacts of digital innovation on work-life balance in hybrid workplaces.

From Table 4.10, the correlation between independent variables (flexibility time, mental well-being, adaptation challenges and productivity) and the dependent variable (work-life balance) is significant at the 0.01 level (2-tailed), which proved that the two perceptions have an efficiency of p<0.001. Hence, the researcher can conclude that the independent variables influence the work-life balance.

H1. There is a significant relationship between flexibility time and work-life balance.

As Waltower (2023) and Mäkitalo (2021) emphasized, flexibility time is crucial in helping employees achieve a better work-life balance through digital innovation. Waltower points out that flexible hours empower employees to align their work schedules with personal needs and preferences, reducing pressure and enhancing job satisfaction. Additionally, Mäkitalo highlights the advantage of flexible time, allowing employees to strategically choose when and where to work, improving adaptability and seamlessly integrating work and personal life. This dual flexibility addresses challenges related to commuting and traffic congestion and significantly contributes to overall employee well-being. However, the SPSS output showed a significant result between flexibility time and work-life balance. Hence, hypotheses testing is accepted.

H2. There is a significant relationship between mental well-being and worklife balance.

Digital innovation's impact on work-life balance extends beyond flexible time to encompass mental well-being, as highlighted by Wigert and White (2022). The increased flexibility and autonomy provided by digital innovation enable employees to align their work and personal lives better, alleviating work-related stress and psychological burdens. Telecommuting and flexible work arrangements allow employees to freely manage their working hours and locations, reducing stress associated with commuting and traditional office environments. Additionally, the convenience of digital tools, as emphasized by Glossop (2021), plays a crucial role in enhancing communication and collaboration. Instant messaging, online collaboration platforms, and video conferencing facilitate seamless cooperation among team members, regardless of their physical locations. This heightened convenience not only reduces work-related stress and anxiety but also contributes to improved work efficiency and overall job satisfaction. However, the SPSS output showed a significant result between mental well-being and work-life balance. Hence, hypotheses testing is accepted.

H3. There is a significant relationship between adaptation challenges and work-life balance.

Digital innovation grants employees increased work flexibility and autonomy, enabling them to tackle work challenges effectively and offer opportunities for continuous learning and development (Snell, 2020; Newman, 2017). Employees can tailor their working hours and locations to align with personal needs through telecommuting and flexible working arrangements, fostering a better balance between work and personal life. This enhanced work flexibility improves coping mechanisms, reduces work pressure, and increases overall work efficiency and satisfaction. Furthermore, digital innovation provides learning and development avenues, including online training, virtual learning platforms, and digital knowledge resources, to constantly empower employees to enhance their skills. This adaptability to evolving job requirements and technological advancements ensures employees remain competitive and establishes a strong foundation for personal career development. However, the SPSS output showed a significant result between adaptation challenges and work-life balance. Hence, hypotheses testing is accepted.

H4. There is a significant relationship between productivity and work-life balance.

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Digital innovation facilitates increased flexibility and telecommuting options for employees, allowing them to tailor their working hours and locations based on individual needs and preferences, but it also enhances communication and collaboration through digital tools and technologies (Waters, 2020; Needle, 2022). This flexibility aids employees in effectively managing the balance between work and personal life, reducing distraction, minimizing time wastage, and heightened focus on work tasks, ultimately leading to improved productivity. Additionally, the convenience afforded by digital communication tools, such as instant messaging, online collaboration platforms, and teleconferencing, fosters effective cooperation among team members, irrespective of their physical locations. Real-time collaboration eliminates communication barriers and

information lag, enhancing team efficiency and productivity. However, the SPSS output showed a significant result between productivity and worklife balance. Hence, hypotheses testing is accepted.

RO3: To explore the negative impacts of digital innovation on work-life balance in hybrid workplaces.

Table 4.16 shows the F-test value was 87.746 with a significant level of 0.000. the significant level was lower than 0.05. Hence, the researcher can conclude that there was a significant relationship between independent variables (flexibility time, mental well-being, adaptation challenges and productivity) and dependent variable (work-life balance).

