# THE RELATIONSHIP BETWEEN FLEXIBLE WORKING ARRANGEMENTS (FWAs) AND LECTURERS' PRODUCTIVITY AT PUBLIC UNIVERSITIES IN MALAYSIA

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# Abstract

This study explores the relationship between Flexible Working Arrangements (FWAs) and lecturers' productivity at public universities in Malaysia. FWAs encompass remote working, hybrid working, and flexible scheduling, are increasingly adopted as strategies to enhance employee productivity. Using a quantitative, cross-sectional research design, data were collected from 230 lecturers through a structured questionnaire. The analysis was conducted using SPSS Version 26, applying descriptive statistics and Pearson correlation. The findings revealed a significant positive relationship between all three types of FWAs and employee productivity. These results suggest that when employees are provided with greater flexibility, their productivity levels are likely to improve. The study offers valuable insights for higher education institutions aiming to enhance lecturer performance through supportive and flexible work environments. It also contributes to the limited literature on FWAs in the Malaysian academic context and provides a foundation for future research in this area.

**Keywords:** Flexible Working Arrangements, Remote Working, Hybrid Working, Flexible Scheduling, Employee Productivity, Public University, Malaysia

## Abstrak

Kajian ini meneroka hubungan antara Pengaturan Kerja Fleksibel (Flexible Working Arrangements, FWA) dan produktiviti pekerja dalam kalangan pensyarah universiti awam di Malaysia. FWA termasuk kerja jarak jauh, kerja hibrid, dan penjadualan fleksibel semakin banyak digunakan untuk meningkatkan kesejahteraan pekerja, keseimbangan kerja-kehidupan, dan prestasi. Menggunakan reka bentuk kajian kuantitatif rentas keratan, data telah dikumpulkan daripada 230 orang pensyarah melalui soal selidik berstruktur. Analisis dilakukan menggunakan SPSS Versi 26 dengan penerapan statistik deskriptif dan korelasi Pearson. Dapatan kajian menunjukkan terdapat hubungan positif yang signifikan antara ketiga-tiga jenis FWA dan produktiviti pekerja. Hasil ini mencadangkan bahawa apabila pekerja diberikan lebih banyak fleksibiliti, tahap produktiviti mereka berkemungkinan meningkat. Kajian ini menawarkan pandangan yang berguna kepada institusi pengajian tinggi yang ingin meningkatkan prestasi pensyarah melalui persekitaran kerja yang fleksibel dan menyokong. Ia juga menyumbang kepada literatur terhad mengenai FWA dalam konteks akademik di Malaysia serta menyediakan asas untuk kajian lanjut dalam bidang ini.

**Kata kunci:** Pengaturan Kerja Fleksibel, Kerja Jarak Jauh, Kerja Hibrid, Penjadualan Fleksibel, Produktiviti Pekerja, Universiti Awam, Malaysia

## Acknowledgement

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# List of Abbreviations

FWA                     Flexible Working Arrangements

COVID-19                Corona Virus Disease 2019

SPSS                    Statistical Package for the Social Science

SDT                     Self-Determination Theory

JD-R                    Job Demands-Resources

# CHAPTER ONE

# INTRODUCTION

## 1.1 Introduction

This study encompasses the essential components of the research framework, including the background of study, the formulation of problem statement, research objectives, and research questions. It also explains the significance and scope of the study, highlights its limitations, defines key operational terms, and presents an overview of the overall research structure.

## 1.2 Background of the Study

Lecturers' productivity is a critical factor in the overall performance and reputation of higher education institutions, as it reflects the efficiency and effectiveness with which academic staff fulfil their teaching, research, and administrative responsibilities. In the context of public universities in Malaysia, productivity is often evaluated through outputs such as publication records, research grants secured, student learning outcomes, and contributions to institutional governance.

However, recent discussions in the higher education sector highlight growing concerns about lecturers' productivity. Academic staff at Malaysian public universities are increasingly burdened by teaching, research, consultancy, and administrative demands, while still being evaluated through stringent KPI systems that align with the National Higher Education Strategic Plan (PSPTN) and broader institutional transformation goals (Basarudin et al., 2016). This intensification of responsibilities, often without commensurate support or benefits, may impede lecturers' effectiveness in meeting their performance targets (Yaacob et al., 2018).

The multifaceted role of lecturers that involves balancing high teaching loads, producing impactful research, engaging in community service, and performing administrative duties has led to work intensification and, in some cases, reduced efficiency in meeting academic goals. Studies have reported that Malaysian public university lecturers face challenges such as time constraints, overlapping responsibilities, and stress related to meeting both teaching and research expectations (Ishak et al., 2023; Rahman, 2019). In addition, global university ranking pressures and performance appraisal systems have increased the need for lecturers to deliver more within the same or fewer working hours, which can affect work quality, well-being, and ultimately productivity.

Considering these challenges, Flexible Working Arrangements (FWAs) have emerged as a potential strategy to address productivity concerns. FWAs refer to work practices that provide employees with greater control over when, where, and how their work is completed. Common forms include remote working, hybrid working, and flexible scheduling. These arrangements aim to create a supportive work environment that accommodates personal needs while enabling employees to perform optimally. Evidence from past studies indicates that FWAs can reduce work-related stress, promote a healthier work-life balance, and enhance job satisfaction (Beckmann & Cornelissen, 2022). By allowing lecturers more autonomy over their work environment and schedule, FWAs may enable them to focus more effectively on high-priority academic tasks, manage their workloads better, and maintain consistent output.

In Malaysian public universities, FWAs are gradually gaining attention as institutions adapt to changing workforce expectations and global academic trends. Traditionally, the academic environment in Malaysia has emphasised on-campus presence and fixed

schedules, but the COVID-19 pandemic accelerated the adoption of flexible work models. Remote work, for instance, allows lecturers to prepare course materials, conduct research, and attend virtual meetings from locations outside campus. Hybrid models combine the benefits of in-person engagement with the convenience of remote work, while flexible scheduling enables lecturers to allocate time for research, grading, and curriculum development during their most productive hours.

Given the dual pressures of maintaining high productivity and meeting institutional performance targets, understanding the relationship between FWAs and lecturers' productivity is essential. This study, therefore, investigate the relationship between FWAs and lecturers' productivity at public universities in Malaysia. The findings may offer insights for university policymakers seeking to adopt flexible work policies that enhance productivity, support staff well-being, and strengthen the competitiveness of Malaysia's higher education sector.

## 1.3   Problem Statement

Lecturers' productivity is a key driver of institutional excellence, particularly in higher education, where teaching quality, research output, and community engagement form the backbone of a university's reputation and global competitiveness. In Malaysian public universities, productivity is generally assessed through performance-based key performance indicators (KPIs) set by the Ministry of Higher Education (MOHE) and respective institutions. These KPIs include research publications in high-impact journals, securing research grants, achieving high teaching evaluation scores, participating in community service, and contributing to administrative leadership (Yaacob et al., 2018).

However, emerging evidence indicates that many lecturers in Malaysian public universities are struggling to sustain high levels of productivity due to increasing workload demands, rigid work structures, and performance pressures. Recent studies reveal that Malaysian public university lecturers often work 55–60 hours per week, substantially exceeding the standard working hours. This is due to the need to juggle multiple roles—delivering lectures, supervising students, conducting research, securing grants, publishing papers, fulfilling administrative duties, and engaging in community outreach (Yaacob et al., 2018).

Teaching workloads alone can reach 15–18 credit hours per semester, leaving minimal time for high-quality research, a critical component in both university ranking systems and individual performance appraisals (Basarudin et al., 2016). This imbalance between teaching and research responsibilities is compounded by the KPI-driven evaluation system, which, while designed to enhance institutional performance, has also resulted in work intensification and role overload (Mustapha & Hassan, 2012; Yaacob et al., 2018).

The strain of meeting these multiple demands has tangible effects on lecturers' well-being and output. Ishak et al., 2023 found that over 60% of academic staff in Malaysian public universities report experiencing high levels of occupational stress, primarily due to unmanageable workloads and conflicting role expectations. This high stress environment is associated with reduced motivation, diminished work quality, and burnout, all of which directly impact productivity levels. Supporting this, MOHE's (2020) annual report noted a decline in research publication rates in certain public universities between 2017 and 2019, attributing this partly to heavier teaching and administrative obligations. These trends raise concerns about whether current work

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structures adequately support lecturers in fulfilling their academic responsibilities at an optimal level.

One potential approach to alleviating these challenges is the adoption of Flexible Working Arrangements (FWAs), as it provides greater autonomy over when, where, and how work is performed, and have been shown in other sectors to reduce work-related stress, improve work-life balance, and increase job satisfaction (Beckmann & Cornelissen, 2022). In academia, such flexibility can allow lecturers to allocate uninterrupted blocks of time for research, conduct administrative tasks more efficiently, and better manage teaching preparation outside of rigid schedules.

Despite these potential benefits, the implementation of FWAs in Malaysian public universities has been slow. While the COVID-19 pandemic demonstrated the feasibility of remote and hybrid teaching models, many institutions have since reverted to traditional work arrangements that emphasise on-campus presence (Ali et al., 2023). Existing studies on FWAs in Malaysia remain concentrated in corporate and private sectors, where job roles and productivity metrics differ significantly from those in academia (Shaari & Amirul, 2020). Although some research, such as Subramaniam et al. (2021), has begun exploring the relationship between FWAs and academic work-life balance, there remains a notable gap in empirical evidence directly linking FWAs to lecturers' productivity in Malaysian public universities.

Given the unique nature of academic work that blends collaborative, on-campus interactions with tasks requiring sustained, independent focus, it is critical to investigate if FWAs can be adapted to enhance productivity in the public university context. Without such evidence, policy decisions on lecturer work arrangements risk being guided by tradition rather than data. This study addresses this gap by examining the

relationship between FWAs and lecturers' productivity in Malaysian public universities. The findings aim to provide empirical insights that can inform institutional policies, improve academic performance, and contribute to the broader discourse on workforce flexibility in higher education.

## 1.4    Research Questions

1. What is the relationship between remote working and employee productivity among public university lecturers in Malaysia?

2. What is the relationship between hybrid working and employee productivity among public university lecturers in Malaysia?

3. What is the relationship between flexible scheduling and employee productivity among public university lecturers in Malaysia?

## 1.5    Research Objectives

1. To determine the relationship between remote working and employee productivity among public university lecturers in Malaysia.

4. To examine the relationship between hybrid working and employee productivity among public university lecturers in Malaysia?

2. To investigate the relationship between flexible scheduling and employee productivity among public university lecturers in Malaysia.

## 1.6    Significance of the Study

This study holds significant value in offering meaningful insights into the ways Flexible Working Arrangements (FWAs) can enhance employee productivity across diverse organizational settings. In today's dynamic work landscape, more organizations are embracing FWAs as practical solutions to foster employee engagement, alleviate stress,

and boost job satisfaction (Salehi et al., 2024). This shift reflects an increasing recognition that productivity is closely tied to maintaining equilibrium between professional duties and personal life, along with the autonomy to manage both effectively. By examining the influence of FWAs, this research contributes to a deeper understanding that can guide organizations in building flexible, supportive work environments, which may, in turn, promote employee retention, reduce absenteeism, and strengthen organizational loyalty.

### 1.6.1 University Administrators

The findings of this study offer university administrators insights into how FWAs can enhance productivity among lecturers. With the increasing pressure to improve academic outcomes, understanding the link between FWAs and productivity can assist in refining university policies to reduce turnover rates and absenteeism. Additionally, universities can use these findings to craft strategies that support employee engagement, which is crucial for attracting and retaining high-quality academic staff.

### 1.6.2 Lecturers

For lecturers, this study highlights how FWAs such as flexible scheduling, hybrid, and remote working models can offer greater autonomy and improve work-life balance. By accommodating personal responsibilities while maintaining professional productivity, FWAs can result in less burnout and more job satisfaction. Lecturers who experience enhanced flexibility are tend to demonstrate higher level of engagement in their work, ultimately resulting in increased levels of academic performance, research output, and overall job satisfaction.

### 1.6.3 Policymakers

Policymakers in the education sector can benefit from evidence-based recommendations derived from this study to revise and update existing policies. By understanding the impact of FWAs on productivity, they can introduce guidelines and frameworks that support modern work practices in academia. This could lead to the implementation of policies that allow greater flexibility for academic staff while ensuring that academic standards and productivity remain high.

### 1.6.4 Body of knowledge

This study further enriches the existing literature by advancing theoretical research on FWAs and productivity. Although previous studies have explored FWAs in corporate settings, research on their application in academia remains limited. This study will fill that gap, providing valuable insights into how different FWAs affect the productivity of public university lecturers. The findings will enrich the understanding of FWAs in higher education and can provide as a foundation for future studies in this field.

