

**Remote Working and Innovative Work Behaviour:
A Case of Australian Employees**

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Abstract

This thesis explores the relationship between innovative work behaviour (IWB) and remote work among Australian employees, acknowledging innovation as a pivotal strategy for organisational competitiveness and recognising that those innovative ideas often stem from employees. The research problem stems from the contemporary landscape, characterised by the rise of remote working, and accentuated by the COVID-19 pandemic, necessitating an exploration of how remote work may impact an employee's ability to engage in innovative practices.

Employing a comprehensive mixed-methods approach encompassing quantitative surveys and qualitative in-depth interviews, this study delves deep into the employees' experiences of IWB. Guided by the Ability, Motivation, and Opportunity framework (Baily, 1993), it endeavours to understand the ways in which remote work influences IWB, from the perspectives of the employees themselves. Thus, the central question guiding this research is: How do employees perceive the relationship between remote work and their innovative work behaviour? In particular, what is the extent of IWB among employees engaged in remote work, how do demographics influence the outcomes of employees' IWB when engaged in remote work, what factors contribute to fostering or inhibiting IWB in remote working environments, and what are the distinctions in employee experience regarding IWB when comparing remote and office-based working environments.

There are several findings from this study. However, the key findings are as follows. Employees exhibit more IWB with greater frequency of remote work, as long as remote work does not encompass their entire work schedule. In the context of demographic factors, full-time employment, longer tenure, and greater seniority are associated with higher IWB among remote workers. The findings also show that remote working is a double-edged sword when it comes to employee experience. While remote working affords employees autonomy, flexibility, and uninterrupted time for ideation, it can also lead to isolation, over-working, and reduced opportunities for spontaneous idea exchange.

The study makes a significant contribution by clarifying the paradoxes associated with remote work and IWB as highlighted within existing literature and makes attempts to

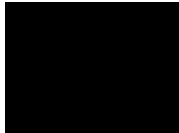
connect remote work research with innovation research, effectively bridging a crucial gap in understanding. By enriching the existing body of knowledge, the findings provide valuable insights for both organisations and policymakers. These insights can guide the development of remote work policies and practices aimed at cultivating an environment conducive to innovation among employees.

Student Declaration

I, Snjezana Ahlgren, declare that the PhD thesis entitled Remote Working and Innovative Work Behaviour: A Case of Australian Employees, is no more than 80,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

I have conducted my research in alignment with the Australian Code for the Responsible Conduct of Research and Victoria University's Higher Degree by Research Policy and Procedures.

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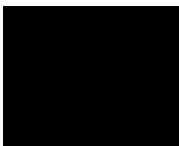


Date: August 2024

Ethics Declaration

All research procedures reported in the thesis were approved by the Victoria University Human Research Ethics Committee [Application ID: HRE21-055].

Signature:



Date: August 2024

Dedication

This thesis is dedicated to Mathias Torsten Ahlgren and my two greatest blessings,
Skye and Anya.

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I would like to sincerely thank all those who have supported and helped me in my journey to successfully complete this thesis. Throughout this long journey, I have met many individuals who inspired, encouraged, and pushed me. I wish to acknowledge the efforts of many people, without whom this thesis would not be published.

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Abbreviations

AMO	Ability, Motivation, and Opportunity Framework
ES	Employment Status
EL	Employment Level
HPWS	High-performance Work Systems
HRM	Human Resource Management
IWB	Innovative Work Behaviour
RWF	Remote Working Frequency

CHAPTER 1 - INTRODUCTION

1.1. Introduction

In recent years, the nature of work has undergone a transformative shift, propelled by technological advancements and changing societal norms (Jetha et al., 2021; Trenerry et al., 2021). One of the most notable changes is the widespread adoption of remote working, where individuals can carry out their professional responsibilities from locations outside the traditional office setting (Chafi et al., 2021; Cuel et al., 2022; Tomić & Vizinger, 2023). This arrangement is made possible with technology and collaboration tools, which enable individuals to communicate and collaborate with colleagues and access necessary resources remotely. The COVID-19 pandemic saw a record increase in employees working remotely (Adekoya et al., 2022; Beck & Hensher, 2022; Vij et al., 2023). In Australia during the pandemic, the Australian Bureau of Statistics found that at least 40 per cent of the Australian workforce reported working remotely one or more times a week during the pandemic's peak (ABS, 2020). Post-pandemic, it is suggested that working remotely will continue (Barrero et al., 2021; Brown & Tousey, 2023). Australian employees are willing to forgo up to 8 percent of their annual wages for the option to work remotely in a post-pandemic world (Vij et al., 2023).

Remote working offers numerous benefits, such as increased flexibility, improved work-life balance, and reduced commuting time (Al-Madadha et al., 2022; Nizar et al., 2021; W. Wang et al., 2020). However, as this new paradigm becomes increasingly prevalent, assessing its impact on vital work-related outcomes is crucial, particularly innovation and innovative work behaviour (IWB).

Innovation is a cornerstone of long-term organisational success (Hashim et al., 2022; Lopes et al., 2021; Shanker et al., 2017), demanding careful consideration within this evolving remote work landscape. IWB refers to the generation, implementation, and promotion of new ideas, processes, products, or services within the workplace, by the employees of the organisation. West and Farr (1990) define IWB as the '...intentional introduction and application within a role, group or organisation, of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, organisation or wider society.' This definition highlights the generation and promotion of creative ideas and their successful implementation,

individually or collaboratively, within work contexts. Scott and Bruce (1994) define IWB as a ‘...multistage process, with different activities and individual behaviour necessary at each stage’. This definition emphasises that innovative work behaviour involves deliberate actions to introduce and implement new ideas or practices that improve work outcomes at various levels. IWB involves activities beyond routine tasks and requires employees to engage in creative problem-solving, experimentation, and risk-taking. Both definitions underscore the importance of novelty, creativity, and the application of ideas in the work setting. IWB involves actively engaging in activities beyond the routine and contributing to positive changes, whether at the individual, team, or organisational level.

Understanding how remote working influences IWB has become a topic of great interest for both researchers and practitioners seeking to optimise work arrangements and foster a culture of innovation (Ferreira et al., 2022; Meiryani et al., 2022; Zappalà et al., 2021). This thesis aims to contribute to the existing body of knowledge by exploring the relationship between remote working and IWB. By examining the experiences and perceptions of individuals engaged in remote work, we seek to uncover the potential drivers and barriers that may impact an employee’s ability to engage in innovative behaviours.

A mixed-methods approach was employed to conduct the research, incorporating both quantitative surveys and qualitative interviews. The survey gathered self-reported data on the frequency of innovative behaviour exerted by remote workers across the four-phase IWB model developed by De Jong and Den Hartog (2010). The qualitative interviews provide in-depth insights into the lived experiences of remote workers, shedding light on the challenges and facilitators they encounter in fostering innovation while working remotely – understanding perceptions of their work arrangement, levels of IWB, and relevant contextual factors that influence this relationship.

1.2. Background

Innovation is imperative for organisations to maintain their competitive advantage and succeed (Chatzoglou & Chatzoudes, 2018; Edison et al., 2018; Tidd & Bessant, 2018). Increasingly, the sources of competitive advantage are found within an organisation’s intellectual capabilities, where creativity and innovation are the foundations for success and firm performance (Ali, 2021; Sheth & Sinfield, 2022). ‘One

option for organisations to become more innovative is to encourage their employees to be innovative' (Agarwal, 2014, p. 43). Organisations cannot be innovative without their employees, as individual employees are often the source of new or novel ideas (De Jong & Den Hartog, 2007).

The emergence of the COVID-19 pandemic triggered an unprecedented set of government actions in Australia, which included restrictions on movement, quarantine requirements, restrictions on gatherings and non-essential services and the closing of Australia's borders to non-residents (Evans, 2022; Nguyen et al., 2021; Price et al., 2020). In Australia, a federal government-issued public health order was issued in all Australian states and territories urging employees to work from home where reasonably practical (Beck & Hensher, 2022; Evans, 2022; Mayangsari, 2020). As a result, there was a fundamental shift in how organisations did business. Employees moved from the office to their homes, and online working, video conferencing and teleconferencing rapidly became the new normal (Merone & Whitehead, 2021). Up to 88 percent of organisations in Australia either encouraged or required employees to work from home during the pandemic (Mitchell, 2020). The Families in Australia Survey: Towards COVID Normal found that 67 percent of survey respondents sometimes or always worked from home during COVID-19, compared to 42 percent pre-COVID (Baxter; & Warren, 2021). In the second year of the pandemic, the Australian Bureau of Statistics stated that 41 percent of employed people regularly worked from home. This was an increase of 32 percent from the previous year (ABS, 2021).

Australian organisations faced the challenge of managing increased levels and, at times, mandatory remote working while ensuring they remain innovative and competitive. 'Research shows that innovation is the key driver of success for many organizations...Work-from-home conditions only exacerbate this need, as organizations are required to find novel digital means of not only surviving but maintaining a competitive edge under unprecedented uncertainty' (Abhari et al., 2023, p. 2031). This challenge continues as employees will be unlikely to revert to pre-pandemic working arrangements (Carroll & Conboy, 2020; Phillips, 2020; Vincenzi et al., 2022; Williamson & Pearce, 2022). Many organisations experienced performance gains due to the shift to remote work, to the extent that numerous organisations intend to maintain remote work even though the pandemic has subsided (Loignon et al., 2022).

1.3. The research problem

The primary focus of this thesis is understanding the relationship between remote working and IWB from the employee perspective. Innovation is crucial in enabling organisations to sustain a competitive advantage over their counterparts (Fatonah & Haryanto, 2022; Ferreira et al., 2020; Nangoy et al., 2020). Employees' IWB represents a significant factor conducive to fostering the innovation process within organisations. IWB encompasses the willingness of employees to proactively introduce novel and creative ideas relevant to their tasks in the workplace, ultimately contributing to the advancement and success of the organisation.

Despite the abundance of literature on IWB and remote working separately, studies connecting IWB specifically with remote working are scarce (Coenen & Kok, 2014; George et al., 2020; Giannetti & Madia, 2013; Gilson et al., 2015; Martínez-Sánchez et al., 2011; Moll & de Leede, 2016; Sarbu, 2022). Notwithstanding the substantial transition to remote work prompted by the COVID-19 pandemic, extant literature addressing the nexus between these two phenomena remains limited and the gap is apparent as highlighted by Becker et al. (2022) 'While it is apparent that increased remote work is not going away anytime soon, if ever, the impact of this mandatory shift to remote work on employee perceptions, wellbeing and work-related behaviours remains underexplored' (Becker et al., 2022, p. 450). There is abundant research on innovation at a firm level, but there is a lack of knowledge about encouraging innovation at an individual level especially when relating to remote work (Bos-Nehles, Renkema, et al., 2017). In addition, the presence of conflicting knowledge regarding IWB coupled with the ambiguity surrounding how workplace policies and structures impact it, makes it challenging to discern the most effective methods for stimulating employees to actively participate in IWB (Bos-Nehles, Renkema, et al., 2017).

The research problem this study aims to address stems from an apparent gap in the literature. Despite the increasing prevalence of remote work (Helmy et al., 2023), there is limited understanding of its impact on IWB. Research on IWB and remote work is still evolving, and more studies are needed to fully understand the relationship between the two. This encompasses an exploration of the various facets of remote working, including but not limited to communication, collaboration tools, role of technology, role of face-to-face interaction, organisational culture, and job autonomy, and how these

factors either stimulate or hinder employees' inclination and capacity for innovative thinking and action. Further, it aims to increase our understanding of how remote work compares to office-bound working arrangements in terms of innovative behaviours. While empirical literature on the relationship is limited, extant literature offers mixed findings.

For instance, remotely interacting team-mates appear to miss the creative benefits that can flow from frequent face-to-face interactions (Allen et al., 2015). While remote working has a positive effect on task performance, it can negatively affect innovation-related behaviours, suggesting that there are potential limitations in generating innovative ideas (Gajendran & Harrison, 2007). On the other hand, remote working was found to be positively associated with employee creativity since this type of work arrangement allows for autonomy, flexibility, comfort and reduced distractions in the working environment (Fukumura et al., 2021; Tønnessen et al., 2021; Vega et al., 2015). Remote work can enhance innovative behaviours if job design includes autonomy, skill variety, and feedback (Grant et al., 2011). When employees have greater autonomy over their work and are given opportunities for skill development, remote work arrangements can facilitate innovative thinking and behaviours.

1.4. Thesis objectives

The thesis aims to achieve several objectives in exploring the relationship between remote working and IWB. These objectives provide a clear direction for the research and guide the investigation into understanding the influence of remote working on IWB.

The first research objective of the thesis is to assess the extent to which remote workers engage in IWB. This aspect involves measuring the self-reported frequency of innovative behaviours demonstrated by remote-working employees, such as generating new ideas, promoting new ideas and implementation. By quantifying the level of IWB, the thesis seeks to understand how remote working may influence the extent to which employees exhibit innovative behaviours.

The second research objective is to explore demographic variables to ascertain their potential differential impact on the degree of IWB employees report when working remotely.

The third research objective seeks to explore lived experiences of remote workers. This objective entails gathering qualitative insights through interviews to elucidate remote workers' experiences, perceptions, and perspectives regarding the supportive elements and impediments encountered in engaging in innovative practices while working remotely. The thesis examines various individual, organisational, and contextual factors facilitating or impeding innovative behaviours within remote work contexts. Variables such as communication channels, technological infrastructure, autonomy, and team collaboration are analysed to discern their influence on the innovative behaviours of remote workers.

The final objective is to understand from the employees' viewpoint, the distinctions in their innovative behaviour when contrasting remote work with in-office work. This involves a targeted exploration into employees' experiences and viewpoints to discern the effectiveness of various factors in fostering IWB within these distinct work environments.

By achieving these objectives, the thesis seeks to contribute to understanding the relationship between remote working and IWB. The findings could provide valuable contributions towards current and future research, as well as insights for organisations, people managers, and remote workers themselves, enabling them to make informed decisions and implement strategies to foster a culture of innovation in remote work settings.

1.5. Research questions

To meet the thesis objectives, the central question guiding this research is: *How do employees perceive the relationship between remote work and their innovative work behaviour (IWB)?* Table 1.1 outlines the research sub-questions and the corresponding research objective.

Table 1-1: Research questions and research objectives

	Research Sub-Questions	Research Objectives
SQ1	What is the extent of IWB among employees engaged in remote work, both overall and across each phase (idea exploration, idea generation, idea championing, and idea implementation)?	RO1: Understand the extent to which remote workers engage in innovative work behaviour.
SQ2	How do demographics influence the outcomes of employees' IWB when engaged in remote work, both overall and across each phase (idea exploration, idea generation, idea championing, and idea implementation)?	RO2: Explore the impact of demographic variables of remote working employees to discern their influence on innovative work behaviours.
SQ3	What factors contribute to fostering or inhibiting innovative work behaviours in remote working environments?	RO3: Explore the factors of remote working that foster or hinder innovative work behaviours.
SQ4	What are the distinctions in employee experience regarding innovative work behaviour when comparing remote and office-based working environments?	RO4: Explore the employee's lived experience between remote and office-based working in terms of innovative behaviour.

1.6. Thesis scope and definitions

The scope of this thesis is focused on Australian-based employees who have experience with spending some or all of their working hours away from their employer's main premises.

IWB is a multifaceted concept encompassing the intentional and proactive generation, introduction, and application of new ideas within a work role, group, or organisation. It involves employees' willingness and capacity to engage in creative problem-solving and idea generation relevant to their tasks to enhance role performance, group effectiveness, or organisational outcomes. The thesis uses the West and Farr (1990) definition of IWB: '...the intentional introduction and application within a role, group or organisation, of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, the organisation or

wider society’. The four-phase IWB model discussed by De Jong and Den Hartog (2010) is used as the basis for the research, which includes idea exploration, idea generation, idea championing and idea implementation.

The term ‘telecommuting’ emerged approximately fifty years ago during the oil crisis of the 1970s, credited to Jack Nilles, who coined the term while working remotely as an engineer on NASA’s communications systems (Maghlaperidze et al., 2021). Initially conceived as a remedy for traffic congestion and a means to curtail the utilisation of fossil fuels, telecommuting emerged as a strategic response to the challenges posed by traditional commuting practices. During this period, information and technology firms were among the early adopters of telecommuting practices (Allen et al., 2015). Numerous terms are employed interchangeably to denote the same phenomenon, including telework, telecommuting, work from home (WFH), and mobile work (Allen et al., 2015; Bick et al., 2023).

In the examination of the telecommuting literature, all definitions shared the fundamental concept that telecommuting entails conducting work from a location distant from a central office. Moreover, most definitions also incorporate the essential element of utilising technology to accomplish tasks while operating outside the confines of the central office. This thesis uses the definition of Allen et al. (2015, p. 44) as ‘...a work practice that involves members of an organisation substituting a portion of their typical work hours (ranging from a few hours per week to nearly full-time) to work away from a central workplace – typically principally from home – using technology to interact with others as needed to conduct work tasks.’

1.7. The significance of the thesis

The significance of this thesis lies in its exploration of the influence of remote working on IWB, contributing valuable new knowledge to a rapidly evolving field. With the trend of remote working here to stay, driven by shifting work preferences and technological advancements (Chafi et al., 2021; Costa et al., 2022; Tomić & Vizinger, 2023), it is imperative to understand how this mode of work impacts innovation within organisations. Innovation is critical for organisational success, growth, and competitiveness (Hashim et al., 2022; Lopes et al., 2021; Shanker et al., 2017) making it essential to identify the factors that support innovative behaviours in remote settings.

By identifying these factors, this research provides actionable insights for organisations to enhance their remote work setups, ensuring that employees can generate and implement new ideas effectively. Additionally, by offering a comprehensive understanding of how remote work impacts each phase of IWB, this research contributes to knowledge around cultivating innovation across all stages of the innovation process in remote settings. Specifically, how to facilitate brainstorming and creativity among remote teams (idea exploration), remote collaboration (idea generation), support and advocacy for new ideas within dispersed teams (idea championing) and translating innovative ideas into tangible outcomes in remote work environments (idea implementation).

Moreover, this thesis delves into the impacts of demographics on IWB in remote settings. Understanding how factors such as age, gender, tenure, employment work arrangements and level may influence IWB is a significant contribution. Different demographic groups may experience remote working differently, and recognising these differences can help in creating more inclusive and supportive work environments that promote innovation across all segments of the workforce.

Additionally, comparing innovative behaviour in remote working settings with office-based working is crucial for gaining a comprehensive understanding of the advantages and challenges associated with each mode of work. This comparison provides insights into fostering innovation regardless of the work location and within dispersed teams.

In summary, this thesis makes a significant contribution to the fields of organisational behaviour, human resource management, and innovation theory by filling a critical gap in the literature and offering new insights pertinent to the evolving landscape of today's work environment.

1.8. Thesis method

This thesis employed a mixed-methods approach combining qualitative and quantitative methods to gather and analyse data. Mixed-methods research is '...the type of research in which the researcher or team of researchers combines elements of qualitative and quantitative research approaches...for the purposes of breadth and depth of understanding and corroboration.' (Johnson et al. (2007, p. 123). This approach allows researchers to gain a deeper understanding of the research topic by capturing both

numerical data and rich qualitative insights. By integrating qualitative and quantitative data collection and analysis techniques, a mixed-methods study can provide a more holistic view, complementing each other's strengths and compensating for their limitations (Dawadi et al., 2021; Green et al., 2014). This approach allowed the exploration of the research objectives from multiple angles, integrating different perspectives and shedding light on the 'what' and the 'why' of the research topic.

Quantitative data was captured using an online survey, and qualitative data was gathered using semi-structured interviews. Descriptive statistics, variance analysis and regression models, were used to analyse the quantitative data to identify potential relationships. The qualitative data was analysed through thematic analysis, where themes, patterns, and unique perspectives were identified. The qualitative data provided an in-depth understanding of the context, experiences, and perspectives of individuals involved.

Combining qualitative and quantitative methods in a mixed-methods study offered several advantages. Qualitative data can provide context and depth to quantitative findings, while quantitative data can lend credibility and generalisability to qualitative insights. Furthermore, a mixed-methods study allowed for triangulation of data, where findings from different sources are compared, corroborated, or merged to enhance the validity and reliability of the results (Denzin & Lincoln, 2017).

1.9. Thesis structure

This thesis has nine chapters as follows:

Chapter 1 provides the research context, research problem, significance of the thesis, research objectives, and research questions.

Chapter 2 synthesises the current literature on remote working and IWB. Its purpose is to explore the theoretical concepts used throughout this thesis and the gap in knowledge in this field.

Chapters 3 to 5 discuss the overarching research design. This includes the research methods used for the thesis and a justification for the research paradigm and mixed-

methods methodology. The methods of quantitative and qualitative data collection and analysis used are also discussed.

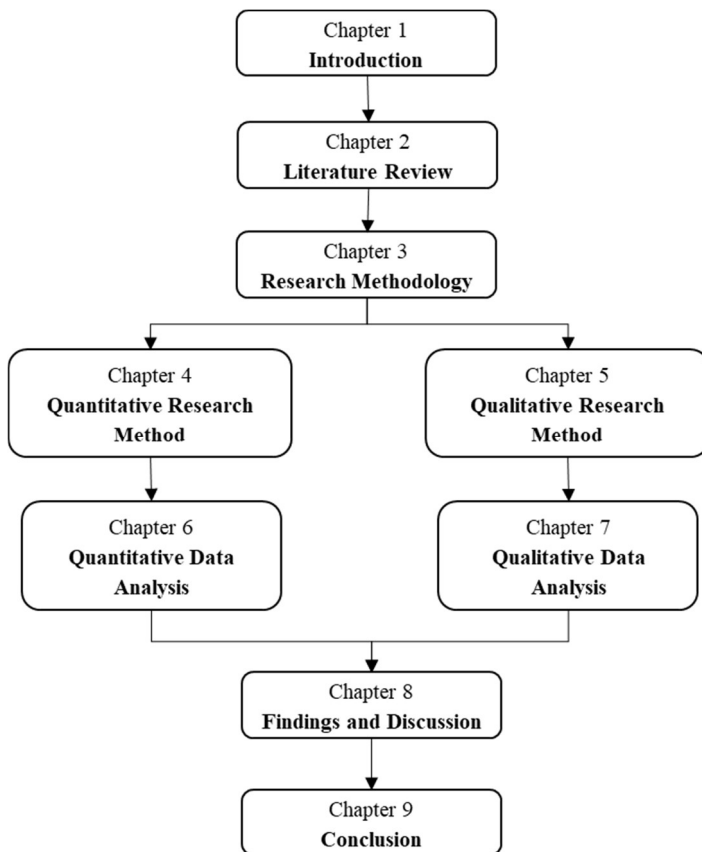
Chapter 6 discusses the results of the quantitative study. The data explores the relationship between IWB and remote working. The aim is to understand how often employees exert innovative behaviour overall and during the four-phase model of IWB. Also to understand which demographic variables have an influence on IWB when working remotely.

Chapter 7 presents the results of the qualitative study. The data explores Australian-based employees' perceptions of the influence remote working may have on their IWB. Additionally, it seeks to juxtapose their experiences between working in-office and working remotely.

Chapter 8 discusses the study's major findings from the quantitative analysis and qualitative analysis, providing answers to the thesis research questions.

Finally, Chapter 9 addresses the thesis's contributions and limitations, as well as addressing future areas of research.

Figure 1-1: Thesis structure



1.10. Chapter summary

As organisations continue to navigate the evolving landscape of work arrangements where remote working will continue to prevail, it becomes increasingly important to delve into the nuances of remote work's impact on innovation. This introductory chapter has provided an overview of the thesis and laid the foundation for the research. It introduced the background of the research, followed by the research problem and objectives. A central research question and four sub-questions were proposed in accordance with the research aims. The next chapter provides a literature review with the aim of identifying research gaps.

CHAPTER 2 - LITERATURE REVIEW

2.1. Introduction

This thesis aims to increase our understanding of innovative work behaviour (IWB) in remote working settings. Thus, this chapter reviews the literature to position this research within the existing knowledge about IWB and remote working. It is noted that prior to the COVID-19 pandemic, few studies explored the combined topics of this research. However, with the onset of COVID-19 and the rise in remote working, there has been a growing body of literature in recent years.

Numerous studies have delved into the multifaceted realms of IWB, alongside investigations into the dynamics of remote work. Scholars from disciplines such as organisational behaviour, human resource management, psychology, and innovation management have contributed to this research.

While there has been an increase in research on innovative behaviour and remote working, it is still a developing field, and there is scope for further exploration. The dynamic nature of remote work and the ongoing changes in work arrangements necessitate continuous research to understand its impact on innovation and innovative behaviour in remote settings.

This chapter begins with a review of the literature about the dimensions of innovation. Section 2.3 introduces the concept of IWB. Section 2.4 introduces the concept of remote working, and Section 2.7 discusses the theoretical frameworks that underpin these combined concepts. The conceptual framework and gaps in the literature are presented in 2.8 and 2.9.

2.2. Innovation

'Innovation and creativity in the workplace have become increasingly important determinants of organisational performance, success and longer-term survival.'

(Anderson et al., 2014)

Innovation is a key driver of economic growth and competition (Bilbao - Osorio & Rodríguez - Pose, 2004; Hasan & Tucci, 2010; LeBel, 2008). With increasing global competition, rapid technological changes and changing business environments,

organisations need to be innovative to sustain their competitive advantage and thrive (Abstein & Spieth, 2014; Ganguly et al., 2019; Hitt et al., 1997). Innovations provide organisations with a source of competitive advantage, allowing them to differentiate themselves from competitors and attract customers (Wang et al., 2022). By developing and implementing creative ideas, organisations can meet customers' changing needs. They can contribute to developing new products and services that are environmentally friendly, address societal challenges and meet customer demand (Javed, Y. A. Rawwas, et al., 2018; Soewarno et al., 2019). Innovation within an organisation improves its internal functioning, creates solutions to problems or challenges, creates market share, increases profits, and creates value for the organisation (Hammond et al., 2011; Messmann & Mulder, 2012; West & Farr, 1990). Moreover, innovation can improve organisational performance (Ghasemi et al., 2020; Nawab et al., 2015; Panuwatwanich et al., 2008), as organisations with increased innovation capability tend to have better overall performance. In addition to the benefits for the organisation, the benefits to society include economic growth, improved products and services, and employment (Ahlstrom, 2010; Baumol & Strom, 2007; Stam & Wennberg, 2009; Wang, 2022).

Innovation has been studied in various disciplinary literatures (Drucker, 2015; Fagerberg & Verspagen, 2009; Kline & Rosenberg, 2010; Shafique, 2013). This includes economics, organisational studies, business and management, technology, science and engineering and marketing. Scholars from different disciplines provide or use different definitions. However, they all commonly reference the creation of something new or novel (Mancini & González, 2021; Taylor, 2017). Despite the overlap between various definitions, there is no single authoritative definition (Baregheh et al., 2009; Kooij, 2017; Quintane et al., 2011). The seminal work of Schumpeter (1934) on innovation and entrepreneurship provides one of the earliest definitions of innovation as the creation and implementation of new products, new methods of production, and opening up new markets or services. A similar definition was provided by Thompson (1965) as 'the generation, acceptance and implementation of new ideas, processes, products or services' (Baregheh et al., 2009, p. 1325). Damanpour and Evan (1984) and Zaltman et al. (1973, p. 656) built on these early definitions by arguing the concept of being 'new' to the adopting unit (being individual or organisation), not necessarily to the world, stating that innovation is 'any idea, practice, or material artefact perceived to be new by the relevant unit of adoption.' Even though a similar idea could be seen elsewhere or considered an

imitation, as long as it is perceived as new to the people involved, it is considered innovation (Van de Ven, 1986).

In addition to the economic and management literature, the Oslo Manual (4th Edition, 2018), produced by the Organisation for Economic Cooperation and Development (OECD), has a definition used by national statistical agencies, government bodies, and industry and organisations. The manual provides guidelines for collecting, interpreting, and reporting innovation data and setting an appropriate benchmark. In earlier editions, the manual focused on the first two of Schumpeter's categories (product and process innovation), as these were easier to define and measure. Later editions of the Oslo manual expanded on the categories to include 'new markets', supporting Schumpeter's definition. The Fourth Edition defines innovation as '...a new or improved product or business process (or a combination thereof) that differs significantly from the firm's previous products or business processes, and that has been introduced on the market or brought into use by the firm' (OECD/Eurostat, 2018, p. 68). The manual emphasises the concept of 'significant', excluding minor changes or enhancements.

2.2.1. Innovation and Innovative Work Behaviour

The concept of innovation is broad and can be viewed at different levels: organisation, team and individual (Anderson et al., 2014; Camisón-Zornoza et al., 2004). Innovation and IWB are related concepts, but they differ in their scope and application within the context of work and organisations (Awan & Jehanzeb, 2022; Nguyen et al., 2020; Wu et al., 2011).

As discussed, innovation refers to creating and implementing new ideas, products, processes, or services that bring about significant positive change and provide value. It involves introducing something new or improving existing practices, enhancing efficiency, effectiveness, or competitiveness. Various factors, such as technological advancements, market demands, or organisational strategies, can drive innovation. It is often seen as a strategic imperative for organisations to stay relevant, differentiate themselves, and adapt to changing environments.

On the other hand, IWB focuses on the individual level and refers to the behaviours exhibited by employees that contribute to the generation, promotion, and implementation of innovative ideas and practices within the workplace (Janssen, 2000; Scott & Bruce, 1994). IWB encompasses a range of actions, including idea generation, problem-solving, knowledge sharing, collaboration, experimentation, risk-taking, and proactive behaviour (De Jong & Den Hartog, 2010; Janssen, 2000). It involves individuals going beyond their assigned roles and responsibilities to contribute to the creative process and drive innovation within their teams or organisations.

In summary, innovation is a broader concept that encompasses the overall process of creating and implementing new ideas or practices, bringing about organisational and societal change, while IWB zooms in on the specific behaviours exhibited by individuals that contribute to innovation and new ideas within the workplace to improve individual, group or organisational performance (Hirst et al., 2009; Li et al., 2020). The following section will discuss innovation at the individual level, which is characterised as Innovative Work Behaviour.

2.3. Innovative Work Behaviour

Fostering innovation within employees is crucial to improved organisational performance and sustained competitive advantage.

(Axtell et al., 2000; Oldham & Cummings, 1996; Ramamoorthy et al., 2005)

This study is conducted within the Australian workplace context and specifically focuses on innovation at the individual rather than the organisational level. As such, an operational definition of this concept is required for this thesis, which is IWB as defined by West and Farr (1990, p. 9) being ‘...the intentional introduction and application within a role, group or organisation, of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, the organisation or wider society’. IWB refers to intentional behaviour from an employee towards developing new or improved products, new markets, or improving business routines in their employing organisation. This infers that innovative efforts and resulting outcomes arise from activities undertaken by individuals. These activities involve exploring and proposing new ideas, testing ideas, building support for the idea, and ultimately implementing these ideas.

Organisations cannot be innovative without their employees, who are encouraged, motivated and willing to innovate (Agarwal, 2014; De Jong & Den Hartog, 2007; Janssen, 2000). As these employees are closer to the customer or the process, individual employees are the primary resource available to organisations to look for ideas and opportunities and will determine how to implement them (Agarwal, 2014; Carmeli & Spreitzer, 2009; De Jong & Den Hartog, 2007; Kozlowski & Klein, 2000). Carmeli and Spreitzer (2009, p. 171) argued that employees ‘are often on the front line with customers and see opportunities for change and improvement in work processes and procedures that are invisible to managers or others formally responsible for innovation in the organisation’.

The concepts of employee creativity and innovation are often discussed interchangeably (Anderson et al., 2004; Hülshager et al., 2009), and while they are related concepts, they have distinct meanings. Creativity refers to generating new and valuable ideas, concepts, or solutions that are original, novel and imaginative (Shai et al., 2009; Weisberg, 2015). It involves thinking in unconventional ways, making connections between seemingly unrelated concepts, and coming up with unique and imaginative ideas. Creativity is, therefore, the foundation of innovation.

On the other hand, innovation is the process of implementing and applying creative ideas to create new products, services, processes, or improvements in existing ones. It goes beyond generating ideas and involves successfully implementing and commercializing those ideas to deliver value. Innovation involves taking creative ideas and turning them into practical and tangible outcomes that bring about positive change.

Innovative behaviour includes generating and implementing ideas, whereas creativity focuses on creating new ideas but not necessarily producing or implementing them. ‘Unlike creativity, IWB has a clearer applied component and is expected to produce some kind of innovative output or benefit’ (Afsar et al., 2014, p. 1273). Creativity is about generating novel and valuable ideas, while innovation focuses on the practical application and implementation of those ideas to create tangible outcomes. Creativity is the starting point, and innovation is the process of bringing creative ideas to life. Therefore, while creativity is an essential function of the innovation process, usually occurring at the beginning, innovative behaviour builds on creativity and goes a step beyond to include implementation.

2.3.1. Definitions of Innovative Work Behaviour

For an organisation to realise innovations, the employee will generate new ideas by displaying behaviours and undertaking activities that include exploring new opportunities, looking for performance gaps, or implementing solutions to problems. Innovative work behaviour (IWB) has been conceptualised in the literature in various ways. Several authors adopted a behavioural perspective (Abstein & Spieth, 2014; Janssen, 2000; Prieto & Pérez-Santana, 2014), while others focused on outputs (Park et al., 2014; West & Farr, 1990; M. J. Xerri & Y. Brunetto, 2013).

A literature review found commonality in the definitions of IWB, which describe a multistage process of different phases of innovation. Table 2.1 provides a succinct presentation of select definitions for reference.

Table 2-1: Definitions of IWB

(Source: compiled by author)

Author(s)	Definition of IWB
Kanter (1988)	‘Innovative work behaviour is: (a) idea generation and activation of the drivers of the innovation; (b) coalition building and acquisition of the power necessary to move the idea into reality; (c) idea realisation and innovation production, turning the idea into a model – a product or plan or prototype that can be used; (d) transfer or diffusion, the spreading of the model – the commercialisation of the product, the adoption of the idea’
West and Farr (1990)	‘The intentional introduction and application within a role, group or organisation of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit the individual, the group, the organisation or wider society’
Scott and Bruce (1994)	‘Innovation is viewed as a multistage process, with different activities and different individual behaviour necessary at each stage’

Jansen (2000)	‘We conceive innovative work behaviour in the workplace as complex behaviour consisting of a set of three different behavioural tasks: idea generation, idea promotion and idea realization’
Park, Song, Yoon and Kim (2003)	‘A multistage process, innovative behaviour is defined as actions that search for, develop, and apply new ideas and solutions in the current situation’
De Jong and Den Hartog (2010)	‘An individual’s behaviour that aims to achieve the initiation and intentional introduction (within a work role, group, or organisation) of new and useful ideas, processes, products or procedures’
Xeric and Brunetto (2013)	‘Innovative behaviour is a process that should improve the efficiency and effectiveness of problem-solving in the workplace’
Prieto and Perez-Santana (2014)	‘Innovative work behaviour as a complex behaviour consisting of generation, introduction, or application of novel appropriate ideas, processes, and solutions’
Abstein and Speith (2014)	‘Innovative behaviour at work as a multistage process comprising different behaviours that can be linked to distinct stages of the innovation process’

2.3.2. Phases of Innovative Work Behaviour

Innovative Work Behaviour typically involves a series of phases that individuals go through as they generate and implement new ideas. Table 2.2 below describes the various phases of innovation as adopted in key IWB literature. It shows that, for the most part, they describe the same process of activities being undertaken but with slight differences in the number of phases and in the terminology used.

Table 2-2: Phases of IWB

(Source: compiled by author)

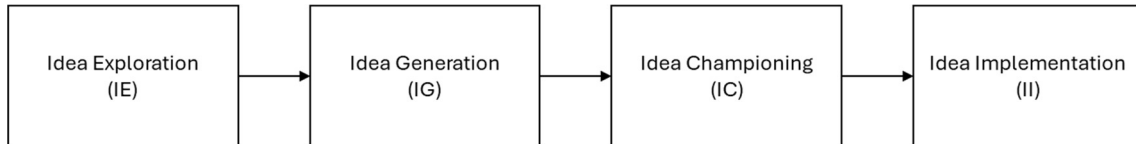
	IWB Phase					
	Exploring ideas		Generating ideas	Gathering support for ideas	Implementing ideas	
Kanter (1988)	Idea Generation and Activation			Coalition Building	Idea Realisation	Innovation Production
Scott and Bruce (1994)	Problem Recognition and Idea Generation			Sponsor seeking	Idea Production	
Janssen (2000)	Idea Generation and Formative Investigation			Idea Promotion	Idea Realisation	
Kleyson & Street (2001)	Opportunity Exploration	Generativity		Championing	Application	
De Jong & Den Hartog (2010)	Idea Exploration	Idea Generation	Idea Championing	Idea Implementation		

These studies describe a process by which employees generate new ideas, champion ideas within the organisation, and then develop ideas into valuable output. While the various phases include different activities and may include different behaviours, each phase builds on its predecessor and is highly interrelated and connected by feedback loops (Dorenbosch et al., 2005; Scott & Bruce, 1994).