H1. There is a significant relationship between flexibility time and work-life balance.

Pearson's Correlation Coefficient between flexibility time and work-life balance is 0.33, indicating a moderate relationship between flexibility time and work-life balance. 0.01 level (2-tailed) correlation demonstrates that two perceptions are efficient. The integration of working hours and personal time can make it challenging for employees to distinguish between the two spheres, leading to overtime and a struggle to relax. A primary concern is the potential for a blurred boundary between work and personal life, as Pluut and Wonders (2020) highlighted. Consequently, this may negatively impact employees' job satisfaction and overall quality of life.

H2. There is a significant relationship between mental well-being and work-life balance.

From Table 4.10, Pearson's Correlation Coefficient is 0.139, signifying no relationship, which raises a seeming contradiction. Notably, the statistical analysis demonstrates significance at the 0.01 level (2-tailed) with p<0.001, indicating a robust result. To reconcile this, the impact of 24/7 connectivity, highlighted by Villatte (2022), becomes crucial. The constant connectivity disrupts traditional work-life boundaries, leading to heightened work pressure. This nuanced scenario suggests that, while a direct linear

correlation might be absent, intricate dynamics and contextual factors influence the relationship between mental well-being and work-life balance in the digital age. The need to address challenges posed by 24/7 connectivity underscores the complexity of this relationship, emphasizing the importance of a nuanced understanding of the evolving landscape of digital innovation.

H3. There is a significant relationship between adaptation challenges and work-life balance.

Digital innovation also introduces challenges and potential adverse effects, including work stress and overwork. The rise of telecommuting and constant connectivity, extending into 24/7 availability, may expose employees to escalating work tasks and expectations. Drawing a clear line between work and personal life becomes challenging, resulting in prolonged working hours (Jaafar & Rahim, 2022). The Pearson Correlation Coefficient value is 0.672, indicating a strong association between adaptation challenges and work-life balance. This indicated that the adaptation challenges would impact and affect the work-life balance.

H4. There is a significant relationship between productivity and work-life balance.

The assertion that digital innovation can adversely impact productivity is substantiated by challenges such as employees' difficulty delineating work and personal life boundaries amid telecommuting and 24/7 connectivity (Jaafar & Rahim, 2022). This predicament results in prolonged working hours, leading to overwork and a subsequent decline in productivity. The absence of adequate rest and recovery time further contributes to fatigue, distraction, and diminished efficiency. Moreover, the overreliance on digital tools may induce information overload and distraction, affecting the quality and efficiency of work. Pettit's (2018) observation regarding constant notifications and messages underscores the potential detriments. Despite the Pearson Correlation Coefficient of 0.188 indicating no relationship between productivity and work-life balance, the statistical significance at the 0.01 level (2-tailed), with p<0.001. This underscores

the importance of holistic strategies in navigating the challenges posed by digital innovation to strike a balance between its advantages and potential drawbacks.

4.9 SUMMARY

In Chapter 4, the researcher analysed the data collected from the respondents. All of the data were analysed using SPSS software version 27.0. The researcher imported the data into SPSS and used a reliability test for the pilot test, descriptive analysis, Pearson's Correlation Coefficient analysis, Multiple Regression analysis, and ANOVA analysis. The data output showed the relationship between the independent variables and the dependent variable. The result showed that flexibility time, mental well-being, adaptation challenges, and productivity have a significant relationship with work-life balance. In the next chapter, the researcher will discuss the results, outcomes,



CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 INTRODUCTION

In this chapter, the researcher will discuss the conclusion of the overall result and summary of the findings of this research. The summary of the findings is elaborated in the first section of this chapter, and the justification of research objectives is explained in the second section. Besides, the third section will discuss the limitations of the research in this chapter. Lastly, the researcher will describe the recommendations for future research in the last section.