In summary, this study offers a multi-dimensional contribution, benefiting administrators, lecturers, policymakers, and the academic community at large by providing specific insights into how FWAs can enhance productivity and work satisfaction in the context of Malaysian public universities.

### 1.7 Scope of the Study

This research investigates the relationship between Flexible Working Arrangements (FWAs) and lecturers' productivity within the specific context of Malaysian public university lecturers. The study is conducted with an understanding that academic roles, particularly in public universities, entail a distinct combination of responsibilities that

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differ from typical corporate environments. By concentrating on public university lecturers, this research intends to offer a focused examination of the relationship between FWAs and employee productivity in an academic setting that requires a balance of independent research, collaborative teaching, and institutional administrative duties.

The study limits its scope to Malaysian public universities, enabling a detailed examination of FWAs within the unique cultural, institutional, and educational landscape of Malaysia's higher education sector. This geographical focus is significant, as Malaysian public universities often operate under specific governmental policies and cultural expectations that influence their work structures and staff management practices. As such, this study is situated within a context where work practices may be shaped by both national labour standards and university-specific guidelines, offering insights into the applicability and challenges of FWAs within this framework.

Additionally, the study primarily investigates the lecturers' productivity outcomes associated with FWAs, without delving into all possible effects of these arrangements, such as long-term career progression or personal well-being outside of work performance. This study adopts a quantitative approach, emphasizing measurable productivity outcomes to examine the relationship between FWAs and lecturers' productivity. This research aims to generate findings that are specific to academic staff productivity, thereby contributing evidence that may be relevant to universities but not necessarily generalizable to other public sectors or corporate settings.

The chosen sample consists of lecturers across various disciplines within Malaysian public universities, ensuring representation across different academic fields, teaching responsibilities, and research demands. This cross-disciplinary approach allows the

study to capture diverse perspectives on how FWAs impact productivity, as lecturers' experiences may differ based on the nature of their work within the institution. However, the study does not extend to other university employees, such as administrative or support staff, as the primary focus is on academic roles that directly contribute to teaching and research.

In summary, this research scoped to address the relationship between FWAs and productivity among Malaysian public university lecturers, specifically within the structural and cultural context of Malaysia's higher education sector. The findings are intended to be relevant for university administrators, policymakers, and other stakeholders within the public education sector, providing insights that could inform the adoption of FWAs to support productivity and competitiveness in academic institutions.

## 1.8    Definition of Key Terms

### 1.8.1    Employee Productivity

Employee productivity is the effectiveness and efficiency with which an employee completes tasks and achieve performance goals within a specified amount of time (Bhalla, 2020).

### 1.8.2    Flexible Working Arrangements (FWA)

Flexible Working Arrangements (FWAs) are employment practices that allow employees to modify their working hours, locations, or methods in a way that accommodates personal needs while still meeting job responsibilities (Allen & Birrell, 2024).

### 1.8.3 Remote Working

Remote working refers to carry out the job responsibilities from a location other than traditional office, often from home, with digital tools for communication and collaboration (Alqasa & Alsulami, 2022).

### 1.8.4 Hybrid Working

Hybrid working combines remote and in office arrangements, allowing employees to divide their work time between home and the workplace, thus offering flexibility while preserving opportunities from the benefits of face-to-face interaction (Choudhury, Foroughi, & Larson, 2021).

### 1.8.5 Flexible Schedule

A flexible schedule allows employees to adjust their work hours around core hours set by the employer, providing autonomy to manage time according to personal or productivity needs (Busse & Mitteldorf, 2021).

### 1.9 The Organization of the Study

This research is structured into five chapters, each focusing distinct component of the research examining the relationship between Flexible Working Arrangements (FWAs) and employee productivity among public university lecturers in Malaysia. Chapter 1, the Introduction, provides a comprehensive overview of the study's background, highlighting the context of FWAs and their potential impact on productivity in academia. It includes the problem statement, significance, and scope of the study, along with definitions of key terms, establishing the foundation for understanding the research topic.

In Chapter 2, the literature review, explores existing research related to FWAs, employee productivity, and the unique characteristics of the Malaysian teaching industry. This chapter explores the various forms of FWAs and discusses the theoretical frameworks that underpin the relationship between FWAs and employee productivity. By analysing previous studies, this chapter identifies research gaps that this study aims to address, ultimately establishing a theoretical framework to guide the research.

Chapter 3 presents the methodological framework of the study, highlighting the use of quantitative methods for gathering and analysing data. This chapter describes the sampling strategy, instrumentation, data collection procedures, and data analysis methods, ensuring that the study's findings are grounded in a rigorous and systematic approach. The methodology is tailored to produce valid and reliable results that directly address the research objectives and hypotheses.

Chapter 4, data analysis and findings, presents and interprets the results of the statistical analysis. This chapter addresses each research question and hypothesis, providing detailed insights into how FWAs influence productivity among public university lecturers in Malaysia. The findings are interpreted alongside the literature reviewed in Chapter 2, offering deeper insight into the effects of FWAs within the academic environment.

Chapter 5 concludes the study by summarizing its key findings and outlining both the practical applications and theoretical contributions of the research. This chapter offers recommendations for university administrators and policymakers regarding the effective implementation of FWAs to enhance productivity in Malaysian public universities. It also outlines avenues for future direction and concludes by reflecting on the study's contributions to academic knowledge and the practical application of FWAs

within the higher education sector. This structured organization enables a logical flow from identifying the research gap to discuss the findings and recommendations, offering a thorough analysis of the relationship between FWAs and employee productivity among Malaysian public universities.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

The objective of this chapter is to provide an overview of the concepts, variables, and theoretical foundations related to this study. It begins by discussing the concept of lecturers' productivity and its relevance within the higher education sector. This is followed by an exploration of Flexible Working Arrangements (FWAs), focusing on the three main components. The chapter also reviews relevant empirical studies and the underpinning theory that supports the relationship between FWAs and lecturers' productivity.

## 2.2 Employee Productivity

Employee productivity refers to the efficiency and effectiveness with which employees perform their assigned tasks and achieve performance goals within a specific timeframe. It reflects an individual's capacity to utilise available resources such as time, skills, and organisational support to produce desired outputs that contribute to both personal and institutional objectives. While in corporate environments productivity is often measured through quantitative indicators, such as output volume, revenue generation, or customer service metrics, in academia it is evaluated using broader and more complex parameters. These include teaching quality, research output, community engagement, and administrative contributions (Kinicki & Kreitner, 2006).

In the higher education context, productivity encompasses multiple dimensions. Teaching productivity involves lesson preparation, delivery of lectures, timely grading, and ensuring student learning outcomes are met. Research productivity includes the

number and quality of publications, conference presentations, grant acquisitions, and collaborations with other scholars (Ariffin et al., 2016; Mahmud et al., 2020). Administrative productivity refers to the efficient execution of academic governance responsibilities such as serving on committees, contributing to policy development, and managing departmental tasks. The multifaceted nature of these responsibilities requires lecturers to manage their time effectively across competing priorities while ensuring the quality of output in all domains.

Scholarly work highlights that productivity is shaped by both individual and organisational factors. The Self-Determination Theory (Deci & Ryan, 1985) explains that when individuals experience autonomy, competence, and relatedness in their work environment, they are more intrinsically motivated to perform well. Similarly, the Job Demands-Resources (JD-R) model (Demerouti et al., 2001) emphasises that sufficient job resources such as support systems, access to information, and manageable workloads enable employees to meet job demands effectively, thus reducing the risk of stress and burnout.

In the academic sector, particularly within Malaysian public universities, achieving high productivity is often challenging due to heavy workloads and performance pressures. Lecturers are expected to meet multiple KPIs, which include producing high-impact research publications while maintaining teaching excellence and contributing to administrative governance. Studies have shown that workload intensification, limited flexibility in work arrangements, and insufficient support structures can hinder productivity by reducing the time and energy available for high-concentration tasks (Yaacob et al., 2018). Conversely, supportive work environments characterised by access to resources, autonomy in work scheduling, and flexibility in task execution can

enhance lecturers' ability to manage responsibilities effectively, leading to sustained productivity (Tustin, 2014).

Given the complexity of academic roles, productivity in higher education should not be measured solely in terms of quantity, such as the number of publications or hours spent in teaching, but also in terms of quality and impact. Effective productivity frameworks therefore consider both tangible outputs and the contribution of academic work to institutional goals, societal needs, and the professional growth of the lecturer.

## 2.3 Flexible Working Arrangements (FWAs)

Flexible Working Arrangements (FWAs) have become a defining feature of contemporary workforce strategies, allowing employees to tailor their work timetables, locations, or both to better accommodate personal and professional needs. FWAs have become a focal point of research and practice as organizations navigate the complexities of modern workforce dynamics. FWAs include practices such as remote working, hybrid working, and flexible scheduling, which are designed to enhance employee autonomy in determining how, when, and where work is performed (Fitzgerald & Harten, 2021). The appeal of FWAs lies in their ability to uplift work-life balance, boost employee satisfaction, and enhance organizational productivity. According to Gajendran and Harrison (2007). These arrangements have become especially relevant considering the COVID-19 pandemic, which necessitated widespread usage of remote and hybrid working models across the sectors (Spurk & Straub, 2020).

The connection between FWAs and productivity is multifaceted, with evidence suggesting that flexibility can foster both favourable and unfavourable outcomes depending on the context. On one hand, FWAs can reduce stress and commuting time, enabling employees to focus better on their tasks. A study by Smith et al. (2021) on

remote working demonstrated a 13% increase in productivity among employees by allowing them to work from home. Similarly, Johnson et al. (2020) found that flexible scheduling helps employees align work hours with their peak productivity periods, leading to higher performance outcomes. On the other hand, challenges such as social isolation, communication barriers, and lack of clear boundaries between work and personal life can mitigate these benefits (Taylor & Green, 2020).

FWAs have been widely studied in corporate environments, where productivity is often measured using financial or output-based metrics. However, the application of FWAs in other sectors, such as education, is less explored. In academic settings, where responsibilities include teaching, research, and administrative tasks, FWAs can be instrumental in providing the flexibility required to manage these varied roles. Nonetheless, the effectiveness of FWAs in academia depends on factors such as institutional policies, technological support, and the nature of academic work (Adams & Lee, 2021; Roberts et al., 2020).

In higher education, FWAs have the potential to address issues related with the diverse and demanding roles of academic staff. Public university lecturers often juggle responsibilities that include preparing and delivering lectures, conducting research, supervising students, and participating in administrative duties. Studies indicate that FWAs can help lecturers allocate time more efficiently across these tasks. For instance, research by Parker et al. (2020) found that remote working enables academic staff to focus on research activities that require uninterrupted time, while hybrid working supports the balance between on-campus teaching and off-campus research. However, FWAs in academia also pose challenges, such as the need for self-discipline and the

potential for diminished collaboration with colleagues, highlighting the importance of institutional support in their implementation.

Subramaniam et al. (2020) found that Malaysian academic system that utilizing FWAs reported enhanced productivity, primarily due to reduced work-related stress and the flexibility to balance academic demands with personal obligations. The adoption of FWAs allows lecturers to be more effective, contributing to overall job satisfaction and engagement, which are crucial drivers of sustained productivity in academic sector.

### 2.3.1 Remote Working

Remote working, also referred to telecommuting, has become a transformative approach to workforce management, allowing employees to carry out their responsibilities from locations beyond the traditional office environment. Driven by advancements in digital technology and the growing emphasis on work-life balance, remote working has become an integral component of modern organizational practices. This arrangement offers significant benefits, including reduced commuting time, increased flexibility, and increased productivity by permitting employees to work in environments tailored to their preferences (Gajendran & Harrison, 2007).

However, remote working also presents challenges, particularly regarding collaboration, communication, and maintaining boundaries between work and personal life. Golden et al. (2008) noted that prolonged remote working could lead to feelings of isolation and reduced teamwork if not managed effectively. To overcome these challenges, organizations frequently utilize digital tools like video conferencing, messaging apps, and collaborative platforms to facilitate continuous communication and maintain workflow efficiency. he effectiveness of remote working is contingent

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upon organizational support and individual adaptability, highlighting the need for structured policies and clear guidelines.

In higher education, remote working is shown to be a beneficial tool for lecturers, particularly in managing research and administrative responsibilities. Lecturers often require focused time for tasks such as manuscript preparation, data analysis, and grading, which can be effectively accomplished in remote settings. Tustin (2014) found that remote working enabled academic staff to dedicate uninterrupted time to research activities, resulting in higher-quality outputs and better time management. Additionally, remote working helps lecturers maintain a healthier work and personal life by reducing commuting-related stress and offering enhanced balance in managing their academic responsibilities and personal obligations.