This thesis adopted the four-phase model shown below in Figure 2.1 developed by De Jong and Den Hartog (2010) to explore the activities and behaviours demonstrated in each phase. The process starts with the employee actively seeking out opportunities to improve a product or process before they generate the idea. ‘The start of an innovation process often has an element of chance: the discovery of an opportunity or some problem arising’ (De Jong & Den Hartog, 2010, p. 24). The last phase is the transfer or diffusion of the innovation, referring to commercialising the idea (Kanter, 1988). The decision to utilise the four-phase model stems from recognising the crucial significance of acknowledging the preliminary exploration stage and openness to new idea opportunities. This stage plays a pivotal role in the innovation process, as it serves as a foundation for generating novel ideas. By embracing an open mindset and actively exploring new avenues, individuals broaden their perspectives and expose themselves to diverse sources of inspiration. This initial phase sets the stage for subsequent phases, facilitating the generation of innovative concepts. Further, these phases are not always linear or strictly sequential. They can overlap, and individuals may move back and forth between phases depending on factors such as feedback, organisational support, and changes in the external environment.

Figure 2-1: Four-phase model of Innovative Work Behaviour

(Source: adapted from De Jong and Den Hartog (2010))



Innovative Work Behaviour starts with *idea exploration (IE)*. This refers to employees looking for opportunities in their organisation to generate ideas. It may be the result of a problem that has arisen, inconsistencies or gaps, new emerging trends or an envisaged opportunity to improve effectiveness, often arising from questions and problems that occur during routine tasks (Bygballe & Ingemansson, 2014; Z. Wang et al., 2020). Basadur (2004) states that the exploration phase involves the employee observing, diagnosing, and gathering information and data to look for ways to improve current products, services, or work processes and to find a solution. Thurlings et al. (2015) explained that the employee will not only observe but listen to others and adapt ideas to evaluate their potential. Employees in the IE phase may engage in questioning, problem-solving, and seeking alternative approaches to address challenges (Bygballe & Ingemansson, 2014). Four behaviours are common in this phase: (1) paying attention to opportunity sources, (2) looking for opportunities to innovate, (3) recognising opportunities, and (4) gathering information about opportunities.

The next phase is *idea generation (IG)*. This refers to the intentional creation and development of new and creative ideas within a work role, work-group, or organisation (Wang et al., 2015). This phase aims to generate ideas and solutions based on the problem or opportunity. ‘The key to idea generation appears to be the combination and reorganisation of information and existing concepts to solve problems or to improve performance’ (De Jong & Den Hartog, 2010, p. 24). According to Kanter (1988), successful idea generation is when an individual looks for opportunities or problems from a different standpoint, referring to this as ‘kaleidoscopic thinking’, the process of rearranging and combining already known aspects into something new. Employees will brainstorm, explore, and gather information to develop novel ideas. Six behaviours are common in this phase: (1) generating ideas and solutions to opportunities; (2) generating

representations and categories of opportunities; (3) generating associations and combinations of ideas and information; (4) formulating ideas and solutions; (5) experimenting with ideas and solutions; and (6) evaluating ideas and solutions.

The next phase is *idea championing (IC)*. The employee seeks support for the generated idea and assembles a group of advocates to ‘sell’ the idea across the organisation (Kanter, 1988; Scott & Bruce, 1994). Employees take the generated ideas and promote them within their organisation or team. They present their ideas to colleagues, managers, or other stakeholders, highlighting the potential benefits and addressing concerns or questions (Perry-Smith & Mannucci, 2017). The idea needs to be advocated by the appropriate employees in an organisation who have the ‘expertise, resources, contacts, influence and formal power to drive a successful implementation’ (Moll & de Leede, 2016, p. 99).

This phase is crucial for gaining support and resources to move ideas forward and bring them to fruition. The need for coalition building is because ideas will signify a change for employees, teams, or the organisation. So, while the idea may address an issue or problem or improve performance, there may still be a reluctance to change. Kanter (1988) claimed that resistance to change often occurs for most ideas due to uncertainty about whether the benefit will exceed the cost of implementing the idea. Idea champions must navigate organisational politics and overcome resistance to change by addressing concerns and demonstrating the value and feasibility of the idea (Perry-Smith & Mannucci, 2017). Therefore, the idea must be promoted, and to do this successfully, the employee who generated the idea must go out and mobilise backers and get sponsorship to champion the idea to convince decision-makers to support the implementation of the idea.

Everyday activities include building coalitions, networking and forming alliances with others who can help advance the idea (Kleysen & Street, 2001). The employee needs to display confidence, enthusiasm, risk-taking, persistence, conviction, and energy to find and select the right people to be involved (Carmeli & Spreitzer, 2009; Howell et al., 2005). They use their influence and persuasive skills to gain support from key stakeholders and decision-makers within the organisation (Perry-Smith & Mannucci, 2017). There are four behaviours common to this phase: (1) mobilising resources, (2)

persuading and influencing, (3) pushing and negotiating, and (4) challenging and risk-taking.

The last phase is *idea implementation (II)*. Once an idea receives support and approval, the focus shifts to its implementation. This phase refers to the process of putting innovative ideas into action and bringing them to fruition (Khan et al., 2021), taking proactive action to execute and implement the idea (Parker et al., 2006). Ideas must be developed into valuable outputs or outcomes that can be used or implemented in regular, business-as-usual processes. The idea has been created, supported, and then approved for implementation, including developing, testing, or modifying the new process or product.

This phase involves planning, organising resources, coordinating with relevant stakeholders and executing the necessary steps to bring the idea to life (Déprez et al., 2021). It may include prototyping, testing, refining, and eventually integrating the innovation into existing processes or systems. Therefore, ‘The production of a prototype or model of the innovation...that can be touched or experienced, that can now be diffused, mass-produced, turned to productive use, or institutionalised’ (Kanter, 1988, p. 191). De Jong and Den Hartog (2010) stated that innovative employees must display a results-oriented attitude combined with considerable effort to realise the idea to overcome organisational constraints such as funding, scarce resources, resistance to change or bureaucracy.

Moreover, successfully implementing innovative ideas often requires collaboration and teamwork (Johari, Wahat, et al., 2021). Idea implementers may need to work closely with colleagues, departments, or external partners to ensure the smooth execution of the idea. Therefore, effective communication, coordination, and collaboration are essential behaviours in the idea implementation phase (Johari, Wahat, et al., 2021). There are three behaviours common to this phase: (1) implementing, (2) modifying, and (3) routinising.

2.3.3. Measurement of Innovative Work Behaviour

Several studies have proposed a method to measure IWB. Table 2.3 below provides a selection of key studies that developed a questionnaire to measure IWB. These have been developed as both one-dimensional studies, whereby IWB was measured as one phase overall (Basu & Green, 1997; Scott & Bruce, 1994) and multi-dimensional (De

Jong & Den Hartog, 2010; Dorenbosch et al., 2005; Janssen, 2000; Kleysen & Street, 2001; Krause, 2004), where they attempted to measure the individual phases within IWB. However, a number of the latter studies found a strong correlation between the phases, arguing that the ‘distinctiveness of the four dimensions was, however weak, suggesting that IWB is one-dimensional’ (De Jong & Den Hartog, 2010, p. 23).

Table 2-3: Studies that developed IWB Questionnaires

(Source: compiled by author)

Author(s)	IWB Questions	Country	Type of organisation
Scott & Bruce (1994)	6 items	United States	Industrial
Spreitzer (1995)	4 items	United States	Industrial
Basu & Green (1997)	4 items	United States	Manufacturing Printing
Janssen (2000)	9 items	Netherlands	Food manufacturer
Kleysen & Street (2001)	14 items	United States	Various
Krause (2004)	8 items	Germany	Various
Dorenbosch, van Engen & Verhagen (2005)	16 items	Netherlands	Local Government
Reuvers et al. (2008)	4 items	Australia	Hospitals
De Jong & Den Hartog (2010)	10 items	Netherlands	Various service firms
Messmann & Mulder (2012)	24 items	Germany	Car manufacturer
Messmann & Mulder (2020)	8 items	Germany	Various domains

Taking the view that IWB is a one-dimensional construct, these studies have not acknowledged the differences in the activities and behaviours that may occur in each of the IWB phases. Wicaksono and Pusparini (2022) acknowledge the multi-dimensional nature of innovative behaviour but highlight the need for more substantial evidence supporting the multi-dimensional concept. It suggests that previous research has often unidimensionally measured and analysed IWB. However, a sound argument exists for taking a multi-dimensional approach to assessing IWB (Birdi et al., 2014; Duradoni &

Fabio, 2019; Sadia Tabassam & Aman, 2018). While employees could be engaged in various phases simultaneously and similar behaviours could be exhibited in each phase, a deeper investigation of each phase separately warrants investigation.

2.3.4. Significance of Innovative Work Behaviour

IWB is of significant importance to organisations in various ways. IWB is crucial for organisational sustainability and effectiveness. Organisational leaders recognise the need for continuous innovation in products and internal processes to stay competitive in the market (Agarwal et al., 2012). IWB contributes to the development of new ideas, processes, products, or procedures that can enhance the quality, efficiency, and competitiveness of an organisation, enabling organisations to adapt to changing environments, meet customer needs, and stay ahead of the competition (Fadhil et al., 2022; Klaeijsen et al., 2017; Wang et al., 2019). Organisations can gain a competitive edge in the market by continuously generating innovative ideas and implementing them effectively.

IWB is also associated with improved organisational performance (Baety & Rojuaniah, 2022; Shanker et al., 2017; Yang & Wu, 2021). Studies have shown that organisations with a higher level of IWB tend to outperform their competitors (Dzimbiri & Molefi, 2022; Shanker et al., 2017). Wu et al. (2022) propose that this is due to the organisation's enhanced creativity, problem-solving and continuous improvements. Innovative behaviour involves thinking outside the box and finding novel solutions to problems (Gumusluoğlu & İlsev, 2009; G. Li et al., 2023). Organisations can address complex issues and navigate the evolving business landscape more effectively by fostering creativity and problem-solving to encourage employees to generate new ideas. This enables them to identify untapped opportunities and develop unique approaches to stay competitive. Organisations can continually adapt and optimise their operations by encouraging employees to experiment, learn from failures, and continuously refine their ideas. Černe et al. (2017) found that creating an environment that supports IWB can positively impact organisational performance, which is supported by Akbari et al. (2020), who suggested that leadership that fosters IWB is equally vital in ensuring organisational performance.

IWB also promotes a culture of learning and growth within organisations (Afsar & Afsar, 2019; Lin & Lee, 2017; Park et al., 2014). It encourages employees to think outside the box, take risks, and explore new possibilities while developing their skills and knowledge (Cangialosi et al., 2021; Harun et al., 2022). As employees acquire new skills and stay updated with industry trends, they can contribute to increased productivity and effectiveness within the organisation. Klaijnsen et al. (2017) argue that when employees display IWB, it fosters a sense of autonomy, empowerment, and ownership, as they are encouraged to contribute their ideas and make a meaningful impact on the organisation.

Moreover, IWB is positively related to employee engagement, job satisfaction, and organisational commitment, further contributing to organisational success (Meng et al., 2022; Osayande & Okolie, 2019). Employees who are allowed to engage in IWB feel valued, recognised, and empowered, enhancing employee motivation and job satisfaction (Shailja et al., 2023; Zhang & Liu, 2022). It gives them a sense of purpose and fulfilment in their work, as they can contribute their unique ideas and make a difference. Employees are more likely to be satisfied and committed when they have opportunities to contribute their ideas and be part of innovative initiatives, which can lead to higher retention rates. Further, IWB often requires giving employees the autonomy and empowerment to make decisions and take risks. When employees are trusted and empowered to contribute their ideas, they feel greater ownership and control over their work (Cheng et al., 2021; Javed, Abdullah, et al., 2018; Spiegelaere et al., 2014). This autonomy fosters a positive work environment and promotes engagement (Foss et al., 2009; Nahrgang et al., 2011; Spiegelaere et al., 2014).

2.3.5. Influences on Innovative Work Behaviour

Organisations that can innovate are more likely to retain competitive advantage and survive. The IWB literature has established that IWB contributes positively to organisational outcomes and has sought to understand which factors influence IWB through shaping individuals' attitudes, behaviours and knowledge (Beugelsdijk, 2008; Jimenez-Jimenez & Sanz-Valle, 2008; Laursen & Foss, 2003). Studies have been undertaken at both an organisational and individual levels (Afsar et al., 2014; Carmeli & Spreitzer, 2009; Odoardi et al., 2015; Ramamoorthy et al., 2005).

For instance, research has shown that transformational leadership positively influences employees' IWB, with factors such as motivation to learn, task complexity, and innovation climate mediating this relationship (Afsar et al., 2014; Reuvers et al., 2008; Sadia Tabassam & Aman, 2018). Other research has examined the role of psychological empowerment, creative self-efficacy, and trust (Afsar & Badir, 2016; Agarwal, 2014; Godart et al., 2017; Singh & Sarkar, 2012) in fostering IWB.

Table 2.4 below provides a sample of studies that have explored IWB and sought to understand the various factors that may influence it. Most of these studies, as well as the studies that have created a measure for IWB, have essentially been quantitative studies in the context of manufacturing and industrial entities, predominantly within the United States and Europe.

Table 2-4: Studies of Innovative Work Behaviour

(Source: compiled by author)

Author(s)	Measures of IWB	Factors
Ramamoorthy et al. (2005)	9 questions from Janssen (2000)	Organisational processes, psychological contract, job autonomy
Carmeli and Spreitzer (2009)	6 questions from Scott & Bruce (1994)	Trust, connectivity and thriving
Afsar, Badir and Saeed (2014)	10 questions from De Jong & Den Hartog (2010)	Transformational leadership, psychological empowerment
Prieto and Pilar Pérez-Santana (2014)	5 questions from Scott & Bruce (1994) and Janssen (2000)	High involvement HR practices, management support and coworker support
Park et al. (2014)	6 questions from Scott & Bruce (1994)	Learning organisation, work engagement
Veenendaal and Bondarouk (2015)	6 questions from De Jong & Den Hartog (2010) and 6 items from Kleysen & Street (2001)	Supervisory support, Training & Development, information sharing, compensation

Odoardi et al. (2015)	9 questions from Janssen (2000)	Participative leadership, teamwork, information sharing, group processes, psychological empowerment
Taştan and Davoudi (2015)	10 questions from De Jong & Den Hartog (2010)	Leader-member exchange, Trust
Widmann and Mulder (2018)	28 questions from Messmann & Mulder (2012)	Team Learning
Stoffers, Van der Heijden and Jacobs (2019)	9 questions from Janssen (2000)	Employability

2.3.6. Innovative Work Behaviour in the Australian context

According to the Global Innovation Index 2022, which assesses countries' innovation performance worldwide, Australia ranked 25th out of 132 economies overall and 7th among the 17 economies in South East Asia, East Asia and Oceania (Dutta et al., 2022). Switzerland is the most innovative economy in the world. Making up the top 10, this is followed by the United States, Sweden, the United Kingdom, Netherlands, the Republic of Korea, Singapore, Germany, Finland, and Denmark. The index evaluates 80 indicators grouped in innovation inputs and outputs, including institutions, human capital and research, infrastructure, market sophistication, business sophistication, knowledge and technology outputs, and creative outputs. According to the index, Australia's innovation strengths include regulatory quality, tertiary enrolments, school life expectancy, new businesses, and university rankings. Australia's innovation weaknesses include entrepreneurship policies and culture, government funding for secondary pupils, the number of graduates in science and engineering, and ICT services exports as a proportion of total trade.

Patents can also measure technological innovation. According to IP Australia, 2,996 Australian applicants filed patents in 2021, representing an increase of 25% (IPAustralia, 2022). The five leading classes for standard patent filings were

Pharmaceuticals, Medical Technology, Biotechnology, Organic fine chemistry, and Computer technologies. In particular, audio-visual technology patents grew by 85%.

Startups and Entrepreneurship are another good indicator of innovation performance. Startups are critical in bringing new products and services to the market. Australia has a thriving startup ecosystem with a growing number of innovative ventures. Startup Muster is the largest survey on the Australian startup ecosystem. According to Startup Muster's 2018 Annual Report, there were an estimated 1,465 startups in 2018, covering a wide range of industries and representing a significant increase from 954 in 2015 (Hurps et al., 2018). The report also highlighted sectors such as artificial intelligence, fintech, and education as significant industries in startup activity.

Numerous studies have been conducted on IWB and innovativeness in Australia. These studies contribute to the global body of knowledge on IWB while also providing insights specific to the Australian context. Below are seven exemplar studies using data from Australian employers and employees.

Reuvers et al. (2008) examined the relationship between transformational leadership and employee IWB, specifically focusing on the moderating effect of gender. The researchers collected data from four Australian hospitals, resulting in a sample of 335 respondents. The study's findings indicate a positive and significant relationship between transformational leadership and IWB. However, the study also found that the manager's gender moderates this relationship. Specifically, employees reported more innovative behaviour when male managers displayed transformational leadership compared to female managers. This finding supports the hypothesis of gender bias in the relationship between transformational leadership and IWB. However, the study did not find a significant effect for the three-way interaction of transformational leadership, the gender of the manager, and the gender of the employee. This suggests that the employee's gender does not significantly influence the relationship between transformational leadership and IWB.

Nsenduluka and Shee (2012) explored the factors influencing work group service innovativeness. They argue that the context in which a group operates plays a significant role in determining its effectiveness and innovation. The study examines the individual and combined effects of various organisational-level and group-level variables on work-

group service innovativeness. The study collected data from four hotels in Melbourne, Australia. The results indicate that organisational climate, task design, group citizenship behaviour, group self-efficacy and group climate for innovation are significant predictors of work group service innovativeness. However, market orientation was not found to be a significant predictor. Their findings were consistent with previous research on service innovation performance.

Brunetto et al. (2020) compared the impact of personal and organisational support on the innovative behaviour of frontline healthcare workers in Australia and the United States. The study found that both personal support, such as psychological capital (PsyCap), and organisational support, such as manager-subordinate relationships, significantly influenced the innovative behaviour of frontline healthcare employees. The study also highlighted the importance of reciprocal social exchanges in facilitating the growth of healthcare employees' PsyCap, contributing to their resilience and ability to innovate in the workplace.

Xerri and Reid (2018) investigated the relationship between human resource management factors (satisfaction with teamwork and satisfaction with training opportunities) and the innovative behaviour of nurses in Australian public and private hospitals. The study proposed that fostering innovative behaviour is a way for hospitals to improve efficiency and effectiveness in the face of nurse shortages and limited budgets. The findings suggested that employees' perception of wellbeing mediated the relationship between human resource management factors and innovative behaviour.

Xerri and Brunetto (2018) focused on the importance of employee commitment and organisational citizenship behaviour (OCB) in fostering innovative behaviour. The researchers examined the relationship between nurses' organisational commitment, OCB, and innovative behaviour in the workplace with data collected from 210 nursing employees in Australia. The findings revealed positive and significant paths from affective commitment to innovative behaviour and from OCB with an individual focus on innovative behaviour.

Luksyte et al. (2017) examined gender differences in perceptions and evaluations of IWB. Data was collected through three complementary field and experimental studies, with studies 2 and 3 collected in Australia. Study 3 included undergraduate students from

a business school in one of the largest universities in Australia. Luksyte et al. (2017) argue that Australia has one of the world's largest proportions of innovative workers. The research found that IWBs are stereotypically associated with men more than women. Furthermore, favourable performance evaluations are associated with IWBs for men but not for women. Women who engage in IWBs may not receive better performance evaluations than those who do not innovate, whereas engaging in IWBs benefits men. The study highlights the presence of sex bias in perceptions and evaluations of IWB.

Newman et al. (2017) examined the influence of servant and entrepreneurial leadership on employees' work outcomes in social enterprises. The research analyses data from employees and social entrepreneurs in the social enterprise sector in Australia, the UK, and Canada. The findings indicate that servant leadership positively relates to followers' organisational commitment, while entrepreneurial leadership positively relates to innovative behaviour.

The literature on IWB in Australia has identified a lack of studies in this specific context of remote working. Further research is needed to fill these gaps and enhance our understanding of IWB in Australia.

2.4. Remote working

2.4.1. Definitions of remote working

'...a work practice that involves members of an organisation substituting a portion of their typical work hours (ranging from a few hours per week to nearly full-time) to work away from a central workplace – typically principally from home – using technology to interact with others as needed to conduct work tasks.'

(Allen et al., 2015, p. 44)

The term 'remote working' is used interchangeably with telecommuting, teleworking, working remotely, and working from home. According to Parris (2017), all five terms are comparatively synonymous. The term 'telecommuting' was introduced by Jack Nilles in 1973 (Nilles, 1994), an engineer working for the National Aeronautics and Space Administration. He proposed to move the work to workers rather than move workers to the work, aiming to reduce energy consumption and traffic congestion (Allen

et al., 2015). Organisations now prefer to use the terms ‘remote working’ or ‘working remotely’ as they are seen as more modern than telecommuting (Parris, 2017). For this reason, this study will use the terms ‘remote work’, ‘remote working’, and ‘working remotely’ and will be based on literature that uses those three terms in addition to teleworking and telecommuting as their choice in terminology.

Remote working allows employees to work partly from home or elsewhere outside the official office building. At the same time, the extensive use of ICT applications enables interaction and coordination with colleagues inside and outside the organisation (Gajendran & Harrison, 2007). Although remote working is independent of an employee’s work arrangement (part-time or full-time), part-time employees tend to work remotely more frequently than full-time employees (Bailey & Kurland, 2002; Gajendran & Harrison, 2007; Sener & Bhat, 2011).

Remote working practices are predominantly suited to white-collar and knowledge workers, i.e. employees whose work does not require extensive physical efforts such as managerial, clerical and administration (Bailey & Kurland, 2002; Eraso & Erro-Garcés, 2020; Tramontano et al., 2021; Vandelanotte et al., 2013). Their work involves tasks that can be performed digitally on a laptop or mobile device, allowing for freedom in how the work will be done provided the goal or task outcome is achieved. The rise of digitalisation and non-physical, knowledge-based work has decoupled the place of work from the location of the employer, enabling more remote work and telecommuting. The COVID-19 pandemic has further highlighted the importance and possibility of working from home, especially for white-collar employees (Degerli, 2023; Risi & Pronzato, 2021). Employees no longer need to conduct their work in the main office building; likewise, many tasks and processes no longer must be done at specific times.

2.4.2. Outcomes of remote working

Remote working has become increasingly prevalent, especially in the context of the COVID-19 pandemic (Adekoya et al., 2022; Galanti et al., 2021; Shimura et al., 2021). This work arrangement allows employees to perform their job duties outside of the traditional office setting. This section will provide an overview of the key outcomes associated with remote working, drawing upon relevant research studies.

One key outcome of remote working is the potential for improved work-life balance. Research has shown that remote work can provide employees greater flexibility in managing their personal and professional responsibilities (Anderson & Kelliher, 2020; Chafi et al., 2021). This flexibility allows individuals to integrate their work and personal lives better, leading to increased satisfaction and reduced stress levels (B. Wang et al., 2021). Additionally, remote work can offer employees increased autonomy in managing their tasks and schedules, which has been associated with positive individual outcomes such as job satisfaction and task performance (B. Wang et al., 2021). With greater autonomy and control over their work, employees can manage their tasks and schedules more independently (Anderson & Kelliher, 2020; Chafi et al., 2021). Higher levels of job satisfaction are potentially due to increased flexibility, reduced commuting time, and improved work-life balance (Anderson & Kelliher, 2020).

However, remote working has its challenges. Communication and collaboration can be more difficult in a remote work environment, as employees may face barriers to effective communication and collaboration and maintaining social connections (Chafi et al., 2021; B. Wang et al., 2021). Social isolation from colleagues and the workplace can also result from remote work, particularly during periods of enforced remote work such as the COVID-19 lockdowns (Toscano & Zappala, 2020). While it can provide increased flexibility and reduce the stress associated with commuting, isolation resulting from remote work can lead to feelings of loneliness, lost comradery and decreased employee wellbeing (Chafi et al., 2021; Toscano & Zappala, 2020; B. Wang et al., 2021). Managing the work-family interface can also be more complex for remote workers, as work can become embedded in the family domain, leading to difficulties in disengaging from work and increased work-family conflict (Eddleston & Mulki, 2015).

Another important outcome of remote working is its potential impact on productivity. While remote work can provide employees with fewer distractions, a quieter workplace and more focused work time to focus better on their tasks, thereby increasing productivity (Adekoya et al., 2022; Allen et al., 2015; Chafi et al., 2021), it can also present challenges in terms of maintaining productivity and managing workloads (Shimura et al., 2021). Factors such as job stressors, the surrounding environment, and personal circumstances can influence how remote work affects individuals' productivity (Shimura et al., 2021). Distractions during remote work, such as family disruptions and

caring responsibilities, can have a negative impact on productivity (Ali et al., 2022; Stanisçuaski et al., 2021). Otonkorpi-Lehtoranta et al. (2021) found that remote work can increase work-family conflict, particularly for women and parents, due to the blurred lines between work and home.

Remote work can blur the boundaries between work and personal life, making it harder for employees to switch off from work (Charalampous et al., 2018; Rauch & Ansari, 2022). The use of remote technologies, particularly the use of smartphones, and being accessible and continuously contactable can dissolve the separation between work and home, leading to an expansion of work scope and duration (Rauch & Ansari, 2022). Blurred work-life boundaries can result in work intensification, increased work-related stress, and a negative impact on work-life balance (Palumbo et al., 2020; Sandoval-Reyes et al., 2021). Sandoval-Reyes et al. (2021) argue that remote work leads to overworking, with employees extending their working hours and experiencing difficulties in achieving work-life balance, while Chan et al. (2023) argue that the intensive use and reliance on information and communication technology can contribute to emotional, psychological, and physical strains.

The significance of remote working has been widely recognised, particularly in the context of the COVID-19 pandemic and the future of workplaces. Remote work offers both benefits and challenges that impact various aspects of work and employees.

2.4.3. Remote working in Australia

According to the Australian Bureau of Statistics (ABS), more than 75% of large companies in Australia and about one-third of micro businesses have the facility for staff to work remotely (Houghton et al., 2018). As far back as 2013, the Australian Communication and Media Authority found that approximately 51% of the Australian workforce, or 5.6 million adult Australians, were utilising the internet to work away from the office outside 'standard working hours' or substituting coming into the office for part or all of the day (Houghton et al., 2018). The Families in Australia Survey: Towards COVID Normal found that 67% of survey respondents sometimes or always worked from home during COVID-19, compared to 42% pre-COVID (Baxter; & Warren, 2021). In the second year of the pandemic, the Australian Bureau of Statistics stated that 41% of employed people regularly worked from home. This increased by 32% from the previous

year (ABS, 2021). Furthermore, the COVID-19 pandemic led to an increased interest in working from home (Guaralda et al., 2020) and found many employees relocating to regional towns in Australia enabled by the increased flexibility (Gurran et al., 2021; P. Li et al., 2023).

While this suggests that remote working is a common practice in some sectors of the Australian workforce, Beck et al. (2020) argue there was a low incidence of working from home in Australia prior to COVID-19, with the number of people who worked from home regularly since 2001 only 4.6%, and only for an average of 11 hours per week. The decision to prevent remote work was often a managerial decision rather than a function of the type of work (Hopkins & McKay, 2019), as well as low managerial confidence in managing employees remotely (Parker et al., 2020).

Remote work during the COVID-19 pandemic has paved the way for the transition to hybrid work post-pandemic, where employees spend their working time both at the office and remotely, usually at home. As organisations adapted to remote work to ensure business continuity and employee safety, they gained valuable insights into the feasibility and benefits of flexible work arrangements. According to the Australian Bureau of Statistics, data covering 7,000 organisations and a recent survey of 1,500 business leaders and employees, pre-COVID-19, 19% of employees were hybrid working, expected to rise to 35% post-COVID-19 (Telstra, 2021). This shift towards hybrid work is driven by the desire to balance the productivity and collaboration benefits of in-person interactions and the flexibility and autonomy of remote work (PwC, 2022).

Many organisations in Australia, such as ANZ and Atlassian, are supporting hybrid work models (Rauv, 2022). A 2020 Gartner survey found that 82% of company leaders plan to support employees working remotely some of the time (Baker, 2020). As technological advancements continue to reshape the modern workplace, employers and employees recognise the benefits and flexibility of remote and hybrid work arrangements. Consequently, remote and hybrid work is poised to become more prevalent in Australia in the coming years.

2.5. Innovative Work behaviour and remote working

Many factors may influence the relationship between remote working and innovative behaviour. On the one hand, remote working allows for flexibility and

autonomy (Gajendran & Harrison, 2007; B. Wang et al., 2021; Wood et al., 2018), which can enhance creativity and innovation (Beugelsdijk, 2008; Liu et al., 2011; Rachman et al., 2022; Slåtten et al., 2020). Remote working allows employees to have a greater work-life balance, which can lead to increased job satisfaction and engagement (Gillet et al., 2021). Additionally, remote working can provide employees with more time for reflection and independent thinking, which can stimulate creative ideas (Pfund et al., 2020). On the other hand, remote working can also adversely affect innovative behaviour and creativity. The lack of face-to-face interaction and spontaneous collaboration that comes with remote working can hinder the exchange of ideas and the generation of new insights (Katrahmani et al., 2022). Remote working can also lead to feelings of social isolation, negatively impacting creativity (Costa et al., 2022). Furthermore, the apparent increase in autonomy that comes with remote working can sometimes lead to lower work engagement and decreased motivation (Costantini & Rubini, 2021).

This section examines existing literature on remote working and its impact on IWB. It will encompass research on various aspects, such as the effects of remote work on employees' ability, motivation, and opportunity to engage in innovative behaviours. By synthesising and analysing the existing literature, this section will establish a foundation for understanding the current state of knowledge on the topic and identify gaps that this research aims to address.

2.5.1. Autonomy and flexibility

Remote work often gives employees greater autonomy over their work schedules and environments (Chafi et al., 2021; Neidlinger et al., 2022). This freedom can lead to increased creativity and innovative thinking as individuals have the space to explore new ideas and approaches without constant supervision and may also feel more empowered to think creatively (Gajendran & Harrison, 2007; Maitlo et al., 2022; Shafique, 2013). It also allows individuals to work in their preferred environment, minimising distractions and promoting focus (Kowalski & Ślebarska, 2022; Lee & Brand, 2010). Employees may find it easier to focus and concentrate on their work when not in a bustling office environment (Charalampous et al., 2018; S. Leroy et al., 2021; van der Meulen et al., 2012).

Autonomy also enables flexibility for the employee (Aziz-Ur-Rehman & Siddiqui, 2019; Kim & Cho, 2020) and improved work-life balance (Felstead & Henseke,

2017; Neidlinger et al., 2022) as they can strike a better balance between work and personal life and have more control over their work hours. Remote work allows employees to balance their professional and personal lives more effectively. This flexibility can reduce stress and enhance overall job satisfaction, which can be conducive to creativity and innovation.

2.5.2. Work-life balance and isolation

Striking a healthy work-life balance can contribute to employees' overall wellbeing and job satisfaction (Haider et al., 2018; Mansor et al., 2022), which are essential for job performance and, therefore, maintaining creativity and preventing burnout. Employees with time for relaxation or personal pursuits are more likely to approach work with a refreshed and creative mindset (Dul & Ceylan, 2014). Both Beaty et al. (2018) and Fink et al. (2008) suggest that taking breaks, relaxing, and allowing the brain to rest can enhance creative capabilities and generate innovative solutions.

However, remote working can lead to overworking and less work-life balance (Hayes et al., 2021; Toscano & Zappala, 2020). Palumbo et al. (2020) found that remote work can increase work-related fatigue, leading to physical and emotional exhaustion for home-based workers. Similarly, Felstead and Henseke (2017) noted that remote work comes at the cost of work intensification and a greater inability to switch off. Remote workers may experience difficulties in maintaining a healthy work-life balance due to the blurred boundaries between work and personal life (Hayes et al., 2021; Irawanto et al., 2021). Golden et al. (2006) found that remote working can blur the boundaries between work and family, leading to increased work-family conflict. Such conflicts may decrease individuals' capacity to engage in innovative behaviour due to competing demands and distractions from the home environment (Utama & Soetjipto, 2022; X. Wang et al., 2021).

Creativity and innovative behaviours are enhanced when work-home conflict and social isolation are minimised (Costa et al., 2022; Delanoeije et al., 2019; Johnson et al., 2016). However, social isolation can be a significant issue when working remotely (Savolainen et al., 2021; Toscano & Zappala, 2020; B. Wang et al., 2021). Remote work often means working alone, without the physical presence of colleagues. This lack of face-to-face interaction can lead to feelings of isolation and loneliness, as humans are social creatures and need social interactions to thrive.

2.5.3. Communication

Remote work heavily relies on digital communication tools such as emails, chat apps, and video conferences (Jarvenpaa & Leidner, 2006; Neumann & Bogdanov, 2022; C.-L. Yang et al., 2022). Digital communication tools are pivotal in facilitating employee collaboration and interaction, fostering IWB across diverse locations (Kingma, 2019; Kohler et al., 2011; Yokoi et al., 2021). Virtual brainstorming sessions, online collaboration platforms, and video conferences facilitate the exchange of ideas, fostering innovation. While these tools facilitate work-related communication, they may not always provide the same level of social connection as in-person conversations. Non-verbal cues and casual interactions are often missed, making the work environment feel more isolated.

It is both the availability and effectiveness of communication and collaboration tools that play a crucial role in remote work (Chantziaras et al., 2021; C.-L. Yang et al., 2022). Teams need reliable platforms for video conferencing, instant messaging, file sharing, and project management to facilitate seamless communication, working relationships, sharing ideas and feedback, and collaboration.

With ineffective communication and team communication tools, remote workers can face social isolation and have difficulties in maintaining social relationships and forming connections with their remote colleagues while also affecting workers' perceptions of remote colleagues, particularly with colleagues who may have limited interaction (Grant et al., 2013; C.-L. Yang et al., 2022). Misinterpretation of messages, lack of non-verbal cues, and asynchronous communication can hinder effective information sharing, collaboration, and brainstorming, which are crucial for fostering innovative behaviour. Allen et al. (2015) pointed out that gestures and emotions are difficult to transmit through email, for example, which can affect the quality of communication in remote work settings. Delayed feedback and response times can also slow down the iterative idea development and refinement process, potentially hindering innovation. Therefore, in settings with reduced collaboration and decreased communication, innovative behaviour is challenged by limiting the exchange of ideas and impeding collective creativity (Allen et al., 2015).

Conversely, communication and collaboration can be improved in virtual environments, where employees can share their ideas and present their work from different places while being virtually located (Neumann & Bogdanov, 2022; Öztürk et al., 2021). These communication systems provide a highly cost-effective method of facilitating multidisciplinary interactions between remotely located employees, enabling remote collaboration (Dulai et al., 2020). Further, in remote work settings, establishing creative group techniques, such as remote brainstorming, can encourage creative thinking, promote psychological safety within teams and enable routine innovation (Chen et al., 2020; Domingo et al., 2021; Paulus & Brown, 2007).

2.5.4. Organisational culture, support and trust

There is a well-established relationship between organisational culture and innovation (Baer & Frese, 2002; Imran et al., 2010; Uz Kurt et al., 2013). An organisation's existing culture can either support or hinder innovative behaviour in a remote work setting. Organisational cultures that promote innovation and value experimentation, creative thinking, risk-taking, and openness to new ideas are more likely to foster innovative behaviours (He et al., 2019; Katrahmani et al., 2022; Litchfield et al., 2014). In addition, organisations that foster a culture of trust, psychological safety, and open communication are likely to have more IWB among employees (Agarwal, 2014; Akhtar et al., 2019; Carmeli & Spreitzer, 2009; Godart et al., 2017; Kmiecziak, 2020; Xu & Suntrayuth, 2022).