5.2 SUMMARY OF FINDINGS

The researcher completed the analysis of the data about the demographic variables. A total of 384 respondents filled out the survey, and the demographic information collected from them included their gender, age, working area, industry, and working mode. According to the survey results, the majority of respondents were female, which is 66.9%. Most respondents fell into the age group of 21 to 30 years old. For the respondents' working area, the majority are from Selangor, while for the industry, most respondents are working in the technology/ information technology industry. Last but certainly not least, the majority of respondents are working in a hybrid working mode.

In this research, Pearson's Correlation Coefficient analysis was used to analyse the relationship between four independent variables and one dependent variable. The independent variables were flexibility time, mental well-being, adaptation challenges, and productivity, while the dependent variable was work-life balance. Adaptation challenges shared a strong relationship with work-life balance, while flexibility time shared a moderate relationship with work-life balance. However, there was no relationship between mental well-being and productivity with work-life balance.

The researcher used the Multiple Regression analysis to determine the relationship between the independent variables and the dependent variable. There were 48.1% of the dependent variable can be explained by the independent variables, while 51.9% was explained by the other factors that are not involved in this research. According to ANOVA analysis, it can be assumed that there is a significant relationship between these variables because the significant level of regression is lower than 0.05.

Moreover, there were also significant relationships between flexibility time, mental well-being, adaptation challenges, and productivity with work-life balance in the hypotheses testing. As a result, the alternative hypotheses (H1, H2, H3, H4) are accepted.

5.3 FULFILLMENT OF RESEARCH OBJECTIVES

The research results will be the result of the study seeking the impact of digital innovation on work-life balance in hybrid workplaces. This research will provide results with important research objectives related to the types of digital innovation that can enhance work-life balance and the positive and negative impacts of digital innovation on work-life balance in hybrid workplaces.

5.3.1 To identify the types of digital innovation that can enhance work-life balance.

The researcher delves into the types of digital innovations across remote collaboration tools, flexible working hours, wellness apps and personal productivity tools, revealing their critical role in promoting work-life balance among employees. Remote collaboration tools improve work flexibility by enabling teams to communicate and collaborate more efficiently by providing features such as video conferencing, real-time collaboration, and project management. Flexible working hours give employees more autonomy in managing their work and life, helping reduce workplace stress. Health apps track physical activity, provide health advice and support employees in maintaining a healthy lifestyle. Personal productivity tools help employees organize and plan work more effectively and improve productivity through task management, time tracking and reminders. Together, these types of digital innovation build a digital

work ecosystem that supports employees' work-life balance, providing companies with key tools and strategies to achieve balance.

5.3.2 To explore the positive impacts of digital innovation on work-life balance in hybrid workplaces.

The research has successfully found the positive impacts of digital innovation on work-life balance in hybrid workplaces. According to the questions in the questionnaire, digital innovations impacted the employees' work-life balance. As a result of the impact of digital innovation on work-life balance, researchers can conclude that there is a relationship between the independent variables (flexibility time, mental well-being, adaptation challenges and productivity) and the dependent variable (work-life balance). It has been found that digital innovation impacts work-life balance. Hence, it is important to help employers understand the positive impacts of digital innovations on employees' work-life balance. The independent variables (flexibility time, mental well-being, adaptation challenges and productivity) are key factors that impact the work-life balance.

5.3.3 To explore the negative impacts of digital innovation on work-life balance in hybrid workplaces.

The researcher concludes that flexibility time, mental well-being, adaptation challenges, and productivity negatively impact work-life balance. This is due to blurred work-life boundaries, increased stress, and difficulties adapting to new work practices. Hence, the independent variables (flexibility time, mental well-being, adaptation challenges and productivity) are important to let employers understand the negative impacts of digital innovations on employees' work-life balance. Three hypotheses in this research show that it is all significant. In contrast, the researcher can conclude that there is a negative impact relationship between the independent variables (flexibility time, mental well-being, adaptation challenges and productivity) and the dependent variable (work-life balance).