In the realm of higher education, the COVID-19 pandemic significantly accelerated the shift toward remote working, prompting universities globally to adopt online teaching and remote administrative operations. This shift demonstrated the potential of remote working to sustain academic operations during crises, while also sparking discussions about its long-term applicability. Specifically, technologies for remote teaching such as virtual classrooms and Learning Management Systems (LMS), allowed lecturers to continue delivering quality education from home, underscoring the feasibility of remote working in academia (Spurk & Straub, 2020).

### 2.3.2  Hybrid Working

Hybrid working, a flexible arrangement combining remote and on-site work, has emerged as a transformative approach to workforce management. With this model employees can divide their time between working remotely from home and physically present at the office or workplace. Hybrid working has become more popular as

organizations seek to strike a balance between the benefits of in-person collaboration such as teamwork, mentorship, and innovation with the advantages of remote work, including flexibility and reduced commuting time (Gajendran & Harrison, 2007). The hybrid model is often seen as the best of both worlds, offering autonomy while maintaining critical social and professional connections.

Research suggests that hybrid working enhances employee productivity by enabling individuals to select the most suitable work environment based on task requirements. For instance, tasks requiring deep concentration, such as report writing or data analysis, can be completed remotely, while activities benefiting from collaboration, such as brainstorming sessions or client meetings, are more effective in a physical workplace (Bloom et al., 2015). Furthermore, hybrid working promotes work-life balance, a key effect of employee satisfaction and retention, by offering flexibility in managing personal and professional responsibilities.

Despite its benefits, hybrid working presents challenges, such as coordinating schedules, ensuring equity between remote and on-site employees, and maintaining consistent communication. Golden et al. (2008) highlighted the potential for misalignment between team members when some work remotely while others are on-site. Effective hybrid working requires clear policies, robust digital tools, and a supportive organizational culture to bridge these gaps and maximize its potential.

In higher education, hybrid working has proven particularly valuable for lecturers, allowing them to balance their diverse responsibilities more effectively. Lecturers often have tasks that vary significantly in their need for interaction and focus. Hybrid working allows lecturers to teach and mentor students on campus while dedicating uninterrupted time to research and administrative duties at home. According to Tustin (2014), hybrid

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working supports academic productivity by providing the flexibility to perform independent tasks remotely and collaborative activities in person.

Moreover, hybrid working enhances accessibility for students and staff alike. For instance, lecturers can hold virtual office hours or meetings with students, reducing travel barriers and allowing more inclusive interactions. The model also enables institutions to manage space utilization more efficiently, accommodating larger student populations without requiring proportional increases in physical infrastructure.

### 2.3.3 Flexible Scheduling

A flexible schedule allows employees to select their working hours within specified boundaries set by their organization, providing them with greater autonomy over when to begin and end their workday. Flexible scheduling, unlike traditional fixed work hours, allows employees to align their working time with personal commitments and peak productivity periods, supporting both professional and personal needs. This arrangement has been increasingly recognized as a key element of Flexible Working Arrangements (FWAs), offering a practical solution in managing work-life balance, alleviating stress, and improving job satisfaction (Allen et al., 2013).

Flexible schedules can take various forms, including staggered start and end times, compressed workweeks, or completely autonomous scheduling. The flexibility inherent in such arrangements enable employees to manage their personal matters, such as caregiving and health needs, while maintaining professional obligations. Research by Golden et al. (2008) highlights that employees with access to flexible scheduling often report increased job satisfaction and reduced burnout rates, as they can adjust their work patterns to suit individual circumstances.

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In the academic sector, flexible scheduling is particularly beneficial due to the diverse nature of lecturers' responsibilities, which often include teaching, research, administrative duties, and student supervision. The autonomy provided by flexible scheduling allows lecturers to prioritize tasks based on their urgency and complexity. For example, a lecturer might choose to focus on research during quieter hours and schedule student consultations during the day to optimize engagement.

Kelliher and Anderson (2010) found that flexible scheduling in academic roles not only enhances productivity but also reduces stress, particularly for lecturers managing heavy workloads. Flexible hours are especially important during periods of peak demand, such as examination grading or research publication deadlines. Additionally, the ability to adjust work hours can increase lecturers' work-life balance, fostering greater job satisfaction and long-term commitment to their institutions.

Flexible scheduling allows lecturers to work during their most productive periods, resulting in better time management and higher-quality outputs. Studies by Hill et al. (2003) and Spurk and Straub (2020) suggest that access to flexible schedules are better enable employees to manage competing demands, reducing work-related stress and enhancing performance. This study examines how flexible scheduling impacts the productivity of Malaysian public university lecturers, with the aim of providing actionable insights for institutional policy development.

## 2.4 Hypotheses Development

The hypotheses for this research are designed to investigate the relationships between the different types of Flexible Working Arrangements (FWAs) and employee productivity among public university lecturers in Malaysia. Each hypothesis aligns with

a research question aimed at understanding how remote working, hybrid working, and flexible scheduling affect productivity in an academic setting. These hypotheses are developed based on the understanding that FWAs, by providing greater autonomy and flexibility, that can potentially enhance productivity by promoting work-life balance, lowering stress level, and raising job satisfaction.

### 2.4.1  The Relationship between Remote Working and Employee Productivity

Remote working allows employees to perform their duties from outside the traditional office or campus setting, typically from home. This arrangement has become increasingly popular, especially following the COVID-19 pandemic, enforced the change to remote work across various sectors, including higher education. In the context of public university lecturers, remote working provides the flexibility to work in an environment that they can control, free from common workplace distractions and with reduced commute time. Lecturers can perform tasks that require intense focus, such as research, grading, and content preparation, in a setting tailored to their productivity needs, potentially leading to higher levels of efficiency.

Remote working also allows lecturers to manage their work schedules with greater flexibility, which can help them balance professional and personal responsibilities more effectively. Studies indicate that remote working can reduce stress associated with commuting and create opportunities for employees to design their work environments in ways that maximize comfort and focus. For public university lecturers, this flexibility could be particularly beneficial, as they often need uninterrupted time for research and lesson planning. The flexibility of remote working may enable lecturers to perform these tasks with fewer interruptions, potentially increasing their productivity. Based on the preceding discussion, the following hypothesis is formulated:

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H1: There is a significant relationship between remote working and employee productivity among public university lecturers in Malaysia.

## 2.4.2 The Relationship between Hybrid Working and Employee Productivity

Hybrid working integrates remote and on-site work by enabling employees to alternate between working from home and working on campus. This model provides a balanced approach, offering the flexibility of remote work along with the benefits of face-to-face interaction on campus. For public university lecturers, the hybrid model is especially advantageous because it supports the diverse nature of their responsibilities, which require both independent focus and collaborative engagement. Hybrid working allows lecturers to perform tasks that require deep concentration, such as research and grading, from home, while also providing opportunities for on-campus teaching and direct interactions with students and colleagues.

Hybrid working has been shown to enhance productivity by enabling employees to choose the most appropriate work environment for each task, allowing for higher focus and efficiency. This model supports the concept of "task-based flexibility," where employees select the setting that best supports the specific demands of their work. For lecturers, hybrid working provides the best of both worlds: remote time for tasks that benefit from minimal interruptions and on-campus time for collaborative activities, such as mentoring students and attending meetings. This dual approach can potentially improve productivity by allowing lecturers to adapt their work settings based on specific job demands. Thus, the second hypothesis is formulated:

H2: There is a significant relationship between hybrid working and employee productivity among public university lecturers in Malaysia.

### 2.4.3 The Relationship between Flexible Scheduling and Employee Productivity

Flexible scheduling allows employees to modify their working hours within predetermined bounds, allowing them to work during their most productive times. Unlike traditional fixed schedules, flexible scheduling grants employees the freedom to start and end work at different times, often if they meet core working hours set by the organization. This type of flexibility is highly valued among employees who seek to balance work with personal obligations. Flexible scheduling can lead to improved focus and efficiency, as employees are able to perform their tasks at times when they feel most energized and attentive.

For public university lecturers, flexible scheduling is especially relevant, as their workload fluctuates throughout the academic year. Tasks like grading, research, and lesson preparation can require concentrated periods of work that do not always align with a traditional 9-to-5 schedule. By allowing lecturers to set their work hours around their peak productivity periods, flexible scheduling supports a work structure that can reduce stress and support work-life balance. Flexible schedules are also beneficial for lecturers who may need to attend to personal responsibilities, allowing them to manage their time effectively without compromising their professional output. This study, therefore, formulated the following hypothesis:

H3: There is a significant relationship between flexible scheduling and employee productivity among public university lecturers in Malaysia.

### 2.5 Underpinning Theory

The connection between flexible working arrangements (FWAs) and employee productivity can be explained through multiple theoretical perspectives. This study

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draws upon Self-Determination Theory (SDT), as a guiding framework to understand the different aspects of FWAs that might enhance or hinder productivity among lecturers in a public university context.

## 2.5.1 Self-Determination Theory (SDT)

Self-Determination Theory (SDT), developed by Deci and Ryan (1985), is a motivational framework that explains human behaviour through the fulfilment of three basic psychological needs: autonomy, competence, and relatedness. When these needs are satisfied, individuals are more likely to be intrinsically motivated in engaging the tasks out of genuine interest and commitment and leading to higher-quality performance and sustained productivity. Conversely, when these needs are undermined, motivation becomes extrinsically driven or declines entirely, often resulting in lower productivity levels.

In the academic context, lecturers' productivity depends not only on their skills and knowledge but also on the degree to which their work environment supports these psychological needs. Autonomy allows lecturers to decide the best way to organise their work such as structuring lecture preparation, choosing research methodologies, or planning administrative tasks which can lead to better time management and higher output quality. Competence is reinforced when lecturers have adequate resources, time, and opportunities to excel in teaching, produce impactful research, and fulfil administrative roles effectively. Relatedness is achieved when lecturers maintain meaningful interactions with colleagues, students, and the academic community, which can foster collaboration and enhance the relevance of their work.

Flexible Working Arrangements (FWAs) serve as mechanisms that can help meet these needs, thereby enabling higher productivity. By granting autonomy, FWAs allow

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lecturers to align work with their peak productivity periods, improving focus and efficiency. By supporting competence, FWAs provide the flexibility needed to allocate uninterrupted time for complex academic tasks such as research writing, grant applications, and curriculum development. By maintaining relatedness through scheduled on-campus activities, FWAs ensure lecturers remain engaged with their academic community, which can strengthen commitment to institutional goals.

Within the research framework, SDT explains the pathway from FWAs to lecturers' productivity. FWAs contribute to fulfilling autonomy, competence, and relatedness, which in turn heightens intrinsic motivation. This intrinsic motivation becomes the driving force for achieving higher levels of productivity across teaching, research, and administrative domains. The theory thus provides a robust foundation for understanding why lecturers who experience greater satisfaction of their psychological needs are more likely to perform effectively and maintain consistent academic output.

## 2.6    Summary of the Chapter

This chapter has reviewed existing literature on lecturers' productivity and Flexible Working Arrangements (FWAs) within the context of Malaysian public universities. It discussed the dimensions of lecturers' productivity, including teaching, research, and administrative performance, as well as the main components of FWAs. The chapter also examined empirical findings and theoretical foundations, particularly the Self-Determination Theory, to explain the potential relationship between FWAs and lecturers' productivity. By outlining the connections between the independent and dependent variables, this review establishes the basis for the research framework and hypotheses that will be explored in the following chapter on research methodology.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1    Introduction

This chapter describes the research methodology adopted to examine the relationship between Flexible Working Arrangements (FWAs) and lecturers' productivity in Malaysian public universities. It explains the research design, population, sample size determination, sampling technique, instrumentation, data collection procedures, and data analysis methods. The chapter also outlines the reliability and validity procedures applied to ensure accuracy and consistency of the findings, concluding with a summary of the chapter's contents.