Trust is a crucial element in remote work, as it impacts various aspects of innovation. Where face-to-face communication is limited, building trust may be challenging. It has been noted that trust may be lower in virtual teams than in co-located teams and more challenging to achieve (Ford et al., 2020; Jensen et al., 2020; Soomar, 2020). Nevertheless, remote interactions between employees require trust for successful communication and effective work (Kähkönen, 2023; Krzyżowska, 2022; Tramontano et al., 2021; B. Wang et al., 2021). Remote work can impact employees' trust in their organisation, supervisors, and colleagues (Juchnowicz & Kinowska, 2021; Stavrova et al., 2023; Zheng et al., 2023). Likewise, remote work has implications for leaders' trust in their employees (Stavrova et al., 2023; Zheng et al., 2023; Zoonen et al., 2021). Trust is necessary for the functioning of virtual teams and for supervisors to trust remote workers to remain productive (Stavrova et al., 2023). The importance of trust in fostering

cooperation and knowledge sharing within a team is well-supported by various studies. Trust has been found to positively impact team effectiveness, communication, information sharing, and collaboration, all of which are essential for fostering innovation (Breuer et al., 2016; Bulińska-Stangrecka & Bagińska, 2019; Lee et al., 2015). Furthermore, the lack of trust can lead to a decrease in cooperation, defensive behaviour, and a reduction in team cohesion, ultimately hindering knowledge sharing and innovation (Buvik & Tvedt, 2016; Cheung et al., 2016; Chiu & Chiang, 2019; Yousaf, 2018). Moreover, the literature emphasises the role of trust in virtual teams, where it is positively related to team effectiveness criteria, including team performance and project success, further underlining its significance in promoting cooperation and knowledge sharing in innovative team settings (Bierly et al., 2009; Breuer et al., 2016; Dorairaj et al., 2012; Lukić & Vračar, 2018)

Psychological safety refers to the shared belief within a team or organisation that it is safe to take interpersonal risks, such as speaking up, asking questions, and expressing ideas or concerns without fear of negative consequences or judgment (Edmondson & Lei, 2014). When employees feel psychologically safe, they are more likely to take risks, share ideas, and engage in innovative behaviours (Nguyen, 2021; Tkalich et al., 2023; Xu & Suntrayuth, 2022).

Another factor in the influence of remote working on IWB is organisational support in the form of encouragement, incentives, and recognition for innovative initiatives, which can influence employee engagement and job satisfaction as well as the employees' motivation to innovate while working remotely (Afsar & Afsar, 2019; Afsar & Umrani, 2019; Singh et al., 2020; Ude & Diala, 2015). Afsar and Umrani (2019) suggest that when leaders recognise and reward innovative behaviour, it creates a climate that encourages employees to engage in further innovative behaviours. Anindita (2023) and Bakker and Demerouti (2008) argue that employee engagement is crucial in fostering creativity, leading to IWB. However, the latter study found that the relationship between employee engagement, creativity, and IWB holds true regardless of whether employees work remotely or in a traditional office setting.

Studies have also shown that employees who have the option to work remotely, provided through organisational support for such practices, tend to have higher job satisfaction (Irawanto et al., 2021; Jamal et al., 2023). Employees with higher job

satisfaction are more likely to be engaged and motivated, which can positively impact their IWB (Mustafa et al., 2021; Tang et al., 2019). Research by Niu (2014) suggests that employees with high job satisfaction are more likely to have greater job embeddedness, strengthening their motivation to generate, spread, and implement innovative ideas within their organisations. Additionally, a study by Park et al. (2015) found that higher levels of job satisfaction are associated with a positive attitude toward the job and increased commitment to the organisation, both of which can contribute to a more innovative work environment (Nikpour, 2018; Wahyuni et al., 2021; M. Xerri & Y. Brunetto, 2013).

2.5.5. Collaboration

The cohesion and collaboration within remote teams play a crucial role in fostering innovative behaviours (Akram et al., 2020; Mehmood et al., 2022; Rachman et al., 2022). Teams that communicate effectively, trust each other, and collaborate seamlessly are more likely to exhibit innovative behaviour (Gundry et al., 2015; Litchfield et al., 2017). Collaboration fosters the exchange of diverse perspectives, knowledge sharing, and collective problem-solving, which are conducive to innovative thinking and behaviour (Majchrzak et al., 2012; Sun et al., 2020). However, collaboration can be challenging when working remotely due to team members' physical separation and communication technologies' limitations. For instance, Hinds and Bailey (2003) emphasised that technology mediation threatens a team's ability to share information, which is crucial for collaborative work. B. Wang et al. (2021) emphasised the limitations of ICT-mediated communication and the potential hindrance relative to face-to-face interaction. Further, most systems used by remote users to collaborate have limited ability to gesture or adapt interaction and awareness features, which can hinder effective communication and collaboration (Chénéchal et al., 2019; Fussell et al., 2004)

2.5.6. Physical proximity

Physical proximity, reduced face-to-face interaction, and difficulties in coordinating activities brought about by working remotely can hinder collaborative processes, which in turn may hinder IWBs (Driskell et al., 2003; Hertel et al., 2005; B. Wang et al., 2021). Ceci et al. (2021) suggested the importance of face-to-face interaction, particularly in the early stages of innovation, which implies that a lack of face-to-face interaction may hinder the innovation process.

Strong social connections are also known to facilitate knowledge sharing, trust, and collaborative creativity (Huo & Photchanachan, 2021; Nahapiet & Ghoshal, 1998), which are essential for innovative behaviour. However, the absence of face-to-face interactions and physical proximity in remote work setups can lead to reduced social cohesion, employee isolation and weaker social ties among team members, affecting team dynamics and collaboration (Handke et al., 2020; Tkalich et al., 2023). For instance, Tkalich et al. (2023) highlighted that remote workers tend to have significantly reduced team cohesion, poor awareness of ‘who did what’ and ‘who knows what’, divergent viewpoints, conflicts, and team coordination problems.

Maintaining good team dynamics and building shared understandings, such as encouraging virtual team-building activities and regular social interactions, can help maintain a sense of camaraderie and stimulate collaboration and innovative thinking (Okpara et al., 2022; Treacy, 2022). Treacy (2022) further emphasised the need for organisations to have strategies to maintain an innovative culture in a remote working setup.

Traditional beliefs may suggest that physical proximity is crucial for innovative behaviour. For instance, Tkalich et al. (2023) highlight the limitations of remote working, such as a limited ability to brainstorm. Post-COVID-19 pandemic, many organisations are looking for their employees to return to the office, citing reduced collaboration and innovation, among other reasons. Remote working can reduce unplanned and spontaneous interactions among team members (Ford et al., 2020; Gajendran & Harrison, 2007), which are often catalysts for generating new ideas and fostering innovation. These impromptu discussions and informal collaborations are more common in traditional office environments. In a physical office environment, colleagues can easily exchange ideas, share knowledge, and engage in impromptu brainstorming sessions. Remote work limits the occurrence of these unplanned encounters, reducing the potential for unexpected insights and creative connections. There is also the reduced opportunity for informal knowledge sharing and learning. However, some research provides competing evidence for this claim. Thoring et al. (2018) highlight that virtual spaces can facilitate creative activities such as brainstorming, challenging the notion that physical presence is essential for effective brainstorming. Additionally, Gidel et al. (2020) present a collaborative interaction model and behaviour rules that could enhance brainstorming

results, suggesting that the effectiveness of brainstorming may not be solely dependent on physical proximity.

The following section will delve into the development of the hypotheses based on further literature review. Building upon the foundation laid by the initial literature review, this examination of relevant studies enhances our understanding of the research area.

2.6. Hypothesis development

Drawing upon prior theoretical examinations, this thesis posits the following hypotheses concerning IWB, as influenced by the extent of remote work engagement and various demographic characteristics among employees participating in remote work arrangements within the context of Australia. The overall hypothesis development for this thesis is summarised in Figure 2.2, and a table of all hypotheses is shown in Table 2.5. The literature to support the hypotheses development is explained in Sections 2.6.1 to 2.6.6.

Figure 2-2: Hypothesis

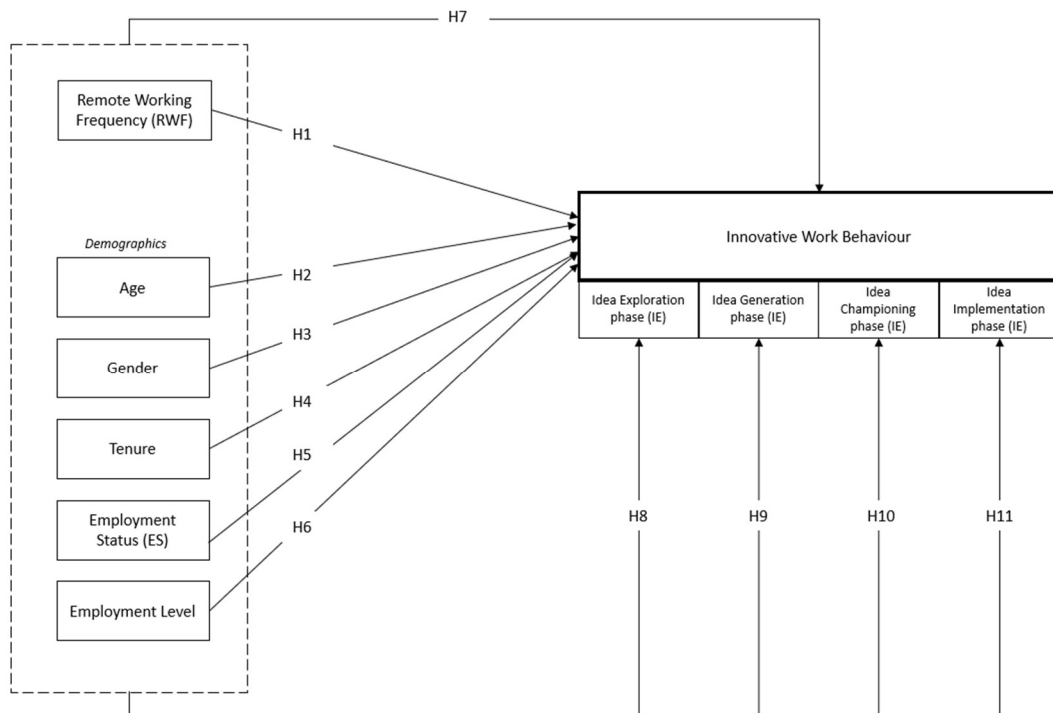


Table 2-5: Hypothesis summary

Code	Description
H1	RWF has a significant effect on IWB
H2	Age has a significant effect on IWB when working remotely
H3	Gender has a significant effect on IWB when working remotely
H4	Tenure has a significant effect on IWB when working remotely
H5	Employment Status (ES) has a significant effect on IWB when working remotely
H6	Employment Level (EL) has a significant effect on IWB when working remotely
H7	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of IWB occurring
H8	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Exploration occurring
H9	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Generation occurring
H10	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Championing occurring
H11	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Implementation occurring

2.6.1. Remote working frequency and IWB

The impact of remote work on IWB is shaped by a complex interplay of factors encompassing individual, organisational, and contextual dimensions. However, there remains a dearth of studies that specifically explore the intersection of remote working and IWB. Different outcomes of remote working, such as communication, technology, and culture, can influence IWB. Some of these factors may not directly influence innovative behaviours but rather have some impact indirectly.

Research discussed in previous sections has shown that leadership style is essential in promoting IWB in remote work contexts (Afsar & Afsar, 2019; Coun et al.,

2021; Khan et al., 2020). Factors such as work independence and autonomy (Ashlan & Bahri, 2023; Battistelli et al., 2013; Boskovic, 2021; Wicaksono & Pusparini, 2022), clarity of job criteria (Hudson et al., 2017; Malhotra et al., 2016), interpersonal trust (Carmeli & Spreitzer, 2009; Clegg et al., 2002; Parker et al., 2020; Rune Ellemose, 2016), and social isolation can also impact employees' adjustment to remote work and, consequently, their IWB (Garlatti Costa et al., 2022; Golden et al., 2008; Hu & Subramony, 2022; Toscano & Zappala, 2020; Zoonen et al., 2021).

Additionally, remote work can present challenges in maintaining efficiency, teamwork (De Leede & Nijland, 2016; Johari, Abdul Wahat, et al., 2021; Voordt, 2004), and use of and quality of communication technology, which can affect IWB (Assarlind et al., 2013; Gorokhova et al., 2021; Jarvenpaa & Leidner, 2006; Nguyen et al., 2020).

Based on the literature, the following hypotheses were developed:

H1: Remote working frequency (RWF) has a significant effect on Innovative Work Behaviour (IWB).

H7: RWF, Age, Gender, Tenure, ES, and EL have a significant effect on the odds of Innovative Work Behaviour (IWB) occurring.

H8: RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Exploration occurring.

H9: RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Generation occurring.

H10: RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Championing occurring.

H11: RWF, Age, Gender, Tenure, ES, and EL have a significant effect on the odds of Idea Implementation occurring.

2.6.2. Age of remote working employees and IWB

Age can significantly influence IWB within organisational contexts. Younger employees often bring fresh perspectives and a natural affinity for technology, enabling them to adapt quickly to new tools and platforms (Kim et al., 2011). Younger employees,

referred to as digital natives, exhibit higher creative behaviours than older employees, referred to as digital immigrants (Buhl et al., 2016). The authors suggest that digital natives' familiarity with technology and their comfort in using digital tools contribute to their higher levels of innovative behaviour. Kim et al. (2011) found that younger employees' enthusiasm and willingness to take risks can drive creative thinking and experimentation, leading to innovative solutions. Fasbender et al. (2021) suggest that emotional intelligence positively relates to creativity and innovation. Their study found that younger employees, who often exhibit higher levels of emotional intelligence, may be more inclined to engage in creative thinking and experimentation, leading to innovative solutions.

Moreover, younger workers tend to be more open to change and may challenge traditional methods, fostering a culture of innovation. However, with their extensive experience and deep industry knowledge, older employees bring valuable insights to the table (Kim et al., 2011; Meyer, 2008). Their years of expertise often translate into a nuanced understanding of market trends and customer needs, allowing them to develop innovative products and services tailored to specific demands. Additionally, older workers tend to excel in problem-solving and decision-making, crucial skills in the innovation process (Guillén & Kunze, 2019; Meyer, 2008).

Based on the literature, the following hypothesis was developed:

H2: Age has a significant effect on Innovative Work Behaviour (IWB) when working remotely.

2.6.3. Gender of remote working employees and IWB

Gender can play a significant role in shaping IWB within organisational contexts. Diverse teams, including gender diversity, tend to generate a broader range of ideas and perspectives, leading to increased innovation (Hülshager et al., 2009; Vegt & Janssen, 2003). Further, these teams tend to outperform homogenous teams regarding creativity and problem-solving. Several studies support this claim. Salazar et al. (2017) found that diverse teams have increased cognitive flexibility and a willingness to consider a wide variety of perspectives, generating more novel ideas.

Similarly, Dutcher and Rodet (2018) found that experientially diverse teams create more ideas. Gender diversity improves participative communication, coordination, cohesion, and mutual support within a team, which can enhance innovative activities (Dai et al., 2018; Rejeb et al., 2019). Li et al. (2018) highlighted that members of diverse teams are likelier to contribute unique opinions and perspectives, facilitating idea generation. Furthermore, research by H. Leroy et al. (2021) demonstrated that teams with high inclusion levels are more prone to discuss, recombine, and integrate novel ideas and perspectives.

Gender diversity in teams can enhance innovative behaviours by promoting diverse perspectives, critical thinking, participative communication, coordination, and creativity. It further contributes to a more inclusive and innovative work environment, improving decision-making and innovation outcomes. Afsar and Badir (2017) argue that creating an inclusive and supportive work environment for both men and women can enhance IWB.

However, gender disparities persist in many workplaces, with males often dominating leadership positions and decision-making roles. This unequal distribution of power and influence can impact the IWBs of both men and women. Women, especially in male-dominated fields, may face challenges in having their innovative ideas recognised and accepted. Martin and Barnard (2013) found that women in male-dominated fields face unique challenges, including gender stereotypes, biases, and a lack of recognition for their ideas and contributions. These challenges can lead to hesitancy in voicing their opinions and innovative ideas.

Moreover, workplace cultures that perpetuate gender stereotypes or biases may limit the opportunities for women to participate in innovation-focused activities or projects. Concerns about negative gender stereotypes in professional contexts can hinder women's motivation, performance, and engagement, ultimately contributing to workplace gender inequity. This suggests that gender stereotypes and biases can hinder women from participating in innovation-focused activities (Cortland & Kinias, 2019). Heilman and Eagly (2008) found that gender stereotypes can influence perceptions of women's competence and limit their opportunities to participate in innovation-focused projects.

Gender stereotypes may also impact perceptions and evaluations of IWB. Studies have found that IWBs are stereotypically associated with men more than women (Luksyte et al., 2017). It argues that IWB is viewed as a prototypically masculine activity associated with risk-taking, initiative, and embracing change. This supports the idea that IWB is expected more from men than women, leading to gender-based stereotypes. Women may face barriers and biases in accessing opportunities for IWB due to gender-based stereotypes. Carpini et al. (2023) discuss how gender stereotypes can interfere with the perception and evaluation of various work behaviours, including innovative behaviours. It suggests that women engaging in stereotype-inconsistent behaviour may not be recognised for their contributions, while men are noticed and rewarded for demonstrating stereotype-consistent behaviour, such as innovation.

Research has also shown that gender differences may account for variations in the degree to which men and women are involved or recognised in innovative work (Carmeli & Spreitzer, 2009). For example, it was found that employees reported more innovative behaviour when transformational leadership was displayed by male managers compared to female managers, suggesting that gender may play a role in how employees perceive and respond to leadership styles, which can in turn influence their IWB (Nusair et al., 2012). Reuvers et al. (2008) discuss the relevance of gender differences in transformational leadership and IWB. They suggest that male and female superiors exhibit a positive bias towards subordinates of the same gender, which can impact performance appraisals and contribute to the perception that IWBs are more associated with specific genders. J. Wang et al. (2017), on the other hand, examined the relationship relating to subjective wellbeing and knowledge sharing, the latter pivotal to innovation, and found that gender had no significant impact. The results suggested that employees of different genders are similarly willing to share knowledge and engage in innovation.

Providing equal access to opportunities for all genders can also influence IWB (Kim et al., 2018; Mehmood et al., 2022; Prieto & Pérez-Santana, 2014). Afsar and Afsar (2019) emphasise the importance of creating an organisational climate that supports risk-taking and motivates employees to apply initiative, which are crucial factors for fostering IWB. This suggests that providing equal access to opportunities for both men and women, such as training programs, mentorship, challenging assignments, an innovative climate, and access to opportunities to innovate, can enhance their IWB.

Work-family balance significantly influences IWB, suggesting that having access to work-family balance opportunities can positively impact an employee's ability to engage in IWB (Damayanti & Kurniawan, 2023; Li & Liu, 2023; Mishra et al., 2017). This can be achieved through opportunity-enhancing HR practices. Opportunity-enhancing HR practices are significantly related to IWB (Bos-Nehles, Renkema, et al., 2017; Prieto & Pérez-Santana, 2014). This includes HR practices that impact autonomy, task composition, feedback, job demands and time pressure (Berkel et al., 2021; Bos-Nehles, Bondarouk, et al., 2017; Singh et al., 2020).

Based on the literature, the following hypothesis was developed:

H3: Gender has a significant effect on Innovative Work Behaviour (IWB) when working remotely.

2.6.4. Tenure of remote working employees and IWB

The length of tenure an employee has within a specific organisation can significantly influence their IWB (Woods et al., 2018). Long-tenured employees often deeply understand the organisation's culture, history, and existing processes which can foster IWB (Ng & Feldman, 2010). Employees with longer tenure often exhibit more innovation due to the networks and relationships they have developed over time (Ng & Feldman, 2010). Older and longer-tenured workers tend to have broader external networks and hold more central positions in internal networks, allowing them to disseminate and implement innovation within organisations effectively (Liu et al., 2016; Ng & Feldman, 2010). Additionally, longer tenure can enhance communication between leaders and employees, promoting high-quality exchange relations that contribute to innovation (Yuan, 2021). This institutional knowledge can be a double-edged sword concerning innovation. On one hand, it provides valuable insights into what has been attempted before, enabling employees to build upon past initiatives and avoid repeating unsuccessful endeavours. On the other hand, long-tenured employees might become entrenched in established ways of thinking and resist change, hindering the adoption of innovative practices. (Dam et al., 2008; Lauterbach & Kunze, 2023).

Conversely, with shorter tenures, new employees bring fresh perspectives and a willingness to challenge existing norms (Liu et al., 2016; Woods et al., 2018). Their lack of historical attachment to established processes can drive them to propose innovative

solutions and explore uncharted territories. Ng and Feldman (2010) found that for those employees with shorter average tenure, there is a positive relationship between tenure and job performance, while for employees with longer average tenure, the relationship becomes negative. Liu et al. (2016) found that factors such as status hierarchy and position tenure influence the relationship between organisational tenure and innovative behaviour. The relationship can be positive for individuals with low-status hierarchy and short position tenure but negative for those with longer tenure. Similarly, Yuan (2021) found that as tenure increases, employees with higher levels of conscientiousness tend to exhibit less innovative behaviour.

Based on the literature, the following hypothesis was developed:

H4: Tenure has a significant effect on Innovative Work Behaviour (IWB) when working remotely.

2.6.5. Employment Status of remote working employees and IWB

The nature of employment, whether part-time, full-time, temporary, or contract-based, can significantly influence IWB within organisations. Full-time employees often enjoy greater job security and benefits, which can foster a sense of stability and long-term commitment to their roles (Kalmi & Kauhanen, 2008; Peng & Li, 2021). This security can give employees the peace of mind to explore innovative ideas, take risks, and invest time in creative problem-solving (Kalmi & Kauhanen, 2008; Loi et al., 2011). On the other hand, part-time, temporary, or contract workers might experience higher levels of job insecurity, which can lead to a lack of motivation for long-term innovation (Montani et al., 2021; Probst et al., 2019; Spiegelaere et al., 2014). Such employees may focus on short-term tasks to secure their immediate position rather than dedicating time and effort to innovative projects that could benefit the organisation in the long run. Additionally, full-time employees typically have more opportunities for skill development and continuous learning within the organisation, which can enhance their innovative capabilities. In contrast, temporary or part-time workers might have limited access to training programs and resources, hindering their ability to contribute meaningfully to innovative initiatives.

Based on the literature, the following hypothesis was developed:

H5: Employment Status (ES) has a significant effect on Innovative Work Behaviour (IWB) when working remotely.

2.6.6. Employment level of remote working employees and IWB

The hierarchical employment level within an organisation, ranging from junior positions to administrators, managers, and leaders, can significantly impact IWBs among employees.

Junior employees, often at the beginning of their careers, may possess fresh perspectives and creative ideas driven by their enthusiasm and willingness to explore new concepts (Binnewies et al., 2007; Liu et al., 2016; Miron-Spektor et al., 2022). However, they might lack the experience and confidence to implement their innovations effectively. Nevertheless, employees in lower hierarchical positions may be more motivated to prove themselves and make a positive impact, leading to a proactive and innovative approach to their work (Dai et al., 2022). These employees, as well as administrators, are typically tasked with operational duties, may be more involved in day-to-day operations and have a deeper understanding of operational challenges and customer needs, which can inspire innovative solutions.

With their decision-making authority, managers play a crucial role in fostering innovation within their teams. They can empower employees by providing resources, support, and a conducive work environment, encouraging innovative thinking and risk-taking. At the top of the organisational hierarchy, leaders set the tone for innovation by promoting a culture of creativity, celebrating experimentation, and tolerating failure. Both of these higher hierarchical positions generally have access to more resources, decision-making authority, and access to information, which can facilitate their engagement in innovative behaviours (Niranga & Dharmadasa, 2021). Their vision and strategic direction guide the organisation toward innovative initiatives that align with the company's goals. Junior employees who lack this exposure to strategic initiatives may not receive the necessary support and recognition to engage in innovative behaviour (Shipton et al., 2006). Therefore, the employment level within an organisation not only reflects the individual's role and responsibilities but also influences their capacity to engage in IWBs,

with leaders playing a pivotal role in shaping a culture of innovation within the workplace.

Based on the literature, the following hypothesis was developed:

H6: Employment Level (EL) has a significant effect on Innovative Work Behaviour (IWB) when working remotely.

The following section introduces the theoretical framework guiding the study. The framework is grounded in established theory and provides a structured approach to understanding the phenomena under investigation. It not only outlines the key variables but also informs the analysis to contribute to the broader theoretical discourse within the field. Through the lens of this theoretical framework, we will explore the research questions and objectives, paving the way for a rigorous and insightful examination of the topic at hand.

2.7. Theoretical framework

Theoretical frameworks provide a conceptual foundation for the research study (Grant & Osanloo, 2014). These frameworks guide and structure the study, helping frame the research questions, define key variables, and establish the relationships between them. Theoretical frameworks draw upon existing theories, models, and concepts from relevant fields to inform the research design and analysis. They offer a lens through which the researcher can interpret and make sense of the empirical data, providing a framework for understanding the phenomenon under investigation. By employing a theoretical framework, the researcher seeks to develop a comprehensive understanding of the existing literature, integrate prior knowledge with new findings, and contribute to the field's theoretical advancements.

In the context of this study, there are several theoretical frameworks which could be used to study IWB and remote working. This thesis has adopted the Ability-Motivation-Opportunity (AMO) framework to guide the study.

2.7.1. Ability, Motivation and Opportunity framework

This thesis aims to explore the relationship between IWB and remote working, guided by the Ability-Motivation-Opportunity (AMO) framework. Since its emergence,

the framework has been largely accepted for explaining the link between human resource management principles and firm performance. The AMO framework provides a comprehensive theoretical framework that explains the relationship between individual abilities, motivation, and opportunities in influencing their performance and outcomes (Edgar et al., 2020; Obaid et al., 2022; Tabiu et al., 2016). As a theoretical model, it will allow us to understand and analyse employee performance and behaviour within organisations, namely the factors influencing employees' ability, motivation, and opportunity to engage in innovative behaviours. When employees have the necessary abilities, high levels of motivation, and favourable opportunities, they are more likely to perform well, achieve desired outcomes, and engage in desired behaviours, in this case, innovative behaviours. By applying this framework, the study will examine how remote working may influence each component of the AMO framework and its subsequent influence on IWB.

The AMO framework was initially proposed by Bailey (1993). He advocated the notion that cultivating employees' discretionary effort necessitates the integration of three fundamental components: firstly, employees must possess the necessary skills to contribute effectively (Ability); secondly, they must be imbued with suitable motivation to channel their efforts purposefully (Motivation); and lastly, employers must extend opportunities that enable and encourage their active participation (Opportunity) (Appelbaum et al., 2000). Building upon this theoretical model and incorporating insights from high-performance work systems (HPWS), Appelbaum et al. (2000) further refined the framework (Bayo-Moriones & Galdon-Sanchez, 2010; Knies & Leisink, 2013).

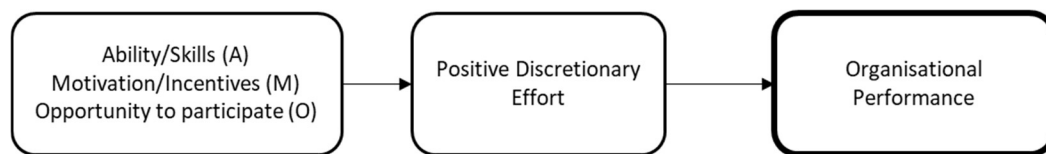
The AMO model of performance in Figure 2.3 below suggests that effective HPWS require three essential components to effectively use employees' discretionary effort: the opportunity to participate, appropriate incentives, and the development of employees' abilities and skills. This framework focuses on an individual's ability, motivation, and opportunity as key factors influencing behaviour and performance.

According to the AMO framework, discretionary effort will positively affect organisational performance (Boxall & Purcell, 2003). This is achieved by (a) developing employee skills and capabilities through knowledge, education and wellbeing (i.e. the ability to perform); (b) increasing an employee's motivation for the discretionary effort through job satisfaction, values and expectations (i.e. willingness to perform); and (c)

providing employees with the opportunity to perform through autonomy, working conditions and ICT tools (i.e. the opportunity to perform). In summary, employees perform well when they have the capabilities to have adequate motivation, and their work environment provides opportunities to participate (Marin-Garcia & Tomas, 2016; Pak et al., 2019; Sterling & Boxall, 2013; Tabiu et al., 2016).

Figure 2-3: The AMO model of performance

(Adapted from Appelbaum et al. (2000))



Throughout successive studies, the model has undergone refinement and enhancement. Indeed, some scholars contend that the influence of AMO on performance is more multifaceted than initially anticipated, owing to the intricate interplay of factors. This complexity arises not solely from the mere presence of a set of practices (HRM content) but is further compounded by the subjective perceptions of these practices held by individual employees (Boxall & Macky, 2009; Ehrnrooth & Björkman, 2012).

The thesis will explore the ability aspect by assessing the skills, knowledge, competencies, and resources required to enable remote employees to engage in innovative behaviour (Bhatti et al., 2020). The ability component is crucial as it provides the foundation for individuals to perform tasks successfully (Obaid et al., 2022). Ability refers to an individual's knowledge, skills, and capabilities to effectively perform a specific task or behaviour. It encompasses both the inherent qualities and acquired competencies. Employees need the necessary abilities to engage in IWB. For example, they have knowledge of relevant tools or techniques, problem-solving skills, and domain expertise. In the context of this study, we are looking to explore how remote working impacts employees' ability to engage in IWB. Specifically, how does the availability of resources, tools, and technical skills required for innovation differ in remote work settings compared to traditional office environments?

The motivation aspect will be investigated by examining the motivational factors that drive employees to innovate while working remotely. It refers to individuals' internal drive, goals, and desires that influence their engagement, effort, and persistence in

performing tasks. It includes intrinsic motivation, which arises from internal factors such as personal interest and enjoyment, and extrinsic motivation, which is driven by external rewards or pressures. Motivation plays a significant role in determining individuals' level of engagement and commitment to tasks (Knies & Leisink, 2013; Obaid et al., 2022). In the context of IWB, motivation involves the desire to generate new ideas, experiment, take risks, and contribute to the organisation's success. This thesis explores which factors may influence remote workers' motivation to engage in IWB. Aspects such as autonomy, recognition, and remote team dynamics may affect employees' motivation to generate and implement creative ideas while working remotely.

Finally, the opportunity aspect will be explored by analysing the remote work environment's supportive structures and processes that facilitate or hinder IWB. The opportunity component refers to the external factors and conditions that enable individuals to perform tasks effectively. In the context of IWB, opportunity includes factors such as organisational support, leadership encouragement, access to information and resources, and a culture that fosters experimentation and learning to provide employees with the necessary conditions and resources to effectively utilise their abilities and motivation. Organisations should create a supportive climate for innovation, encourage learning, and provide opportunities for employees to use their knowledge and skills (Afsar & Afsar, 2019).

The AMO framework has found wide-ranging application in diverse research domains such as human resource management, innovation and organisational behaviour (Bos-Nehles et al., 2013; Juan & Juan Martinez, 2016; Knies & Leisink, 2013; Rahman et al., 2023; Rayner & Morgan, 2017; Shahzad et al., 2019).

Fu et al. (2015), Shahzad et al. (2019) and Bhatti et al. (2020) have delved into the examination of the correlation between high-performance work systems (HPW) and innovation. In contrast, Radaelli et al. (2014) used the AMO framework to explore the relationship between knowledge sharing and IWB. Furthermore, Bos-Nehles, Renkema, et al. (2017) undertook a systematic literature review concerning the intersection of human resource management (HRM) and IWB, and concurrently, Shipton et al. (2017) investigated the linkage between HRM practices and innovation. More recently, Cui and Gui-lan (2021) and Ferrarini and Curzi (2022) both used an AMO theory perspective to explore innovation performance. Collectively, these studies substantiate the

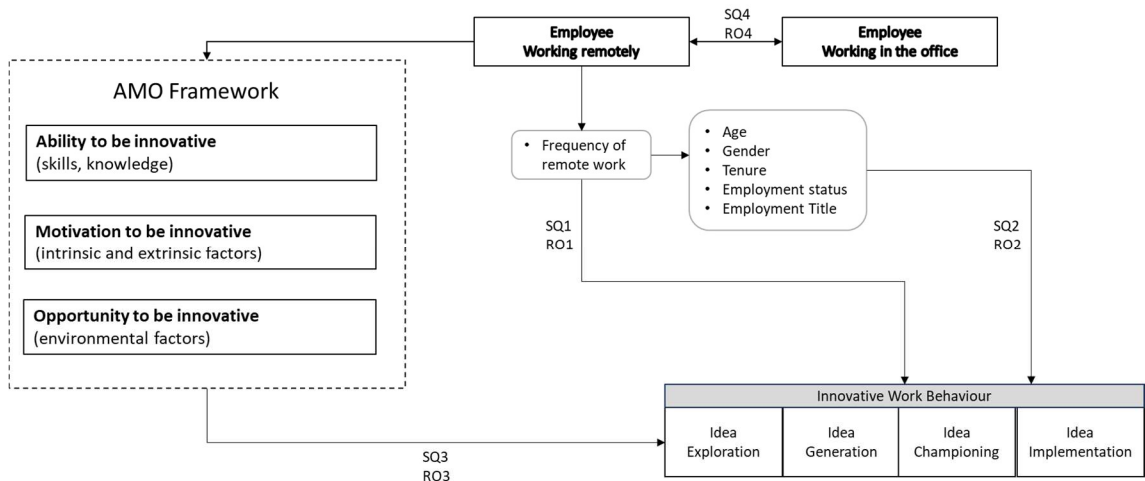
appropriateness of utilising the AMO theoretical framework as the underpinning for the present investigation.

In the next section, the conceptual framework that underpins this thesis is introduced, drawing from the literature review conducted and hypothesis development. This conceptual framework serves as the foundation for constructing the research questions and objectives. This section aims to establish a theoretical foundation that informs the research methodology and guides the exploration of the research questions and hypotheses. By aligning the study with the existing body of knowledge, we can identify the gaps in understanding.

2.8. Conceptual framework

The literature review results summarised the literature on IWB and remote working and discussed the relationship between them. A conceptual model that aggregates the two constructs is shown in Figure 2.4 below. The conceptual framework outlines the research study's key concepts, variables, relationships, and questions. Firstly, the self-reported level of IWB among Australian remote working employees (research objective one). Second, the impact of selected demographic factors (age, gender, tenure, employment status, employment title, and rate of working remotely) on the IWB of remote working employees (research objective two). Third, the factors of remote working that foster or hinder IWBs using the Ability, Motivation and Opportunity framework from the employee perspective (research objective three). Finally, the differences between remote work and office-based work on IWB from the employee's perspective (research objective four).

Figure 2-4: Conceptual framework



2.9. Gaps in the literature

The literature review has revealed several discernible gaps within the existing body of knowledge. The most significant gap lies in the need for more studies investigating the relationship between remote working and IWB. While extensive research has been conducted on remote working and IWB separately, there is a notable deficiency in the literature concerning studies that specifically explore the nuanced relationship between these two variables.

Secondly, most of the research has concentrated on investigating IWB and its connection to remote working within the European and United States contexts, leaving a notable dearth of research in the Australian context, which this study is centred on.

Thirdly, the literature is short on studies that have scrutinised each phase of IWB separately in a multidimensional manner. Most studies have treated IWB as a single dimension, whereas this study examines the individual phases of IWB along with IWB overall.

Additionally, a research gap exists in examining IWB and the influence of demographic variables (e.g., age, gender, employment status, tenure, employment level) within the context of remote work. This study aims to address this gap by investigating the impact of demographic factors on the IWB of remote-working employees in Australia.

Lastly, there is a paucity of qualitative research specifically examining the employee experience of remote working and its potential effects on innovative behaviours. Furthermore, there is a lack of studies that compare the lived experiences of employees working in an office environment versus when they are working remotely. This study addresses these gaps by including a qualitative investigation aimed at understanding the employee experience.

2.10. Chapter summary

This chapter comprehensively examines the existing literature on IWB and remote working. Additionally, the theoretical framework that guided the research study is explained in relation to the conceptual framework. The literature review reveals notable gaps in knowledge, thereby warranting an investigation into the employees' perceptions of the impact of remote working practices on their IWB, specifically within the Australian context. The identified gaps from the literature review inform the overarching methodology and research design of the study discussed in the next chapter.

CHAPTER 3 - RESEARCH METHODOLOGY

3.1. Introduction

Chapter 2 of the thesis reviewed the existing literature on innovative work behaviour (IWB) and remote working. It provided a comprehensive understanding of the previous research conducted in these areas. Furthermore, the chapter introduced the conceptual framework that forms the basis of the thesis, incorporating the Ability, Motivation, and Opportunity (AMO) framework to guide the research and establish a theoretical framework.

Moving forward, Chapter 3 presents the research design employed in the thesis to investigate the impact of remote working on the IWBs of Australian employees. The chapter begins with a discussion of the research philosophy underpinning the thesis, providing insight into the choice of a mixed methods research design. To ensure ethical considerations are addressed appropriately, the chapter concludes with a section dedicated to ethical considerations.