5.4 LIMITATION OF THE STUDY

In this research, the study encounters several limitations rooted in the challenges of data collection within a hybrid workplace. The foremost challenge lies in the uncertainty of respondents' willingness to participate, adding a layer of unpredictability to the investigation. Compounded by time constraints, the expedited data collection process, necessitated by a 4-month reporting deadline, may affect the depth and thoughtfulness of responses. Furthermore, adhering to the Krejcie and Morgan (1970) table for sample size determination, where a target of 384 respondents was set, introduces the likelihood of non-response bias as not all approached individuals may engage. Besides, geographical restrictions to Selangor, the Federal Territory of Kuala Lumpur, and the Federal Territory of Putrajaya narrow the study's generalizability, confining its applicability solely to this regional context. These limitations necessitate cautious interpretation of findings and provide valuable insights for refining future research methodologies.

5.5 RECOMMENDATION FOR THE FUTURE STUDY

This research is about the impact of digital innovation on work-life balance in hybrid workplaces. Researcher has studied the influencing impact of digital innovation on work-life balance in hybrid workplaces from many literature studies, but this is still a research field to be fully explored because there are SMEs who still do not know much about the work-life balance brought by digital innovation in hybrid workplaces. Therefore, the researcher suggested some recommendations for future researcher engaged in similar study.

First of all, future study can expand the scope of research, including a wider geographical area and industry. The current research is limited to the hybrid workplaces in Selangor, Kuala Lumpur, and Putrajaya only. Thus, further study can consider covering the whole of Malaysia to obtain more comprehensive and diverse data. This will help to understand better the impact of digital innovation on work-life balance in different regions and industries and provide more universal conclusions.

Moreover, future study is encouraged to adopt mixed research methods, combining quantitative and qualitative analysis. Such a comprehensive approach can provide a more comprehensive understanding and deeply explore the impact of digital innovation in hybrid workplaces. Quantitative analysis can provide the trend and correlation of large-scale data, while qualitative analysis is helpful in understanding individual experiences and viewpoints deeply. Combining the two can produce more convincing and in-depth research results and provide more specific suggestions.

Besides, considering cultural and regional differences is also recommended. The future study can explore the impact of digital innovation on work-life balance in different cultural and geographical backgrounds. This is because cultural and geographical factors may affect employees' acceptance of digital innovation and their coping styles. A deep understanding of these differences will contribute to personalized management. In addition, researcher also need to pay attention to long-term impact and sustainability. This is because understanding the long-term effects of digital innovation on employees' careers and the changes in different working stages will help organizations plan support measures better.

Lastly, the future study can be devoted to deepening the understanding of the impact of digital innovation on work-life balance in hybrid workplaces. Through these recommendations, researcher can analyse the impact of digital innovation on work-life balance more comprehensively and deeply and provide more substantive guidance for practice.

5.6 CONCLUDING REMARK

This research provides insight into the impact of digital innovation on work-life balance in hybrid workplaces. The researcher explained the summary of study findings, limitations, and recommendations. The researcher concluded the result based on data analysis and discussion in Chapter 4 in the summary of the findings. For the limitations, the researcher listed out the problems faced in this research, such as respondents' willingness to participate, time constraints, sample size and geographical restrictions. Therefore, there are also some recommendations suggested, such as expanding the scope of research, adopting mixed research methods, considering cultural and regional differences, and paying attention to long-term impact and sustainability.

In conclusion, the researcher hopes this study will provide helpful information regarding the digital innovation that will impact the work-life balance in hybrid workplaces. Most respondents strongly agree that flexible time helps to reduce the impact of commuting time and traffic congestion on their lives. Besides, the majority of respondents also agree that digital innovation reduces their work pressure and psychological burden through telecommuting and flexible work arrangements. The hypotheses testing showed a significant relationship between flexibility time, mental

well-being, adaptation challenges and productivity with work-life balance. Therefore, the alternative hypotheses (H1, H2, H3, H4) are accepted. The study findings will benefit the employees and employers in hybrid workplaces as they can refer to this research to provide employees with guidance to manage their work-life balance better and help employers understand the positive and negative impacts of digital innovations on employees' work-life balance.