## 3.2    Research Framework

This study's research framework is designed to investigate the relationship between Flexible Working Arrangements (FWAs) and employee productivity among lecturers in Malaysian public universities. The framework is grounded in the theoretical understanding that FWAs, which include remote working, hybrid working, and flexible scheduling, can increase the productivity by offering employees greater autonomy and control over their work environments and schedules. The dependent variable (DV) in this study is Employee Productivity, which represents the effectiveness and efficiency of lecturers in fulfilling their roles, including teaching, research, and administrative responsibilities.
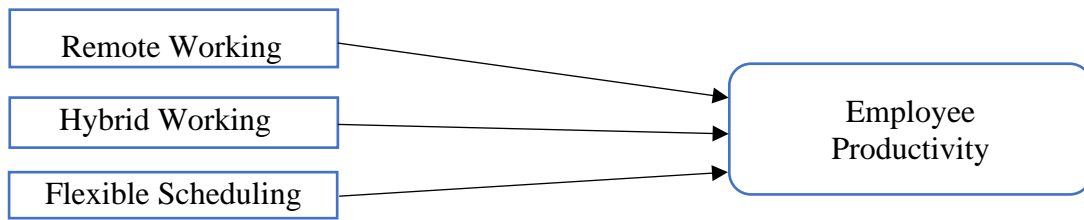
**Flexible Working Arrangements**



Figure 3.1: *Research Framework of The Relationship between Flexible Working Arrangements and Employee Productivity among Public Universities Lecturers in Malaysia*

## 3.3 Research Design

This study employed a quantitative, cross-sectional research design to investigate the relationship between flexible working arrangements (FWAs) and employee productivity among public university lecturers in Malaysia. The quantitative approach was selected for its ability to objectively quantify variables using numerical data, thereby enabling robust statistical analysis and hypothesis evaluation. This method enabled to explore the different types of FWAs, specifically remote working, hybrid working, and flexible scheduling have a measurable impact on lecturers' productivity.

A cross-sectional design was employed to gather data from participants at one specific point in time. This method offered a snapshot of the current state of flexible work practices and productivity, which is particularly relevant given the evolving nature of work arrangements in higher education. Moreover, the cross-sectional method allowed for efficient data collection and analysis without the need for longitudinal tracking, making it suitable given the scope and timeframe of this research.

By adopting this design, the study was able to examine the relationships between FWAs and productivity across a diverse respondent pool, with data gathered from lecturers across various Malaysian public universities. The findings derived from this approach

offered timely insights into how current workplace flexibility practices influence academic staff performance. Ultimately, the chosen design aligns with the study's objective of informing institutional policy and workforce planning within the public higher education sector.

## 3.4    Population and Sampling Technique

The population of this study comprises lecturers from Malaysian public universities. According to the Department of Statistics Malaysia (2023), there were 30,432 lecturers employed in public universities nationwide. This group was chosen as they play a critical role in delivering teaching, research, and administrative responsibilities, while also being increasingly exposed to Flexible Working Arrangements (FWAs) such as remote working, hybrid working, and flexible scheduling.

A convenience sampling method was applied due to the wide geographical distribution of lecturers across Malaysia and the practical constraints of accessing a complete sampling frame. This approach allowed data to be collected from lecturers who were readily available and willing to participate, primarily through online survey distribution and professional networks. While convenience sampling has limitations in terms of generalisability, it is widely used in educational research involving large, dispersed populations.

The sample size was determined using Krejcie and Morgan's (1970) table, which recommends 379 respondents for a population exceeding 30,000. However, this study obtained 230 valid responses, which is still adequate for the planned statistical analyses.

### 3.5 Sample Size

The sample size for this study was determined using the Krejcie and Morgan (1970) sample size determination table, which is a widely accepted guideline for identifying the minimum required sample based on a given population size. For a population of 30,432 lecturers in Malaysian public universities (Department of Statistics Malaysia, 2023), the table recommends a sample size of 379 respondents at a 95% confidence level and a 5% margin of error.

In practice, a total of 230 valid responses were collected for this study. While this number is lower than the Krejcie and Morgan recommendation, it remains adequate for the planned statistical analyses for several reasons. First, according to Cohen (1992), correlational studies require approximately 85 respondents to detect a medium effect size ($r = 0.30$) with 80% statistical power at a 5% significance level. The current sample size exceeds this threshold nearly threefold, ensuring sufficient power to detect significant relationships. Second, Hair et al. (2010) suggest that a minimum of 200 respondents is adequate for conducting correlation and other multivariate statistical analyses, which aligns with the requirements of this study. Third, similar research in the Malaysian academic context, such as Subramaniam et al. (2021) with 204 respondents and Ishak et al. (2023) with 187 respondents, have yielded valid and reliable results with smaller samples.

Given these considerations, the 230 responses obtained are deemed sufficient to produce meaningful insights into the relationship between Flexible Working Arrangements (FWAs) and lecturers' productivity in Malaysian public universities while maintaining acceptable levels of reliability and validity.

**Table 3.1**
*Krejcie & Morgan Table*

Table for Determining Sample Size for a Given Population

| N | S | N | S | N | S | N | S | N | S |
|---|---|---|---|---|---|---|---|---|---|
| 10 | 10 | 100 | 80 | 280 | 162 | 800 | 260 | 2800 | 338 |
| 15 | 14 | 110 | 86 | 290 | 165 | 850 | 265 | 3000 | 341 |
| 20 | 19 | 120 | 92 | 300 | 169 | 900 | 269 | 3500 | 246 |
| 25 | 24 | 130 | 97 | 320 | 175 | 950 | 274 | 4000 | 351 |
| 30 | 28 | 140 | 103 | 340 | 181 | 1000 | 278 | 4500 | 351 |
| 35 | 32 | 150 | 108 | 360 | 186 | 1100 | 285 | 5000 | 357 |
| 40 | 36 | 160 | 113 | 380 | 181 | 1200 | 291 | 6000 | 361 |
| 45 | 40 | 180 | 118 | 400 | 196 | 1300 | 297 | 7000 | 364 |
| 50 | 44 | 190 | 123 | 420 | 201 | 1400 | 302 | 8000 | 367 |
| 55 | 48 | 200 | 127 | 440 | 205 | 1500 | 306 | 9000 | 368 |
| 60 | 52 | 210 | 132 | 460 | 210 | 1600 | 310 | 10000 | 373 |
| 65 | 56 | 220 | 136 | 480 | 214 | 1700 | 313 | 15000 | 375 |
| 70 | 59 | 230 | 140 | 500 | 217 | 1800 | 317 | 20000 | 377 |
| 75 | 63 | 240 | 144 | 550 | 225 | 1900 | 320 | 30000 | 379 |
| 80 | 66 | 250 | 148 | 600 | 234 | 2000 | 322 | 40000 | 380 |
| 85 | 70 | 260 | 152 | 650 | 242 | 2200 | 327 | 50000 | 381 |
| 90 | 73 | 270 | 155 | 700 | 248 | 2400 | 331 | 75000 | 382 |
| 95 | 76 | 270 | 159 | 750 | 256 | 2600 | 335 | 100000 | 384 |

Note:      "N" is population size
          "S" is sample size.

Source: Krejcie & Morgan, 1970

## 3.6   Unit of Analysis

The individual lecturers serve as the unit of analysis for this study. Specifically, this research focuses on public university lecturers in Malaysia, as they are the primary respondents for examining the relationship between flexible working arrangements (FWAs) and employee productivity. Each lecturer represents a unique data point reflecting personal experiences, perceptions, and productivity outcomes related to different types of FWAs, including remote working, hybrid working, and flexible scheduling.

By focusing on individuals rather than departments or institutions, the study aims to capture accurate, first-hand insights into how flexible work arrangements impact productivity on a personal level. This approach supports the study's objective of

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statistically assessing the direct influence of FWAs on employees' work performance using quantitative methods.

## 3.7 Sampling technique

This study employed a convenience sampling technique to select respondents from Malaysian public universities. Convenience sampling, a non-probability method, was chosen due to the large and geographically dispersed nature of the lecturer population, as well as practical constraints in obtaining a complete sampling frame. This method allows the inclusion of respondents who are readily accessible and willing to participate, enabling the collection of data within the study's timeframe.

The sampling covered lecturers from all 20 public universities in Malaysia. This approach enabled representation from a variety of faculties, disciplines, and academic positions, supporting the objective of examining the relationship between Flexible Working Arrangements (FWAs) and lecturers' productivity within the diverse context of Malaysian public universities.

## 3.8 Instrument

This study's main instrument is a structured, self-administered questionnaire, intended to gather quantitative data on flexible working arrangements (FWAs) and employee productivity among public university lecturers in Malaysia. The questionnaire was selected for its efficiency in reaching a broad audience, ease of distribution, and ability to produce standardized data for statistical analysis (Sekaran & Bougie, 2016). This method also allows for consistency in responses and facilitates the measurement of multiple constructs relevant to the research objectives.

The questionnaire comprises closed-ended items assessed using a 5-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). This scale was selected for its common application in social science research and its effectiveness in capturing levels of perception, satisfaction, and agreement (Hair et al., 2010). This format allows for statistical interpretation and supports hypothesis testing using correlation analysis.

### 3.8.1 Instruments Development

This study utilized a structured, self-administered questionnaire, developed with reference to validated instruments from previous research. The design of the questionnaire aimed to gather quantitative data on the relationship between flexible working arrangements (FWAs) and employee productivity among public university lecturers in Malaysia. All items in the questionnaire were measured using a five-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"), which is widely recognized for capturing respondents' levels of agreement with attitudinal statements in social science research.

There were five sections on the survey and the first section captured the demographic profile of the respondents, including gender, age, academic position, university sector, years of service, employment status, access to flexible working arrangements, and current mode of working. These background details were essential to understand the distribution of the sample and support subgroup analysis where necessary.

The second section measured remote working, consisting of seven items adapted from Ishak et al. (2022). These items focused on key aspects such as the location of work, remote communication, monitoring of work results, access to data, support from ICT tools, and autonomy in completing tasks.

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The third section addressed hybrid working practices and was adapted from Datta et al. (2025), comprising eight items. This section assessed the flexibility respondents experienced in deciding their workdays, work locations, scheduling meetings, and determining their workload and deadlines within a hybrid framework.

The fourth section explored flexible scheduling and included six items adapted from Ghali-Zinoubi et al. (2021b). This section examined the extent lecturers can participate in scheduling their lectures, meetings, and office hours. It also assessed if the flexibility contributes to greater task efficiency and job satisfaction.

Finally, the fifth section focused on employee productivity and was adapted from Hee et al. (2019), including twelve items that captured elements such as recognition, feedback, job performance, motivation, initiative, and perseverance in completing tasks.

By employing previously validated instruments enhanced the content validity of the questionnaire used in this research. All items were adopted directly from established sources without modification, ensuring consistency with the original constructs and measurement scales. The instrument was subsequently subjected to pilot testing to assess its clarity, reliability, and internal consistency prior to full-scale data collection.

## 3.9 Measurement of Variables

### 3.9.1 Measurement of Employee Productivity

Employee productivity is the primary dependent variable in this study, reflecting lecturers' effectiveness in carrying out their core responsibilities of teaching, research, and administrative duties. It measures the quality, timeliness, and efficiency with which

lecturers complete their tasks, as well as the extent to which they contribute towards institutional goals.

The measurement items for employee productivity were adopted without modification from Hee et al. (2019), who developed and validated the scale in the context of organisational performance research. Adopting these items ensures that the measurement maintains established reliability and validity, while also allowing for comparability with previous studies. The items are designed to capture multiple facets of productivity, including recognition, feedback, persistence, meeting performance requirements, and proactive work behaviours. The use of an established and validated instrument ensures that the construct is measured consistently and accurately within the academic setting of Malaysian public universities.

**Table 3.2**
*Questionnaire of Employee Productivity*

| No. | Item | Source |
|---|---|---|
| 1 | I receive meaningful recognition for work well done. | |
| 2 | I receive useful feedback from superior on my job performance. | |
| 3 | My work has made contribution to the good of the organization would please me. | |
| 4 | I like to feel that I am making some contribution not for myself but for the organization as well. | Hee et al. (2019) |
| 5 | I persist in overcoming obstacles to complete a task. | |
| 6 | I meet the formal performance requirements of the job. | |
| 7 | I put in extra hours to get work done on time. | |
| 8 | I am enthusiasm in performing my job. | |
| 9 | I am initiative in doing my work. | |
| 10 | My work hard leads to good performance. | |
| 11 | My work hard leads to high productivity. | |
| 12 | My work hard leads to doing my job well. | |

### 3.9.2  Measurement of Remote Working

The measurement items for remote working were adopted without modification from Ishak et al. (2022). The seven items address key aspects such as work location, remote

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communication, work duration, organisational monitoring, technological support, access to work-related data, and the degree of independence in performing tasks. Using an established and validated instrument ensures the reliability and accuracy of measuring remote working within the academic context.