3.2. Research paradigm

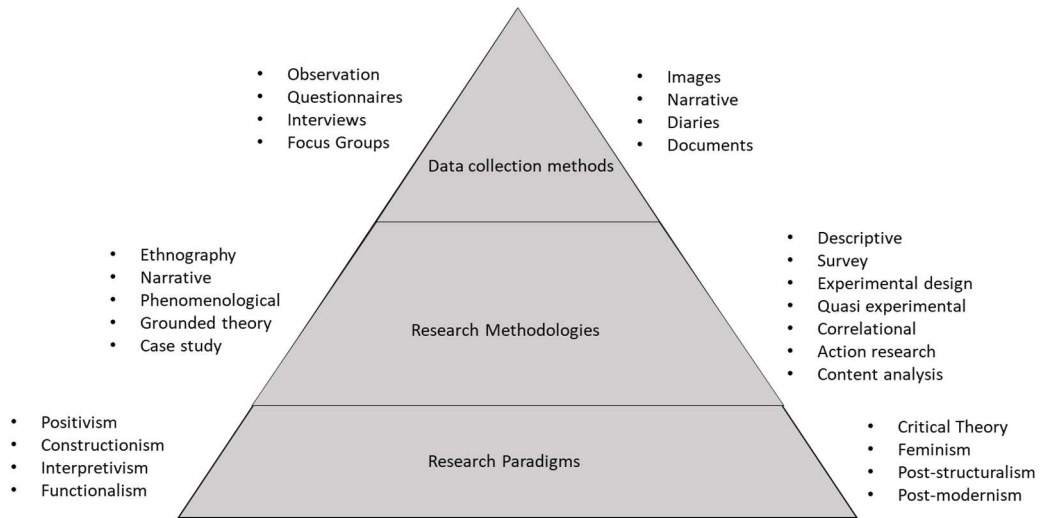
‘The philosophical framework is ‘the world view within which the research is situated.’

(Quinlan et al., 2019, p. 56)

Before embarking on any research project, an essential decision for the researcher is the research methodology (Fawcett & Hearn, 2004; Zikmund et al., 2019). However, before a decision can be made on methodology, the researcher needs to consider which research paradigms will support the research methodology (Mackenzie & Knipe, 2006; Mattar & Ramos, 2022). Referring to Figure 3.1, the research philosophy supports the research methodology, which in turn supports the data-gathering methods. Defining the research paradigm is important, as it will guide the overall design of the research project and form the basis of the methodology, methods, types of research questions and data collection (Fawcett & Hearn, 2004; Lim, 2023; Wilson, 2014). Mackenzie and Knipe (2006, p. 194) emphasised, ‘It is the choice of paradigm that sets down the intent, motivation and expectations for the research’.

Figure 3-1: Methodological Pyramid

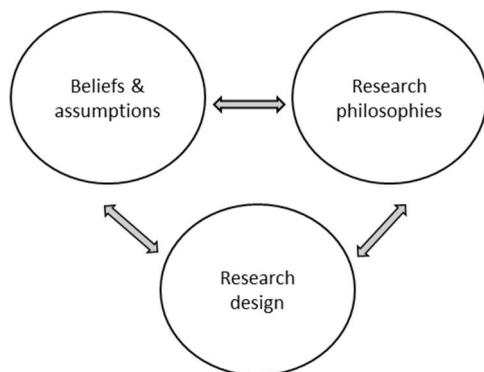
(Source: adapted from Zikmund et al. (2019))



Researchers have different philosophical beliefs about how research should be conducted and what the research results should achieve (Bleiker et al., 2019; Cavana et al., 2001). How researchers interpret the world can be explained by research paradigms, which is the research philosophy. These define a set of assumptions and beliefs regarding how the world is perceived (Jonker & Pennink, 2010) and how knowledge is developed. Saunders et al. (2019) encourage researchers to undertake a reflective process to determine their philosophical position. This reflection process is depicted in Figure 3.2 below.

Figure 3-2: Reflective Process

(Source: adapted from Saunders et al. (2019, p. 126))



3.2.1. Interpretivism

'The social world is observed by seeing what meanings people give to it and interpreting these meanings from their viewpoint.'

(Blumberg et al., 2008, p. 21)

There are five major research philosophies: positivism, interpretivism, realism, pragmatism and postmodernism (Saunders et al., 2019). In this thesis, the researcher applied the research paradigm of interpretivism and employed a mixed-methods approach. Interpretivism, as a research philosophy, emphasises the understanding of the social world through the subjective experiences and meanings that individuals ascribe to it (Chen et al., 2011; Pathak & Thapaliya, 2022). Interpretivism is deeply rooted in the qualitative approach to understanding phenomena by focusing on subjective interpretations rather than objective realities (Chen et al., 2011). In a mixed methods study that incorporates both quantitative and qualitative elements, the research paradigm of interpretivism plays a crucial role in providing a comprehensive understanding of the research topic. By combining interpretivism with quantitative methods, researchers can delve into the subjective interpretations and meanings individuals attribute to their experiences while also quantifying certain aspects of the phenomenon under study (Quigley et al., 2022).

Philosophical perspectives can be seen as a collection of assumptions that shape the approach to and execution of research. Throughout the research project, the researcher will make several assumptions. Assumptions about the nature of knowledge and the realities a researcher encounters in their research (ontology), the use of knowledge (epistemology), and the extent to which their values influence their research process (axiology) (Saunders et al., 2019).

Ontology refers to the position taken on the nature of reality (Crowley et al., 2016; Scotland, 2012). Ontology serves as the starting point for research, guiding researchers in understanding the nature of reality and truth, which in turn influences the choice of research methods and approaches (Bleiker et al., 2019).

Interpretivism assumes a relativist ontology, where the researcher believes that social actors construct reality and that people's perceptions of reality differ from person

to person (Denzin & Lincoln, 2011; Scotland, 2012). Ontological assumptions underpinning an interpretivist paradigm are that reality is subjective, socially constructed, and will involve multiple perspectives and experiences (Rashid et al., 2019). The researcher relies upon the participant's perceptions of the situation and their version of 'reality' (Creswell, 2007). As the thesis seeks to understand how employees perceive that remote working may influence their innovative behaviours, adopting an interpretivist approach is well suited to uncover the reality as it is understood by the individual (Cavana et al., 2001; Chowdhury, 2014).

Epistemology concerns acceptable knowledge between the researcher and the participant (Hallebone & Priest, 2008). It refers to the manner of generating, using, and understanding knowledge that is deemed acceptable and valid. Epistemological assumptions underpinning an interpretivist paradigm are that knowledge is made up of subjective meanings and experiences. This thesis focuses on the lived experiences of employees working remotely. It focuses on the details and reality of the situation, including motivating actions.

Axiology in research refers to the roles of values in the research project and the researcher's position concerning the subject (Howes, 2015; Parter & Wilson, 2021). Researchers are part of the research, and their interpretation is crucial to the contribution. The interpretivist researcher explores and takes on reality from the subject's perspective, which is referred to as an insider perspective. Therefore, the collected and analysed data will be influenced by the experiences and values of the researcher and the subjects.

The notions of interpretivism aligned with the proposed research objectives and questions and guided the methodology undertaken in this thesis. 'The interpretivist researcher is interested in understanding the lived experience of human beings' (Cavana et al., 2001, p. 9) and is concerned with how humans make sense of the world around them. This philosophical stance is heavily focused on perceptions and interpretations and argues that humans are different from physical phenomena in that they create meanings. An interpretivist approach is suitable for this thesis as it seeks to understand the reality of working remotely and the influence this may have from an employee's perspective. This approach recognises that each employee will have their background and experiences that will influence their reality. Therefore, this approach accepts multiple realities because experiences are subjective.

Methods using an interpretivist philosophical position are typically qualitative data, which includes small-scale samples, and in-depth investigations such as interviews (Hammond & Wellington, 2021). This provides the rich, highly detailed accounts of individual experiences sought by this approach. While positivist researchers believe in replication research to test theories using quantitative data, interpretivist researchers try to understand inside perspectives or the real meaning of social phenomena. Interpretivists use an inductive process to develop a theory or patterns of meaning.

It has previously been thought that the philosophical basis of quantitative and qualitative research are different (Walliman, 2018) and cannot be combined. However, researchers now agree that the ‘distinction between the methods used for quantitative and qualitative research are not as distinct as previously believed, that many data collection methods and data types can be used for both approaches and that the paradigms behind them can coexist in a single study’ (Walliman, 2018, p. 168). Instead of conflicting with the various paradigms, a mixed-methods approach combines the differences to achieve a deeper understanding (Walliman, 2018). Therefore, an interpretivist research study can utilise a range of data including both qualitative and quantitative, including case studies, document analysis, and questionnaires (Cavana et al., 2001; Saunders et al., 2019).

In this thesis, the interpretivist paradigm guided qualitative and quantitative methods in collecting, analysing, and interpreting data to understand remote working and IWB better. The quantitative data collection phase commenced first, closely followed by the start of the qualitative phase. The quantitative phase also provided an opportunity to recruit participants for the qualitative phase by asking respondents if they wanted to participate in an interview. Both data collection methods were being conducted simultaneously during the overall data collection period.

A survey of Australian-based employees was used to collect quantitative data to test the hypotheses. The quantitative method was conducted as an exploratory study to understand how often innovative behaviours are exerted by employees when they work remotely. The survey sought to understand how often these behaviours were demonstrated overall and within each of the four phases of innovative working behaviour.

In-depth, semi-structured interviews were used to collect qualitative data. Thematic data analysis was employed to analyse the emerging themes. The qualitative

method was conducted as an exploratory study to understand the perceptions, from the employees' point of view, of how and in what way working remotely may influence their innovative working behaviours. The literature review identified a need for qualitative studies exploring remote working and IWB, particularly from the employee context. Therefore, the qualitative study was vital in exploring employee perceptions and understanding the role of ability, motivation and opportunity to exert innovative behaviours while working remotely.

The findings from the survey used in the quantitative phase and the insights that emerged from the interviews during the qualitative phase contributed to the overall thesis findings.

3.3. Rationale for mixed methods approach

The mixed methods approach combines both quantitative and qualitative data collection methods. This research study adopted a mixed methods approach for several reasons, including to:

- explain and interpret a situation
- explore a phenomenon
- address the research questions at different levels
- utilise the advantages (strengths) and minimise each approach's disadvantages (weaknesses) (Bracio & Szarucki, 2020; Walliman, 2018).

A mixed-methods approach was chosen because it can provide a greater understanding of the research problem than could be achieved using a single approach (i.e. quantitative or qualitative alone) (Creswell, 2007; Johnson & Onwuegbuzie, 2004; Pluye & Hong, 2014). This thesis aims to not only understand how often an employee demonstrates innovative behaviours when working remotely, which can be analysed using quantitative approaches, but also to explore the factors that may support or hinder the employee exerting such behaviours, which lends itself to qualitative research. It further provides confirming, complementary and contrasting sources of data (Hammond & Wellington, 2021).

Using a combination of methods in a single study improves the effectiveness of the research model in answering the research questions (Johnson et al., 2007; Shorten & Smith, 2017). Researchers can combine quantitative observation data with qualitative perception data to address the research aims. The research questions in this thesis relate to what is happening (i.e. how often the employee exerts innovative behaviours) as well as the perceptions of what is happening (i.e. what influence the remote working is having on innovative behaviour), questions that can be answered using both quantitative and qualitative methods.

3.4. Research design

This section discusses the research methods and overarching design of the study. The research methods, types, and sources of data collected are discussed in the subsequent two sections, first the quantitative study and then the qualitative study.

The research design is the plan of how the study will answer the research questions and methods used, including the sample and measures (Creswell, 2007; Trochim et al., 2016). All research studies should begin with a research problem. The researcher should then review empirical literature related to the topic, generate the research questions, collect data, analyse the data, and generate findings.

The first step of the mixed methods approach is deciding the balance between the quantitative and qualitative methods used within the research study (Johnson et al., 2007). Researchers can choose between quantitative dominant, qualitative dominant or equal status approach. The quantitative dominant approach is based on a post-positivist quantitative paradigm, with some qualitative aspects also researched. A qualitative dominant approach is based on realism, interpretivism or constructivist paradigms, with the addition of quantitative methods. An equal status approach is a pragmatic approach with complementary and equal qualitative and quantitative elements (Walliman, 2018).

For this thesis, a qualitative dominant approach was chosen, as the primary focus of the study to understand the employees' perceptions and lived experiences. The overarching research aim in this thesis is how employees perceive that their IWB may be shaped by working remotely. The interpretivist paradigm is, therefore, a suitable philosophical position for a qualitative dominant mixed methods approach. 'Understanding why individuals and groups think and behave as they do lies at the heart

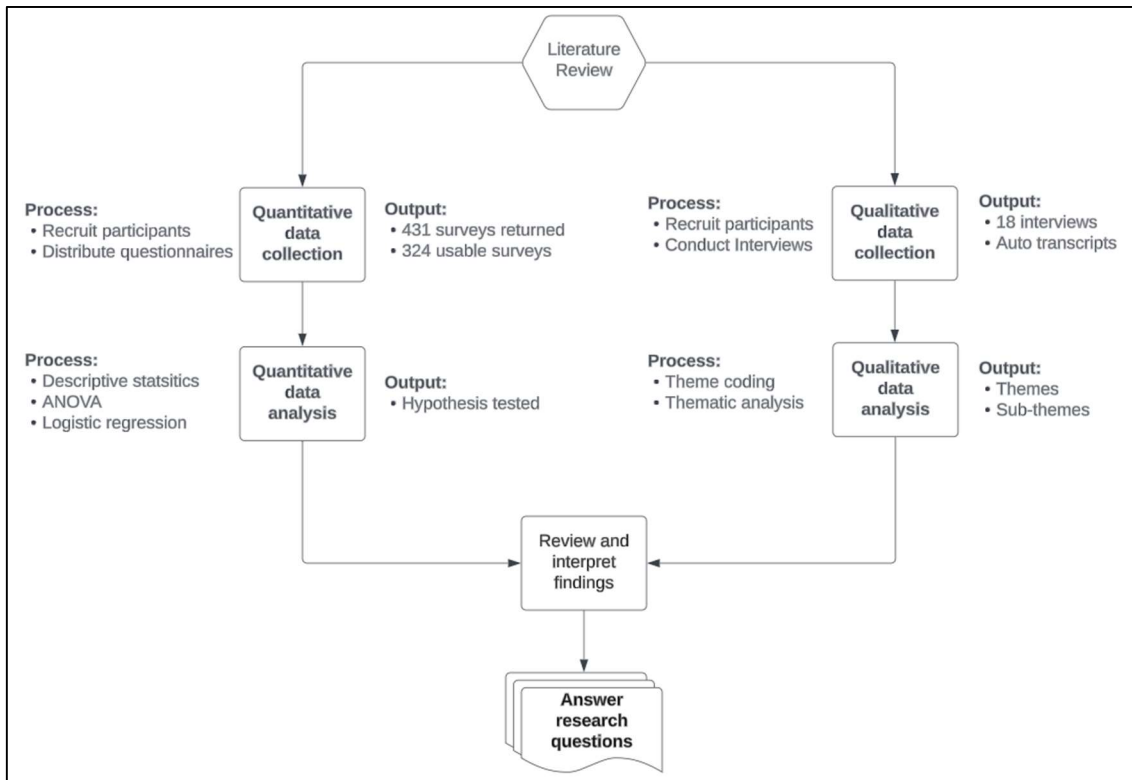
of qualitative research' (Gill et al., 2008, p. 292). Therefore, the research study employed a qualitative dominant approach because of its capacity to explain the employee experiences of remote working and their meaning for participants. Quantitative methods were included because of their capacity to measure the level of innovative behaviour exerted by employees working remotely to add greater depth and understanding of whether remote working influences innovative behaviours.

Once a researcher has decided on the balance between methods, a decision on collection strategy, or ordering, needs to be made between sequential or concurrent (Clark & Creswell, 2008; Stentz et al., 2012). Sequential designs involve researchers collecting either quantitative or qualitative data first, followed by the other method in a subsequent phase. According to Clark and Creswell (2008), there are three sequential strategies: explanatory, exploratory or transformative. Concurrent designs involve researchers collecting both quantitative and qualitative data simultaneously and can employ triangulation, nested or transformative strategies.

This thesis adopted a concurrent nested mixed methods research design, using the appropriate research method for each research question. The concurrent nested strategy is where the researcher uses appropriate data collection and analysis methods to answer each research question. The nested strategy is used to address different research questions or objectives within the same study, with one form of data providing a supportive, supplementary role to the other. One type of data (quantitative or qualitative) is predominant, while the other is nested within it to provide additional insights. This secondary data type might help explain the primary data or provide context. In this thesis, quantitative to measure IWB when remote working and qualitative to explore employee perceptions of their innovative behaviour when working remotely. The findings from each method are combined to answer the overarching research question.

Figure 3.3 shows the stages of the thesis research design, including the processes and outcomes. The two types of data collected were semi-structured interviews with Australian-based employees undertaken via Zoom and an online questionnaire of Australian-based employees using Qualtrics software.

Figure 3-3: Stages of research design



3.5. Research questions

The increased availability and use of remote working presents both a challenge and an opportunity for organisations. The research gap was identified through the literature review on IWB and remote working literature. This knowledge gap relates to how the usage of remote working in Australian organisations influences employees’ innovative behaviour in each of the four phases of the IWB model (De Jong & Den Hartog, 2010). To address this research gap, the research questions were designed to gather deep insights into the employee’s ‘reality’ and are consistent with the interpretivist paradigm.

This thesis’s primary research question aims to explore IWB and remote working from the perspective of Australian employees. The key research question is: *How do employees perceive the relationship between remote work and their innovative work behaviour (IWB)?*

The research sub-questions shown in Table 3.1 were as follows:

Table 3-1: Research sub-questions

	Research sub-questions	Type of study
SQ1	What is the extent of IWB among employees engaged in remote work, both overall and across each phase (idea exploration, idea generation, idea championing, and idea implementation)?	Quantitative
SQ2	How do demographics influence the outcomes of employees' IWB engaged in remote work, both overall and across each phase (idea exploration, idea generation, idea championing, and idea implementation)?	Quantitative
SQ3	What factors contribute to fostering or inhibiting innovative work behaviours in remote working environments?	Qualitative
SQ4	What are the distinctions in employee experience regarding innovative work behaviour when comparing remote and office-based working environments?	Qualitative

The first and second sub-questions explore how often innovative behaviour is exerted when working remotely. This will allow us to examine if there are differences in the level of self-reported frequency subject to how often the employee works remotely. It also allows us to explore the relationship between employee profiles (e.g. level at organisation, tenure at organisation, gender and age) and the amount of IWB exerted.

The third sub-question has been designed to examine the features of remote working that can foster or hinder the employees' innovative behaviour. The factors explored relate to the employees' ability, motivation, and opportunity to demonstrate innovative behaviours when working remotely. The fourth sub-question aims to allow employees to reflect and provide their views on their experience and innovative behaviour when working at the office compared to when working remotely.

3.6. Population sample

The theoretical population for this study is Australian-based employees who currently work some or all of their time remotely, away from the main office building.

The Australian Bureau of Statistics (ABS) defines an employee as people who work for a public or private employer and received remuneration in wages or salary or are paid a retainer fee by their employer or worked on a commission basis for tips, piece rates or payment in kind (ABS, 2022b).

The ABS defines people as ‘employed’ if they are aged 15 years and over and work one hour or more in a reference week. The ‘one-hour rule’ is used internationally and allows employment figures to be compared with other countries.

The population sample was based on the 2021 Australian Census which recorded that of the 12 million people employed in Australia on 10 August 2021, 2.5 million people worked from home (ABS, 2022a).

3.7. Ethics

An ethics application was submitted to the Victoria University Human Research Ethics Committee (VUHREC) in April 2021 and formally approved in July 2021. The approved ethics application number is HRE21-055 (see Appendix A). The ethics application described the research design, methodology, data collection procedures, how participants would be recruited and the survey and interview questions. The consent form, information sheet for participants, interview protocol and survey questions are included in Appendices B, C, D, E, and F.

3.8. Chapter summary

In summary, this chapter provides an overview of the thesis methodology, research design, and approach. It provides the rationale behind adopting a mixed methods approach and research paradigm. The next two chapters discuss the data collection methods, sampling techniques, and instruments utilised in the quantitative and qualitative studies.

CHAPTER 4 - THE QUANTITATIVE RESEARCH METHOD

4.1. Introduction

This chapter provides an overview of the quantitative research methods employed in this thesis. Quantitative research is characterised by its systematic and empirical investigation of phenomena through numerical data and statistical analyses.

At the outset of this study, data collection began just before the COVID-19 pandemic, with firms being contacted to invite their employees to participate in an online questionnaire. The onset of the pandemic necessitated a shift to a fully online approach, disrupting the original data collection plans. Additionally, many firms began conducting their own internal surveys to assess employee well-being and mental health, which made it more challenging to add this study's survey into their schedules. Of the four firms that were approached for the survey, two agreed to participate, necessitating the recruitment of additional participants by promoting the survey in professional closed groups on the social networking site LinkedIn.

Despite these challenges, the pandemic also presented a unique opportunity as it led to a significant increase in remote work. This shift enabled the collection of rich and deeper insights, as more employees had firsthand experience with remote working. Consequently, data was collected via two methods: quantitative surveys, which are discussed in this chapter, and in-depth interviews with employees, which are covered in the following chapter on qualitative research methods.

The following sections detail the research design, including the formulation of hypotheses, the selection of variables, and the methods employed for data collection. Additionally, it will outline the statistical techniques applied for data analysis, providing transparency regarding the tools used to draw meaningful conclusions from the gathered data.

4.2. Quantitative research methods

Quantitative research holds significant value in the social sciences for several reasons. It provides a systematic and rigorous approach to studying social phenomena (Laher, 2016; Maula & Stam, 2019), enabling researchers to collect and analyse numerical data, and meets the thesis research objectives as discussed in Chapter 1.

Quantitative research emphasises objectivity and strives to minimise researcher bias (Field & Derksen, 2020; Jindal et al., 2015). It employs standardised measures and statistical techniques, allowing for replication and generalisation of findings, which can enhance the reliability and validity of the research (Bryman, 2016).

Further, quantitative research is well-suited to testing and explaining relationships, which justifies using this approach to explore the influence of remote working on the amount of IWB displayed by Australian employees. We can use statistical analysis to uncover patterns, relationships, and trends in data to examine the magnitude and significance of associations between variables, aiding in identifying causal relationships (Gravetter & Forzano, 2018). Quantitative techniques are powerful at studying groups of people and making generalisations from the studied sample to broader groups beyond that sample (Creswell, 2018). Quantitative research generates empirical evidence that can inform evidence-based decision-making. Policymakers, practitioners, and organisations can utilise the quantitative research findings to develop effective interventions, policies, and strategies.

4.2.1. Sampling method and sample size

A sample refers to a subset of a larger population (Lohr, 2019), and the sampling strategy is the process that defines how the researcher will select a sample from which population to ensure that the sample will be representative of that particular population.

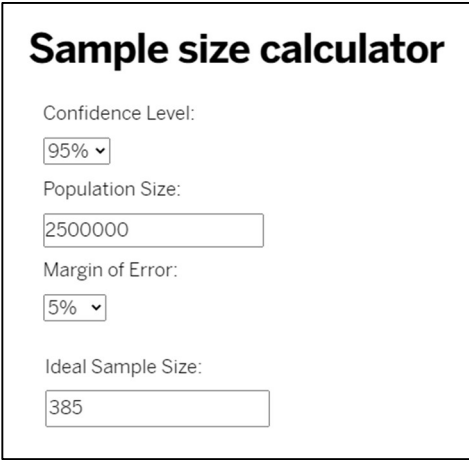
The study focused on Australian-based employees. Since the study targeted Australian employees, the questionnaire was adapted to the Australian context and reframed to align with the study's objectives. A random sampling technique was used to allow for the generalisation of results and to avoid any possible bias attributed to a specific group of workers. Creswell (2018, p. 250) defines random sampling as ‘a procedure in quantitative research for selecting participants. It means that each individual has an equal probability of being selected from the population, ensuring that the sample will be representative of the population’. The questionnaire included respondents from all age groups (18 years and above), all genders, working within any industry in Australia.

The calculation of sample size ensures that the survey results are statistically significant and can be generalised to the entire population with the given confidence and precision (Del Águila & González-Ramírez, 2014; Singh & Masuku, 2014).

An online calculator (www.qualtrics.com) was used to identify a suitable sample size by entering the desired confidence level, margin of error, and population size. A confidence level of 95% and a 5% margin of error were chosen, as well as the ABS population of people working from home during 2021. For a population of 2,500,000, you would need to survey approximately 385 individuals (see Figure 4.1) to make inferences about the entire population within the specified confidence and precision parameters.

In total, 431 questionnaires were returned, an acceptable response rate higher than the sample size calculation. A total of 107 of these questionnaires were removed from the sample due to invalid responses. Invalid responses were those where the respondents answered 'never' to the question of how often they worked remotely, where respondents did not answer any of the IWB questions or where they did not answer all the demographic questions. They were not removed if they answered some but not all of the IWB questions. This resulted in 324 usable questionnaires.

Figure 4-1: Calculation of sample size



Sample size calculator

Confidence Level:
95% ▾

Population Size:
2500000

Margin of Error:
5% ▾

Ideal Sample Size:
385

4.2.2. Participant recruitment

The recruitment of participants came from various sources. Four firms within existing professional networks were contacted to participate in the study. These organisations were selected because they are Australian-based and have employees who work remotely either some or all of the time. Collectively, these firms employ over 3,500 people. However, due to the challenges arising from the COVID-19 situation and the

significant number of surveys employees were being asked to complete during that time, only two firms agreed to participate.

The initial step in data collection involved distributing the Qualtrics questionnaire link to these two firms. Between September 2021 and February 2022, the survey link was sent to employees at these firms located in Melbourne and Perth. The link was forwarded to internal employees through designated contacts such as the Head of Human Resources. Approximately 200 and 65 employees are employed at each organisation, respectively. From these, 35 and 17 surveys were returned, resulting in response rates of 18% and 26%, respectively.

Since only two firms agreed to participate and the response rate was lower than expected, a new approach was necessary to gather sufficient data. A new questionnaire link was generated and shared across various professional LinkedIn groups specifically targeting Australian-based employees. This broader distribution aimed to increase participation and ensure a representative sample.

4.3. Data collection

An online questionnaire was chosen as the data collection method, and responses were collected through the use of online survey software Qualtrics. The questionnaire consisted of a set of questions designed to meet the aims and objectives of the study and expected to provide a useful dataset that addresses the research questions and tests the research hypotheses. This includes how often employees (self-rated) demonstrate IWB overall and during each of the four phases while working remotely.

4.3.1. Questionnaire design

The questionnaire was designed to achieve the following objectives: (a) measure the frequency of IWB overall and within each phase of the IWB model (De Jong & Den Hartog, 2010) among remote working employees; and (b) examine if demographic factors influence IWB overall and within each phase of the IWB model among employees who work remotely.

The questionnaire started with a screening question to be answered before commencing the main questionnaire to confirm that the participant was currently working in Australia. If respondents answered 'No' to the question about currently working in

Australia, the survey would terminate, preventing them from proceeding. To ensure data integrity, the IP addresses of all returned responses were checked to confirm there were no duplicates from individuals who initially selected ‘No’ and then reopened the link to select ‘Yes’.

In summary, the questionnaire contained 35 items within six sections. This is shown in Table 4.1 below.

Table 4-1: Questionnaire sections and items

Section	Heading	Question #	No. of items	Responses
1	Demographics	1–7	7	Multiple choice
2	Idea Exploration	8–17	10	Five-point Likert scale
3	Idea Generation	18–24	7	Five-point Likert scale
4	Idea Championing	25–29	5	Five-point Likert scale
5	Idea Implementation	30–34	5	Five-point Likert scale
6	Participating in interview	35	1	Yes/No

4.3.2. Likert scale

A five-point Likert scale provided scores for low or high values to represent the frequency of IWB activities undertaken by the respondents when working remotely. Table 4.2 below outlines the Likert scale used in this thesis to measure the employees’ frequency of IWB when working remotely. To ensure the scales were clear in terms of frequency levels, scales 2 to 4 specified the assumed frequency in their description.

Likert scales are widely recognised and utilised in research and surveys. One primary advantage is their ability to measure attitudes, opinions, and perceptions with a high degree of reliability and validity, which allows the researcher to capture participants’ responses in a measurable way (Norman, 2010; Sullivan & Artino, 2013). The scales

provide a structured format that allows respondents to express their level of agreement or disagreement with a series of statements, thus facilitating data collection and analysis. The scales also promote straightforward interpretation and data comparison, making them suitable for both quantitative and qualitative analyses (Jamieson, 2004).

Table 4-2: Five-point Likert scale

Scale	Description
1	Never
2	Rarely (once a month)
3	Sometimes (2–3 times per month)
4	Often (4–8 times per month)
5	Always

4.3.3. Section 1: Demographics

The questions in this section sought to obtain demographic information from respondents to describe the study population. In this section, the questionnaire items requested information on the following demographic variables: age, gender, employment status, tenure at the current organisation, employment level and frequency of working remotely.

4.3.4. Sections 2–5: Idea Exploration, Generation, Championing, and Implementation

In the following four sections of the instrument, the questionnaire asked respondents to indicate how often they undertook certain IWB activities while working remotely. The questions were divided into the four phases of the IWB model; idea exploration, idea generation, idea championing and idea implementation (De Jong & Den Hartog, 2010). Respondents were asked to select between a scale of ‘Never’ to ‘Always’. There were 27 items to assess IWB, adapted from three IWB measurement scales: De Jong and Den Hartog (2010), Messmann and Mulder (2012) and Kleysen and Street (2001). Previous studies have found the survey scales to be reliable and valid. Questions included, ‘When you are working away from the office, how often do you wonder how things can be improved?’, ‘When you are working away from the office, how often do

you try to generate solutions for problems?’ and ‘When you are working away from the office, how often do you promote new ideas to gain the support of my managers?’ Appendix B identifies the source of study used for each question.

4.3.5. Section 6: Participation in the research interview

The final question asked respondents if they were willing to participate in an interview with the researcher. The question explained that the interview would take 30 minutes via video conferencing. The respondent could select ‘yes’ or ‘no’. If they selected ‘no’, the questionnaire was completed. If they selected ‘yes’, a new window was brought up, and the respondent was asked to enter their email address so the researcher could make contact to arrange a time and date. The purpose of the new questionnaire window was to ensure that the respondent’s email address could not be directly linked to their questionnaire response, thereby ensuring anonymity.

4.4. Quantitative data analysis method

Frequently, the first step in undertaking statistical analysis is examining the data one variable at a time, which is called univariate analysis (Gray, 2007). Univariate analysis explores each variable in a data set separately and seeks to describe each variable on its own. It looks at the range of values, frequency, and central tendency of the values and uses descriptive statistics to describe and summarise the data. This approach allows researchers to understand the characteristics of individual variables without considering the relationships between them.

Researchers typically follow the univariate analysis with bivariate statistical methods. The aim is to examine the association between the dependent variables of interest and various independent variables. Methods such as correlation coefficients and contingency tables are adopted. If the researcher is interested in understanding the impact of several independent variables on a dependent variable, the bivariate analysis is followed by multivariate analysis, which includes regression analysis methods.

This thesis utilised several statistical methods to achieve the study objectives, including descriptive statistics (univariate level), ANOVA (bivariate level), and logistic regression (multivariate). The software used for the statistical and hypothesis analyses was SPSS v. 29.0.

4.1.1. Univariate Analysis

This analysis involved the application of descriptive statistical techniques to systematically organise, analyse, and interpret the quantitative data gathered in the study. Descriptive analysis was employed to clearly understand the sample population and evaluate various aspects of the research. The distributions of variables were primarily examined and quantified using frequencies and percentages, offering valuable insights into the participants' responses. The computed descriptive statistics, including means, standard deviations, frequencies, and percentages, were tailored to each variable, and effectively visualised through frequency distributions and histograms.

4.1.2. Bivariate and Multivariate Analysis

This section discusses the data analysis methods used to answer sub-research questions 1 and 2 to determine the effect of working remotely on IWB and the effect of demographic variables on IWB when working remotely. The study objectives of these two research questions were achieved by examining a set of hypotheses using different data analysis techniques, both bivariate (ANOVA) and multivariate analysis (regression). ANOVA allows us to determine if the mean scores of different groups differ, while regression allows us to determine if and how variables are related (Rutherford, 2011).

4.1.3. Significance level

In statistical hypothesis testing, the significance level (often denoted as α) is the threshold used to determine whether to reject or fail to reject the null hypothesis. The conventional significance level commonly used in social sciences and other fields is 0.05 (or 5%). However, some researchers may choose to use a slightly higher or lower significance level based on factors such as the nature of the research question, the complexity of the data, or the specific field of study.

The determination of the significance level in hypothesis testing is contingent upon the specific context of the study (Johnson, 1999; Luo, 2018), and the use of a p-value of 0.05 merely serves as a heuristic proposed by Ronald Fisher in his book *Statistical Methods for Research Workers* (1925), without intending to be construed as an unequivocal yes-or-no threshold (Meyer et al., 2017). While in medical studies for example, where there could be severe consequences if a wrong decision is made about a hypothesis, it would be more reasonable to use 0.05 or even 0.01 (Cramer & Howitt,

2004; Meyer et al., 2017), the 0.1 level of significance is considered reasonable in social sciences.

To test the hypotheses, the significance level was set at 0.1 level. For this thesis, 0.1 was considered reasonable for two reasons. Firstly, as the sample size is small, statistical power may be limited, making it more difficult to detect significant effects (Thiese et al., 2016). In such cases, researchers might opt for a slightly higher significance level to increase the chances of identifying meaningful relationships. Secondly, as this study is exploratory, a higher significance level is more likely to detect potential patterns or relationships that can guide further research (Bischof & Velden, 2019; Wicherts et al., 2016). A higher threshold allows for a broader exploration of the data, acknowledging the possibility of finding initial associations that could be investigated further, in this case, during the qualitative data collection phase.

4.1.4. Variables

In this thesis, a series of comprehensive tests were undertaken using six independent variables and five dependent variables. The classification of variables is shown in Table 4.3.

Table 4-3: Variables

Variable	Label	Categories
Dependent	Innovative Work Behaviour Idea Exploration Idea Generation Idea Championing Idea Implementation	‘Never’, ‘Rarely’, ‘Sometimes’, ‘Often’ and ‘Always’
Independent	Remote Working Frequency	‘1–3 times per month’, ‘1 day per week’, ‘2–4 days per week’ and ‘Always work remotely’
Independent	Gender	‘Female’, ‘Male’, ‘Non-binary’, ‘Prefer not to say’
Independent	Age	‘18–30 years’, ‘31–40 years’, ‘41–50 years’, ‘51 years +’

Independent	Employment Status	‘Full time’, ‘Part-time’ and ‘Casual/Contract’
Independent	Tenure	‘Less than 2 years’, ‘Between 2–5 years’, and ‘More than 6 Years’
Independent	Employment Level	‘Administration’, ‘Non-manager’, ‘Manager’, ‘Senior Leadership’

4.2. Hypothesis

Table 4-4: Hypothesis table

Code	Description	Test
H1	RWF has a significant effect on IWB	ANOVA
H2	Age has a significant effect on IWB when working remotely	ANOVA
H3	Gender has a significant effect on IWB when working remotely	T-Test
H4	Tenure has a significant effect on IWB when working remotely	ANOVA
H5	Employment Status (ES) has a significant effect on IWB when working remotely	ANOVA
H6	Employment Level (EL) has a significant effect on IWB when working remotely	ANOVA
H7	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of IWB occurring	Logistic Regression
H8	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Exploration occurring	Logistic Regression
H9	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Generation occurring	Logistic Regression
H10	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Championing occurring	Logistic Regression
H11	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Implementation occurring	Logistic Regression

4.3. Analysis – ANOVA

ANOVA (Analysis of Variance), also known as between-groups analysis of variance, is a widely used statistical technique in social science research and is considered one of the primary methods for analysing data (Hancock et al., 2010; Rutherford, 2011). Its primary objective is to determine whether an independent variable is responsible for variation in an outcome measure, which is the dependent variable. In the context of this thesis, ANOVA provides a method to examine significant differences in IWB among various groups, such as different employee levels, frequency of remote work, and tenure at the current organisation. Through ANOVA, researchers can gain valuable insights into the factors that may contribute to varying levels of innovation across different contexts. There is a considerable body of research utilising ANOVA to investigate IWB. For example, Sudeshna Basu and Anjali (2009) explored the relationship between the IWB of managers and the levels of stress arising out of stressful events in modernised organisations, Turgut and Sökmen (2018) investigated the role self-efficacy plays in organisational ethics and IWBs, while (Abun et al., 2023) examined the effect of an innovative work environment on the IWB of employees.