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APPENDIX A



QUESTIONNAIRE RESEARCH PROJECT SURVEY

THE IMPACT OF DIGITAL INNOVATION ON WORK-LIFE BALANCE IN HYBRID WORKPLACES

Dear respondent,

I am Lee Qiu Yen, a final year student from Universiti Teknikal Malaysia Melaka (UTeM) studying Bachelor of Technology Management (High Technology Marketing) with Honours.

You are invited to take part in a research study being undertaken to examine "The Impact of Digital Innovation on Work-Life Balance in Hybrid Workplaces." Result from this study will be used to provide employees with guidance to better manage their work-life balance and help employers to understand the positive and negative impacts of digital innovations on employees' work-life balance.

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This questionnaire consists of three (3) main sections such as section A, B and C. Please read the questions carefully and answer them with a tick or in the space provided. The survey will take approximately 10 minutes to be completed and your participation is highly appreciated. Thank you.

For further clarification and or instruction, please contact:

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Tel: 019-6681101

Supervisor: DATIN DR. SURAYA BINTI AHMAD

E-mail: surayaahmad@utem.edu.my

SECTION A: DEMOGRAPHIC PROFILE

This section aims to obtain your personal information with several questions listed. Please select the answer options provided.

Bahagian ini bertujuan untuk mendapatkan maklumat peribadi anda dengan beberapa soalan yang disenaraikan. Sila pilih pilihan jawapan yang disediakan.

1. Gender *
☐ Female
☐ Male
2. Age *
\square 20 years old and below
\square 21 – 30 years old
\square 31 – 40 years old
☐ 41 – 50 years old
□ 51 years old and above
3. Working Area *
Selangor
☐ Federal Territory of Kuala Lumpur
☐ Federal Territory of Putrajaya
4. Industry *
☐ Technology/ Information Technology
☐ Health Care
☐ Education
☐ Manufacturing Industry
☐ Retailing
☐ Service Industry
☐ Other:

5.	Working Mode *
	☐ Physical Work
	☐ Work From Home
	☐ Hybrid Work

SECTION B: IMPACT OF DIGITAL INNOVATION ON WORK-LIFE BALANCE

This section is to understand the impact of digital innovation on work-life balance in hybrid workplace. Please indicate your level of agreement with each statement by selecting the appropriate number on the 5-point Likert scale.

Bahagian ini adalah untuk memahami kesan inovasi digital terhadap keseimbangan kerja-kehidupan di tempat kerja hibrid. Sila nyatakan tahap persetujuan anda dengan setiap pernyataan dengan memilih nombor yang sesuai pada skala Likert 5 mata.

1	= Strongly	D.	/ 0		1 1	C .	
	- Strongly	Lucan	ree/ \an	ant In	dak	Ott	1111
1	- Suongry	Disag	icc/ buil	gui I ii	uun	Dein	In

- 2 = Disagree/ *Tidak Setuju*
- 3 = Neutral
- 4 = Agree/ Setuju
- 5 = Strongly Agree/ Sangat Setuju

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	Flexibility Time					
Fle	exibility time is a work arrangement that allows employees to have	ve g	reat	er c	onti	rol
ove	er their work schedule.					
		1	2	3	4	5
1.	Helps employees to integrate their work and personal lives					
	better.					
2.	Reduce the impact of commuting time and traffic congestion					
	on their lives.					
3.	Lead to overtime and failure to relax, affecting employees'					
	job satisfaction and quality of life.					
4.	Difficult to maintain coordination and collaboration between					
	work and team.					

Mental Well-Being

Mental well-being includes an individual's overall psychological state, including emotional resilience, ability to cope, and the absence of mental health disorders.

		1	2	3	4	5
1.	Reduce their work pressure and psychological burden through					
	telecommuting and flexible work arrangements.					
2.	Digital tools and technologies make communication and					
	collaboration more convenient.					
3.	Disturbed by work-related information and tasks, resulting in					
	increased work pressure and difficulty in relaxation.					
4.	Employees need to stand by 24/7 and cause problem mental					
	health, such as anxiety, depression, and fatigue.					