**Table 3.3**
*Questionnaire of Remote Working*

| No. | Item | Source |
|-----|------|--------|
| 1 | My location for doing office work is at home. | |
| 2 | I always communicate with other people remotely for my work. | |
| 3 | The duration I work at home is the same as the duration I work in the office. | |
| 4 | The organization can monitor the results of my work easily. | Ishak et al., 2022 |
| 5 | Information and communication technology tools really help me in doing my job. | |
| 6 | I can easily get or access the data I need related to my job. | |
| 7 | My organization allows me to work independently without supervision. | |

### 3.9.3 Measurement of Hybrid Working

The measurement items for hybrid working were adopted without modification from Datta, Balasundaram, Elangovan, and Nair (2025). The eight items assess aspects such as flexibility in choosing remote working days, selecting work locations, shifting between locations during the day, determining work hours, scheduling meetings remotely, setting workload amounts, and deciding task deadlines. Using a validated instrument ensures the construct is measured reliably and is contextually relevant to lecturers' work arrangements.

**Table 3.4**
*Questionnaire of Hybrid Working*

| No. | Item | Source |
|-----|------|--------|
| 1 | I can decide the number of days to work remotely. | |
| 2 | On remote working days, I can choose to work from anywhere (e.g., co-working spaces, home, cafe, etc.) | |

| 3 | I can shift my workplace in the middle of a workday (e.g., ofce to home). | |
|---|---|---|
| 4 | I can decide which days to work from home. | Datta, Balasundaram, Elangovan, & Nair, 2025 |
| 5 | I can work from the office outside the office hours to complete the tasks. | |
| 6 | While working remotely, I can schedule meetings with my team/manager when required. | |
| 7 | I can decide the amount of work to be done during a certain period of time. | |
| 8 | I can choose the deadlines for my task submission. | |

### 3.9.4 Measurement of Flexible Scheduling

The measurement items for flexible scheduling were adopted without modification from Ghali-Zinoubi et al. (2021). The six items cover aspects such as involvement in setting lecture, office, and meeting schedules, limits on total weekly work hours, perceived efficiency and focus due to flexible scheduling, and satisfaction with schedule flexibility as it relates to productivity. Using a validated scale ensures reliable measurement and relevance to lecturers' working conditions.

**Table 3.5**
*Questionnaire of Flexible Working*

| No. | Item | Source |
|---|---|---|
| 1 | I participate in choosing schedule of my lectures at my university. | |
| 2 | My university is enabling me to choose my office hours schedule. | |
| 3 | I participate in choosing schedule of my committees' meetings. | Ghali-Zinoubi et al., 2021 |
| 4 | My work does not exceed 30 hours a week at my university. | |
| 5 | Flexible scheduling allows me to complete tasks more efficiently and with greater focus. | |
| 6 | I feel satisfied with the flexibility in my work schedule, which enhances my productivity. | |

### 3.10 Data Collection

This study employed an online survey method for data collection, using Microsoft 365 (Office) Forms as the primary platform. This method was chosen due to its efficiency,

user-friendliness, and accessibility for respondents across various locations. As highlighted by Borgobello et al. (2019), online surveys are advantageous for academic research as they offer rapid data collection, minimize logistical challenges, and reduce costs associated with traditional paper-based methods. In addition, the digital format enhances respondent privacy, thus encouraging more honest and unbiased responses, especially on topics related to workplace arrangements and performance.

The use of Microsoft Forms allowed for easy customization of survey items, integration of Likert-scale responses, and real-time monitoring of submissions. Respondents were able to access the form via a secure link at their convenience, without the need for physical interaction with the researcher. This was particularly suitable given the dispersed nature of the study population, which consists of lecturers from various public universities in Malaysia. The online survey ensured that the data collection process was both efficient and inclusive.

## 3.11 Data Collection Procedures

Before commencing data collection, an official cover letter from Universiti Utara Malaysia (UUM) was obtained. The letter explained the study's objectives and guaranteed participants' anonymity and confidentiality.

The survey link was distributed through official university emails, WhatsApp academic groups, and lecturer networks across all 20 public universities in Malaysia, namely Universiti Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Putra Malaysia (UPM), Universiti Teknologi Malaysia (UTM), Universiti Sains Malaysia (USM) etc.

Respondents were given two weeks to complete the survey, and periodic follow-up reminders were sent during this period to encourage participation and ensure an adequate response rate. By the end of the data collection period, a total of 230 complete and valid responses were collected. The responses were downloaded from Microsoft Forms and prepared for further data cleaning and statistical analysis.

**Table 3.6**
*Data Collection Procedure*

| Date | Procedure |
|------|-----------|
| 9 June 2025 | The initial distribution of the Microsoft Forms survey link commenced through official university communication channels and academic WhatsApp groups, targeting public university lecturers across Malaysia. |
| 16 June 2025 | Follow-up reminder sent via email and WhatsApp groups to encourage participation and ensure sufficient responses before the deadline. |
| 23 June 2025 | Data collection officially concluded and the Microsoft Form was closed. All submitted responses were downloaded and stored for analysis. |

## 3.12 Pre-Test and Pilot Test

Before commencing the actual data collection, a pre-test was conducted to ensure the clarity, relevance, and comprehensibility of the questionnaire items. The pre-test involved feedback from two experts: one industrial practitioner with experience in human resource management and one academician with expertise in research methodology. Their input was used to confirm the suitability of the wording, layout, and logical flow of the questionnaire.

Following the pre-test, a pilot study was conducted to further evaluate the reliability of the instrument and identify any potential issues before full-scale administration. In line with Ong's (2016) recommendation of a pilot sample size between 15 and 30 participants, the pilot study involved 30 lecturers from public universities in Malaysia.

These participants were not included in the main study to preserve the integrity of the final sample. Feedback from the pilot study confirmed that the questionnaire was clear, logically sequenced, and suitable for distribution in the main data collection phase.

The survey items were reviewed to ensure clarity, accuracy, and ease of understanding. Based on the feedback received during the pilot phase, no major revisions were needed as the items were already derived from validated instruments. The questionnaire was distributed online using Microsoft Forms, and all pilot test responses were analysed for internal consistency using Cronbach's alpha.

As shown in Table 3.6, the reliability coefficients for all variables exceeded the recommended threshold of 0.70, indicating excellent internal consistency (Sekaran & Bougie, 2016). Specifically, Remote Working (RW) had a Cronbach's alpha of 0.977 with 7 items, Hybrid Working (HW) recorded 0.985 with 8 items, Flexible Scheduling (FS) recorded 0.994 with 6 items, and Employee Productivity (EP) scored 0.997 with 12 items. According to Qiu et al. (2021), a Cronbach's alpha value above 0.70 demonstrates high reliability, which supports the use of these items in the final questionnaire. These findings confirm that the instrument is both reliable and valid for the main study.

**Table 3.7**
*Pilot Test Reliability*

| Dimension | No of Items | N | Cronbach's alpha | Remarks |
|---|---|---|---|---|
| Remote Working | 7 | 30 | 0.977 | High Reliability |
| Hybrid Working | 8 | 30 | 0.985 | High Reliability |
| Flexible Scheduling | 6 | 30 | 0.994 | High Reliability |
| Employee Productivity | 12 | 30 | 0.997 | High Reliability |

### 3.13 Techniques of Data Analysis

IBM SPSS Statistics Version 26 was used to examine the relationship between different types of flexible working arrangements and employee productivity among public university lecturers in Malaysia. Given the quantitative nature of the research, appropriate statistical techniques were applied to ensure that the findings accurately addressed the study's objectives.

Descriptive analysis was first conducted to summarize the respondents' demographic characteristics and to provide an overview of the key variables involved in the study, including remote working, hybrid working, flexible scheduling, and employee productivity. This analysis involved computing frequencies, percentages, means, and standard deviations to gain a clearer understanding of the general trends and distribution patterns in the data.

Next, Pearson correlation analysis was employed to assess the strength and direction of the linear associations between the independent variables and the dependent variable. This technique is particularly suitable for testing associations between continuous variables measured on an interval scale and is commonly used in behavioural and social science research to determine the degree of relationship between constructs.

These methods were selected to specifically address the three main research objectives: The combination of descriptive and correlational analyses was used for a comprehensive understanding of the patterns and associations between the studied variables.

**Table  3.8**

*Measurement for Objectives of Study*

| Dimension | Scale | Statistics |
|---|---|---|
| To analyse the relationship between remote working and employee productivity among public university lecturers in Malaysia. | Interval | Pearson Correlation |
| To analyse the relationship between hybrid working and employee productivity among public university lecturers in Malaysia. | Interval | Pearson Correlation |
| To analyse the relationship between flexible scheduling and employee productivity among public university lecturers in Malaysia. | Interval | Pearson Correlation |

### 3.13.1  Descriptive Analysis

Descriptive analysis serves as a foundational statistical technique used to summarise and describe the basic features of a dataset in a meaningful way. According to Ong (2016), descriptive statistics are essential in identifying issues such as data redundancy, missing values, and irregular patterns in the dataset. Moreover, it facilitates the extraction of relevant insights such as measures of central tendency and distribution, which are crucial for further inferential analyses like correlation and regression.

Descriptive analysis was employed in this study to examine the demographic characteristics of the respondents and to assess the levels of the main study variables— remote working, hybrid working, flexible scheduling, and employee productivity. Specifically, the analysis focused on calculating the frequency, percentage, mean, and standard deviation. These measures provided an overview of respondents' responses and helped establish a general understanding of their perceptions and experiences regarding flexible working arrangements and productivity in the context of Malaysian public universities.

### 3.13.2 Reliability

Reliability refers to the consistency and stability of a research instrument in producing similar results over time. According to Sekaran and Bougie (2016), reliability is crucial in minimizing errors and ensuring the consistency of measurement. Reliability in this study was evaluated through Cronbach's alpha, a commonly utilized measure to determine the internal consistency of multi-item constructs.

Cronbach's alpha determines the degree of correlation, and indicating the consistency to measure the same underlying construct. As suggested by George and Mallery (2003), alpha values of 0.70 and above are generally acceptable, with values above 0.90 considered excellent. In this study, reliability testing was conducted using the actual dataset to ensure that all constructs used in the questionnaire demonstrated satisfactory internal consistency, making the instrument appropriate for further statistical analysis.

### 3.13.3 Pearson Correlation

This study employs Pearson correlation analysis to assess the strength and direction of linear relationships between the independent and dependent variables. Commonly applied in social science studies, Pearson correlation determines the extent to which variables measured on an interval scale are related. The resulting correlation coefficient (r) ranges from -1 to +1, where values near +1 indicate a strong positive correlation, values near -1 indicating a strong negative relationship, and values around 0 suggesting no linear association.

The primary objective of using Pearson correlation in this research is to evaluate the significant associations exist between flexible working arrangements and productivity among public university lecturers. As stated by Sweet and Martin (2012), this method

is effective for identifying patterns of interdependence and guiding further inferential analysis. This technique also supports the study's objectives, which is to analyse the direct relationships between each type of working arrangement and employee productivity. The interpretation of correlation values in this study follows the standard guidelines to ensure consistency and validity in analysis.

## 3.14  Summary of the Chapter

This chapter outlined the research methodology used to examine the relationship between FWAs and lecturers' productivity in Malaysian public universities. It described the quantitative, cross-sectional design, the use of convenience sampling, and the determination of sample size using Krejcie and Morgan's table. The chapter also detailed the measurement instruments adopted from established sources, the pre-test with experts, and the pilot test with 30 lecturers to ensure reliability and validity. Data collection procedures, ethical considerations, and the statistical techniques, descriptive statistics, Pearson correlation, were also presented, providing the methodological foundation for the results discussed in the next chapter.

# CHAPTER FOUR

# FINDINGS

## 4.1    Introduction

This chapter reports the findings of the quantitative analysis derived from the data gathered through the survey. The data was analysed using SPSS, including descriptive statistics for demographic details, data screening procedures such as reliability, normality and linearity test, followed by inferential analyses using correlation to address the research objectives.

## 4.2    Response Rate

The survey was shared with lecturers from various public universities in Malaysia. A total of 230 responses were successfully collected. Respondents were given enough time to complete the questionnaire, and participation was entirely voluntary. The response rate was sufficient to carry out the data analysis for this study.

## 4.3    Respondents and Demographic Profile

This section presents the demographic profiles of the 230 respondents participated in the study. The demographic variables analysed are age, gender, academic position, years of service, employment status, access to flexible working arrangements, and mode of working.

First and foremost, the highest proportion of respondents for age distribution were in the age group of 51 to 60 years old, accounting for 43.5% (n = 100) of the total sample. Followed by 40.9% (n = 94) in the age category of 41 to 50 years and 13.9% (n = 32) are aged from 31 to 40 years. The smallest group comprised the lecturers from 21 to 30

years, representing only 1.7% (n = 4). These findings indicate that many of the respondents were in the mature and experienced age brackets.