ANOVA is helpful in this thesis for several reasons:

- a) Social science research often compares means or group differences across multiple categories or conditions. ANOVA allows for the simultaneous comparison of two or more groups, making it suitable for examining the effects of different factors on dependent variables.
- b) ANOVA is robust to deviations from assumptions, such as normality and equal variances. This makes it applicable in a wide range of social science studies where data distribution may not strictly adhere to assumptions.
- c) ANOVA has a long history of application in social science research and is well-established in statistical literature. It is widely used in various fields, such as psychology, sociology, industry, commerce, education, and economics, making it a familiar and accepted tool within the social sciences and aligned with this study's research objectives (Rutherford, 2011).

In this thesis, ANOVA was used to analyse the means of each independent variable (remote working frequency and our demographic factors) on the dependent variable to understand whether there were any differences in means within groups. The results of the ANOVA analysis are found in Chapter 6.5.

For the gender variable, which consisted of only two groups, an independent t-test was conducted instead of ANOVA. The independent-samples t-test is used to determine if a difference exists between the means of two independent groups on a continuous dependent variable (Hassan et al., 2021; Lai et al., 2016). For this demographic variable, the independent-samples t-test was employed in lieu of ANOVA, as our dataset comprised only two categories (Gerald, 2018; Wilcox, 2017). ANOVA is typically utilised when analysing three or more categories (Donati et al., 2021; Wilcox, 2017).

4.3.1. Testing for normality

Researchers often conduct normality tests as a preliminary step before performing ANOVA to confirm whether the data conform to a normal distribution (Lantz, 2012). A normal distribution, also known as a Gaussian distribution or bell curve, is a symmetric probability distribution that is characterised by its bell-shaped curve when plotted on a graph (Thrane, 2023). In a normal distribution, the data is symmetrically distributed around the mean, with the majority of the data clustered around the mean and tapering off towards the tails. When the data adhere to a normal distribution, ANOVA can offer precise and robust estimates of group differences, facilitating the interpretation of the analysis (Bird, 2002), whereas deviations from normality can result in biased estimates and incorrect conclusions (Arias-Castro et al., 2011). The normal distribution is characterised by two parameters: the mean (μ), which represents the central tendency of the distribution, and the standard deviation (σ), which indicates the spread or dispersion of the data.

The Shapiro-Wilk test was used to assess whether a given sample of data follows a normal distribution, and is generally considered to be better at detecting departures from normality in smaller sample sizes than other normality tests such as Kolmogorov-Smirnow or Anderson-Darling tests (Jo et al., 2016; Mbah & Paothong, 2014; Wah & Sim, 2011).

However, at larger sample sizes the Shapiro-Wilk test will flag even minor deviations from normality as statistically significant (i.e. not normally distributed) (Bishara et al., 2021; Shatz, 2023). The implication is that the Shapiro-Wilk test might indicate that the data is not normally distributed due to minor deviations that have little practical impact on analyses that assume normality. The Normal Q-Q (Quantile-Quantile) plot is a good complementary visual approach to assess normality (Loy et al., 2016). It plots the quantiles of the sample data against the quantiles of a normal distribution. If the data is normally distributed, the points should fall approximately along a straight line. If the Q-Q plot shows data points roughly along a straight line, this suggests that the data is approximately normally distributed, and minor deviations detected by the Shapiro-Wilk test may be disregarded in the context of practical analysis (Korkmaz et al., 2014).

4.3.1.1. Kruskal-Wallis H Test

The Kruskal-Wallis H test is considered an alternative to the one-way ANOVA, and is useful when the assumptions of parametric tests, such as ANOVA, are violated, such as the requirements of normality or homogeneity of variance (Conover, 1999; Dinno, 2015; Sherwani et al., 2021; Sheskin, 2011).

In this study, in instances where it was found that the data was not normally distributed, a Kruskal-Wallis H Test was also conducted. The Kruskal-Wallis H test (sometimes also called the ‘one-way ANOVA on ranks’) is a non-parametric test that can be used to determine if there are statistically significant differences in median values between two or more groups of an independent variable. Unlike the Jonckheere-Terpstra test when you have a specific directional hypothesis about the order of the groups, expecting a trend (Hernández et al., 2021; Nielsen et al., 2017), the Kruskal-Wallis H test is used when you want to test for any differences among the groups without assuming any specific order or trend in the data.

Irrespective, the one-way ANOVA is considered ‘robust’ to violations of normality. This means that some violations of this assumption can be tolerated, and the test will still provide valid results. Furthermore, as sample size increases, the distribution can be very non-normal, and, thanks to the Central Limit Theorem, the one-way ANOVA can still provide valid results. Hence, both tests were reported in instances where the normality test was violated.

4.3.2. Homogeneity of variances

The assumption of homogeneity of variances states that the population variance of the dependent variable for each group of your independent variable is the same. The assumption of homogeneity of variances was tested using Levene's test of equality of variances (Gastwirth et al., 2009; Marozzi, 2011). It is employed as a preliminary analysis before conducting parametric tests such as ANOVA. Levene's test helps to determine whether the assumption of homogeneity of variances is met, which is a prerequisite for valid inference in ANOVA (Balnaves & Caputi, 2001; Mara & Cribbie, 2017; Wang et al., 2016).

When this assumption is not met, you cannot interpret the standard one-way ANOVA. In this thesis the Welch ANOVA was used. Welch's ANOVA does not assume equal variances and is more robust to heteroscedasticity (Dağ et al., 2018; Krishnamoorthy et al., 2007; Velina et al., 2016). It adjusts the degrees of freedom used in the F-ratio calculation to account for the inequality of variances, providing a more reliable test when the assumption of homogeneity of variances is violated (Ahad & Yahaya, 2014; Derrick et al., 2016).

4.3.3. Post-hoc testing

Post hoc testing was also conducted when the initial analysis indicated significant differences among group means, as evidenced by a statistically significant F-statistic. This significant F-test suggests that at least one group mean differs from the others, leading to the rejection of the null hypothesis that all group means are equal. Since ANOVA itself does not specify which specific group means differ, post hoc tests are necessary to identify these differences (Einot & Gabriel, 1975; Hsu, 1996; Lee & Lee, 2018).

This thesis used Tukey-Kramer post hoc analysis (Lee & Lee, 2018; Ramsey et al., 2011) to compare the means of all possible pairs of groups following a significant difference found in the overall ANOVA test. Where a significant difference was found with the Kruskal-Wallis test, pairwise comparisons using Dunn's (1964) procedure with a Bonferroni adjustment were undertaken.

Tukey's test is ideal for parametric data as it assumes normality and homogeneity of variances, conditions that ANOVA also relies upon. This test is designed to compare all possible pairs of group means while controlling the family-wise error rate, making it efficient for identifying specific differences between group means when the ANOVA indicates significant results. The Tukey-Kramer test is an extension of Tukey's Honestly Significant Difference (HSD) test, specifically adapted for situations with unequal sample sizes across groups. This makes it highly suitable for post hoc analysis following ANOVA, as it maintains control over the family-wise error rate while accommodating the variability in sample sizes. This ensures that the comparisons of group means are robust and reliable, even when the sample sizes differ, thus enhancing the validity of the findings in parametric data contexts.

In contrast, the Kruskal-Wallis test is a non-parametric method that does not assume normality or homogeneity of variances, making it suitable for non-normally distributed data. When significant differences are found using Kruskal-Wallis, Dunn's (1964) procedure, used in conjunction with a Bonferroni adjustment, is ideal for post hoc comparisons following a Kruskal-Wallis test, which is a non-parametric method. The Bonferroni adjustment is conservative, reducing the risk of Type I errors (false positives), which is particularly important in non-parametric analyses where the data do not meet the stringent assumptions of parametric tests.

The use of Tukey's for ANOVA and Bonferroni for Kruskal-Wallis ensures appropriate, valid, and reliable post hoc analysis tailored to the nature of the data and the assumptions underlying each test.

4.4. Analysis – Logistic regression

Logistic regression is a statistical model extensively utilised in analysing binary outcomes, aiming to predict the probability of an event occurring or not. In the context of this thesis, logistic regression proves valuable in determining whether individuals exhibit IWB or not. The name 'logistic' regression originates from its utilisation of the logistic function, which effectively models the relationship between input variables and binary outputs. The application of logistic regression holds significant prominence in social science research and continues to gain traction in the field (King, 2008; Peng & So, 2002). Notably, numerous studies investigating innovation and innovative behaviour have

adopted logistic regression as their primary analytical method. For instance, Dwivedi and Pawsey (2023) delved into the drivers of marketing innovation in SMEs, Divisekera and Nguyen (2018) investigated determinants of innovation in the Australian tourism context, and Anand and Lokesh (2018) explored how the innovativeness in consumers accelerated innovative behaviour.

Logistic regression is useful in this study for several reasons:

- a) In social science research, many variables of interest are categorical, such as binary outcomes (e.g. yes/no, success/failure) or multinomial outcomes (e.g. low/medium/high). Logistic regression is specifically designed to model such categorical outcomes, making it well-suited for analysing data in social science studies.
- b) Logistic regression allows for estimating probabilities and odds ratios, which are valuable for understanding the relationships between predictor variables and the likelihood of specific outcomes occurring, such as whether remote employees demonstrate IWBs. This enables researchers to assess the impact of independent variables on the likelihood of an event or behaviour.
- c) Social science research frequently involves multiple predictor variables that may interact with each other or have independent effects on the outcome. Logistic regression facilitates the inclusion of multiple predictors in a single model, allowing for examining their independent and joint effects.
- d) Logistic regression provides interpretable coefficients and odds ratios, which can be easily understood and communicated. Researchers can assess the direction and magnitude of the relationship between predictors and the outcome, providing insights into the strength and significance of the associations.

In this thesis, logistic regression was used to analyse the effect of remote working frequency on the likelihood or probability of IWB occurring. The results of the logistic regression analysis are found in Chapter 6.6.

4.5. Chapter summary

This chapter provided an overview of the quantitative study method. It discussed the research design, data collection, and statistical analysis procedures of ANOVA and Logistic Regression. During the quantitative data collection, challenges were faced in getting firms onboarded to distribute the survey internally to their employees. To overcome this, the scope of the study had to be broadened and new ways to recruit participants were undertaken. However, the COVID-19 pandemic presented an opportunity as remote working became significantly more common and, for many employees, mandatory. This made the research topic highly relevant and timely.

The next chapter discusses the qualitative study approach and methods, while the quantitative study results are discussed in Chapter 6.

CHAPTER 5 -THE QUALITATIVE RESEARCH METHOD

5.1. Introduction

This chapter will discuss the research methods employed for the qualitative study. Selecting appropriate research methods is paramount in ensuring any academic investigation's rigour, validity, and reliability. In qualitative research, the emphasis lies on understanding and interpreting the complex phenomena under scrutiny, often within their natural settings, through a holistic and nuanced lens.

For the qualitative data collection, semi-structured interviews were the chosen approach. Collecting data for the qualitative side of this study was significantly challenged by the COVID-19 pandemic. Initially, not enough participants from the survey volunteered to take part in the interviews, necessitating a broadening of the recruitment scope. To address this, additional participants were sought through own professional networks and by promoting the study in professional closed groups on the social networking site LinkedIn.

Despite these challenges, the pandemic also provided a unique opportunity, as a greater number of people were currently working remotely, which enriched the pool of potential participants. Purposive sampling was critical in this data collection phase, as it allowed for the collection of detailed and relevant data from a targeted group of employees. By focusing on individuals with firsthand experience in remote working environments ensured the capture of rich, context-specific insights and the lived experiences of people, providing deep and nuanced insights into the impact of remote working on their creative and innovative behaviours.

The following sections provide an overview of the data collection methods employed in this study, the strategies and processes used for participant recruitment, and the steps involved in the data analysis process. The analysis of the qualitative study is discussed in Chapter 7.

5.2. Qualitative research methods

Qualitative research methods encompass techniques such as interviews, focus groups, ethnography, and case studies. Qualitative research holds significant value in the

social sciences due to its unique contributions to understanding complex social phenomena (Santana et al., 2021; Shelton et al., 2014). It enables a comprehensive approach to addressing the research objectives: to explore, understand and capture a range of perspectives, experiences, and themes.

Qualitative research provides rich and detailed insights into individuals' experiences, perceptions, and behaviours (Banyard & Miller, 1998; Creswell, 2007) and uncovering relationships. Qualitative research focuses on understanding the context and meaning of social phenomena, emphasising the importance of cultural, social, and historical contexts in shaping individuals' lives (Birkinshaw et al., 2011; Denzin & Lincoln, 2011) while being able to uncover new perspectives, concepts, and frameworks enhancing theoretical understanding in the social sciences (Charmaz, 2014).

For these reasons, qualitative methods were applied to understand from the employees perspective, the influence of remote working on their innovative behaviour.

5.2.1. Sampling method and sample size

The sampling method to select participants for the study was a non-probability sampling technique called 'purposeful' or 'purposive' sampling (Etikan et al., 2016). This is also known as judgmental, selective, or subjective sampling, where the units (in this case, employees) investigated are based on the researcher's judgment and is one of the most widely used sampling methods (Oppong, 2013; Palinkas et al., 2013; Robinson, 2014). This sampling method focuses on selecting individuals or cases with unique characteristics, experiences, or knowledge relevant to the research study (Creswell, 2007; Schindler, 2018), deliberately selecting participants based on their capacity to provide detailed insights (Patton, 2015; Robinson, 2014). This approach fits the objectives of the thesis by investigating employees with real experience and knowledge of utilising remote working practices.

The sample population for this study consisted of Australian-based employees who have experience working remotely who can provide insights into the challenges and benefits of remote work within the Australian context. Prior to conducting the interviews, it was confirmed via email that participants were currently working in Australia and had experience working away from the main office building. If they were not based in Australia or were working fully remotely, they were not interviewed for the study. Those

employees who worked fully remotely were not included as sub-research question 4 specifically investigates the lived experiences of employees comparing office-based to remote-based working.

A total of 18 interviews were conducted. The interviewing process continued until saturation was reached, where no new themes or ideas were emerging (Hennink & Kaiser, 2022). Reaching saturation refers to the point at which collecting additional data or sampling additional participants does not yield any new or meaningful information or insights related to the research topic (Mwita, 2022; L. Yang et al., 2022). It signifies that the researcher has gathered enough data to adequately understand and explore the phenomenon of interest and answer the research questions or achieve the research objectives. Further data collection is unlikely to contribute substantially to the overall understanding or analysis.

5.2.2. Participant recruitment

The recruitment of participants came from various sources. One source was the questionnaire during the quantitative data collection phase. At the end of the questionnaire, respondents were asked if they would be willing to participate in an interview. Those who selected 'yes' were directed to a new screen where they provided their email address. They received a confirmation email to reconfirm their willingness to participate. Five respondents were recruited from the questionnaires.

Since five interviews would be insufficient, additional participants were recruited. Invitations were posted in closed LinkedIn professional groups and distributed through the researcher's professional network to broaden participation. Refer to Table 5.1 for a summary of participants and the recruitment channel.

Prior to conducting the interviews, the researcher confirmed via email that participants were based in Australia. They were also emailed an information sheet about the study before the interview (refer to Appendix D). An electronic consent form was also required to be completed and signed before the interview (refer to Appendix E). If an employee agreed to participate, they were then emailed a Calendly.com scheduling link to schedule at an interview time that was convenient to them.

Each employee was assigned a code to ensure anonymity. The interviews were conducted between November 2021 and March 2023, using the Zoom communication platform, and lasted 40 minutes on average. All interviews were audio recorded, and auto transcription was used (with participant consent). The researcher also manually reviewed and cleaned each transcription.

Table 5-1: Summary of participant recruitment

Employee Code	Recruitment
EMP01	Questionnaire
EMP02	Questionnaire
EMP03	Questionnaire
EMP04	Questionnaire
EMP05	Questionnaire
EMP06	Network
EMP07	Network
EMP08	Professional group (LinkedIn)
EMP09	Network
EMP10	Professional group (LinkedIn)
EMP11	Network
EMP12	Professional group (LinkedIn)
EMP13	Professional group (LinkedIn)
EMP14	Professional group (LinkedIn)
EMP15	Professional group (LinkedIn)
EMP16	Professional group (LinkedIn)
EMP17	Professional group (LinkedIn)
EMP18	Professional group (LinkedIn)

5.3. Data collection

'The interview is the primary data collection technique for gathering data in qualitative methodologies' (Schindler, 2018, p. 129).

In-depth semi-structured interviews were chosen as the data collection method as they enable ‘a more accurate and clear picture of a respondents position or behaviour’ (Ghauri, 2020, p. 117). Semi-structured interviews are an effective data collection instrument commonly used in qualitative research due to their flexibility, depth, and ability to capture rich and nuanced insights from participants (Adeoye - Olatunde & Olenik, 2021; Monteiro et al., 2016; Striukova & Rayna, 2015).

Semi-structured interviews allow researchers to have a predefined set of questions while also providing flexibility to explore unanticipated topics or delve deeper into participants' responses (Anderson & Holloway-Libell, 2014; Swain, 2018). This enables participants to clarify and elaborate their answers and allows the interviewer to ask probing questions or follow-up questions. By allowing participants to elaborate on their experiences, emotions, and thoughts, we can get a deeper understanding of the research topic (Brinkmann, 2013; Olson, 2016). Interviews also allow the researcher to gather information within the specific context of the participants in order to consider how this may influence their responses. Denzin and Lincoln (2011) explain how interviews can foster participant engagement and active involvement in the research process, as they can share their narratives, contribute insights, and shape the direction of the conversation.

5.3.1. Interview design

The interview protocol consisted of a set of questions designed to meet the aims and objectives of the study and expected to provide a useful dataset that addresses the research questions. Employees were asked questions to reflect on their experiences and behaviour when working remotely guided by the Ability, Motivation, Opportunity Framework (Appelbaum et al., 2000; Bailey, 1993) and the IWB four-phase model (De Jong & Den Hartog, 2010). Participants were asked to provide examples where possible to explain their response. The interviews were digitally recorded, and auto transcription of the audio was used to facilitate analysis. Each interview was transcribed verbatim, however any mentions of participant names or their organisation was later removed to ensure anonymity. Participants were assigned unique codes, from EMP1 to EMP18, for identification purposes.

The interviews were designed to allow exploration of the following: (a) how employees perceive their IWB may be shaped by working remotely; (b) possible factors of remote working that foster and/or hinder their IWB; and their experience between remote and office-based working in terms of their IWB. The interview protocol consisted of 24 questions within three sections prepared in advance (see Appendix F), summarised in Table 5.2 below.

Table 5-2: Interview sections and items

Section	Heading	No. of items	Responses
1	Participant background	2	Open-ended
2	Usage of remote working	3	Open-ended
3	Ability, Motivation, Opportunity factors	19	Open-ended

5.3.1.1. Section 1: Participant background

The questions in this section sought to obtain detailed information from employees about their work experience, including their background, current role, job level, and job responsibilities. The study specifically recruited participants with experience in remote working who were based in Australia. This purposive sampling approach aimed to gain a thorough understanding of the employees' professional backgrounds, providing context to their lived experiences of working both in the office and remotely. By collecting this background information, the study was able to contextualise the participants' insights and experiences, offering a view of how remote work may have impacted their creative and innovative behaviours. This enriched the data, allowing for a deeper analysis of the effects and implications of remote working practices.

5.3.1.2. Section 2: Usage of remote working

The questions in this section aimed to gain insights into the frequency with which employees worked remotely and their preferred locations for completing tasks outside the traditional office environment. Participants were asked to specify how often they engaged

in remote work and to identify the locations they found most conducive to their productivity and creativity, such as home offices, coworking spaces, or other remote settings. Additionally, participants were requested to elaborate on the motivations driving their choice to work remotely. This approach sought to understand not only the logistical aspects of remote work but also the underlying reasons that influenced employees' decisions to opt for remote working arrangements.

5.3.1.3. Section 3: Ability, Motivation, Opportunity Factors

Section 3 of the interview protocol delved into the employee's perspectives, opinions, experiences, and perceptions regarding the impact of remote work on their innovative behaviour. The questions leveraged the phases of IWB (De Jong & Den Hartog, 2010) as a foundation to explore the typical activities associated with each phase. Moreover, the study sought to establish connections between these activities and the individual's ability, motivation, and opportunity to engage in such behaviours, using the AMO theoretical framework as a foundation (Appelbaum et al., 2000; Bailey, 1993). Table 5.3 provides the examples:

Table 5-3: Example questions from interview protocol

AMO framework	Example question(s)
Ability	When working remotely, how do you collaborate with your work colleagues? probe: how does the collaboration experience compare to when you are working in the office? What works/doesn't work?
Motivation	Where do you feel more 'creative'? E.g. In the office or working remotely? Why?
Opportunity	When you are not working in the office, are you hearing about new ideas from your workplace? probe: why/why not? Do you promote these new ideas to others or talk about them with others? Why/why not?

5.4. Qualitative data analysis method

A thematic analysis was used in this thesis to analyse the data collected. NVivo 14 software application was used to facilitate data analysis. Thematic analysis is ‘a method for identifying, analysing and reporting patterns (themes) within data’ (Braun & Clarke, 2012). It involves systematically coding and categorising qualitative data, such as interview transcripts, to uncover recurring themes that capture key aspects of the research topic. Thematic analysis aims to provide rich insights and understanding of phenomena by organising and interpreting qualitative data in a structured and meaningful way.

There are several benefits to using thematic analysis in this thesis. Firstly, thematic analysis offers flexibility in exploring and interpreting qualitative data. Unlike other analytic methods, thematic analysis is not bound to a specific theoretical or epistemological position (Maguire & Delahunt, 2017; Swain, 2018). This flexibility allows for in-depth exploration and interpretation of the data, capturing its complexity and diversity. For this study it enables the collection of rich and nuanced data about how remote working may shape employee experiences and innovative behaviour.

Secondly, thematic analysis is accessible to researchers across various disciplines and experience levels (Ozuem et al., 2022; Terry et al., 2017). It does not require specialised software or technical expertise, making it widely accessible and applicable in diverse research contexts. Importantly, it has been used in numerous studies exploring remote working (Deutrom et al., 2022; Henke et al., 2022; Newcomb & Venning, 2022) and innovation (Aldulaimi & Abdeldayem, 2020; Michalakopoulou et al., 2023; Santiago, 2023; Wipulanusat et al., 2019).

Thirdly, thematic analysis embraces an interpretive approach (Byrne, 2021; Peterson, 2017), focusing on the subjective meanings and perspectives of participants, a primary research objective of this thesis and alignment to the interpretivist research paradigm. It acknowledges the role of the researcher in constructing meaning from the data. This interpretive lens enables researchers to gain insights into participants’ experiences, beliefs, and attitudes, enhancing the richness and depth of the analysis. Therefore, thematic analysis is not aimed at developing a theory but rather at

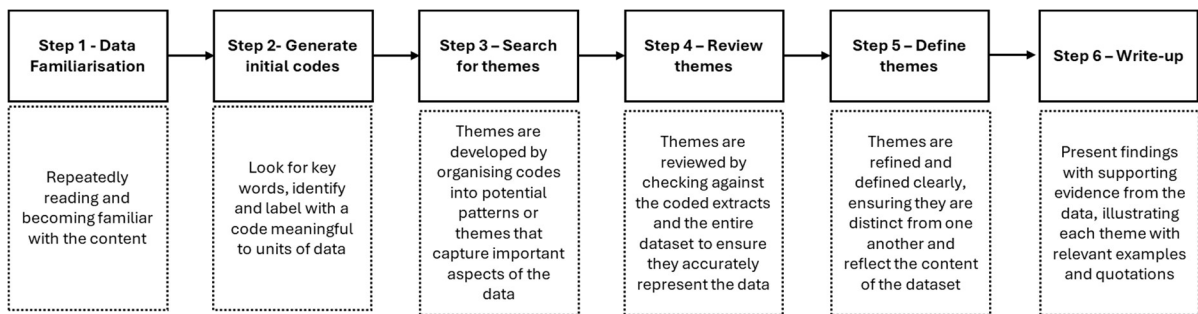
understanding a phenomenon by identifying, analysing, and interpreting themes found across the data.

Lastly, thematic analysis follows a systematic and rigorous process, ensuring the trustworthiness and credibility of the findings. Researchers engage in a careful and iterative process of coding, categorising, and analysing the data, facilitating a thorough dataset exploration (Naeem et al., 2023; Nowell et al., 2017).

5.4.1. Thematic analysis steps

Thematic analysis encompasses a set of steps designed to discern and delineate patterns of significance within qualitative datasets (Forbes, 2022; Nowell et al., 2017; Xu & Zammit, 2020). Figure 5.1 below outlines the key steps undertaken in this thesis to analyse the qualitative data obtained from the interviews (Braun & Clarke, 2006).

Figure 5-1: Steps of thematic analysis



5.4.1.1. Data familiarisation

Familiarisation with the data involves immersing oneself deeply in the collected materials. This step included reading and re-reading transcripts to develop an understanding of the content, raw data and context. This part of the process is to identify patterns, key ideas, and initial impressions that may inform subsequent coding and thematic development.

5.4.1.2. Generate initial codes

The process of generating initial codes entails systematically labelling with short and meaningful labels segments of data that are relevant to the research objectives. Codes

are typically descriptive, capturing specific concepts, actions, or phenomena present in the data. By coding the data, potential themes and patterns emerge from the raw data.

5.4.1.3. *Search for themes*

Searching for themes involves sorting and combining the initial codes to identify broader patterns, topics, relationships between different codes or recurring ideas within the dataset. Themes will emerge as clusters of codes are amalgamated into common concepts. This phase required a balance of deductive and inductive reasoning, as drawing on existing theoretical frameworks while remaining open to unexpected findings within the data. The goal was to uncover meaningful themes that encapsulate the dataset's central themes and provide insights into the research questions.

5.4.1.4. *Review themes*

Once potential themes have been identified, they were reviewed and refined through a thorough examination of the coded data and the dataset as a whole. Each theme was critically assessed to ensure it accurately reflected the dataset's content and captured relevant aspects of the research study.

5.4.1.5. *Define themes*

Defining and naming themes involves clearly articulating each identified theme in precise terms that capture its essence and distinguish it from other themes. This step involved revisiting the original transcripts and revising the thematic labels to accurately convey the underlying concepts. Clear definitions ensure the findings to be communicated effectively and facilitate comparisons with existing literature.

5.4.1.6. *Write-up*

The final step in thematic analysis involves synthesising the findings into a coherent narrative. The identified themes are supported by illustrative examples and quotations from the data. The findings are contextualised within the broader research context.

5.5. Chapter summary

This chapter provided an overview of the qualitative study method, including the interview design, data collection, and data analysis processes. Whilst recruiting participants for interviews posed challenges in the qualitative data collection phase; the COVID-19 pandemic inadvertently facilitated recruitment by increasing the number of employees with remote work experience. The next chapter discusses the results from the quantitative study, and Chapter 7 discusses the results from the qualitative study.

CHAPTER 6 - QUANTITATIVE DATA ANALYSIS

6.1. Introduction

The purpose of this chapter is to provide the results of the data analysis conducted in this study. It begins with an overview of the procedures and data preparation, which involves data coding and transformation, before providing the results of the descriptive statistics, ANOVA and logistic regression.

6.2. Data screening and transforming

A total of 431 questionnaires were thoroughly assessed for accuracy, missing values, and potential outliers to ensure the reliability of the data (Pallant, 2020). From the sample, questionnaires were omitted from analysis if respondents indicated 'never' in response to the inquiry concerning their frequency of remote work. This criterion was employed due to the study's focused examination of employee behaviour during remote work scenarios, necessitating active engagement in remote work to ensure coherence and relevance of the data under scrutiny.

Additionally, questionnaires were excluded from the dataset if they solely comprised demographic information without any accompanying responses to other questionnaire items (Allison, 2009; Newman, 2014). This practice of eliminating questionnaires with incomplete responses contributes to the refinement of data integrity (Jakobsen et al., 2017). Questionnaires that solely provide demographic information without engaging with the core research items fail to contribute meaningful data to address the study's objectives. Specifically, in the context of this study, the inclusion of responses related to IWB was imperative for conducting statistical analyses. Thus, questionnaires lacking such essential data were systematically omitted from further consideration (Mat Roni & Djajadikerta, 2021). However, questionnaires that contained some responses to the IWB questions were retained, as they could still provide valuable insights into the individual IWB phases.

Responses to the 'gender' question saw only eight respondents select 'Non-binary' or 'Prefer not to say'. Removing data with very few responses to an item is essential for maintaining the statistical robustness and reliability of the analysis. When a dataset contains very small responses to a particular item, it can significantly skew the

results and compromise the validity of any conclusions drawn from the analysis. This resulted in 324 usable responses.

Subsequently, the raw data underwent a process of transformation, resulting in the creation of additional variables while preserving the integrity of the original data. The analysis uses the transformed data rather than the untransformed because many statistical techniques such as regression and analysis of variance require that data follow a distribution of a particular kind (Bland & Altman, 1996; Fink, 2009; In & Lee, 2017).

The transformation process included:

- Recoding data entered as text (e.g. gender) to numeric data (e.g. 1, 2)
- Reducing the number of categories of a categorical variable (e.g. tenure) to decrease the number of cases where there was low frequency in distributions (Table 6.1)
- Adding up the scores from the items that made up the dependent variables (e.g. IWB) to give an overall continuous scale for IWB and each of the four phases (Table 6.2)
- Averaging the scores from the items that made up the dependent variables (e.g. IWB) to give an overall continuous scale for IWB and each of the four phases (Table 6.3)
- Using the average scores from the items that made up the dependent variables (e.g. IWB in Table 6.4) and assigning those cases where the average was equal to or greater than 4 as 'Yes' and assigning all other cases 'No' to create a binary dependent variable for IWB and each of the four phases (Table 6.4).

Table 6-1: Data categories following transformation

Variable	Categories before transformation	Categories after transformation
RWF	‘Once per month’, ‘Twice per month’, ‘3 times per month’, ‘1 day per week’, ‘2–4 days per week’ and ‘Always work remote’	‘1–3 times per month’, ‘1 day per week’, ‘2–4 days per week’ and ‘Always work remote’
Gender	‘Female’, ‘Male’, ‘Non-binary’ and ‘Prefer not to say’	‘Female’, ‘Male’ and ‘Unknown’
Age	‘18–30 years’, ‘31–40 years’, ‘41–50 years’, ‘51–60 years’ and ‘61+ years’	‘18–30 years’, ‘31–40 years’, ‘41–50 years’ and ‘51+ years’
Employment Status	‘Full-time’, ‘Part-time’, ‘Casual/contract’ and ‘Temporary/project-based’	‘Full-time’, ‘Part-time’ and ‘Casual/Contract’
Tenure	‘Less than 2 years’, ‘Between 2–5 years’, ‘6–10 years’, and ‘More than 10 years’	‘Less than 2 years’, ‘Between 2–5 years’ and ‘More than 6 years’
Employment Level	‘Administration’, ‘Non manager’, ‘Manager without direct reports’, ‘Manager with direct reports’, ‘Senior Executive/Senior Leadership’, and ‘GM/CEO/Business owner’	‘Administration’, ‘Non manager’, ‘Manager’ and ‘Senior Leadership’

Table 6-2: Continuous dependent variables (sum)

Dependent variable	Question #	New continuous variable (sum)
	Σ	
IWB	8–34	IWB_scale
Idea Exploration	8–17	Explore_scale
Idea Generation	18–24	Gen_scale
Idea Championing	25–29	Champ_scale
Idea Implementation	30–34	Imp_scale

Table 6-3: Continuous dependent variables (avg)

Dependent variable	Question #	New continuous variable (avg)
	μ	
IWB	8–34	IWB_avg
Idea Exploration	8–17	Explore_avg
Idea Generation	18–24	Gen_avg
Idea Championing	25–29	Champ_avg
Idea Implementation	30–34	Imp_avg

Table 6-4: Binary dependent variables

Dependent variable	Question #	New variable	New binary variable
	$\mu \approx$		If ≤ 3.99 = No
	(rounded up to 0 decimal places)		If ≥ 4 = Yes
IWB	8–34	IWB_rounded	IWB_YN
Idea Exploration	8–17	Explore_rounded	Explore_YN
Idea Generation	18–24	Gen_rounded	Gen_YN
Idea Championing	25–29	Champ_rounded	Champ_YN
Idea Implementation	30–34	Imp_rounded	Imp_YN

6.3. Descriptive statistics

The respondent demographics are presented in Table 6.5. The analysis showed that almost half, 46.3% of respondents worked remotely 2–4 days per week, and 21.6% worked remotely all their working time. The majority of respondents were aged between 18 and 40 years (77.2%), and the majority worked full-time (63.9%). Of the 324 respondents, 47.8% identified as female and 52.2% identified as male. Regarding time at their current organisation, 40.7% indicated they had worked there for less than two years, 34.3% had from two to five years, and 25% had more than six years. In terms of employment level, the majority classified themselves as working in a non-manager role

(51.9%), while 27.2% classified themselves as managers. A further 12.7% worked in administrative roles while 8.3% were in senior leadership.

Table 6-5: Respondent demographics

Profile	Employee details (n=324)	N	%
Gender	Female	155	47.8%
	Male	169	52.2%
Age	18–30 years	158	48.8%
	31–40 years	92	28.4%
	41–50 years	42	13.0%
	51+ years	32	9.9%
Employment status	Full-time	207	63.9%
	Part-time	61	18.8%
	Casual/Contract	56	17.3%
Tenure	Less than 2 years	132	40.7%
	2–5 years	111	34.3%
	More than 6 years	81	25.0%
Employment level	Administration	41	12.7%
	Not a manager	168	51.9%
	Manager	88	27.2%
	Senior Leadership	27	8.3%
Frequency of working remotely	1–3 times per month	41	12.7%
	1 day per week	63	19.4%
	2–4 days per week	150	46.3%
	Always work remotely	70	21.6%

6.3.1. Remote working frequency (RWF)

Of the total sample, almost half, 46.3% worked remotely 2–4 times per week. A further 21.6% always worked remotely (Table 6.6).

Table 6-6: Overall frequency of working remotely

Frequency	N	%
1–3 times per month	41	12.7%
Once a week	63	19.4%
2–4 times per week	150	46.3%
Always	70	21.6%
	324	100.0%

6.3.1.1. RWF by age

The category of ‘working remotely 2–4 times per week’ emerged as the most frequent selection across all age groups within the sample (Table 6.7). Individuals aged 41 years and above exhibited a higher inclination to ‘always’ work remotely compared to the other age groups. Similarly, half of those aged 51+ years reported working remotely 2–4 times per week.

Table 6-7: Cross tabulation of RWF by age

*Age * How often working remotely Cross Tabulation*

		How often working remotely				Total
		1–3 times per month	Once a week	2–4 times per week	Always	
Age	18–30	Count	25	30	73	158
		% within Age	15.8%	19.0%	46.2%	19.0%
	31–40	Count	10	19	44	92
		% within Age	10.9%	20.7%	47.8%	20.7%
	41–50	Count	3	9	17	42
		% within Age	7.1%	21.4%	40.5%	31.0%
	51+	Count	3	5	16	32
		% within Age	9.4%	15.6%	50.0%	25.0%
Total		Count	41	63	150	324
		% within Age	12.7%	19.4%	46.3%	21.6%

6.3.1.2. RWF remotely by gender

In the sample, both genders predominantly engaged in remote work ‘2–4 times per week’ (Table 6.8). Females had a higher proportion of ‘always’ working remotely compared to males.

Table 6-8: Cross tabulation of RWF by gender

*Gender * How often working remotely Cross Tabulation*

		How often working remotely					
		1–3 times per month	Once a week	2–4 times per week	Always	Total	
Gender	Female	Count	22	25	65	43	155
		% within Gender	14.2%	16.1%	41.9%	27.7%	100.0%
	Male	Count	19	38	85	27	169
		% within Gender	11.2%	22.5%	50.3%	16.0%	100.0%
Total		Count	41	63	150	70	324
		% within Gender	12.7%	19.4%	46.3%	21.6%	100.0%

6.3.1.3. RWF by employment status

The majority of Contractors/Casual workers sampled are working remotely all of the time, compared to the other employment categories (Table 6.9). Among full-time workers, there is a greater tendency to engage in remote work ‘2–4 times per week’, while part-time workers exhibit an equal likelihood of working remotely ‘2–4 times per week’ and ‘always’.

Table 6-9: Cross tabulation of RWF by employment status

*ES * RWF Cross Tabulation*

		How often working remotely					
		1–3 times per		2–4 times per		Always	Total
		month	Once a week	week			
ES	Full-time	Count	22	41	119	25	207
		% within ES	10.6%	19.8%	57.5%	12.1%	100.0%
	Part-time	Count	10	15	18	18	61
		% within ES	16.4%	24.6%	29.5%	29.5%	100.0%
	Contract/Casual	Count	9	7	13	27	56
		% within ES	16.1%	12.5%	23.2%	48.2%	100.0%
Total	Count	41	63	150	70	324	
	% within ES	12.7%	19.4%	46.3%	21.6%	100.0%	

6.3.1.4. RWF by tenure

In the sample, all tenure groups predominantly engaged in remote work ‘2–4 times per week’ (Table 6.10). Those with less than two years of tenure at their current organisations had the highest proportion of ‘always’ working remotely compared to other group proportions.