Adaptation Challenges

Digital innovation provides new tools and technologies to enable employees to better cope with the difficulties in work and life, but it may also bring some adverse effects.

eff	ects.					
	نبونم بسبت تبكنيكا ملسبا ملاك	1	2	3	4	5
1.	Digital innovation provides employees with higher work	,				
	flexibility and autonomy, which helps them to cope with work	(A				
	challenges.					
2.	Digital innovation provides more opportunities to employees					
	for learning and development.					
3.	Helps employees adapt to the ever-changing working					
	environment and requirements.					
4.	Digital innovation brings challenges of technical					
	requirements and work pressure.					

	Productivity					
The	e impact of digital innovation on work-life balance involves bo	th g	3000	d ar	nd b	ad
effe	ects on productivity.					
		1	2	3	4	5
1.	Better manage the balance between work and personal life,					
	thus reducing distraction and time waste, and improving					
	productivity.					
2.	Efficient communication and collaboration help reduce					

	productivity.			
2.	Efficient communication and collaboration help reduce			
	communication barriers and information lag.			Ī
3.	Employees difficult to draw a clear line between work and			
	personal life.			1
4.	Employees might be distracted by constant notifications,			
	emails, and online messages and need help to focus on crucial			

SECTION C: WORK-LIFE BALANCE

This section is to understand the importance of work-life balance in hybrid workplace. Please indicate your level of agreement with each statement by selecting the appropriate number on the 5-point Likert scale.

Bahagian ini adalah untuk memahami kepentingan keseimbangan kerja-kehidupan di tempat kerja hibrid. Sila nyatakan tahap persetujuan anda dengan setiap pernyataan dengan memilih nombor yang sesuai pada skala Likert 5 mata.

- 1 = Strongly Disagree/ Sangat Tidak Setuju
- 2 = Disagree/ *Tidak Setuju*
- 3 = Neutral
- 4 = Agree / Setuju

tasks.

5 = Strongly Agree/ Sangat Setuju

		1	2	3	4	5
1.	Employees prefer a healthy work-life balance to a higher					
	salary.					

2.	Work-life balance create a positive family atmosphere and			
	fulfils one's social needs.			
3.	Help employees reduce the commuting cost of staff while			
	increasing personal leisure time.			
4.	Maintaining an appropriate work-life balance can help			
	employees better manage work stress and increase			
	commitment and commitment to work.			

Thank you so much for your time in completing this survey. I will ensure that the information you provide will be kept strictly confidential and used only for academic research purposes.



APPENDIX B

Gantt Chart of Final Year Project (FYP) 1

WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ACTIVITIES																
FYP talk																
Search for FYP																
topic																
Meeting with																
supervisor																
Topic discussion																
Title																
confirmation						M										
RO & RQ	SIZ	4				Ι										
Construction			6			D	T									
Submission			>			S			7			V				
Chapter 1						E				-	- 1	1				
Submission						M				_		М				
Chapter 2						B R			4.7	49						
Submission	بالاب	U.O	U			Е		-	7.	Š	U	7	291			
Chapter 3	IT	Т	ĖИ	IMI	IK/	A	M A	.1./	AY:	SIA	ME	LA	KA			
First draft of						K										
FYP 1																
Submission of																
FYP 1																
Presentation 1																
Revised of FYP																
1																

APPENDIX C

Gantt Chart of Final Year Project (FYP) 2

WEEK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ACTIVITIES																
Create																
Questionnaire																
Distribute																
Questionnaire																
Collect																
Questionnaire																
Analysis Data																
Submission																
Chapter 4 MALAY	SIA	40														
Submission		7	7													
Chapter 5			>						1		١,	V				
Proposal											П	1				
Correction					-						ш	4				
Slide Preparation			12	and the same			part of the same o		4.7							
Submission of	*	مر	J					-	. (5:	0	2	91			
FYP 2 UNIVERS		TE	EK	NII	ζA	L	MA	L	AY:	SIA	ME	LA	KA			
Presentation 2																