Next, gender in the sample consisted of 52.2% female respondents (n = 120) and 47.4% male respondents (n = 109), with one individual (0.4%) indicating prefer not to say. This reflects a balanced gender distribution, with a slight predominance of female participants.

In terms of academic position, more than half of the respondents were Professors (50.9%, n = 117). This was followed by Lecturers (22.2%, n = 51), Associate Professors (14.8%, n = 34), Senior Lecturers (11.3%, n = 26), and Assistant Lecturers (0.9%, n = 2). The data suggests that the sample predominantly consisted of individuals holding senior academic roles.

With regard to years of service, the largest group of respondents reported from 11 to 20 years of service (44.8%, n = 103), followed by 1 to 10 years (33.5%, n = 77), and 21 to 30 years (21.7%, n = 50). This indicates that most participants have substantial tenure within their respective institutions.

Moreover, the vast majority of the respondents were employed on a full-time basis (99.1%, n = 228), while only 0.9% (n = 2) were contract-based staff. This highlights that the sample was largely composed of permanent academic employees.

On the other hand, 60.0% of the respondents (n = 138) reported having access to FWA, whereas 40.0% (n = 92) indicated that they did not have such access.

Finally, with respect to the current mode of working, 43.0% (n = 99) of respondents were working onsite, followed by 28.7% (n = 66) who were on a hybrid mode, and 27.8% (n = 64) who were working under a flexible working arrangement. Only 0.4% (n = 1) of the respondents were engaged in fully remote work.

**Table 4.1**
*Demographic Profile*

| Demographic Profile | Frequency (Respondent) | Percentage |
|---|:---:|:---:|
| **Age** | | |
| 21 to 30 | 4 | 1.7 |
| 31 to 40 | 32 | 13.9 |
| 41 to 50 | 94 | 40.9 |
| 51 to 60 | 100 | 43.5 |
| | | |
| **Gender** | | |
| Male | 109 | 47.4 |
| Female | 120 | 52.2 |
| | | |
| **Academic Position** | | |
| Lecturer | 51 | 22.2 |
| Senior Lecturer | 26 | 11.3 |
| Associate Professor | 34 | 14.8 |
| Professor | 117 | 50.9 |
| Others (Assistant Lecturer) | 2 | 9 |
| | | |
| **Years of Service** | | |
| 1 to 10 | 77 | 33.5 |
| 11 to 20 | 103 | 44.8 |
| 21 to 30 | 50 | 21.7 |
| | | |
| **Employment Status** | | |
| Full Time | 228 | 99.1 |
| Contract | 2 | 9 |
| | | |
| **Access to FWA** | | |
| Yes | 138 | 60 |
| No | 92 | 40 |
| | | |
| **Mode of Working** | | |
| Onsite | 99 | 43 |
| Hybrid | 66 | 28.7 |
| Remote | 1 | 4 |
| Flexible Scheduling | 64 | 27.8 |

## 4.4    Descriptive Analysis

This section provides the descriptive statistics for the study's primary variables: Remote Working (RW), Hybrid Working (HW), Flexible Scheduling (FS), and Employee Productivity (EP). The analysis includes the mean, standard deviation, skewness, and kurtosis for each variable based on the responses from 230 participants.

The mean scores for all independent variables, Remote Working (M = 3.17, SD = 1.04), Hybrid Working (M = 3.19, SD = 1.05), and Flexible Scheduling (M = 3.17, SD = 1.03) fall within the moderate range on a five-point Likert scale. This suggests that, on average, respondents expressed neutral to moderate agreement regarding their experience and perceptions of flexible working arrangements. Among the three, Hybrid Working has the highest mean, indicating a slightly stronger preference or agreement among respondents.

The dependent variable, Employee Productivity, recorded a higher mean score (M = 3.76, SD = 0.68), suggesting that participants generally perceive themselves to be productive under their current working conditions. Furthermore, the skewness and kurtosis values for all variables lie within the acceptable range of ±2, suggesting that the data distribution is approximately normal and appropriate for subsequent parametric analyses.

Overall, the descriptive statistics suggest that public university lecturers have a moderately positive view of flexible working arrangements and a stronger agreement regarding their own productivity levels.

**Table 4.2**
*Descriptive Analysis*

| Variables | Mean | SD | Skewness | Kurtosis |
|---|---|---|---|---|
| Remote Working | 3.1677 | 1.04241 | -.330 | -.535 |
| Hybrid Working | 3.1946 | 1.04989 | -.336 | -.598 |
| Flexible Scheduling | 3.1717 | 1.03040 | -.350 | -.471 |
| Employee Productivity | 3.7587 | .67601 | -1.234 | 3.681 |

## 4.5    Data Screening

Data screening was performed to ensure the dataset's accuracy and consistency, which included examining missing values, identifying outliers, and assessing normality, linearity, and reliability.

The results showed no missing values, and all assumptions for normality and linearity were met. The variables demonstrated good reliability, indicating that the data was suitable for further analysis.

### 4.5.1    Reliability

Reliability analysis was conducted using Cronbach's Alpha to assess the internal consistency of the variables. As noted by Sekaran and Bougie (2016), a coefficient value exceeding 0.70 is deemed acceptable for research purposes. All constructs in this study exhibited good internal consistency, as reflected by Cronbach's Alpha values that ranged between 0.978 and 0.984. Specifically, RW recorded a reliability of 0.978 (7 items), HW had 0.984 (8 items), FS showed 0.980 (6 items), and EP resulted in 0.983 (12 items). These results affirm that the items measuring each construct demonstrated strong internal consistency and reliability.

**Table 4.3**
*Reliability Test*

| Dimension | No. of Items | Reliability (Cronbach's Alpha) |
|---|---|---|
| Remote Working (RW) | 7 | 0.978 |
| Hybrid Working (HW) | 8 | 0.984 |
| Flexible Schedule (FS) | 6 | 0.980 |
| Employee Productivity (EP) | 12 | 0.983 |

### 4.5.2  Linearity Test

A linearity test was conducted to examine whether the relationships between the independent variables, Remote Working (RW), Hybrid Working (HW), and Flexible Schedule (FS) and the dependent variable, Employee Productivity (EP), were linear. Based on the ANOVA results, the significance values for the linearity component in all three cases were less than 0.05. Specifically, the sig. values for Remote Working ($p = .000$), Hybrid Working ($p = .000$), and Flexible Scheduling ($p = .000$) indicate that the relationships are statistically significant and linear in nature. These findings confirm that the linearity assumption has been met, allowing for the use of parametric analyses such as correlation in subsequent sections.

**Table 4.4**
*Linearity Test*

| Dimension | Sig. (Linearity) | Sig. (Deviation from Linearity) | R | R squared |
|---|---|---|---|---|
| Remote Working (RW) | 7 | 0.978 | 0.58 | 0.336 |
| Hybrid Working (HW) | 8 | 0.984 | 0.568 | 0.323 |
| Flexible Schedule (FS) | 6 | 0.980 | 0.566 | 0.32 |

### 4.5.3  Normality Test

According to Kim and Park (2019), the normality test is conducted to determine if the dataset is normally distributed and free from bias. In this study, normality was assessed using both the Kolmogorov-Smirnov and Shapiro-Wilk tests, through the examination of skewness and kurtosis values.

The significance values for all variables in both the Kolmogorov-Smirnov and Shapiro-Wilk tests are less than 0.05. This indicates that the data deviates from a normal distribution. However, Ghasemi and Zahediasl (2012) highlighted that for large sample sizes (n > 200), the significance value tends to be sensitive, and slight deviations may result in significant outcomes. Therefore, it is more appropriate to consider the values of skewness and kurtosis.

Table 4.5 presents the skewness and kurtosis values for each variable. The skewness values range from -0.330 to -1.234 and the kurtosis values range from -0.471 to 3.681, which are within the acceptable range of ±1. Based on these results, the data is considered approximately normally distributed and suitable for further analysis.

**Table 4.5**
*Normality Test*

|  | Remote Working | Hybrid Working | Flexible Scheduling | Employee Productivity |
|---|---|---|---|---|
| **Skewness** | -.330 | -.336 | -.350 | -1.234 |
| **Kurtosis** | -.535 | -.598 | -.471 | 3.681 |

### 4.5.4 Outlier

Outliers are data points in SPSS that are substantially different from the rest of the dataset. These values can sometimes represent actual responses or may indicate potential data entry errors. Based on the analysis, there were no outliers detected for Remote Working, Hybrid Working, and Flexible Scheduling variables. However, for the Employee Productivity variable, a total of 18 outliers were identified.

The data entries were reviewed to ensure accuracy, and no errors were found. Therefore, the decision was made to retain the outliers due to the relatively large sample

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size. It is anticipated that some extreme values may appear at the lower and upper bounds of the distribution without significantly affecting the overall analysis.
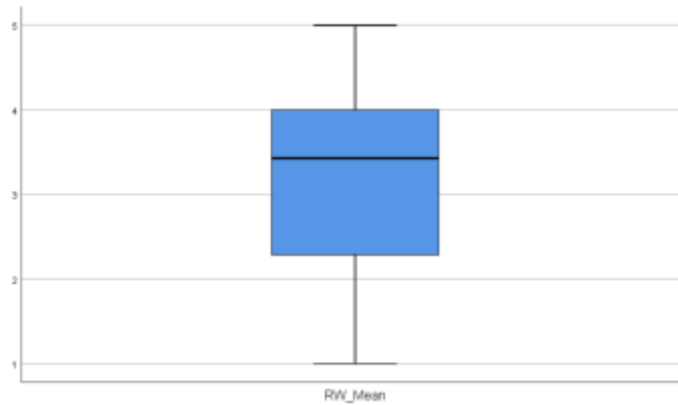


Figure 4.1: *Outlier for Remote Working*
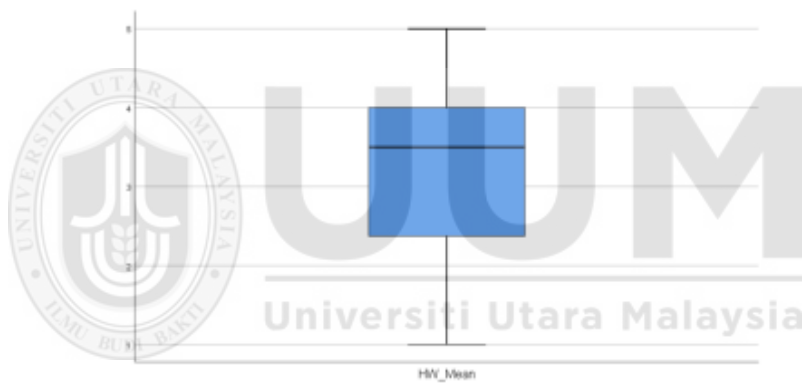


Figure 4.2: *Outlier for Hybrid Working*
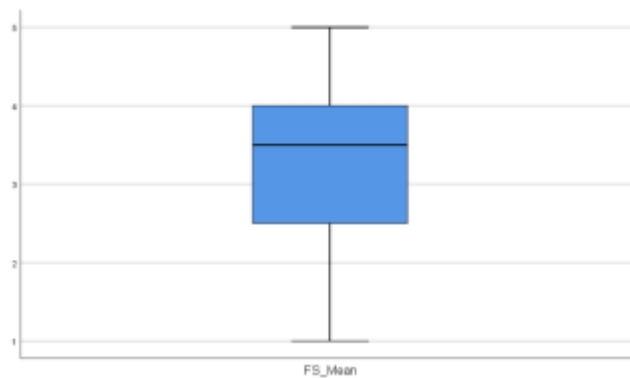


Figure 4.3: *Outlier Flexible Scheduling*
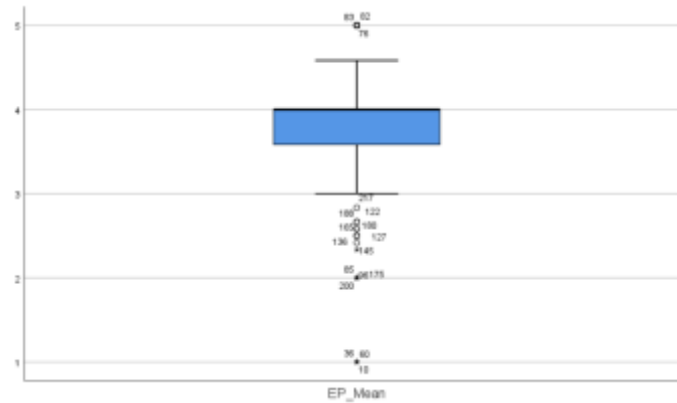
Figure 4.4: *Outlier for Employee Productivity*

## 4.6    Pearson Correlation Analysis

Pearson correlation analysis was performed to evaluate the direction and strength of the relationships between the variables. The findings indicate a statistically significant positive correlation between all independent variables and employee productivity at the 0.01 level of significance. Specifically, remote working (r = 0.580), hybrid working (r = 0.568), and flexible scheduling (r = 0.566) are all positively correlated with employee productivity.