Table 6-10: Cross tabulation of RWF by tenure

*Tenure * RWF Cross Tabulation*

		How often working remotely					
		1–3 times per		2–4 times per		Always	Total
		month	Once a week	week			
Tenure	Less than 2 years	Count	18	28	52	34	132
		% within Tenure	13.6%	21.2%	39.4%	25.8%	100.0%
	2–5 years	Count	15	22	56	18	111
		% within Tenure	13.5%	19.8%	50.5%	16.2%	100.0%
	6+ years	Count	8	13	42	18	81
		% within Tenure	9.9%	16.0%	51.9%	22.2%	100.0%
Total	Count	41	63	150	70	324	
	% within Tenure	12.7%	19.4%	46.3%	21.6%	100.0%	

6.3.1.5. RWF by employment level

In the sample, both administration roles and senior level roles predominantly ‘always’ worked remotely, while managers and non-managers worked remotely ‘2–4 times per week’ (Table 6.11).

Table 6-11: Cross tabulation of RWF by employment level

*EL * RWF Cross Tabulation*

			How often working remotely				Always Total
			1–3 times per month	Once a week	2–4 times per week		
EL	Administration	Count	3	6	15	17	41
		% within EL	7.3%	14.6%	36.6%	41.5%	100.0%
	Not a manager	Count	23	30	78	37	168
		% within EL	13.7%	17.9%	46.4%	22.0%	100.0%
	Manager	Count	12	20	49	7	88
		% within EL	13.6%	22.7%	55.7%	8.0%	100.0%
	Senior Leadership/CEO	Count	3	7	8	9	27
		% within EL	11.1%	25.9%	29.6%	33.3%	100.0%
Total		Count	41	63	150	70	324
		% within EL	12.7%	19.4%	46.3%	21.6%	100.0%

6.3.1.6. Summary of RWF

Overall, the categories within the sample demonstrating the highest prevalence of remote work (i.e. always working remotely) were identified as follows: the 41–50 age group, contract/casual working females, with less than two years of tenure at their current organisation, working in administration positions.

The categories within the sample demonstrating a consistently high prevalence of remote work (‘2–4 times per week’), were identified as follows: the 51+ age group, full-time working males, with 6+ years tenure, working in managerial positions.

6.3.2. Innovative Work Behaviour

As discussed in Chapter 3, the respondents were asked to answer how often they undertook a particular activity within each of the four phases of IWB (De Jong & Den Hartog, 2010), choosing from 1 = never, to 5 = always.

The standard deviation measures the size of the variation or spread around the mean of a continuous variable, indicating how much individual data points deviate from the mean value of the dataset. The larger the standard deviation, the more variation around the mean there is, the more spread out they are (Thrane, 2023). A low standard deviation indicates data observations very close to the mean (Albers, 2017). The standard deviation of 0.66 for the idea exploration phase indicates relatively low variability within the data set, the data points are relatively close to the mean. This suggests that most employees' frequency of undertaking idea exploration activities is very close to the average of idea exploration frequency. Conversely, the standard deviation for idea generation, championing and implementation suggests a moderate level of variability around the mean. While not extremely high, the values tend to spread out somewhat from the average value (Table 6.12).

The idea exploration and generation phases had higher means in comparison to the other phases and sit closer to the boundary between 'sometimes – 2 to 3 times per month' and 'often – 4 to 8 times per month'.

Table 6-12: Means and standard deviation

Variable	Mean	Standard deviation
IWB	3.30	0.704
Idea Exploration	3.39	0.657
Idea Generation	3.47	0.764
Idea Championing	3.01	0.904
Idea Implementation	3.25	0.889

Across all phases, with the exception of the idea generation phase, the majority of respondents provided responses categorised as 'sometimes'. However, in the idea

generation phase, there was an almost equal split, with 42.9% of respondents choosing ‘sometimes’ and 42.3% selecting ‘often’ (Table 6.13). The idea generation phase received the highest number of responses indicating ‘always’ (6.8%) compared to the other phases, with the idea implementation phase ranking second with 5.2% of respondents choosing ‘always’. The idea generation phase had more responses of ‘often’ to ‘always’ than any other phase (49.1%).

Table 6-13: IWB frequency table – percentages of rounded averages

	IWB	Idea Exploration	Idea Generation	Idea Championing	Idea Implementation
Never	0.6%	0.3%	0.9%	6.2%	3.7%
Rarely	9.9%	5.9%	7.1%	17.9%	13.6%
Sometimes	50.9%	50.9%	42.9%	48.1%	41.7%
Often	36.1%	40.1%	42.3%	24.1%	35.5%
Always	2.5%	2.8%	6.8%	3.7%	5.2%
<i>missing data</i>					0.3%

Among all the phases, the idea championing phase had the highest percentage of respondents answering ‘never’ (6.2%) in comparison to the other phases, closely followed by the idea implementation phase (3.7%). The idea championing phase had more responses of ‘never’ to ‘rarely’ than any other phase (24.1%).

The findings regarding IWB indicate that approximately 51% of the respondents reported they sometimes undertake IWB activities. Moreover, 38.6% reported frequent to consistent engagement in such activities, reporting they often to always undertake IWB activities.

6.3.2.1. IWB by age

In all sampled age groups, with the exception of individuals aged 51+ years and above, the most frequently reported frequency for engaging in IWB was ‘sometimes’, followed by ‘often’ (Table 6.14). Those aged 51+ were equally as likely to report ‘sometimes’ and ‘often’, while 18–30-year-olds had the highest proportion of ‘always’ exhibiting IWB.

Table 6-14: Frequency of IWB by age

*Age * IWB round Cross Tabulation*

			IWB round					
			Never	Rarely	Sometimes	Often	Always	Total
Age	18–30	Count	2	14	83	52	7	158
		% within Age	1.3%	8.9%	52.5%	32.9%	4.4%	100.0%
	31–40	Count	0	6	51	35	0	92
		% within Age	0.0%	6.5%	55.4%	38.0%	0.0%	100.0%
	41–50	Count	0	7	18	17	0	42
		% within Age	0.0%	16.7%	42.9%	40.5%	0.0%	100.0%
	51+	Count	0	5	13	13	1	32
		% within Age	0.0%	15.6%	40.6%	40.6%	3.1%	100.0%
Total		Count	2	32	165	117	8	324
		% within Age	0.6%	9.9%	50.9%	36.1%	2.5%	100.0%

Upon closer examination of the four distinct phases, some variations become apparent. In the first two phases, Idea Exploration and Idea Generation, employees aged 41–50 predominantly indicated ‘often’ as their response (Tables 6.15 and 6.16). In contrast, during the latter two phases, Idea championing and Idea Implementation phases, 41–50-year-olds predominantly indicated ‘sometimes’ (Tables 6.17 and 6.18).

Table 6-15: Frequency of Idea exploration by age

*Age * Explore round Cross Tabulation*

			Explore round					
			Never	Rarely	Sometimes	Often	Always	Total
Age	18–30	Count	1	9	85	56	7	158
		% within Age	0.6%	5.7%	53.8%	35.4%	4.4%	100.0%
	31–40	Count	0	3	48	40	1	92
		% within Age	0.0%	3.3%	52.2%	43.5%	1.1%	100.0%
	41–50	Count	0	5	17	20	0	42
		% within Age	0.0%	11.9%	40.5%	47.6%	0.0%	100.0%
	51+	Count	0	2	15	14	1	32
		% within Age	0.0%	6.3%	46.9%	43.8%	3.1%	100.0%
Total		Count	1	19	165	130	9	324
		% within Age	0.3%	5.9%	50.9%	40.1%	2.8%	100.0%

Table 6-16: Frequency of Idea generation by age

*Age * Gen rounded Cross Tabulation*

			Gen rounded					
			Never	Rarely	Sometimes	Often	Always	Total
Age	18-30	Count	2	8	70	63	15	158
		% within Age	1.3%	5.1%	44.3%	39.9%	9.5%	100.0%
	31-40	Count	0	5	43	41	3	92
		% within Age	0.0%	5.4%	46.7%	44.6%	3.3%	100.0%
	41-50	Count	0	6	14	19	3	42
		% within Age	0.0%	14.3%	33.3%	45.2%	7.1%	100.0%
	51+	Count	1	4	12	14	1	32
		% within Age	3.1%	12.5%	37.5%	43.8%	3.1%	100.0%
Total		Count	3	23	139	137	22	324
		% within Age	0.9%	7.1%	42.9%	42.3%	6.8%	100.0%

Table 6-17: Frequency of Idea championing by age

*Age * Champ rounded Cross Tabulation*

			Champ rounded					
			Never	Rarely	Sometimes	Often	Always	Total
Age	18-30	Count	6	29	73	40	10	158
		% within Age	3.8%	18.4%	46.2%	25.3%	6.3%	100.0%
	31-40	Count	7	12	47	25	1	92
		% within Age	7.6%	13.0%	51.1%	27.2%	1.1%	100.0%
	41-50	Count	2	12	23	5	0	42
		% within Age	4.8%	28.6%	54.8%	11.9%	0.0%	100.0%
	51+	Count	5	5	13	8	1	32
		% within Age	15.6%	15.6%	40.6%	25.0%	3.1%	100.0%
Total		Count	20	58	156	78	12	324
		% within Age	6.2%	17.9%	48.1%	24.1%	3.7%	100.0%

Table 6-18: Frequency of Idea implementation by age

*Age * Imp rounded Cross Tabulation*

			Imp rounded					
			Never	Rarely	Sometimes	Often	Always	Total
Age	18-30	Count	4	26	63	54	11	158
		% within Age	2.5%	16.5%	39.9%	34.2%	7.0%	100.0%
	31-40	Count	4	7	38	39	4	92
		% within Age	4.3%	7.6%	41.3%	42.4%	4.3%	100.0%
	41-50	Count	1	7	22	10	1	41
		% within Age	2.4%	17.1%	53.7%	24.4%	2.4%	100.0%
	51+	Count	3	4	12	12	1	32
		% within Age	9.4%	12.5%	37.5%	37.5%	3.1%	100.0%
Total		Count	12	44	135	115	17	323
		% within Age	3.7%	13.6%	41.8%	35.6%	5.3%	100.0%

6.3.2.2. IWB by gender

Across IWB overall, the most reported frequency was ‘sometimes’, followed by ‘often’ (Table 6.19). However, a slight contrast emerged between the genders, with males exhibiting a higher proportion of ‘often’ during the Idea Generation and Idea Implementation phases (Tables 6.21 and 6.23).

More males selected ‘always’ during the first two phases (Idea Exploration and Idea Generation), while more females selected ‘always’ during the latter two phases (Idea Championing and Idea Implementation).

Table 6-19: Frequency of IWB by gender

*Gender * IWB_round Cross Tabulation*

			IWB round					
			Never	Rarely	Sometimes	Often	Always	Total
Gender	Female	Count	0	13	88	49	5	155
		% within	0.0%	8.4%	56.8%	31.6%	3.2%	100.0%
Gender								
	Male	Count	2	19	77	68	3	169
		% within	1.2%	11.2%	45.6%	40.2%	1.8%	100.0%
Gender								
Total	Count		2	32	165	117	8	324
	% within		0.6%	9.9%	50.9%	36.1%	2.5%	100.0%
Gender								

Table 6-20: Rate of Idea exploration by gender

*Gender * Explore_round Cross Tabulation*

			Explore round					
			Never	Rarely	Sometimes	Often	Always	Total
Gender	Female	Count	0	4	87	60	4	155
		% within	0.0%	2.6%	56.1%	38.7%	2.6%	100.0%
Gender								
	Male	Count	1	15	78	70	5	169
		% within	0.6%	8.9%	46.2%	41.4%	3.0%	100.0%
Gender								
Total	Count		1	19	165	130	9	324
	% within		0.3%	5.9%	50.9%	40.1%	2.8%	100.0%
Gender								

Table 6-21: Frequency of Idea generation by gender

*Gender * Gen rounded Cross Tabulation*

			Gen rounded					
			Never	Rarely	Sometimes	Often	Always	Total
Gender	Female	Count	1	9	72	64	9	155
		% within Gender	0.6%	5.8%	46.5%	41.3%	5.8%	100.0%
	Male	Count	2	14	67	73	13	169
		% within Gender	1.2%	8.3%	39.6%	43.2%	7.7%	100.0%
Total		Count	3	23	139	137	22	324
		% within Gender	0.9%	7.1%	42.9%	42.3%	6.8%	100.0%

Table 6-22: Frequency of Idea championing by gender

*Gender * Champ rounded Cross Tabulation*

			Champ rounded					
			Never	Rarely	Sometimes	Often	Always	Total
Gender	Female	Count	9	32	74	34	6	155
		% within Gender	5.8%	20.6%	47.7%	21.9%	3.9%	100.0%
	Male	Count	11	26	82	44	6	169
		% within Gender	6.5%	15.4%	48.5%	26.0%	3.6%	100.0%
Total		Count	20	58	156	78	12	324
		% within Gender	6.2%	17.9%	48.1%	24.1%	3.7%	100.0%

Table 6-23: Frequency of Idea implementation by gender

*Gender * Imp rounded Cross Tabulation*

			Imp rounded					
			Never	Rarely	Sometimes	Often	Always	Total
Gender	Female	Count	5	22	73	44	10	154
		% within Gender	3.2%	14.3%	47.4%	28.6%	6.5%	100.0%
	Male	Count	7	22	62	71	7	169
		% within Gender	4.1%	13.0%	36.7%	42.0%	4.1%	100.0%
Total		Count	12	44	135	115	17	323
		% within Gender	3.7%	13.6%	41.8%	35.6%	5.3%	100.0%

6.3.2.3. IWB by employment status

Among the sample participants, more than half of both part-time employees and contract/casual workers selected ‘sometimes’ (Table 6.24). However full-time workers had the largest proportion with ‘often’ of all employment types.

Table 6-24: Rate of IWB by employment status

*ES * IWB round Cross Tabulation*

			IWB round					
			Never	Rarely	Sometimes	Often	Always	Total
ES	Full-time	Count	0	20	93	89	5	207
		% within ES	0.0%	9.7%	44.9%	43.0%	2.4%	100.0%
	Part-time	Count	1	7	41	11	1	61
		% within ES	1.6%	11.5%	67.2%	18.0%	1.6%	100.0%
	Contract/ Casual	Count	1	5	31	17	2	56
		% within ES	1.8%	8.9%	55.4%	30.4%	3.6%	100.0%
Total		Count	2	32	165	117	8	324
		% within ES	0.6%	9.9%	50.9%	36.1%	2.5%	100.0%

Review of the four phases of IWB show that full time employees are more likely to ‘often’ undertake IWB during the Idea generation phase (Table 6.26) and equally as likely in the Idea implementation phase (Table 6.28).

Table 6-25: Rate of Idea exploration by employment status

*ES * Explore round Cross Tabulation*

			Explore round					
			Never	Rarely	Sometimes	Often	Always	Total
ES	Full-time	Count	0	9	99	92	7	207
		% within ES	0.0%	4.3%	47.8%	44.4%	3.4%	100.0%
	Part-time	Count	0	6	38	16	1	61
		% within ES	0.0%	9.8%	62.3%	26.2%	1.6%	100.0%
	Contract/Casual	Count	1	4	28	22	1	56
		% within ES	1.8%	7.1%	50.0%	39.3%	1.8%	100.0%
Total		Count	1	19	165	130	9	324
		% within ES	0.3%	5.9%	50.9%	40.1%	2.8%	100.0%

Table 6-26: Rate of Idea generation by employment status

*ES * Gen rounded Cross Tabulation*

			Gen rounded					
			Never	Rarely	Sometimes	Often	Always	Total
ES	Full-time	Count	0	14	83	94	16	207
		% within ES	0.0%	6.8%	40.1%	45.4%	7.7%	100.0%
	Part-time	Count	2	7	36	15	1	61
		% within ES	3.3%	11.5%	59.0%	24.6%	1.6%	100.0%
	Contract/Casual	Count	1	2	20	28	5	56
		% within ES	1.8%	3.6%	35.7%	50.0%	8.9%	100.0%
Total		Count	3	23	139	137	22	324
		% within ES	0.9%	7.1%	42.9%	42.3%	6.8%	100.0%

Table 6-27: Rate of Idea championing by employment status

*ES * Champ rounded Cross Tabulation*

			Champ rounded					
			Never	Rarely	Sometimes	Often	Always	Total
ES	Full-time	Count	10	30	97	62	8	207
		% within ES	4.8%	14.5%	46.9%	30.0%	3.9%	100.0%
	Part-time	Count	6	13	34	6	2	61
		% within ES	9.8%	21.3%	55.7%	9.8%	3.3%	100.0%
	Contract/Casual	Count	4	15	25	10	2	56
		% within ES	7.1%	26.8%	44.6%	17.9%	3.6%	100.0%
Total	Count		20	58	156	78	12	324
	% within ES		6.2%	17.9%	48.1%	24.1%	3.7%	100.0%

Table 6-28: Rate of Idea implementation by employment status

*ES * Imp rounded Cross Tabulation*

			Imp rounded					
			Never	Rarely	Sometimes	Often	Always	Total
ES	Full-time	Count	5	25	83	83	11	207
		% within ES	2.4%	12.1%	40.1%	40.1%	5.3%	100.0%
	Part-time	Count	4	12	27	15	2	60
		% within ES	6.7%	20.0%	45.0%	25.0%	3.3%	100.0%
	Contract/Casual	Count	3	7	25	17	4	56
		% within ES	5.4%	12.5%	44.6%	30.4%	7.1%	100.0%
Total	Count		12	44	135	115	17	323
	% within ES		3.7%	13.6%	41.8%	35.6%	5.3%	100.0%

6.3.2.4. IWB by tenure

Employees with six or more years of tenure at their current organisation ‘often’ exhibited IWB, while those with five or fewer years selected ‘sometimes’ (Table 6.29). This declined slightly during the idea championing phase, where most of those with six or more years tenure engaged in IWB activities ‘sometimes’ (Table 6.32).

Table 6-29: Rate of IWB by tenure

*Tenure * IWB round Cross Tabulation*

			IWB round					
			Never	Rarely	Sometimes	Often	Always	Total
Tenure	Less than 2 years	Count	0	13	81	34	4	132
		% within Tenure	0.0%	9.8%	61.4%	25.8%	3.0%	100.0%
	2-5 years	Count	0	9	55	44	3	111
		% within Tenure	0.0%	8.1%	49.5%	39.6%	2.7%	100.0%
	6+ years	Count	2	10	29	39	1	81
		% within Tenure	2.5%	12.3%	35.8%	48.1%	1.2%	100.0%
Total		Count	2	32	165	117	8	324
		% within Tenure	0.6%	9.9%	50.9%	36.1%	2.5%	100.0%

Table 6-30: Rate of Idea exploration by tenure

*Tenure * Explore round Cross Tabulation*

			Explore round					
			Never	Rarely	Sometimes	Often	Always	Total
Tenure	Less than 2 years	Count	0	9	76	43	4	132
		% within Tenure	0.0%	6.8%	57.6%	32.6%	3.0%	100.0%
	2-5 years	Count	0	3	57	48	3	111
		% within Tenure	0.0%	2.7%	51.4%	43.2%	2.7%	100.0%
	6+ years	Count	1	7	32	39	2	81
		% within Tenure	1.2%	8.6%	39.5%	48.1%	2.5%	100.0%
Total		Count	1	19	165	130	9	324
		% within Tenure	0.3%	5.9%	50.9%	40.1%	2.8%	100.0%

Table 6-31: Rate of Idea generation by tenure

*Tenure * Gen_ rounded Cross Tabulation*

			Gen_ rounded					Total
			Never	Rarely	Sometimes	Often	Always	
Tenure	Less than 2 years	Count	1	8	63	51	9	132
		% within Tenure	0.8%	6.1%	47.7%	38.6%	6.8%	100.0%
	2-5 years	Count	0	7	51	44	9	111
		% within Tenure	0.0%	6.3%	45.9%	39.6%	8.1%	100.0%
	6+ years	Count	2	8	25	42	4	81
		% within Tenure	2.5%	9.9%	30.9%	51.9%	4.9%	100.0%
Total		Count	3	23	139	137	22	324
		% within Tenure	0.9%	7.1%	42.9%	42.3%	6.8%	100.0%

Table 6-32: Rate of Idea championing by tenure

*Tenure * Champ_ rounded Cross Tabulation*

			Champ_ rounded					Total
			Never	Rarely	Sometimes	Often	Always	
Tenure	Less than 2 years	Count	9	28	66	24	5	132
		% within Tenure	6.8%	21.2%	50.0%	18.2%	3.8%	100.0%
	2-5 years	Count	3	16	59	28	5	111
		% within Tenure	2.7%	14.4%	53.2%	25.2%	4.5%	100.0%
	6+ years	Count	8	14	31	26	2	81
		% within Tenure	9.9%	17.3%	38.3%	32.1%	2.5%	100.0%
Total		Count	20	58	156	78	12	324
		% within Tenure	6.2%	17.9%	48.1%	24.1%	3.7%	100.0%

Table 6-33: Rate of Idea implementation by tenure

*Tenure * Imp rounded Cross Tabulation*

			Imp rounded					Total
			Never	Rarely	Sometimes	Often	Always	
Tenure	Less than 2 years	Count	4	20	59	42	7	132
		% within Tenure	3.0%	15.2%	44.7%	31.8%	5.3%	100.0%
	2–5 years	Count	2	14	47	43	5	111
		% within Tenure	1.8%	12.6%	42.3%	38.7%	4.5%	100.0%
	6+ years	Count	6	10	29	30	5	80
		% within Tenure	7.5%	12.5%	36.3%	37.5%	6.3%	100.0%
Total		Count	12	44	135	115	17	323
		% within Tenure	3.7%	13.6%	41.8%	35.6%	5.3%	100.0%

6.3.2.5. IWB by employment level

Across all employment levels except ‘managers’, the predominant frequency of IWB exhibited was ‘sometimes’ (Table 6.34). Managers had the highest proportion of ‘always’. However, during Idea Generation, the majority of Senior Leader/CEOs reported they ‘always’ exhibit IWB (Table 6.36).

Table 6-34: Rate of IWB by employment level

*EL * IWB round Cross Tabulation*

			IWB round					Total
			Never	Rarely	Sometimes	Often	Always	
EL	Administration	Count	0	7	23	10	1	41
		% within EL	0.0%	17.1%	56.1%	24.4%	2.4%	100.0%
	Not a manager	Count	2	13	97	54	2	168
		% within EL	1.2%	7.7%	57.7%	32.1%	1.2%	100.0%
	Manager	Count	0	8	33	43	4	88
		% within EL	0.0%	9.1%	37.5%	48.9%	4.5%	100.0%
	Senior Leader/CEO	Count	0	4	12	10	1	27
		% within EL	0.0%	14.8%	44.4%	37.0%	3.7%	100.0%
Total		Count	2	32	165	117	8	324
		% within EL	0.6%	9.9%	50.9%	36.1%	2.5%	100.0%

Table 6-35: Rate of Idea exploration by employment level

*EL * Explore round Cross Tabulation*

			Explore round					
			Never	Rarely	Sometimes	Often	Always	Total
EL	Administration	Count	0	2	25	13	1	41
		% within EL	0.0%	4.9%	61.0%	31.7%	2.4%	100.0%
	Not a manager	Count	1	10	86	69	2	168
		% within EL	0.6%	6.0%	51.2%	41.1%	1.2%	100.0%
	Manager	Count	0	4	42	39	3	88
		% within EL	0.0%	4.5%	47.7%	44.3%	3.4%	100.0%
	Senior Leader/CEO	Count	0	3	12	9	3	27
		% within EL	0.0%	11.1%	44.4%	33.3%	11.1%	100.0%
Total		Count	1	19	165	130	9	324
		% within EL	0.3%	5.9%	50.9%	40.1%	2.8%	100.0%

Table 6-36: Rate of Idea generation by employment level

*EL * Gen rounded Cross Tabulation*

			Gen rounded					
			Never	Rarely	Sometimes	Often	Always	Total
EL	Administration	Count	1	4	18	16	2	41
		% within EL	2.4%	9.8%	43.9%	39.0%	4.9%	100.0%
	Not a manager	Count	2	8	84	63	11	168
		% within EL	1.2%	4.8%	50.0%	37.5%	6.5%	100.0%
	Manager	Count	0	7	27	47	7	88
		% within EL	0.0%	8.0%	30.7%	53.4%	8.0%	100.0%
	Senior Leader/CEO	Count	0	4	10	11	2	27
		% within EL	0.0%	14.8%	37.0%	40.7%	7.4%	100.0%
Total		Count	3	23	139	137	22	324
		% within EL	0.9%	7.1%	42.9%	42.3%	6.8%	100.0%

Table 6-37: Rate of Idea championing by employment level

*EL * Champ rounded Cross Tabulation*

			Champ rounded					
			Never	Rarely	Sometimes	Often	Always	Total
EL	Administration	Count	3	12	17	9	0	41
		% within EL	7.3%	29.3%	41.5%	22.0%	0.0%	100.0%
	Not a manager	Count	10	28	93	32	5	168
		% within EL	6.0%	16.7%	55.4%	19.0%	3.0%	100.0%
	Manager	Count	2	14	34	33	5	88
		% within EL	2.3%	15.9%	38.6%	37.5%	5.7%	100.0%
	Senior Leader/CEO	Count	5	4	12	4	2	27
		% within EL	18.5%	14.8%	44.4%	14.8%	7.4%	100.0%
Total		Count	20	58	156	78	12	324
		% within EL	6.2%	17.9%	48.1%	24.1%	3.7%	100.0%

Table 6-38: Rate of Idea implementation by employment level

*EL * Imp rounded Cross Tabulation*

			Imp rounded					Total
			Never	Rarely	Sometimes	Often	Always	
EL	Administration	Count	1	13	13	13	1	41
		% within EL	2.4%	31.7%	31.7%	31.7%	2.4%	100.0%
	Not a manager	Count	6	21	84	51	6	168
		% within EL	3.6%	12.5%	50.0%	30.4%	3.6%	100.0%
	Manager	Count	2	9	30	40	6	87
		% within EL	2.3%	10.3%	34.5%	46.0%	6.9%	100.0%
	Senior Leader/CEO	Count	3	1	8	11	4	27
		% within EL	11.1%	3.7%	29.6%	40.7%	14.8%	100.0%
Total		Count	12	44	135	115	17	323
		% within EL	3.7%	13.6%	41.8%	35.6%	5.3%	100.0%

6.3.2.6. IWB by RWF

More than half of the employees who ‘always’ worked remotely would ‘sometimes’ exhibit IWB. An equal number of employees working remotely ‘2–4 times per week’ responded with ‘sometimes’ to ‘always’ (Table 6.39).

Table 6-39: Rate of IWB by RWF

*RWF * IWB round Cross Tabulation*

			IWB round					Total
			Never	Rarely	Sometimes	Often	Always	
RWF	1–3 times per month	Count	1	7	24	6	3	41
		% within RWF	2.4%	17.1%	58.5%	14.6%	7.3%	100.0%
	Once a week	Count	0	9	31	21	2	63
		% within RWF	0.0%	14.3%	49.2%	33.3%	3.2%	100.0%
	2–4 times per week	Count	0	12	68	68	2	150
		% within RWF	0.0%	8.0%	45.3%	45.3%	1.3%	100.0%
	Always	Count	1	4	42	22	1	70
		% within RWF	1.4%	5.7%	60.0%	31.4%	1.4%	100.0%
Total		Count	2	32	165	117	8	324
		% within RWF	0.6%	9.9%	50.9%	36.1%	2.5%	100.0%

However, during the first two phases (Idea Exploration and Idea Generation), the majority of employees working remotely ‘2–4 times per week’ selected ‘often’ (Tables 6.40 and 6.41). Those working remotely ‘1–3 times per month’ had the highest proportion who selected ‘always’ in each phase except for Idea Generation.

Table 6-40: Rate of Idea Exploration by RWF

*RWF * Explore round Cross Tabulation*

			Explore round					Total
			Never	Rarely	Sometimes	Often	Always	
RWF	1–3 times per month	Count	1	5	22	11	2	41
		% within RWF	2.4%	12.2%	53.7%	26.8%	4.9%	100.0%
	Once a week	Count	0	6	32	23	2	63
		% within RWF	0.0%	9.5%	50.8%	36.5%	3.2%	100.0%
	2–4 times per week	Count	0	2	71	73	4	150
		% within RWF	0.0%	1.3%	47.3%	48.7%	2.7%	100.0%
	Always	Count	0	6	40	23	1	70
		% within RWF	0.0%	8.6%	57.1%	32.9%	1.4%	100.0%
Total		Count	1	19	165	130	9	324
		% within RWF	0.3%	5.9%	50.9%	40.1%	2.8%	100.0%

Table 6-41: Rate of Idea Generation by RWF

*RWF * Gen rounded Cross Tabulation*

			Gen rounded					Total
			Never	Rarely	Sometimes	Often	Always	
RWF	1-3 times per month	Count	1	5	20	13	2	41
		% within RWF	2.4%	12.2%	48.8%	31.7%	4.9%	100.0%
RWF	Once a week	Count	0	8	27	25	3	63
		% within RWF	0.0%	12.7%	42.9%	39.7%	4.8%	100.0%
RWF	2-4 times per week	Count	1	9	57	69	14	150
		% within RWF	0.7%	6.0%	38.0%	46.0%	9.3%	100.0%
RWF	Always	Count	1	1	35	30	3	70
		% within RWF	1.4%	1.4%	50.0%	42.9%	4.3%	100.0%
Total		Count	3	23	139	137	22	324
		% within RWF	0.9%	7.1%	42.9%	42.3%	6.8%	100.0%

Table 6-42: Rate of Idea Championing by RWF

*RWF * Champ rounded Cross Tabulation*

			Champ rounded					Total
			Never	Rarely	Sometimes	Often	Always	
RWF	1-3 times per month	Count	4	11	16	8	2	41
		% within RWF	9.8%	26.8%	39.0%	19.5%	4.9%	100.0%
RWF	Once a week	Count	5	9	33	14	2	63
		% within RWF	7.9%	14.3%	52.4%	22.2%	3.2%	100.0%
RWF	2-4 times per week	Count	5	23	73	43	6	150
		% within RWF	3.3%	15.3%	48.7%	28.7%	4.0%	100.0%
RWF	Always	Count	6	15	34	13	2	70
		% within RWF	8.6%	21.4%	48.6%	18.6%	2.9%	100.0%
Total		Count	20	58	156	78	12	324
		% within RWF	6.2%	17.9%	48.1%	24.1%	3.7%	100.0%

Table 6-43: Rate of Idea Implementation by RWF

*RWF * Imp rounded Cross Tabulation*

			Imp rounded					Total
			Never	Rarely	Sometimes	Often	Always	
RWF	1–3 times per month	Count	4	9	15	10	3	41
		% within RWF	9.8%	22.0%	36.6%	24.4%	7.3%	100.0%
RWF	Once a week	Count	3	10	24	22	3	62
		% within RWF	4.8%	16.1%	38.7%	35.5%	4.8%	100.0%
RWF	2–4 times per week	Count	4	15	64	60	7	150
		% within RWF	2.7%	10.0%	42.7%	40.0%	4.7%	100.0%
RWF	Always	Count	1	10	32	23	4	70
		% within RWF	1.4%	14.3%	45.7%	32.9%	5.7%	100.0%
Total		Count	12	44	135	115	17	323
		% within RWF	3.7%	13.6%	41.8%	35.6%	5.3%	100.0%

6.3.2.7. Summary of Innovative Work Behaviour

Overall, the categories within the sample demonstrating the highest prevalence of IWB (i.e. ‘Always’) were identified as follows: the 18–30-year-old age group, contract/casual working females, with less than two years of tenure at their current organisation, working in managerial positions, working remotely 1–3 times per month.

The categories within the sample demonstrating a consistently high prevalence of IWB (‘Often’) were identified as follows: the 41–50-year-old age group, full-time working males, with 6+ years tenure, working in managerial positions, working remotely 2–4 times per week.

6.4. ANOVA and Logistic regression testing

6.4.1. Reliability analysis

Prior to undertaking the ANOVA and regression tests, reliability analysis using Cronbach’s alpha was conducted to analyse the consistency of scales, and assess the degree to which the scale will produce stable and consistent results (McNeish, 2018; Sijtsma, 2008).

Cronbach's alpha is a statistical measure used to assess the internal consistency or reliability of a set of scale or questionnaire items (Cronbach, 1951). Cronbach's alpha evaluates the extent to which items within a questionnaire are interrelated or measure the same underlying construct. It assesses how closely related the responses to different items are within the same scale. A high Cronbach's alpha indicates that the items are highly correlated and consistently measure the same construct, while a low Cronbach's alpha suggests that the items may not be measuring the same underlying construct or that the scale may lack internal consistency. Cronbach's alpha typically ranges from 0 to 1, with values above 0.7 considered acceptable for research purposes, values above 0.8 as good reliability, and values above 0.9 as excellent reliability (Cronbach, 1951; Streiner, 2003).

The results shown in Table 6.44 indicated that the value of Cronbach's alpha of variables 'idea exploration' and 'idea generation' were 0.827 and 0.888 respectively, which were higher than 0.80, indicating good reliability. Similarly, the Cronbach's alpha of variables 'idea championing' and 'idea implementation' were 0.910 and 0.905 respectively, which were higher than 0.90, indicating excellent reliability. Hence, all variables were found to be reliable, so hypothesis testing could continue.

Table 6-44: Reliability test

Variables	No. of Items	Cronbach's Alpha
Idea Exploration	10	0.827
Idea Generation	7	0.888
Idea Championing	5	0.910
Idea Implementation	5	0.905

6.5. ANOVA analysis

6.5.1. IWB among RWF groups (H1)

H₀: There is no difference in innovative work behaviour between different RWF groups.

H₁: There is a difference in innovative work behaviour between different RWF groups.

One-way ANOVA was conducted to determine if IWB was different for each group of remote working frequency. Participants were classified into four groups: 1–3 times per month (n=41), Once a week (n=63), 2-4 times per week (n=150) and Always (n=70).

Data was normally distributed for each remote working frequency group, as assessed by Shapiro-Wilk’s test ($p > .05$).

Table 6-45: Normality test for IWB and RWF

Variables	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	p-value	Statistic	p-value
1–3 times p/month	0.116	0.184	0.970	0.348
Once a week	0.109	0.059	0.971	0.140
2–4 times p/week	0.060	0.200	0.986	0.129
Always	0.061	0.200	0.977	0.227

There was homogeneity of variances (Table 6.46), as assessed by Levene’s test for equality of variances ($p = .402$).

The differences between different remote working frequency groups was statistically significant ($F(3, 320) = 3.673, p = 0.013, \omega^2 = .024$).

IWB increased as remote working frequency increased. From the 1–3 times per month ($M=3.09, SD=.767$), once a week ($M=3.21, SD=.655$), to 2–4 times per week ($M=3.42, SD=.580$). The always work from home group ($M=3.25, SD=.562$) declined slightly.

The group means were statistically significantly different ($p < .1$). Therefore, we can reject the null hypothesis and accept hypothesis H1.

Table 6-46: One-way ANOVA – Comparison of IWB across RWF

Category – RWF	Mean (SD)	Levene’s test – Homogeneity of Variances F (p-value)	One-way ANOVA F (p-value)
1–3 times p/month	3.09 (0.767)	0.981 (0.402)	3.673 (0.013)
Once a week	3.24 (0.655)		
2–4 times p/week	3.42 (0.580)		
Always	3.25 (0.562)		

Tukey post hoc analysis revealed that the mean increase from 1–3 times per month to 2–4 times per week (0.324, 95% CI [0.43, 0.61]) was statistically significant ($p = .016$), but no other group differences were statistically significant.

This indicates that individuals who work remotely 2–4 times per week exhibit a statistically significantly higher IWB compared to those who work remotely 1–3 times per month.

6.5.2. IWB among age groups (H2)

H₀: There is no difference in innovative work behaviour between different age groups.

H₁: There is a difference in innovative work behaviour between different age groups.

One-way ANOVA was conducted to determine if IWB was different for each age group. Participants were classified into four groups: 18–30 ($n=158$), 31–40 ($n=92$), 41–50 ($n=42$) and 51+ ($n=32$) years old.

Data was not normally distributed for all age groups, as assessed by Shapiro-Wilk’s test ($p < .05$). However, as the sample sizes are greater than 50, the Normal Q-Q plot (Quantile-Quantile plot) was also considered to assess normality using graphical methods. The graph indicated data points appear as roughly a straight line. Hence, from the graphical representation of the variables, the variables were considered to be normal.