Furthermore, strong correlations were observed among the independent variables themselves. Remote working has a high correlation with hybrid working (r = 0.978) and flexible scheduling (r = 0.967), while hybrid working is also highly correlated with flexible scheduling (r = 0.985). These results indicate that the variables are closely related, and all relationships are statistically significant.

**Table 4.6**
*Pearson Correlation Analysis*

| Variables | Remote Working | Hybrid Working | Flexible Scheduling | Employee Productivity |
|---|---|---|---|---|
| Remote Working | 1 | .978** | .967** | .580** |
| Hybrid Working | .978** | 1 | .985** | .568** |
| Flexible Scheduling | .967** | .985** | 1 | .566** |
| Employee Productivity | .580** | .568** | .566** | 1 |

**correlation is significant at the 0.01level (2 tailed)

## 4.7   Hypotheses Results

Based on the Pearson correlation analysis, the hypotheses testing revealed that all three hypotheses, H1, H2, and H3 were supported. The results demonstrated that remote working, hybrid working, and flexible scheduling each have a significant and positive relationship with employee productivity at the 0.01 significance level. This indicates that public university lecturers in Malaysia with flexible working arrangements tend to report higher levels of productivity. Therefore, all proposed hypotheses in this study are accepted, affirming the relevance of flexible working arrangements in enhancing employee productivity.

**Table 4.7**
*Overall Hypotheses Results*

| Variables | Hypotheses Constructed | Result |
|---|---|---|
| Remote Working | H1: There is a significant relationship between remote working and employee productivity. | **Accepted** |
| Hybrid Working | H2: There is a significant relationship between hybrid working and employee productivity. | **Accepted** |
| Flexible Scheduling | H3: There is a significant relationship between flexible scheduling and employee productivity. | **Accepted** |

## 4.8    Summary of the Chapter

To summarize, Chapter 4 presents the results of descriptive statistics, data screening, and correlation analysis. These analyses provided insights into the relationship between flexible working arrangements and employee productivity. The next chapter will discuss the findings in greater detail, followed by conclusions and recommendations.

# CHAPTER FIVE

# DISCUSSION

## 5.1    Introduction

This chapter presents the interpretation of the study's findings, discusses the implications, and provides recommendations based on the results. It reviews the outcomes of hypothesis testing in relation to the research objectives, highlights the limitations encountered, and suggests directions for future research. The chapter concludes with the overall summary of the study.

## 5.2    Discussion

### 5.2.1    The relationship between remote working and employee productivity

The study found a strong positive association between remote working and employee productivity among lecturers in Malaysian public universities. The Pearson correlation analysis indicated a moderate positive correlation ($r = 0.580$, $p < 0.01$), suggesting that lecturers engage more in remote working tend to report higher levels of productivity.

Remote working provides lecturers with the flexibility to manage their tasks and time effectively, reducing commuting stress and offering greater autonomy in their work processes. Such flexibility is beneficial in academia, as uninterrupted periods are essential for research, class preparation, and student consultations. Wang et al. (2021) asserted that flexible work arrangements enhance focus and job satisfaction, which can directly improve performance.

This result aligns with Bloom et al. (2015), reported a 13% increase in employee performance under remote working conditions, largely attributed to fewer distractions

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and greater flexibility. observed that remote working contributes to improved job satisfaction and productivity, especially when supported by robust technological infrastructure and organizational trust.

Nevertheless, successful implementation of remote work depends on factors such as effective communication, managerial support, and access to institutional resources. Felstead and Henseke (2017) mentioned that remote working does not inherently guarantee increased productivity unless it is accompanied by a clear performance expectation and a supportive work environment.

In conclusion, the significant positive correlation between remote working and employee productivity reinforces its potential as an effective flexible working arrangement within higher education institutions.

### 5.2.2    The relationship between hybrid working and employee productivity

The findings of this study reveal a significant and positive relationship between hybrid working and employee productivity among public university lecturers in Malaysia. The Pearson correlation analysis demonstrated a moderate positive association ($r = 0.568$, $p < 0.01$), indicating that lecturers engage in hybrid working arrangements are associated with greater levels of productivity.

Hybrid working integrates both remote and on-site work, offers flexibility that can enhance efficiency and job performance. For academic staff, this model provides them the opportunities to better manage teaching obligations, research responsibilities, and administrative duties by allocating time and space based on task demands. The flexibility to alternate between work settings enables lecturers to optimize their working

environment, reduce commuting time, and increase focus during periods of individual work, thereby contributing to improved productivity.

Choudhury et al. (2021) reported that hybrid working enhances productivity, creativity, and job satisfaction when implemented with adequate managerial support and technological infrastructure. Likewise, Wang et al. (2021) suggested that hybrid models can reduce fatigue and support employee engagement by allowing greater autonomy over work schedules and locations.

In the Malaysian higher education context, the adoption of hybrid working has gained momentum, particularly following the onset of the COVID-19 pandemic. Although many institutions are still developing formal policies and infrastructure to support hybrid models, the significant correlation observed in this study suggests that even initial implementations are yielding measurable benefits. This outcome is consistent with the findings reported by Kadir et al. (2021), that hybrid working in Malaysian academia can be effective when supported by clear guidelines and relevant digital tools.

Nonetheless, the effectiveness of hybrid working is contingent upon several enabling factors. As highlighted by Allen et al. (2015), organizational trust, clear communication, and technological readiness are essential for hybrid arrangements to succeed. Without these foundational supports, hybrid working may lead to ambiguity in work expectations, reduced collaboration, and challenges in performance monitoring.

In summary, the significant positive relationship between hybrid working and employee productivity reinforces the potential of flexible work models in the academic sector. As public universities in Malaysia continue to explore innovative work arrangements, hybrid working should be considered a strategic approach to enhance

productivity, provided it is accompanied by institutional support and implementation strategies.

### 5.2.3 The relationship between flexible scheduling and employee productivity

The Pearson correlation analysis indicated a significant positive relationship between flexible scheduling and employee productivity among public university lecturers in Malaysia ($r = 0.566$, $p < 0.01$). This suggests that lecturers who are granted greater flexibility in organizing their work schedules are more likely to report enhanced levels of productivity.

Flexible scheduling enables lectures to determine when to engage in work activities, thereby supporting better alignment with their personal and professional obligations. In academic environment, work is multifaceted between teaching, research, supervision, and administrative roles, and such flexibility allows lecturers to allocate time to tasks based on peak productivity periods and personal preferences. This agrees with the results presented by Allen et al. (2013), highlighted that flexible scheduling improves job satisfaction, reduces stress, and supports higher performance levels.

The positive relationship identified in this study is also consistent with the research of Putri and Rachmawati (2019), reported that flexible work hours enhance employee motivation and performance by promoting autonomy and work-life integration. Similarly, Ghali-Zinoubi, Amari, and Jaoua (2021) emphasized that in academic institutions, flexibility in scheduling can reduce work pressure and increase satisfaction, which in turn improves overall productivity.

Despite the traditionally autonomous nature of academic roles, the results of this study suggest that formalized flexible scheduling remains relevant and beneficial. Even

though lecturers typically manage their own teaching and research timelines, structured policies that explicitly allow for flexible scheduling may reinforce a sense of control and trust, leading to enhanced work outcomes.

However, it is essential to recognize that the successful implementation of flexible scheduling relies heavily on robust institutional support. As noted by Chung (2018), flexible arrangements must be aligned with organizational expectations and performance metrics to be effective. Without the clear policies and managerial backing, the intended benefits of flexibility may be diluted.

In conclusion, the significant correlation between flexible scheduling and employee productivity affirms the value of flexible work arrangements in the academic context. Public universities in Malaysia may benefit from embracing structured yet adaptive scheduling policies that empower lecturers while maintaining accountability and performance standards.

## 5.3    Implication of Study

The implications of this study can be categorised into four domains: theoretical contributions, employees, organisations, and the research community. Each domain provides valuable insights into the relationship between Flexible Working Arrangements (FWAs) and lecturers' productivity in Malaysian public universities.

### 5.3.1    Theoretical Implications

This study extends the application of Self-Determination Theory (SDT) (Deci & Ryan, 1985) to the context of FWAs and lecturers' productivity in Malaysian public universities. SDT posits that intrinsic motivation and optimal performance are achieved

when three basic psychological needs—autonomy, competence, and relatedness—are fulfilled.

The findings provide empirical support for SDT by demonstrating that remote working, hybrid working, and flexible scheduling significantly enhance lecturers' productivity. FWAs promote autonomy by giving lecturers greater control over when and where they work, competence by enabling effective allocation of time and resources to key tasks, and relatedness, particularly through hybrid arrangements by maintaining meaningful connections with colleagues and students.

By applying SDT in the Malaysian higher education context, this study extends the theory's relevance beyond traditional organisational settings to a profession characterised by multiple, competing responsibilities. The results confirm that fulfilling autonomy, competence, and relatedness needs can improve productivity in academia, offering theoretical insight into the psychological mechanisms underpinning the effectiveness of FWAs.

### 5.3.2 Employees

The findings of this study offer meaningful insights for employees, particularly public university lecturers, on the flexible working arrangements (FWAs) towards their productivity. The results revealed that all three FWA components, remote working, hybrid working, and flexible scheduling have a significant positive relationship with employee productivity. This highlights the importance of flexible work options in supporting lecturers' ability to perform effectively within their academic roles.

These findings suggest that employees can benefit from flexible work structures that allow them to manage their time more efficiently, reduce work-related stress, and

perform their responsibilities in ways that align with their individual preferences and professional demands. By having access to flexible working arrangements, lecturers may be better positioned to balance teaching, research, and administrative duties without compromising their overall productivity.

In addition, the positive associations between FWAs and productivity support the idea that flexible work practices can enhance job satisfaction and promote a healthier work-life balance. Employees may use this evidence to engage in constructive discussions with university leadership on maintaining or expanding flexible work policies that contribute to their professional growth and personal well-being.

Overall, the study underscores the relevance of FWAs in modern academic settings and encourages employees to embrace and advocate for work arrangements that foster both productivity and holistic job satisfaction.

### 5.3.3 Organization

For university management, administrators, and policymakers, the results of this study contribute both strategic and operational insights into enhancing employee productivity through flexible working arrangements (FWAs). The results suggest that the successful implementation of FWAs not only offering flexible option but it also must be integrated into the institution's broader organizational framework and culture.

Public universities should consider formalizing FWA policies that are transparent, inclusive, and aligned with institutional objectives. Clear communication of expectations, coupled with consistent managerial support, can ensure that employees working under flexible conditions continue to meet performance standards. Institutions

should also invest in the necessary digital infrastructure and administrative processes to facilitate smooth and effective implementation of these work arrangements.

Moreover, creating a supportive environment that values autonomy, accountability, and employee well-being is crucial for maximizing the benefits of FWAs. Universities should promote open channels for feedback and encourage collaboration between departments to ensure that flexible working does not lead to isolation or disengagement. Providing training and guidance for both academic and administrative leaders on managing flexible teams will further reinforce consistency in application and expectations.

Additionally, the insights gained from this study can guide workforce planning and organizational development strategies. Universities may use these findings to enhance performance management systems, restructure workload allocation, and design professional development programs that are adaptable to diverse working conditions. In doing so, institutions can strengthen employee engagement, retain talent, and support a high-performing academic workforce.

Overall, embedding FWAs into institutional strategy not only reflects a progressive and adaptive organizational culture but also positions public universities to remain resilient and competitive in an evolving educational landscape.

### 5.3.4   Research Community

This research offers a significant addition to the growing body of literature on flexible working arrangements (FWAs) and employee productivity, especially within the context of Malaysia's higher education sector a domain that remains relatively underexplored. By focusing on public university lecturers, the research offers context-

specific insights into how various forms of FWAs, including remote working, hybrid working, and flexible scheduling, relate to perceived employee productivity in academia.

The findings serve as a valuable reference point for future researchers seeking to further investigate the dynamics of flexible work within academic environments. In particular, scholars may explore mediating or moderating variables such as organisational culture, leadership support, job autonomy, and digital infrastructure, all of which can influence the effectiveness of FWAs on productivity. The relevance of individual differences such as personality traits, generational expectations, and work-life preferences may also warrant closer examination to enhance the understanding of differential outcomes among employees.

Moreover, this study underscores the pivotal influence of cultural and institutional contexts in shaping the effectiveness of flexible working arrangements. Comparative studies across different types of institutions, regions, or countries can help identify universal versus context-specific factors influencing productivity outcomes. This opens avenues for both cross-sectional and cross-cultural research that can inform policy and practice across diverse educational systems.

Future research can also adopt a longitudinal approach to examine the evolving effects of FWAs on employee performance over time, particularly as institutions refine their policies and adapt to emerging work norms. Additionally, qualitative approaches like in-depth interviews or case studies can offer deeper insights into the lived experiences of academic staff, revealing nuanced perspectives that may be overlooked by quantitative approaches.

Overall, this study establishes a foundation for a deeper and more comprehensive exploration of flexible working practices in academia, encouraging researchers to build on its findings and address the complex, multi-dimensional nature of work in modern educational institutions.

## 5.4    Limitation of the Study

While this study provides meaningful insights into the relationship between flexible working arrangements and employee productivity among public university lecturers in Malaysia, several limitations must be recognized, as they may have influenced the results and their interpretation.

### 5.4.1    Limited Generalizability

One key limitation of this study lies in its sample scope, which was confined to lecturers from selected public universities in Malaysia. While this population was purposefully chosen due to their exposure to flexible working arrangements, the findings may have limited generalizability to other populations beyond the studied group, such as administrative staff, private university employees, or professionals in academic sectors. Each institutional setting may have distinct work cultures, policies, technological capacities, and support systems that shape the success and perception of flexible work arrangements. As a result, the insights gained from this study are context-specific and may not reflect the broader applicability of flexible working practices across different organizational environments. Therefore, caution should be exercised when attempting to extend these findings beyond the sampled population.

### 5.4.2 Reliance on Self-Reported Data

The study utilised a self-administered questionnaire to collect data on both the independent and dependent variables. While this method is practical and efficient for large-scale data collection, it is prone to certain limitations. Respondents may consciously or unconsciously provide socially desirable answers or fail to accurately recall their experiences or behaviours, which can result in response bias. This is particularly relevant when assessing subjective constructs like productivity or satisfaction with flexible work arrangements. The lack of triangulation with objective performance metrics or supervisor evaluations may affect the accuracy and reliability of the findings.

### 5.4.3 Cross-Sectional Research Design

The research adopted a cross-sectional design, collecting data at one specific point in time. Although this method is effective for identifying relationships between variables, it limits the ability to determine causality or observe that these relationships may evolve over time. Factors influencing employee productivity may vary across different periods, especially given the evolving nature of work arrangements in academia. Longitudinal studies would be more appropriate for capturing trends and evaluating the long-term impact of flexible working arrangements on employee performance.

## 5.5 Recommendations

Based on the study's findings and acknowledged limitations, several recommendations are suggested to guide future practice and research to enhance the understanding and implementation of flexible work arrangements, particularly in public universities. These recommendations are intended to benefit key stakeholders, including employees, organizational management, and future researchers. By addressing the practical

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implications of the study, these suggestions intended to cultivate a more conducive and efficient working environment while contributing to the development of future research in this area.

### 5.5.1 Employees

Employees, particularly lecturers in public universities, are encouraged to take an active role in adapting to flexible working arrangements by developing self-discipline, time management skills, and digital competencies. With the increasing adoption of remote working, hybrid models, and flexible scheduling, it is essential for employees to cultivate a strong sense of responsibility and accountability in managing their tasks and meeting performance expectations. Embracing technology and digital collaboration tools can further enhance communication, productivity, and connectivity with colleagues and supervisors.

Additionally, lecturers should proactively communicate their needs and challenges to management to ensure that flexible arrangements are aligned with their professional and personal obligations. Participating in institutional feedback mechanisms and training programmes can also help employees stay informed and supported. By embracing flexibility with a constructive mindset, employees can improve work-life integration and optimize their performance outcomes within evolving academic environments.

### 5.5.2 Organization

Public universities and academic institutions should continue to strengthen their support for flexible working arrangements by developing structured frameworks and policies that align with institutional goals while accommodating employee needs. Organizations

play a critical role in facilitating successful implementation by providing lecturers with the necessary tools, infrastructure, and training to effectively engage in remote work, hybrid models, and flexible scheduling.

It is recommended that universities to invest in digital platforms and communication systems that enable seamless collaboration and task management, regardless of physical location. Moreover, clear guidelines, performance indicators, and supervisory mechanisms should be established to ensure accountability and consistency across departments. Human resource policies should also be revisited to incorporate flexibility without compromising on educational quality or institutional integrity.

By fostering a supportive and adaptive organizational culture, universities can enhance employee engagement, satisfaction, and productivity. Encouraging open dialogue, continuous professional development, and feedback mechanisms will enable institutions to refine their flexible work practices in response to evolving academic demands and workforce expectations.

### 5.5.3 Future Research

While this study offers meaningful insights into the relationship between flexible working arrangements and employee productivity, it also highlights several areas that merit further exploration. Future research can expand the scope by including lecturers from private universities or other educational institutions to enhance the generalizability of the findings across different educational contexts in Malaysia.

Additionally, future studies may benefit from incorporating mediating or moderating variables, such as job satisfaction, work-life balance, technological readiness, or organizational support, to better understand the underlying mechanisms that influence

productivity under flexible work systems. A more nuanced analysis using structural equation modelling (SEM) or mixed-method approaches can provide more holistic perspectives.

Longitudinal studies are also encouraged to assess the perceptions of flexible working arrangements and their effects on productivity evolve over time. In addition, employing qualitative research methods as in interviews or focus groups can yield deeper insights into the lived experiences of lecturers and the contextual challenges they encounter under different flexible working arrangements.

## 5.6    Conclusion

This study set out to examine the relationship between Flexible Working Arrangements (FWAs) and lecturers' productivity in Malaysian public universities. Drawing on data from 230 respondents across all 20 public universities, the findings from Pearson correlation analysis revealed significant positive relationships between all three forms of FWAs and productivity. These results provide empirical evidence that granting lecturers greater flexibility in how, when, and where they work can enhance their effectiveness in fulfilling teaching, research, and administrative responsibilities.

By applying Self-Determination Theory (SDT) as the guiding framework, the study highlighted that FWAs can fulfil lecturers' needs for autonomy, competence, and relatedness, thereby fostering intrinsic motivation and improving performance. The findings carry important theoretical and practical implications: they extend SDT into the higher education context, offer actionable strategies for institutions to improve work arrangements, and empower lecturers to advocate for policies that support both professional output and personal well-being.

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While the results are promising, the study recognises several limitations, including the limited generalizability, reliance on self-reported data, and the cross-sectional design, which limits causal inference. Nevertheless, the insights gained contribute to the growing body of literature on FWAs in academia and provide a foundation for further research particularly studies that incorporate longitudinal approaches, qualitative perspectives, and broader comparative contexts.

Overall, the study concludes that well-implemented FWAs have the potential to enhance productivity in Malaysia's higher education sector. By embracing flexibility as part of their strategic workforce planning, public universities can meet the evolving demands of academia while supporting the well-being and performance of their lecturers.

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**Title: The Relationship Between Flexible Working Arrangements (FWA) on Employee Productivity Among Public University Lecturers in Malaysia.**

This questionnaire is part of a research study conducted for the master's dissertation titled **" The Relationship Between Flexible Working Arrangements (FWA) on Employee Productivity Among Public University Lecturers in Malaysia."** The aim of this study is to understand how flexible working arrangements have influenced the employee productivity among Public University Lecturers in Malaysia.

Your participation is voluntary, and your responses will remain confidential. Please provide honest and thoughtful answers to the questions below. Your input will significantly contribute to the research findings.

Your sincerely,

Praveena R Arumugam
Universiti Utara Malaysia
Email: praveena_97@yahoo.com

## Section 1: Demographic Information

Please provide the following details:

1. **Age**: _____

2. **Gender**:

   o  Male

   o  Female

   o  Other (Please specify) _____

3. **Academic Position**:

   o  Lecturer

   o  Senior Lecturer

   o  Associate Professor

   o  Professor

4. **Years of Service in Academia**: _____

5. **Faculty/Department**: _____

6. **Employment Status**:

   o  Full-time

   o  Part-time

7. **Do you have access to Flexible Working Arrangements (FWAs) through your university?**

   o  Yes

   o  No

8. **Which mode of working are you in currently?**

   o  Onsite

   o  Hybrid

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- o Remote

- o Flexible Working Arrangement

## Section 2: Remote Working

**Instructions:** Please indicate your level of agreement with the following statements using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

|  | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| **1.** My location for doing office work is at home. |  |  |  |  |  |
| **2.** I always communicate with other people remotely for my work. |  |  |  |  |  |
| **3.** The duration I work at home is the same as the duration I work in the office. |  |  |  |  |  |
| **4.** The organization can monitor the results of my work easily. |  |  |  |  |  |
| **5.** Information and communication technology tools really help me in doing my job. |  |  |  |  |  |
| **6.** I can easily get or access the data I need related to my job. |  |  |  |  |  |
| **7.** My organization allows me to work independently without supervision. |  |  |  |  |  |

## Section 3: Hybrid Working

**Instructions:** Please indicate your level of agreement with the following statements using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

|  | **1** | **2** | **3** | **4** | **5** |
|---|---|---|---|---|---|
| 1. I can decide the number of days to work remotely. |  |  |  |  |  |
| 2. On remote working days, I can choose to work from anywhere (e.g., co-working spaces, home, cafe, etc.) |  |  |  |  |  |
| 3. I can shift my workplace in the middle of a workday (e.g., office to home). |  |  |  |  |  |
| 4. I can decide which days to work from home. |  |  |  |  |  |
| 5. I can work from the office outside the office hours to complete the tasks. |  |  |  |  |  |
| 6. While working remotely, I can schedule meetings with my team/manager when required. |  |  |  |  |  |
| 7. I can decide the amount of work to be done during a certain period of time. |  |  |  |  |  |

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 8. I can choose the deadlines for my task submission. | | | | | |

## Section 4: Flexible Scheduling

**Instructions:** Please indicate your level of agreement with the following statements using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. I participate in choosing schedule of my lectures at my university. | | | | | |
| 2. My university is enabling me to choose my office hours schedule. | | | | | |
| 3. I participate in choosing schedule of my committees' meetings. | | | | | |
| 4. My work does not exceed 30 hours a week at my university. | | | | | |
| 5. Flexible scheduling allows me to complete tasks more efficiently and with greater focus. | | | | | |
| 6. I feel satisfied with the flexibility in my work schedule, which enhances my productivity. | | | | | |

## Section 5: Employee Productivity

**Instructions:** Please indicate your level of agreement with the following statements using a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| 1. I receive meaningful recognition for work well done. | | | | | |
| 2. I receive useful feedback from superior on my job performance. | | | | | |
| 3. My work has made contribution to the good of the organization would please me. | | | | | |
| 4. I like to feel that I am making some contribution not for myself but for the organization as well. | | | | | |
| 5. I persist in overcoming obstacles to complete a task. | | | | | |
| 6. I meet the formal performance requirements of the job. | | | | | |
| 7. I put in extra hours to get work done on time. | | | | | |
| 8. I am enthusiasm in performing my job. | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 9.  I am initiative in doing my work. | | | | | |
| 10. My work hard leads to good performance. | | | | | |
| 11. My work hard leads to high productivity. | | | | | |
| 12. My work hard leads to doing my job well. | | | | | |

**Appendices B: Letter of Approval**

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Our Ref : UUM/UUMKL/DC243/7
Date : 9th July 2025

TO WHOM IT MAY CONCERN

COLLECTION OF DATA FOR RESEARCH PAPER

We are pleased to inform you that the following student is from Universiti Utara Malaysia Kuala Lumpur and is presently pursuing her Master of Human Resource Management. She are required to collect data from your organization as requirement for the Research Paper (BPMZ69912) course this semester.

| No | Name | Matric No. | I/D No. |
|----|------|-----------|---------|
| 1. | PRAVEENA A/P ARUMUGAM | 832109 | 970101045062 |

Please be informed that the data collected is purely for academic purposes and we assure you that all information will be kept strictly confidential.

We really appreciate your kindness and cooperation in the above matter.

Thank you.

"MALAYSIA MADANI"
"KNOWLEDGE, VIRTUE AND SERVICE"
"ACADEMIC EXCELLENCE UUM EMINENCE"

Sincerely yours,

NUR AFIQAH BINTI ABU BAKAR
Assistant Registrar
Universiti Utara Malaysia
Kuala Lumpur Campus (UUMKL)

Universiti Pengurusan Terkemuka
The Eminent Management University

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