Table 6-47: Normality test for IWB and age

Variables	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	p-value	Statistic	p-value
18–30 years old	0.065	0.097	0.982	0.035
31–40 years old	0.090	0.061	0.952	0.002
41–50 years old	0.114	0.198	0.948	0.055
51+ years old	0.102	0.200	0.966	0.401

There was homogeneity of variances (Table 6.48), as assessed by Levene’s test for equality of variances ($p = .194$).

IWB increased from the 41–50 years group ($M=3.24$, $SD=.609$), to 51+ years ($M=3.26$, $SD=.733$), 18-30 ($M=3.32$, $SD=.652$), to 31-40 ($M=3.33$, $SD=.547$) group, in that order.

However, the differences between these age groups was not statistically significant ($F(3, 320) = 0.282$, $p = 0.839$). Therefore, hypothesis H2 was rejected.

Table 6-48: One-way ANOVA – Comparison of IWB across Age

Category – Age	Mean (SD)	Levene’s test –	One-way ANOVA
		Homogeneity of Variances	F (p-value)
		F (p-value)	
18–30 years old	3.32 (0.652)	1.579 (0.194)	0.282 (0.839)
31–40 years old	3.33 (0.547)		
41–50 years old	3.24 (0.609)		
51+ years old	3.26 (0.733)		

A Kruskal-Wallis H test was also run to determine if there were differences in IWB between four age groups. Distributions of IWB scores were similar for all groups, as assessed by visual inspection of a boxplot. Median IWB scores increased from 18-30

years (3.30), 31-40 years (3.30), to 41-50 years (3.32), to 51+ years (3.41) age groups, but the differences were not statistically significant, $\chi^2(3)= 0.420$, $p = .936$.

6.5.3. IWB among gender groups (H3)

H₀: There is no difference in innovative work behaviour between different genders.

H₁: There is a difference in innovative work behaviour between different genders.

Independent-samples t-test was conducted to determine if there were differences in IWB between females and males. There were 155 female respondents and 169 male respondents.

Data was not normally distributed for males, as assessed by Shapiro-Wilk's test ($p < .05$). However, as the t-test has been found to be robust against violations of normality if sample sizes are equal or nearly equal, fairly large ($n \geq 30$) and you have equal variances (Poncet et al., 2016; Sawilowsky & Blair, 1992; Stonehouse & Forrester, 1998), the results were interpreted.

Table 6-49: Normality test for IWB and gender

Variables	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	p-value	Statistic	p-value
Female	0.066	0.200	0.989	0.246
Male	0.085	0.004	0.972	0.002

There was homogeneity of variances (Table 6.50), as assessed by Levene's test for equality of variances ($p = .287$).

IWB was slightly higher for males ($M=3.32$, $SD=0.66$) than females ($M=3.30$, $SD=0.58$). However, the differences between genders was not statistically significant, $t(322) = -0.246$, $p = 0.806$. Therefore, hypothesis H3 was rejected.

Table 6-50: T-Test – Comparison of IWB between genders

Category – Gender	Mean (SD)	Levene’s test –		T-Test
		Homogeneity of	Variances	F (p-value)
		F	(p-value)	
Female	3.30 (0.582)	1.136	(0.287)	-0.246 (0.806)
Male	3.32 (0.664)			

6.5.4. IWB among tenure groups (H4)

Ho: There is no difference in innovative work behaviour between different tenure groups.

H₁: There is a difference in innovative work behaviour between different tenure groups.

One-way ANOVA was conducted to determine if IWB was different for the tenure group. Participants were classified into four groups: Less than 2 years (n=158), 2–5 years (n=92), and 6+ years (n=32).

Data was normally distributed for two tenure groups, as assessed by Shapiro-Wilk’s test ($p > .05$), but not normally distributed for the 6+ year group ($P < .05$).

Table 6-51: Normality test for IWB and tenure

Variables	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	p-value	Statistic	p-value
Less than 2 years	0.076	0.056	0.986	0.191
2–5 years	0.075	0.162	0.980	0.104
6+ years	0.117	0.008	0.938	<0.001

The assumption of homogeneity of variances was violated (Table 6.52), as assessed by Levene’s test for equality of variances ($p = .003$).

IWB increased from the less than 2 years tenure group (M=3.25, SD=.604), to the more than +6 years tenure group (M=3.30, SD=.609), to the 2–5 years group (M=3.38, SD=.553), in that order.

As we do not have homogeneity of variances, we cannot interpret the standard one-way ANOVA, but must use a modified version of the ANOVA; the Welch ANOVA was used (Delacre et al., 2018; Wilcox, 2017).

The differences between tenure groups was not statistically significant, Welch’s $F(2, 185.904) = 1.339, p = .265$. Therefore, hypothesis H4 was rejected.

Table 6-52: Welch ANOVA – Comparison of IWB across tenure

Category – Tenure	Mean (SD)	Levene’s test – Homogeneity of Variances F (p-value)	Welch ANOVA F (p-value)
Less than 2 years	3.25 (0.604)	3.420 (0.034)	1.339 (0.265)
2–5 years	3.38 (0.553)		
6+ years	3.30 (0.741)		

A Kruskal-Wallis H test was also run to determine if there were differences in IWB scores between three tenure groups. Distributions of IWB scores were similar for all groups, as assessed by visual inspection of a boxplot. Median IWB scores increased from less than 2 years (3.19), to 2–5 years (3.33), to 6+ years (3.48), but the differences were not statistically significant, $\chi^2(2) = 4.970, p = .083$.

6.5.5. IWB among employment status groups (H5)

H₀: There is no difference in innovative work behaviour between different employment status groups.

H₁: There is a difference in innovative work behaviour between different employment status groups.

One-way ANOVA was conducted to determine if IWB was different for each employment status group. Participants were classified into three groups: Full-time (n=207), Part-time (n=61), and Contract/Casual (n=56).

Data was normally distributed for two tenure groups, as assessed by Shapiro-Wilk's test ($p > .05$), but not normally distributed for part-time group ($p < .05$).

Table 6-53: Normality test for IWB and employment status

Variables	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	p-value	Statistic	p-value
Full-time	0.051	0.200	0.991	0.237
Part-time	0.139	0.005	0.945	0.008
Contract/Casual	0.091	0.200	0.962	0.074

There was homogeneity of variances (Table 6.54), as assessed by Levene's test for equality of variances ($p = .850$).

The differences between employment status groups was statistically significant ($F(2, 321) = 4.696, p = 0.010, \omega^2 = .022$).

IWB increased from the part-time group ($M=3.12, SD=.630$), to Contract/Casual ($M=3.27, SD=.651$) to the full-time group ($M=3.38, SD=.605$) in that order.

The group means were statistically significantly different ($p < .1$). Therefore, we can reject the null hypothesis and accept hypothesis H5.

Table 6-54: One-way ANOVA – Comparison of IWB across employment status

Category – ES	Mean (SD)	Levene’s test – Homogeneity of Variances F (p-value)	One-way ANOVA F (p-value)
Full-time	3.38 (0.605)	0.199 (0.850)	4.696 (0.010)
Part-time	3.12 (0.630)		
Contract/Casual	3.27 (0.651)		

Tukey post hoc analysis revealed that the mean increase from Part-time to Full-time (0.272, 95% CI [0.60, 0.48]) was statistically significant ($p = .008$), but no other group differences were statistically significant.

This indicates that individuals who work full-time exhibit a statistically significantly higher IWB compared to those who work part-time.

A Kruskal-Wallis H test was also run to determine if there were differences in IWB scores between three employment status groups. Distributions of IWB scores were similar for all groups, as assessed by visual inspection of a boxplot. Median IWB scores increased from the Part-time (3.11), to Contract/Casual (3.30), to Full-time (3.37) employment status groups. Median IWB scores were statistically significantly different between groups, $\chi^2(2) = 10.594$, $p = .005$.

Pairwise comparisons were performed using Dunn (1964) procedure with a Bonferroni correction for multiple comparisons. Adjusted p-values are presented. This post hoc analysis revealed statistically significant differences in IWB between the part-time (Mdn = 3.11) and full-time (Mdn = 3.37) ($p = 0.004$) groups, but not between any other group combination.

6.5.6. IWB among employment level groups (H6)

H₀: There is no difference in innovative work behaviour between different employment level groups.

H₁: There is a difference in innovative work behaviour between different employment level groups.

One-way ANOVA was conducted to determine if IWB was different for employment level groups. Participants were classified into four groups: Administration (n=41), Not a manager (n=168), Manager (n=88) and Senior Leadership (n=27).

Data was normally distributed for three employment level groups, as assessed by Shapiro-Wilk's test ($p > .05$), but not normally distributed for the not a manager group ($p < .05$).

Table 6-55: Normality test for IWB and employment level

Variables	Kolmogorov-Smirnov		Shapiro-Wilk	
	Statistic	p-value	Statistic	p-value
Administration	0.071	0.200	0.990	0.978
Not a manager	0.078	0.013	0.971	0.001
Manager	0.066	0.200	0.983	0.318
Senior Leadership	0.135	0.200	0.943	0.140

There was homogeneity of variances (Table 6.56), as assessed by Levene's test for equality of variances ($p = .172$).

The differences in IWB between employment level groups was statistically significant ($F(3, 320) = 3.069, p = 0.028, \omega^2 = .019$).

IWB increased from the Administration group (M=3.17, SD=.634), to Not a manager (M=3.260, SD=.577), to Senior Leadership (M=3.290, SD=.793) to Managers (M=3.470, SD=.631) in that order.

The group means were statistically significantly different ($p < .1$). Therefore, we can reject the null hypothesis and accept hypothesis H6.

Table 6-56: One-way ANOVA – Comparison of IWB across employment level

Category – EL	Mean (SD)	Levene’s test – Homogeneity of Variances F (p-value)	One-way ANOVA F (p-value)
Administration	3.168 (0.634)	1.678 (0.172)	3.069 (0.028)
Not a manager	3.260 (0.577)		
Manager	3.470 (0.631)		
Senior Leadership	3.290 (0.793)		

Tukey post hoc analysis revealed that the mean increase from not a manager to manager (0.211, 95% CI [0.0005, 0.4213]) was statistically significant ($p = .049$), as well as from administration to manager (0.303, 95% CI [0.0002, 0.6049], $p = .050$), but no other group differences were statistically significant.

This indicates that managers exhibit a statistically significantly higher IWB compared to non-managers or administrators.

A Kruskal-Wallis H test was also run to determine if there were differences in IWB scores between four employment level groups of participants. Distributions of IWB scores were similar for all groups, as assessed by visual inspection of a boxplot. Median IWB scores increased from the Administration (3.22), to Not a manager (3.26), to Senior Leadership/CEO (3.33), to Manager (3.54) employment level groups. Median IWB scores were statistically significantly different, $\chi^2(3) = 10.340$, $p = .016$.

Subsequently, pairwise comparisons were performed using Dunn (1964) procedure with a Bonferroni correction for multiple comparisons. Adjusted p-values are presented. This post hoc analysis revealed statistically significant differences in IWB between the Manager (Mdn = 3.54) and Administration (Mdn = 3.22) ($p = 0.045$) and

Manager and Non-manager (Mdn = 3.26) ($p = 0.030$) groups, but not between the Senior Leadership/CEO group (Mdn = 3.33) or any other group combination.

6.5.7. Summary of ANOVA tests

Table 6.57 provides a summary of the ANOVA tests relating to hypotheses H1 to H6.

Table 6-57: Summary of ANOVA tests

Code	Description	Test	Outcome
H1	RWF has a significant effect on IWB	ANOVA	Reject the null hypothesis
H2	Age has a significant effect on IWB when working remotely	ANOVA	Fail to reject the null hypothesis
H3	Gender has a significant effect on IWB when working remotely	T-Test	Fail to reject the null hypothesis
H4	Tenure has a significant effect on IWB when working remotely	ANOVA	Fail to reject the null hypothesis
H5	Employment Status (ES) has a significant effect on IWB when working remotely	ANOVA	Reject the null hypothesis
H6	Employment Level (EL) has a significant effect on IWB when working remotely	ANOVA	Reject the null hypothesis

6.6. Logistic regression analysis

6.6.1. RWF, demographics and IWB (H7)

H₀: There is no significant relationship between RWF and demographics and the odds of innovative work behaviour.

H₁: There is a significant relationship between RWF and demographics and the odds of innovative work behaviour.

A binomial logistic regression was performed to ascertain the effects of RWF, age, gender, tenure at current organisation, employment status and employment level on the likelihood that participants will exert IWB overall.

The logistic regression model was statistically significant, $\chi^2(7) = 26.56$, $p < .10$

The model explained 10.7% (Nagelkerke R^2) of the variance in IWB and correctly classified 65.1% of cases.

Sensitivity is the percentage of cases that had the observed characteristic (i.e. 'yes' for IWB) which were correctly predicted by the model. In this case, 35.2% of participants who exhibited IWB were also predicted by the model to have IWB.

Specificity is the percentage of case that did not have the observed characteristic (i.e. 'no' for IWB) and were also correctly predicted as not having the observed characteristic. In this case, 83.9% of participants who did not exert IWB were correctly predicted by the model.

Positive predictive value is the percentage of correctly predicted cases with the observed characteristic compared to the total number of cases predicted as having the characteristic. In this case, 57.9% of all cases predicted as having IWB were correctly predicted.

Negative predictive value is the percentage of correctly predicted cases without the observed characteristic compared to the total number of cases predicted as not having the characteristic. In this case, 67.3% of all cases predicted as not having IWB were correctly predicted.

Of the six predictor variables, three were statistically significant at 0.10: Employment Status, Tenure and Employment Level (Table 6.58). RWF was just outside of the statistically significant range.

Table 6-58: Logistic Regression predicting likelihood of IWB based on RWF and demographics

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Age	-.041	.130	.097	1	.755	.960	.744	1.240
	Gender(1)	-.015	.250	.004	1	.952	.985	.604	1.607
	Employment Status			9.541	2	.008			
	Employment Status(1)	-1.124	.367	9.371	1	.002	.325	.158	.668
	Employment Status(2)	-.333	.333	1.000	1	.317	.717	.373	1.376
	Tenure at current organisation	.317	.171	3.455	1	.063	1.373	.983	1.919
	RWF	.218	.136	2.576	1	.108	1.243	.953	1.622
	Title	.277	.164	2.851	1	.091	1.319	.956	1.819
	Constant	-1.993	.606	10.805	1	.001	.136		

a. Variable(s) entered on step 1: Age, Gender, Employment Status, Tenure at current organisation, How often working remotely, Title.

Being part-time was associated with a reduced likelihood of exhibiting IWB. This indicates that being in the part-time category is less likely to show IWB than being full-time. The odds ratio (OR) indicates that for every one-unit increment on the predictor (part-time employment), the odds of IWB increase by a factor of .325 (meaning the odds are decreasing).

Increased tenure and more senior roles are associated with an increased likelihood of exhibiting IWB. The OR for tenure indicating that for every one unit increase on this predictor, the odds of IWB change by a factor of 1.37 (meaning the odds are increasing, as tenure increases the odds of IWB also increase). The OR for employment level indicate that for every one unit increase on this predictor, the odds of IWB change by a factor of 1.32.

Although not statistically significant, the data suggests that RWF is positively associated with an increased likelihood of exhibiting IWB. The OR for RWF indicating that for every one unit increase on this predictor, the odds of IWB change by a factor of 1.24 (as RWF increases the odds of IWB also increase).

As the overall model tested statistically significant, it indicates that at least one of the independent variables has a significant impact on the dependent variable, we can reject the null hypothesis.

6.6.2. RWF, demographics and Idea Exploration phase (H8)

H₀: There is no significant relationship between RWF & demographics and the odds of idea exploration.

H₁: There is a significant relationship between RWF & demographics and the odds of idea exploration.

A binomial logistic regression was performed to ascertain the effects of RWF, age, gender, tenure at current organisation, employment status and employment level on the likelihood that participants will exert IWB during the idea exploration phase.

The logistic regression model was statistically significant, $\chi^2(7) = 12.53$, $p < .10$

The model explained 5.1% (Nagelkerke R²) of the variance in IWB and correctly classified 60.8% of cases.

Sensitivity was 33.1%, specificity was 81.6%, positive predictive value was 57.5% and negative predictive value was 61.9%.

Of the six predictor variables, one was statistically significant: Employment Status (Table 6.59). Being part-time was associated with a reduced likelihood of exhibiting Idea Exploration compared to being full-time. The OR indicating that for every one-unit increment on the predictor (part-time employment), the odds of Idea Exploration increase by a factor of .431 (meaning the odds are decreasing). Expressed inversely, being part-time had 2.32 times lower odds to exhibit idea exploration than being full-time.

Table 6-59: Logistic Regression predicting likelihood of Idea Exploration based on RWF and demographics

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Age	.059	.125	.227	1	.634	1.061	.831	1.355
	Gender(1)	-.102	.241	.177	1	.674	.903	.563	1.450
	Employment Status			6.444	2	.040			
	Employment Status(1)	-.842	.332	6.442	1	.011	.431	.225	.826
	Employment Status(2)	-.192	.319	.363	1	.547	.825	.441	1.542
	Tenure at current organisation	.236	.165	2.032	1	.154	1.266	.915	1.750
	RWF	.072	.127	.321	1	.571	1.075	.837	1.380
	Title	.060	.158	.144	1	.705	1.062	.779	1.446
	Constant	-.938	.569	2.713	1	.100	.391		

a. Variable(s) entered on step 1: Age, Gender, Employment Status, Tenure at current organisation, How often working remotely, Title.

As the overall model tested statistically significant, it indicates that at least one of the independent variables has a significant impact on the dependent variable, we can reject the null hypothesis.

6.6.3. RWF, demographics and Idea Generation Phase (H9)

H₀: There is no significant relationship between RWF and demographics and the odds of idea generation.

H₁: There is a significant relationship between RWF and demographics and the odds of idea generation.

A binomial logistic regression was performed to ascertain the effects of RWF, age, gender, tenure at current organisation, employment status and employment level on the likelihood that participants will exert IWB during the idea generation phase.

The logistic regression model was statistically significant, $\chi^2(7) = 22.90$, $p < .10$

The model explained 9.1% (Nagelkerke R²) of the variance in IWB and correctly classified 61.1% of cases.

Sensitivity was 69.8%, specificity was 52.7%, positive predictive value was 58.7% and negative predictive value was 64.4%.

Of the six predictor variables, one was statistically significant: employment status (Table 6.60). Being part-time was associated with a reduced likelihood of exhibiting Idea Generation compared to being full-time. The OR indicating that for every one-unit increment on the predictor (part-time employment), the odds of Idea Exploration increase by a factor of .327 (meaning the odds are decreasing). Expressed inversely, being part-time had 3.06 lower odds to exhibit idea generation.

Table 6-60: Logistic Regression predicting likelihood of Idea Generation based on RWF and demographics

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Age	-.061	.127	.228	1	.633	.941	.734	1.207
	Gender(1)	-.126	.243	.271	1	.603	.881	.547	1.419
	Employment Status			14.229	2	<.001			
	Employment Status(1)	-1.117	.337	11.001	1	<.001	.327	.169	.633
	Employment Status(2)	.335	.320	1.096	1	.295	1.398	.747	2.617
	Tenure at current organisation	.153	.166	.842	1	.359	1.165	.841	1.615
	RWF	.175	.128	1.855	1	.173	1.191	.926	1.531
	Title	.251	.160	2.450	1	.118	1.285	.939	1.759
	Constant	-1.068	.575	3.449	1	.063	.344		

a. Variable(s) entered on step 1: Age, Gender, Employment Status, Tenure at current organisation, How often working remotely, Title.

As the overall model tested statistically significant, it indicates that at least one of the independent variables has a significant impact on the dependent variable, we can reject the null hypothesis.

6.6.4. RWF, demographics and Idea Championing Phase (H10)

H₀: There is no significant relationship between RWF and demographics and the odds of idea championing.

H₁: There is a significant relationship between RWF and demographics and the odds of idea championing.

A binomial logistic regression was performed to ascertain the effects of RWF, age, gender, tenure at current organisation, employment status and employment level on the likelihood that participants will exert IWB during the idea championing phase.

The logistic regression model was statistically significant, $\chi^2(7) = 21.61, p < .10$

The model explained 9.3% (Nagelkerke R^2) of the variance in IWB and correctly classified 71.3% of cases.

Sensitivity was 2.2%, specificity was 97.9%, positive predictive value was 28.6% and negative predictive value was 72.2%.

Of the six predictor variables, half were statistically significant: age, employment status and tenure (Table 6.61). Increasing age was associated with a reduction in the likelihood of idea championing. The OR indicating that for every one unit increase on this predictor, the odds of Idea championing change by a factor of .706. Expressed inversely, being older had 1.42 lower odds to exhibit idea championing.

Table 6-61: Logistic Regression predicting likelihood of Idea Championing based on RWF and demographics

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Age	-.347	.153	5.165	1	.023	.706	.524	.953
	Gender(1)	-.119	.269	.195	1	.659	.888	.524	1.504
	Employment Status			7.459	2	.024			
	Employment Status(1)	-1.091	.420	6.746	1	.009	.336	.147	.765
	Employment Status(2)	-.471	.373	1.593	1	.207	.624	.300	1.298
	Tenure at current organisation	.344	.186	3.400	1	.065	1.410	.979	2.031
	RWF	.050	.145	.122	1	.727	1.052	.792	1.396
	Title	.233	.178	1.703	1	.192	1.262	.890	1.790
	Constant	-1.367	.638	4.593	1	.032	.255		

a. Variable(s) entered on step 1: Age, Gender, Employment Status, Tenure at current organisation, How often working remotely, Title.

Being part-time was also associated with a reduced likelihood of exhibiting Idea Championing compared to being full-time. The OR indicating that for every one-unit increment on the predictor (part-time employment), the odds of Idea Championing

increase by a factor of .336 (meaning the odds are decreasing). Expressed inversely, being part-time had 2.98 lower odds to exhibit idea championing.

Increased tenure was associated with an increased likelihood of exhibiting idea championing. The OR indicating that for every one unit increase on this predictor, the odds of Idea Championing change by a factor of 1.41.

As the overall model tested statistically significant, it indicates that at least one of the independent variables has a significant impact on the dependent variable, we can reject the null hypothesis.

6.6.5. RWF, demographics and Idea Implementation Phase (H11)

H₀: There is no significant relationship between RWF and demographics and the odds of idea implementation.

H₁: There is a significant relationship between RWF and demographics and the odds of idea implementation.

A binomial logistic regression was performed to ascertain the effects RWF, age, gender, tenure at current organisation, employment status and employment level on the likelihood that participants will exert IWB during the idea implementation phase.

The logistic regression model was statistically significant, $\chi^2(7) = 17.65$, $p < .10$

The model explained 7.2% (Nagelkerke R²) of the variance in IWB and correctly classified 60.1% of cases.

Sensitivity was 25%, specificity was 84.3%, positive predictive value was 52.4% and negative predictive value was 61.9%.

Of the six predictor variables, two were statistically significant: employment status and employment level (Table 6.62). Being part-time was associated with a reduced likelihood of exhibiting Idea Implementation compared to being full-time. The OR indicating that for every one-unit increment on the predictor (part-time employment), the odds of Idea Implementation increase by a factor of .568 (meaning the odds are decreasing). Expressed inversely, being part-time had 1.76 lower odds to exhibit idea championing.

Table 6-62: Logistic Regression predicting likelihood of Idea Implementation based on RWF and demographics

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
								Lower	Upper
Step 1 ^a	Age	-.152	.130	1.364	1	.243	.859	.665	1.109
	Gender(1)	.285	.244	1.364	1	.243	1.330	.824	2.144
	Employment Status			2.890	2	.236			
	Employment Status(1)	-.566	.335	2.850	1	.091	.568	.294	1.095
	Employment Status(2)	-.184	.326	.318	1	.573	.832	.439	1.576
	Tenure at current organisation	-.010	.169	.003	1	.955	.991	.711	1.380
	RWF	.172	.131	1.723	1	.189	1.187	.919	1.535
	Title	.433	.163	7.003	1	.008	1.541	1.119	2.123
	Constant	-1.584	.588	7.271	1	.007	.205		

a. Variable(s) entered on step 1: Age, Gender, Employment Status, Tenure at current organisation, How often working remotely, Title.

Increasing employment level was associated with an increased likelihood of exhibiting idea implementation. The OR indicating that for every one unit increase on this predictor, the odds of IWB change by a factor of 1.54.

As the overall model tested statistically significant, it indicates that at least one of the independent variables has a significant impact on the dependent variable, we can reject the null hypothesis.

6.6.6. Summary of logistic regression tests

Table 6.63 provides a summary of the logistic regression tests relating to hypotheses H7 to H11.

Table 6-63: Summary of logistic regression tests

Code	Description	Predictor variables with significant effect at 0.1	Outcome
H7	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of IWB	Employment Status Tenure Employment Level	Reject the null hypothesis
H8	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Exploration behaviours	Employment Status	Reject the null hypothesis
H9	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Generation behaviours	Employment Status	Reject the null hypothesis
H10	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Championing behaviours	Age Employment Status Tenure	Reject the null hypothesis
H11	RWF, Age, Gender, Tenure, ES, EL has a significant effect on the odds of Idea Implementation behaviours	Employment Status Employment Level	Reject the null hypothesis

6.7. Summary of ANOVA and Logistic Regression tests

Table 6.64 presents a summary of the variables that exhibited a statistically significant relationship with IWB across both ANOVA and Logistic Regression testing. The '+' indicates increased IWB and '-' indicates that decreased IWB.

Table 6-64: Summary of ANOVA and Logistic Regression tests

	ANOVA	Logistic Regression				
	IWB	IWB	IE	IG	IC	II
RWF	Increasing RWF (+)					
Age					Increasing Age (-)	
Gender						
Tenure	Increasing Tenure (+)	Increasing Tenure (+)			Increasing Tenure (+)	
Employment Status	Full-time (+)	Full-time (+)	Full-time (+)	Full-time (+)	Full-time (+)	Full-time (+)
Employment Level	Manager (+)	Increasing EL (+)				Increasing EL (+)

6.8. Chapter summary

In summary, this chapter discussed the quantitative data analysis conducted through a rigorous application of two statistical methods, ANOVA and Logistic Regression, as well as descriptive statistics. The primary objective was to understand relationships within the dataset concerning IWB overall, and within each of the four phases of idea exploration, idea generation, idea championing and idea implementation.

The ANOVA tests found that RWF, employment status and employment level had a statistically significant effect on IWB when employees worked remotely. These results begin to shed light on the interplay between remote work arrangements, employment status, and hierarchical levels within organisational structures, and their influence on fostering IWBs. Conversely, the variables of age, gender, and tenure did not exhibit any statistically significant differences in group means concerning IWB.

The logistic regression tests found that employment status, namely being full-time rather than part-time, had a statistically significant effect on the odds of IWB occurring, and within each of the four phases. Being contract/casual did not have any effect when compared to full-time.

Furthermore, the analysis delved deeper into the phases of IWB, shedding light on demographic differences within each phase. Longer tenure emerged as having a statistically significant effect on the odds of idea championing behaviours. Conversely, older was associated with a decrease in the likelihood of idea championing. This suggests that employees with extended organisational experience play a pivotal role in championing innovative ideas, whereas more mature workers are less likely to take on this role.

Additionally, the hierarchical dimension of employment (i.e. employment level) manifested as an important factor, with more senior employment levels exhibiting a statistically significant effect on the likelihood of idea implementation behaviours. This emphasises the vital role played by senior professionals in translating innovative concepts into innovation outcomes.

The findings of the quantitative analysis are discussed in Chapter 8. The next chapter will discuss the qualitative data analysis.

CHAPTER 7 - QUALITATIVE DATA ANALYSIS

7.1. Introduction

This chapter provides an overview of the key steps and concepts used for the qualitative data analysis process. The following sections discuss the data preparation, including the organisation and familiarisation with the data, transcription, coding, categorising, and interpretation.

The qualitative data analysis chapter delves into analysing and interpreting the data collected through 18 semi-structured interviews. This chapter aims to uncover the meaning, patterns, and themes embedded within the qualitative data, thereby addressing the research objectives and providing valuable insights into the research topic. The findings shed light on the employee experience, offering valuable insights into the employees' practices, attitudes, and behaviours.

7.2. Organisation of data

7.2.1. Data management

The initial step in the qualitative data analysis process involved carefully and accurately polishing the transcribed collected data. For each interview conducted, an automated transcription system was employed. Nonetheless, this system occasionally failed to capture the intended words accurately and incorporated numerous redundant verbal fillers such as 'umm' and 'like'. Part of the data cleaning process involved removing verbal fillers, removing introductions and farewells at the beginning and end of the interviews, and extraneous content. Only the questions and responses remained. Each interview file was renamed 'Fully Transcribed Interview_EMP#' to preserve anonymity. The researcher was labelled as 'Interviewer', and the employee was labelled as 'EMP#'. . A process of familiarisation with the data was undertaken. This involved reading and re-reading transcripts to understand their contents fully.

7.2.2. Generate initial codes

Once the data was transcribed, the researcher embarked on the process of coding. Coding involves systematically identifying and labelling data segments relevant to the research objectives. These short, descriptive labels captured specific ideas and concepts

within the data using an inductive process (they emerged directly from the data rather than being predefined). This process created a framework to organise and categorise the data.

7.2.3. Search for themes

As coding progressed, patterns and connections were formed, representing concepts, ideas and themes. Codes were grouped into broader categories based on the shared underlying concepts, which became the themes. Each theme represents a distinct aspect of the data that captures a central idea or concept. Each theme was defined and named. From this, a codebook was created, which included tables of themes. Further, to enhance clarity, examples of excerpts and quotes from the data illustrate each code and frequency within each theme. This demonstrates how the theme is manifested in the data.

7.3. Thematic analysis

This qualitative study aimed to understand the employee experiences with remote work and explore the factors influencing their innovative behaviour when working remotely. When understanding the factors, we want to understand those that support innovative behaviour and those that may hinder it. The AMO framework (Appelbaum et al., 2000) was used as the theoretical guide in understanding the lived experience of remote workers in Australia. This framework focuses on an individual's ability, motivation, and opportunity as key factors influencing behaviour and performance. It has been widely used in various domains including innovation research (Bos-Nehles et al., 2013; Rayner & Morgan, 2017; Shahzad et al., 2019) and has been instrumental in explaining the relationship between human resource management practices and organisational performance (Bos-Nehles et al., 2023; Doshi & Nigam, 2022; Marin-Garcia & Tomas, 2016).

The qualitative data analysis resulted in six themes, with 20 codes, presented in Table 7.1. The themes are discussed in turn in Section 7.3.1 onwards.

Table 7-1: Themes and codes

Theme	Code	Number of respondents mentioning this code (n=18)	Number of References
Resources and tools	Tangible resources for remote work	13	35
	Exploring and generating new ideas	10	36
Perspectives and feelings	Negative side of remote working	16	79
	Positive side of remote working	15	77
	Approach to risk	11	22
	Importance of remote working	7	15
Support and culture	Intangible support for remote work	15	29
	Company's support and encouragement of innovation	14	18
Work spaces and tasks	Work remotely	16	65
	Creative Work	14	53
	High Focus Work	14	32
	Work Environment	13	31
	Innovation while remote working	5	7
Communication and interactions	Interactions between coworkers	27	75
	Post-COVID work interactions	13	43
	Pre-COVID work interactions	12	27
	Impromptu connections	12	13
	In-person communications	6	7
Collaboration and relationships	Collaborating in different contexts	14	33
	Creativity and group bonding	12	21

7.3.1. Resources and tools

The thematic analysis explores the theme of ‘Resources and tools’, encapsulating the diverse array of tools and support the organisation offers to cultivate remote work and foster innovative thinking. Two prominent codes emerged: ‘Tangible resources for remote work’ and ‘Exploring and generating new ideas when remote working’. The results are shown in Table 7.2.

Table 7-2: Theme: Resources and tools

Theme	Code	Theme description	Examples
Resources and tools	Tangible resources for remote work	Concrete support for remote working success: Organisations provide tools such as screens and financial aid	<p><i>‘So we got given the \$250 allowance for office equipment.’ EMP01</i></p> <p><i>‘We were all given money to go and buy an extra screen or whatever it was you needed to.’ EMP02</i></p> <p><i>‘There was actually quite a few memos going out saying you are not to take any equipment home. Not even a mouse or a keyboard. You were not to take anything.’ EMP11</i></p>
	Exploring and generating new ideas	Unveiling the digital canvas: Employees share how remote working and tools can foster innovation and idea exchange	<p><i>‘So you have the tools now to kind of set yourself two to three hours on “Do not disturb” or whatever, where you can just rip through the work distraction-free.’ EMP01</i></p> <p><i>‘So at our SharePoint, that’s the main way that we do that. In terms of having a chat about things, it’s all done by video call basically, on Microsoft Teams...’ EMP03</i></p> <p><i>‘We had Zoom and we had an instant chat messenger messaging thing system that we used as well...There’d be a lot of just quick messages you know, bouncing ideas.’ EMP16</i></p>

Employee responses highlighted diverse experiences regarding the provision of resources for remote work. Respondents described receiving financial allowances to acquire necessary equipment such as screens, chairs, and printers, reflecting organisational support for enhancing remote work efficiency. In contrast, some respondents expressed frustration over the lack of tools provided and the expectation that employees would self-fund their home office setups, indicating a disparity in resource allocation across organisations.

Furthermore, the analysis revealed variations in the types of support organisations offer to facilitate remote work. Some respondents mentioned a combination of monetary assistance and salary increments to cover expenses related to setting up a home office, demonstrating a multifaceted approach to resource provision. Other respondents highlighted the implementation of a working-from-home bursary for all employees, reflecting a concerted effort to mitigate financial burdens associated with remote work transitions. Respondents discussed a shift in organisational attitudes towards remote work support pre- and post-pandemic, with increased emphasis on equipping employees with necessary resources following the onset of the global health crisis.

Further insights emerge from employees' experiences regarding utilising resources and tools in remote work environments. Respondents emphasise the newfound ability to establish focused work periods through technology-enabled 'Do not disturb' settings, contrasting the potential distractions of office environments. This highlights the adaptability of remote work practices in enhancing productivity. Moreover, transitions to platforms like Microsoft Teams and Zoom facilitate seamless communication and collaboration, underscoring the organisational responsiveness to the demands of remote work.

Employees demonstrate innovative approaches to idea generation and collaboration in virtual settings. Respondents reflected on the transition from in-person creative processes to remote exchanges, indicating a shift towards leveraging digital platforms for idea dissemination. Employees utilise various strategies for maintaining effective communication with remote teams, emphasising the importance of structured meetings and asynchronous messaging channels like Slack. These testimonies underscore the significance of proactive communication strategies in sustaining team cohesion and fostering innovation in remote work settings.

However, challenges in virtual collaboration are also acknowledged. Concerns about the potential for negative interactions in persistent digital channels, highlighting the need for effective moderation and conflict resolution strategies. Collaborative tools like SharePoint and virtual meetings enable ongoing project alignment and progress tracking, indicating the potential for digital platforms to facilitate constructive collaboration despite physical distance. The narrative illuminates how the virtual realm sustains and augments collaborative potential, transcending physical barriers and geographical constraints. The findings emphasise the integral role played by these digital tools in creating an ecosystem conducive to cultivating and disseminating novel ideas.

The theme of ‘Resources and tools’ reveals a dynamic interplay between resource provision, technological adaptation, and innovative collaboration practices in remote work contexts. As organisations navigate the complexities of remote work, fostering a culture of adaptability and leveraging digital tools emerge as critical factors in ensuring productivity and team cohesion.

7.3.2. Perspectives and feelings

Within this thematic umbrella of ‘Perspectives and feelings’, participants candidly elucidated the dichotomy of the ‘Negative side of remote working’ juxtaposed with the ‘Positive side of remote working’. They also discussed their approach to risk-taking activities and the importance of having the option to work remotely. The results are shown in Table 7.3.

Table 7-3: Theme: Perspectives and feelings

Theme	Code	Theme description	Examples
Perspectives and feelings	Negative side of remote working	Exploring the downside of remote work: isolation, disrupted work-life balance, and prolonged task durations, revealing nuanced challenges	<p><i>'One thing that does happen I think is it makes it a little bit harder to disconnect.'</i> EMP01</p> <p><i>'I certainly don't think that I would want to work five days from home every day. I think that'd be isolating.'</i> EMP03</p> <p><i>'The negatives are the lack of communication, the working too long an hour.'</i> EMP07</p>
	Positive side of remote working	Illuminating the bright side of remote work: enhanced focus, time flexibility, and improved work-life balance, showcasing diverse advantages	<p><i>'Because it's a lot more private. And those interruptions. You get those long breaks, of say four to five hours uninterrupted...Smash things out. Strategy. We call it thinking time as well.'</i> EMP06</p> <p><i>'The positive, no travel and being close to home.'</i> EMP09</p> <p><i>'Positive says I'm far more productive. I'm far more creative and some more efficient.'</i> EMP11</p>
	Approach to risk	Navigating risk: Employees share insights into their risk taking tendencies	<p><i>'I'd say I have a healthy appetite for risk.'</i> EMP03</p> <p><i>'I take risk, if there's an opportunity.'</i> EMP06</p> <p><i>'I'm not a big risk taker.'</i> EMP10</p>

	Importance of remote working	Perceptions unfold: Employees reflect on remote work's impact on work dynamics	<p><i>'I'd say it's quite important to me...it's important to have the flexibility.'</i> EMP01</p> <p><i>'I know I want to keep working from home. I just enjoy, it gives you balance.'</i> EMP03</p> <p><i>'I think it's very important. I think it's all about the hybrid balance and giving you that feeling of empowerment as well.'</i> EMP06</p>
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The thematic analysis on the 'Negative side of remote working' unveils various challenges and concerns voiced by employees navigating remote work arrangements. Central to these concerns is the feeling of isolation. The absence of physical interaction with colleagues and the separation from the traditional office environment contribute to feelings of social disconnection and solitude, underscoring the importance of interpersonal dynamics in the workplace.

Remote work blurs the boundaries between professional and personal life, exacerbating challenges related to work-life balance and disengagement. Respondents highlight the difficulty in disconnecting from work, with the home environment facilitating prolonged working hours and impeding the delineation of leisure time. Respondents acknowledge the temptation to overwork, attributing it to the accessibility and omnipresence of work-related tasks in the home setting. This sense of home life conflict is compounded by practical constraints, such as inadequate workspace or noisy environments, further exacerbating feelings of isolation and marginalisation within the organisational context.

Additionally, communication gaps and feelings of invisibility within the organisation emerge as significant concerns for remote workers. Respondents lament the lack of informal interactions and the risk of being overlooked or forgotten by colleagues and supervisors.

Remote work poses challenges in maintaining social connections and fostering camaraderie among team members. Respondents reflect on the formalisation of communication channels and the absence of casual interactions that characterise office environments, highlighting the value of social interactions in nurturing a sense of belonging and cohesion within teams.

Conversely, the ‘Positive side of remote working’ reveals many benefits and advantages perceived by employees navigating remote work arrangements. Central to these positive experiences is the liberation from the daily commute. The elimination of travel time not only affords individuals additional leisure time but also reduces stress associated with commuting, thereby enhancing overall wellbeing. Moreover, remote work allows employees to structure their day according to personal preferences. This flexibility extends beyond work hours, allowing individuals to seamlessly integrate family responsibilities and personal pursuits into their daily routines, fostering a more balanced lifestyle.

Remote work environments offer a conducive space for focus and productivity. The absence of office distractions enables uninterrupted work periods, facilitating deep concentration and enhanced efficiency. This privacy and autonomy over one’s workspace can be particularly beneficial for individuals with specific sensitivities or neurological conditions. Additionally, remote work empowers employees to approach tasks creatively and strategically, with the ability to carve out dedicated ‘thinking time’ for problem-solving and innovation.

Employees perceive the integration of work and personal life positively, as it allows for greater work-life balance and flexibility. Respondents appreciate the opportunity to manage multiple roles and responsibilities, such as caregiving and education, without the constraints of traditional office hours. This integration fosters a sense of empowerment and autonomy, enabling individuals to tailor their work schedules to accommodate diverse life priorities and pursuits.

The data on ‘Approach to risk’ uncovers a diverse spectrum of employee attitudes and behaviours when confronted with risk-taking opportunities. Some respondents identify themselves as moderately inclined towards risk-taking, adopting a pragmatic approach that balances the potential rewards with the associated uncertainties. This stance

reflects a calculated willingness to embrace new ventures and concepts while exercising caution to mitigate potential downsides. They are willing to seize opportunities and take calculated risks, demonstrating a proactive attitude towards innovation and experimentation.

Conversely, other employees lean towards a more risk-averse disposition. These individuals prioritise careful planning and consideration before embarking on ventures, meticulously weighing the potential outcomes and risks. While not inherently opposed to taking risks, they prefer measured and calculated decision-making processes, minimising the likelihood of adverse consequences. Respondents emphasised the importance of evaluating the potential returns against the associated risks before committing to a course of action. This approach reflects a strategic mindset that prioritises long-term sustainability and risk management.

Other employees articulate a nuanced perspective on risk-taking, highlighting the necessity of adopting a managed approach, particularly in contexts involving financial investments or behaviour change initiatives. This stance underscores the importance of striking a delicate balance between innovation and prudence, recognising the inherent uncertainties while leveraging opportunities for growth and development.

The 'Importance of remote working' analysis uncovers contrasting attitudes towards the importance of flexibility in work arrangements among employees. While some individuals emphasise the significance of flexibility in achieving a balanced work-life integration and empowering employees to make choices that suit their preferences, others underscore the necessity of embracing flexibility as a strategic imperative for remaining competitive in the modern business landscape. These perspectives highlight the recognition of flexibility as a key factor in attracting and retaining talent, fostering employee satisfaction, and adapting to evolving work preferences and expectations.

Employees emphasise the tangible benefits of flexibility, such as avoiding lengthy commutes, maximising productivity, and allocating more time to personal pursuits and family commitments. For these individuals, flexibility represents a practical necessity and a source of fulfilment and happiness, enabling them to pursue career advancement while maintaining a fulfilling personal life. This perspective reflects a pragmatic approach that

prioritises the tangible benefits of flexibility in enhancing overall wellbeing and job satisfaction.

Some respondents advocate for a hybrid approach that combines the advantages of remote and office-based work, emphasising the importance of striking a balance between flexibility and structure. Respondents emphasised the need for businesses to adapt to changing workforce preferences and market dynamics by offering greater flexibility in work arrangements. This perspective underscores the recognition of flexibility as a strategic imperative for remaining agile and responsive to employee needs and market demands, thereby ensuring organisational resilience and competitiveness.

The theme ‘Perspectives and feelings’ highlights the complex nature of employee experiences and attitudes towards remote work, risk-taking, and flexibility. It underlines the need for organisations to adopt holistic approaches that prioritise employee wellbeing, foster a culture of innovation, and adapt to evolving workforce preferences and expectations in the dynamic and ever-changing landscape of work.

7.3.3. Support and culture

The thematic analysis navigates the realm of ‘Intangible support for remote working’, wherein participants elaborate on measures addressing mental wellbeing and resources. Including wellbeing programs, psychological support, and initiatives aimed at enhancing mental health underscores a holistic approach to remote work support, acknowledging the intricacies of both the physical and mental dimensions of the remote work experience. Complementing this, the organisation’s ‘Support and encouragement of innovation’ delves into the programs and organisational climate which fosters innovation. These codes encapsulate the diverse mechanisms through which organisations provide assistance and create conducive environments for employees, particularly in remote work facilitation and innovation promotion. The results are shown in Table 7.4.

Table 7-4: Support and culture theme: Intangible support for remote work

Theme	Code	Theme description	Examples
Support and culture	Intangible support for remote work	Nurturing wellbeing remotely: Insights into mental health support, wellbeing programs, and psychological resources for a balanced remote work experience	<p><i>'...we've got mental health type programs running. We try and make sure that we do some team building type stuff fairly regularly.'</i> EMP02</p> <p><i>'...they've got a subscription to some employees' service or something or other, that they give us...It's called Be Well. There's an actual company that they outsource it to.'</i> EMP03</p> <p><i>'There was a lot of mental health support. Lot of mental health support...a lot of contact, a lot of checking in, all that kind of stuff.'</i> EMP06</p>
	Company's support and encouragement of innovation	Fostering and promoting innovation: proactive encouragement, programs and shaping a supportive ethos	<p><i>'So we definitely used to have a big innovation program that was formally rewarded, but I don't think that's necessarily happening anymore.'</i> EMP01</p> <p><i>'We run an international run innovation competition. And some guys out of our group went through the national final...and they won a prize for that.'</i> EMP02</p> <p><i>'I know we have an office award...And every quarter, there's one person from each service line that is selected as the winner of this award. And it's assessed on a submission basis.'</i> EMP03</p>

The data on ‘Intangible support for remote work’ elucidates the comprehensive efforts undertaken by organisations to prioritise employee wellbeing and mental health for employees working remotely. Employees across various contexts highlight the proliferation of mental health support initiatives, such as Employee Assistance Programs (EAPs), wellness programs, and resilience-building workshops, as integral components of organisational support frameworks. These initiatives underscore the proactive approach adopted by organisations in addressing the psychological and emotional challenges associated with remote work, fostering a culture of care and empathy within the workforce.

Respondents discuss how their organisations intensified their focus on promoting mental health awareness and resilience-building strategies. By equipping employees with tools and resources to manage stress, anxiety, and isolation effectively, organisations empower individuals to navigate the complexities of remote work with greater resilience and adaptability.

Crucially, the thematic analysis underscores the importance of fostering open communication channels and social connections to mitigate feelings of isolation and enhance social support networks among remote workers. Organisations prioritise regular check-ins, team-building activities, and virtual social gatherings to foster a sense of belonging and camaraderie among employees despite physical distancing measures. This emphasis on maintaining social connections underscores the recognition of social support as a vital determinant of employee wellbeing and job satisfaction in remote work settings.

The data on ‘Company’s support and encouragement of innovation’ reveals a spectrum of approaches organisations adopt to foster a culture of innovation and recognise employees’ contributions to creative problem-solving and enhancement. Some respondents highlight formalised recognition programs and awards to celebrate innovative ideas and initiatives within the organisation. These programs often entail a structured evaluation process, wherein individuals are encouraged to submit proposals or showcase their innovative contributions for assessment, thereby providing a platform for showcasing novel solutions and driving organisational change.

Conversely, other respondents underscore the informal avenues through which innovation is encouraged and supported within the organisation. These individuals emphasise the importance of autonomy and freedom in fostering innovation, wherein employees are empowered to explore new ideas, experiment with novel approaches, and drive change in their respective roles or departments. Such decentralised approaches to innovation underscore the organisation's commitment to nurturing a bottom-up culture of innovation, wherein creativity and ingenuity are valued and rewarded irrespective of formalised recognition programs.

The analysis highlights the role of organisational initiatives and platforms in promoting innovation and knowledge sharing among employees. For instance, one respondent mentions participation in international innovation competitions and conferences, wherein employees have the opportunity to showcase their innovative projects on a global stage and gain recognition for their contributions. Additionally, initiatives such as innovation newsletters and forums facilitate the dissemination of best practices, success stories, and innovative ideas, thereby fostering a collaborative and learning-oriented environment conducive to continuous improvement and innovation.

The theme 'Support and culture' emphasises an organisation's commitment to nurturing a dynamic and inclusive workplace culture that values employee wellbeing, fosters creativity and promotes organisational resilience in the face of working remotely.

7.3.4. Workspaces and tasks

In examining the dynamics of workspaces and tasks, the analysis delves into the multifaceted interplay between individuals' preferences for where work is conducted, and the nature of tasks being performed. This exploration entails dissecting various dimensions, from the rise of remote work to the nuances of creativity, focus, and innovation within different work environments. Five distinct codes emerge: 'Work remotely', reflecting the experience of decentralised work arrangements; 'Creative work', highlighting the symbiotic relationship between environment and imaginative output; 'High focus work', elucidating the significance of conducive settings for concentrated tasks; 'Work environment' and 'Innovation while working remotely', examining the potential for new ideas and problem-solving to emerge amidst remote work setups. The results are shown in Table 7.5.

Table 7-5: Theme: Workspaces and tasks

Theme	Code	Theme description	Examples
Work spaces and tasks	Working remotely	Work transcends boundaries: Employees share experiences of remote work frequency	<p><i>'I very rarely work remotely. I probably work probably a couple of days a month, if that.'</i> EMP02</p> <p><i>'I'd probably be fully remote. As in internal meetings I like, like I go to the strategy days, which are in person or you know, things like that. But outside of that, yeah, like I, I'd happily be fully remote.'</i> EMP13</p> <p><i>'Remote working covid has been a godsend for me. I'll never work full-time in an office again.'</i> EMP14</p>
	Creative work	Employees share strategies for private focus, autonomy, and unconventional spaces fostering creative and problem-solving thinking in a digital landscape	<p><i>'I do my best thinking when I'm laying in bed. And quite often, and maybe that's because that's the only time of the day I actually manage to have peace and quiet and thinking time.'</i> EMP02</p> <p><i>'That 10 minutes in the shower with the hot water and that silence, just the water running, gives you that time to think.'</i> EMP06</p> <p><i>'Working remotely and in the park that's just around the corner sitting under a tree, like lying under a tree sometimes or walking around and just getting, getting a bit of fresh air and space.'</i> EMP10</p>
	High focus work	Employees share strategies and spaces for high concentration work	<p><i>'I will a hundred percent do my deep thinking at home because there is no way on God's green earth it's happening in the office.'</i> EMP11</p> <p><i>'Definitely that sort of thing is better from home.'</i> EMP16</p>

			<i>'I would always book a meeting room...I wanna be away from people away from the buzz of an open plan office.'</i> EMP17
	Work environment	Employees articulate preferences for work environments, highlighting the influence on productivity, energy, and interpersonal dynamics	<p><i>'There's still situations where especially the younger people really missed out by not having those sort of water cooler conversations you get in the office.'</i> EMP02</p> <p><i>'I think it's just easier at home. I've got a dual screen set up. Everything's set up, ready to go. It's quiet.'</i> EMP07</p> <p><i>'I think some things are a little bit easier to do when you're in the office. So sometimes, you know, you just need to check in a process with someone.'</i> EMP17</p>
	Innovation while remote working	Employees delve into fostering innovation in the virtual workspace	<p><i>'But the extent that you do identify a problem at home when you're at home, I think it's easier to find the time to get the head space to think about the solution than when you're in the office.'</i> EMP02</p> <p><i>'[I feel more creative] outside the office environment. It's the space. And because, well, my mind is at rest, I think.'</i> EMP09</p> <p><i>'If you're in meetings personally and you had, the detractors in the room, you would've been able to kind of move them and change 'em a little bit.'</i> EMP12</p>

‘Remote working’ has become increasingly prevalent, with many respondents noting a shift towards working from home or other remote locations. While some individuals had already established home offices prior to the COVID-19 pandemic, others adapted by setting up dedicated workspaces within their homes during lockdown periods. The flexibility afforded by remote work allowed individuals to customise their work

environments to suit their needs, whether it involved creating a home office or occasionally working from cafes to break the routine.

Preferences regarding remote work varied among respondents, with some expressing a preference for a fully remote setup, while others preferred a hybrid model that balanced office and remote workdays. For many, the ability to work remotely offered a better work-life balance, particularly for those juggling childcare responsibilities or seeking to avoid lengthy commutes. This flexibility allowed individuals to allocate their time more efficiently and tailor their work arrangements to fit their lifestyle.

The hybrid model emerged as a popular choice, with many respondents indicating a desire to split their time between office and remote workdays. This approach offered the benefits of face-to-face interaction and collaboration in the office, combined with the flexibility and autonomy of remote work.

The data on 'creative work' highlighted various environments and activities that fostered creativity in respondents' work processes. Some emphasised the importance of having dedicated spaces for creative thinking, such as breakout rooms in the office or home offices free from distractions. Others found that unconventional settings, like lying in bed or sitting under a tree in the park, stimulated their creativity by providing mental space and tranquillity.

Routine activities such as showering or driving also emerged as conducive moments for generating creative ideas. The solitude and rhythmic nature of these activities allowed individuals to engage in reflective thinking and problem-solving. Similarly, physical activities such as riding a bike or going for a walk provided opportunities to clear the mind and stimulate fresh perspectives.

For some respondents, switching between focused work and breaks was essential for nurturing creativity. They described the need to step away from screens and engage in activities such as taking walks or conversing with colleagues to generate new ideas. Additionally, visits to cafes provided a change of scenery and ambience conducive to creative thinking, offering a break from the monotony of the office or home environment.

The data shows the importance of creating environments and routines that support creative thinking and problem-solving. Whether through intentional spaces, routine

activities, or changes in scenery, individuals sought ways to cultivate creativity in their work processes.

When undertaking 'high focus work' the respondents highlighted the importance of isolating themselves to engage in deep thinking and creative work. Many expressed a preference for working from home when they needed to apply intense focus to complex tasks. They emphasised the lack of distractions and interruptions in a home environment compared to the bustling atmosphere of an office. Some even mentioned setting up home offices with doors they could shut to minimise disruptions and maintain concentration.

For those who did work in office settings, they often sought out secluded spaces such as meeting rooms or quiet rooms away from the main workspace. These areas provided the solitude necessary for deep concentration and strategic thinking, especially when tackling high-level tasks like strategizing or planning long-term initiatives. The ability to escape the buzz of an open-plan office was crucial for maintaining productivity and creativity during these focused work sessions. Whether at home or in designated quiet spaces within the office, employees valued the opportunity to isolate themselves when engaging in tasks that required intense concentration and focus.

The responses regarding 'work environments' highlighted a variety of perspectives on the benefits and challenges of different settings. Many respondents expressed the value of face-to-face interactions in the office, emphasising the importance of water cooler conversations and the ability to build relationships with colleagues in person. They noted that starting a new job remotely could be particularly challenging due to the lack of opportunities to meet people in real life and get a feel for the workplace culture.

However, some respondents also acknowledged the convenience and efficiency of working from home, citing factors such as having a dual-screen setup, minimal distractions, and the ability to focus without interruptions. Others mentioned the preference for a dedicated workspace and the challenges of adapting to coworking spaces or hot-desking arrangements. Despite the advantages of remote work, some respondents highlighted the limitations of virtual meetings for high-level discussions and strategy sessions, noting that face-to-face interactions were often more effective in these contexts.

There was recognition of the energy and collaboration that comes from working alongside colleagues in the office. Some respondents mentioned the difficulty of managing team performance remotely and the need to navigate permission for interruptions when working from home. For those in roles requiring people management, the office environment provided a source of energy and connection that was difficult to replicate remotely.

The responses underscored the complex interplay between physical work environments, interpersonal dynamics, and individual work preferences. While remote work offered advantages in terms of flexibility and focus, many respondents still saw value the social and collaborative aspects of working in an office setting.

The data on ‘innovation while remote working’ found the shift to remote work during the COVID-19 pandemic catalysed innovation in unexpected ways. Without the constraints of traditional office settings, employees found themselves empowered to streamline processes and implement new ideas with unprecedented speed. Freed from the distractions of office environments, individuals could focus more intently on problem-solving and creative thinking. This enhanced ability to concentrate has accelerated the development and approval of concepts that might otherwise have languished for years due to bureaucratic hurdles or organisational inertia. Employees report being able to generate solutions more quickly and efficiently, without the need to labour over problems late into the night.

However, the transition to remote work also presented challenges, particularly in terms of collaboration and communication. In the absence of in-person meetings, some employees found it harder to sway detractors or engage in dynamic brainstorming sessions. Virtual collaboration tools, while valuable, may not fully replicate the spontaneity and interactivity of face-to-face interactions. For some, the lack of physical whiteboards and collaborative spaces has been keenly felt, as these tools are seen as catalysts for creative thinking and problem-solving. Nevertheless, innovative solutions have emerged, such as scheduling virtual ‘whiteboard sessions’ to encourage creativity and idea-sharing among team members.

Despite these challenges, many employees find that working outside the traditional office environment enhances their creativity and problem-solving abilities.

The absence of workplace distractions allows individuals to achieve a state of mental clarity conducive to innovative thinking. Away from the hustle and bustle of office life, employees can tap into their creativity more freely, often finding inspiration in moments of rest or quiet reflection. Moreover, virtual collaboration platforms provide opportunities for asynchronous brainstorming and idea-sharing, enabling individuals to develop and refine their ideas collaboratively, even in remote settings.

The theme of ‘Workspaces and tasks’ provides comprehensive insights into the dynamics of remote work and its impact on creativity and innovation. The analysis reveals the complexity of remote work dynamics, encompassing individual preferences, work practices, organisational support, and technological considerations.

7.3.5. Communication and interactions

In the evolving landscape of modern workplaces, effective communication and interactions serve as fundamental pillars for fostering collaboration, productivity, and organisational cohesion. Through an examination of five distinct codes, ‘Interactions between coworkers’, ‘Post-COVID work interactions’, ‘Pre-COVID work interactions’, ‘Impromptu connections’, and ‘In-person communications’, participants discuss the multifaceted nature of communication and interactions within work environments, exploring workplace relationships, shedding light on the shifts, challenges, and opportunities that have emerged in the wake of remote work, virtual interactions, and hybrid working. The results are shown in Table 7.6.

Table 7-6: Theme: Communication and interactions

Theme	Code	Theme description	Examples
Communication and interactions	Interactions between coworkers	Digital dynamics in focus: Employees explore interactions in virtual spaces and the use of technology	<i>‘It is quite a lot different. So if we’re in the office, we might just all move our chairs over somewhere or get a meeting room and kind of do a similar thing. But I think it’s just a bit more rigid and formal in the sense that you have to find a time</i>

			<p><i>that lines up with everyone's calendars to schedule in a video call...you can just go and knock on the door. But now you have to find a time that works on both our calendars. It's a bit more rigid and formalised.'</i> EMP01</p> <p><i>'So I sort of rely on being in a room in a meeting and sitting next to someone and striking a bit of a conversation before the meeting starts or after the meeting finishes, which you don't get to do on Zoom.'</i> EMP02</p> <p><i>'If I was working from home, I would've just communicated as I would if I was in the office. I'd still have that conversation. It wouldn't be a barrier for me.'</i> EMP07</p> <p><i>'We thought the board meeting was going to be live, he was on his phone, he didn't have the documents. And so, it made it a harder. You couldn't see his face, you couldn't read as much body language into the meeting.'</i> EMP08</p>
	<p>Post-COVID work interactions</p>	<p>Adapting to new normal: Employees discuss shifts in work interactions</p>	<p><i>'If there's anything we're not hearing it probably is if I've got say junior staff that maybe don't communicate upwards as much for whatever reasons. That's</i></p>

		<p>post-COVID, navigating changing circumstances and hybrid modes of collaboration</p>	<p><i>what I've found to be the main information gap.'</i> EMP01</p> <p><i>'I think because we do them and I do make them turn their cameras on, it's like you're in the room with them if you're having a conversation. So back in the days when it was only a phone call and you couldn't see them, but now that we've got Teams and got video conferencing and stuff, I think you can have a much more open and honest and transparent conversation and get someone's real thoughts around an idea.'</i> EMP07</p> <p><i>'I feel like I can't read the nuances of what's going on in the room...Cause I just like can't see the nuances of like people's behaviour or how they're receiving an idea.'</i> EMP13</p> <p><i>'So whether we're in the office or we're online or you know, mixture of both, we meet every day and we have a chat. But I guess what I don't see or who the people I don't see are those people who are not in my direct team who I might have had a chat to in the kitchen or walking past their pod.'</i> EMP16</p>
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	Pre-COVID work interactions	Reflecting on the past: Employees reminisce about pre-COVID work interactions	<p><i>‘Whereas if you’re in the office, you could just kind of eyeball everyone and say ‘Hey, are you free? Do you want to grab a room and we’ll go through it together?’ EMP01</i></p> <p><i>‘If I want to have a conversation with a client, I’ll pop into a meeting room to have conversation because I don’t feel that it’s appropriate for people to be listening to everything I say or me being disruptive to them.’ EMP02</i></p> <p><i>‘I find if I’m in the office I need to be at the computer to be considered working.’ EMP15</i></p>
	Impromptu connections	Spontaneous creativity or problem solving unfolds as well as casual dialogues: Employees share experiences of impromptu opportunities for sharing ideas in different work contexts	<p><i>‘There is probably not as much [creativity] as if I had been in the office because...it’s far easier just to hop across to your colleague’s desk and say “What do you think about this?” Rather than just the act of dialling someone is a filter.’ EMP02</i></p> <p><i>‘Typically it’s just an impromptu call [when working remotely]...if I’ve got a meeting with my manager, I might just tack on the end “Oh gee, do you have two minutes for me to run something past you?”’ EMP03</i></p>

			<p><i>'I love it when I go into the office because I get to see my team and that typical "Let's go for a coffee" and just having that informal, that chit chat where you get to connect on a more personal and a human level so that you're building up that trust and rapport.'</i></p> <p><i>EMP09</i></p>
	In-person communications	<p>Employees reminisce on in-office interactions, exploring the nuances of face-to-face communication in traditional work settings</p>	<p><i>'...you could read a person's energy a lot easier face-to-face than you can on the camera.'</i> EMP06</p> <p><i>'I think we got a better outcome because it was face-to-face than online. You could deal with some of the emotion, some of the tensions...you can see people's reactions.'</i> EMP08</p> <p><i>'So you can't really tell what people are thinking, but in a room I can tell what they're thinking without them having to say as much.'</i> EMP17</p>

The data on 'interactions between coworkers' reveal both challenges and opportunities in the transition to remote work. Respondents noted a shift in the dynamics of communication, with traditional office interactions being replaced by digital platforms such as Microsoft Teams and Zoom. While these tools facilitate communication with colleagues, when necessary, they also introduce new barriers to spontaneous interactions and informal conversations that occur naturally in the office environment.

Remote work has affected the learning opportunities for junior staff members who miss out on overhearing conversations and absorbing knowledge from more experienced

colleagues. The absence of physical proximity has made it difficult for junior staff to stay engaged and learn from their peers, leading to a regression in their learning curve.

Additionally, remote work has changed the nature of collaboration, making it more formalised and structured. While digital platforms allow for virtual meetings and screen sharing, the spontaneity of in-person interactions is lost. Scheduling video calls becomes necessary, leading to a more rigid and formalised approach to collaboration.

Respondents also highlighted the challenges of maintaining connections with colleagues outside of formal work-related interactions. Without the opportunity for casual encounters in the office, building relationships and staying connected with colleagues requires more deliberate effort. Some respondents expressed reluctance to schedule informal catch-ups, preferring the spontaneous interactions that occur naturally in the office setting.

However, despite these challenges, respondents identified strategies to maintain connections and foster collaboration in a remote work environment. This includes regular video calls with specific team members, deliberate efforts to reach out and communicate, and creating structured opportunities for team dialogue and collaboration. By adapting to the new reality of remote work and implementing strategies to overcome its limitations, teams can continue to collaborate effectively and maintain strong working relationships, even in a virtual setting.

The data on 'post-COVID work interactions' shed light on the evolving nature of communication and collaboration in the modern workplace. Respondents highlighted both benefits and challenges associated with remote work and virtual interactions.

One recurring theme was the speed and accessibility of information in a remote work environment. With the advent of digital tools like Microsoft Teams and video conferencing platforms, information sharing has become more efficient and immediate. Younger employees, in particular, are adept at multitasking and utilising real-time resources during discussions, enhancing the speed of decision-making and problem-solving.

However, despite the efficiency of virtual interactions, there are concerns about the loss of nuanced communication cues present in face-to-face interactions. Respondents

noted challenges in reading nonverbal cues and gauging reactions during virtual meetings, which can impact the depth of understanding and collaboration within teams.

Furthermore, the shift to remote work has changed the dynamics of information flow within organisations. While firm communication and developments are still disseminated effectively, there may be gaps in information for junior staff who do not communicate upward as frequently. The lack of casual encounters with colleagues outside one's direct team also contributes to a sense of isolation and reduced visibility across the organisation.

Respondents also highlighted the importance of creating opportunities for personal connection and collaboration in the virtual workspace. Efforts to turn on cameras during meetings and schedule regular check-ins help maintain a sense of camaraderie and transparency within teams. Additionally, organisations are reassessing the role of physical office spaces to better support collaborative sessions and team-building activities, recognising the need for a balance between remote and in-person interactions.

While remote work has enabled greater flexibility and efficiency in communication, it has also presented challenges in maintaining interpersonal connections and fostering a sense of belonging within organisations. By leveraging digital tools effectively and prioritising opportunities for personal connection, teams can navigate the complexities of remote work and cultivate a culture of collaboration and innovation in the post-COVID era.

The data on 'pre-COVID work interactions' provide a glimpse into the traditional office dynamics and the challenges associated with work before the pandemic. Respondents highlighted the ease of spontaneous interactions and collaboration in the office setting. Casual conversations and impromptu meetings were common, facilitating quick decision-making and problem-solving. The ability to physically see colleagues and gauge their availability allowed for fluid communication and efficient teamwork.

However, despite the benefits of in-person interactions, some respondents also expressed challenges associated with office culture, such as the pressure to appear busy and the stigma associated with remote work. There was a cultural expectation to be visibly present at one's desk, contributing to a sense of guilt or apprehension about working

remotely. Additionally, there was a perception that productivity was tied to physical presence in the office, leading to a reliance on traditional work habits and environments.

Furthermore, being present at the client's premises was viewed as advantageous, as it allowed for greater interaction and collaboration with clients and colleagues. Face-to-face interactions fostered stronger relationships and accelerated the pace of work, facilitating the change process and driving innovation.

Pre-COVID work interactions were characterised by a blend of in-person collaboration and traditional office norms. While there were benefits to being physically present in the office, there were also challenges and expectations that influenced work behaviour and perceptions of productivity. The shift to remote work during the pandemic prompted a re-evaluation of these dynamics and highlighted the need for flexibility and adaptability in the modern workplace.

The data on 'impromptu connections' highlight the shift in communication dynamics between colleagues in the transition to remote work. Respondents noted a decrease in spontaneous interactions and casual conversations that typically occur in the office environment. The absence of physical proximity has made it more challenging to engage in ad hoc discussions or seek immediate assistance from colleagues. Instead, communication has become more formalised, with scheduled meetings and structured interactions replacing impromptu exchanges.

The loss of impromptu connections has impacted the breadth of communication within organisations. Respondents noted a narrowing of communication channels, with interactions primarily focused within their immediate teams or project groups. The lack of casual encounters with colleagues from other departments or teams has reduced opportunities for networking and cross-functional collaboration, limiting exposure to different perspectives and areas of expertise.

Additionally, the shift to remote work has altered the nature of relationship-building and rapport-building among colleagues. Informal interactions, such as grabbing coffee or chatting in the hallway, have become less frequent, impacting the development of personal connections and camaraderie within teams. The absence of these spontaneous moments has made it challenging to foster trust and establish rapport, particularly with colleagues outside one's immediate circle.

Despite these challenges, respondents expressed a desire to maintain impromptu connections and informal interactions, highlighting their value in building relationships and fostering a sense of community within organisations. The transition to remote work necessitated a re-evaluation of communication strategies and the adoption of new approaches to facilitate spontaneous interactions in a virtual environment.

‘In-person communication’ emerged as a vital component in facilitating effective collaboration and understanding within work environments. Respondents highlighted the unique aspects of face-to-face interactions that are difficult to replicate in virtual settings. One notable aspect was the ability to read non-verbal cues and energy, which can provide valuable insights into people's thoughts and reactions. This intuitive understanding often leads to smoother communication and quicker decision-making processes. Additionally, face-to-face interactions were perceived as conducive to brainstorming and innovation, as the spontaneity and fluidity of in-person discussions allow for the exchange of ideas and feedback in real-time.

Respondents emphasised the importance of body language in communication, noting that it adds depth and context to conversations. Being able to see facial expressions and gestures enhances understanding and fosters a more natural flow of communication. Face-to-face interactions were seen as essential for building strong working relationships and trust, particularly between managers and their teams. The ability to have informal side conversations and read subtle cues contributes to a deeper connection and a sense of camaraderie among colleagues.

Despite the increasing reliance on digital communication tools, the value of face-to-face communication remains important to employees. Many respondents expressed that certain aspects of collaboration and relationship-building are simply more effective when conducted in person. While remote work offers flexibility and convenience, it also presents challenges in capturing the nuances of human interaction. Therefore, maintaining a balance between virtual and in-person communication is essential for fostering effective teamwork, innovation, and interpersonal relationships within organisations.

The theme of ‘Communication and interactions’ highlights the multifaceted nature of workplace communication and the importance of adapting communication

strategies to meet the evolving needs of remote and hybrid work environments. By leveraging digital platforms and creating opportunities for engagement, organisations can mitigate the loss of impromptu connections and cultivate a culture of collaboration and camaraderie, even in remote work settings.

7.3.6. Collaboration and relationships

Collaboration and relationships play pivotal roles in driving innovation, productivity, and overall workplace satisfaction. The final theme delves into the intricate dynamics of ‘Collaboration and relationships’ within diverse work environments. Two primary codes emerged from the data: ‘Collaborating in different contexts’ and ‘Creativity and group bonding’. The former encapsulates participants’ reflections on the effectiveness of working together across various contexts, including virtual spaces, meetings, and brainstorming sessions. Participants shared insights into the challenges and opportunities inherent in collaborative efforts, shedding light on the nuances of ideation and problem-solving in different work settings. Conversely, ‘Creativity and group bonding’ delves into maintaining and fostering connections and friendships in the digital realm. As remote and hybrid work models become increasingly prevalent, participants elucidated strategies for nurturing group cohesion, fostering creativity, and sustaining meaningful relationships in virtual environments. The results are shown in Table 7.7.

Table 7-7: Theme: Collaboration and relationships

Theme	Code	Theme description	Examples
Collaboration and relationships	Collaborating in different contexts	Employees reveal effectiveness of working together, ideation and brainstorming sessions in different work contexts	<p><i>'If it's like sort of I guess more creative stuff where you're coming up with new ideas, I'd maybe stay in the office...I do benefit from bouncing ideas off people in those kind of situations rather than just coming up with something on my own...'</i> EMP01</p> <p><i>'... there's things that you miss out on and there's things that others miss out on because you are not in the office. The person who brings you the problem also joins in terms of trying to create the solution. So it sort of almost becomes a brainstorming session, just an informal brainstorming session rather than just sort of sitting in the corner quietly contemplating by yourself.'</i> EMP02</p> <p><i>'I guess my ideas tend to sort of pop up organically when I'm actually in a group environment, whether that's in the same room as people, or whether that's on a group call sort of thing...So need being in the same room at the office, or being on a group call together with the same people. But all kind of really make a difference for me. the content is the same. You can have the same discussion in a room, or on a call together.'</i> EMP03</p> <p><i>'It was amazing [working remotely]. And just the way people were more confident to share their</i></p>

			<p><i>ideas and yeah, it was interesting. I actually really enjoyed that dynamic where people that didn't speak up before suddenly did and had a lot to share because there were different ways for them to communicate.'</i> EMP09</p> <p><i>'But something felt different about being face-to-face and being able to have that rapid connection for that time. The engagement, the body language, I don't think as much as we try to adopt to the best kind of tech tools to support some of this planning, there's nothing better than being in a room with post-it notes and markers and being able to, you know, mix and communicate and sort of edit people's stuff on the fly...'</i> EMP12</p>
	<p>Group bonding</p>	<p>Employees share how connections and friendships are maintained and fostered in the digital realm</p>	<p><i>'I'd be speaking with them throughout the office and that kind of thing. Whereas now I have a social call or two a day with some a couple of my close friends in the office. And then really only be speaking with the people that are on my team rather than a wider division. There'd be people in the audit team that if we were in the office, I'd be speaking to once a week that I probably haven't spoken to this month or even the last couple of months [because I am remote working].'</i> EMP01</p> <p><i>'I don't think it can replace...get everybody together in a room with a drink in their hand. I think that's a different experience.'</i> EMP05</p> <p><i>'...we don't have a lot of day-to-day</i></p>

		<p><i>interactions. So we made time to FaceTime yesterday and, and we're gonna do that, you know, maybe once a month, just have a half hour chat on FaceTime.'</i> EMP10</p> <p><i>'And so there's generally kind of there's a couple of key people that I kind of, hey, you know, thinking about this quite informal, it'll come through on a teams chat or I'll give them a call like, if, if you are green on teams, I'll call you instead of emailing you.. So if I'm working and I've got a bit of a free time, I'll have a look in my, my chat list on who's green and I'll just ring 'em. So a lot of people interact for purposeful reasons now. So because I need something from you.'</i> EMP14</p> <p><i>'I had a weekly team meeting and so that was really good. We'd catch up on a Monday morning, talk about our weekends. So it was, you know, yes we'd talk about work, but we'd also be trying to catch up a bit socially.'</i> EMP16</p>
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The data on 'collaborating in different work contexts' reveal a nuanced understanding of the benefits and drawbacks of remote versus in-person collaboration. Respondents emphasised the value of face-to-face interaction for certain types of work, particularly in creative endeavours where brainstorming and idea generation thrive. Being in the office facilitates spontaneous conversations and informal brainstorming sessions, allowing for the organic development of ideas through real-time collaboration. These dynamic fosters innovation by enabling individuals to bounce ideas off one another and leverage collective creativity.

However, remote work also offers unique advantages, such as increased productivity for some individuals and the ability to engage introverted team members who may find it challenging to speak up in traditional meetings. The use of digital tools facilitates collaboration across distances, albeit with some limitations on the spontaneity and fluidity of in-person interactions. Despite these advantages, some respondents noted that remote work can hinder certain aspects of collaboration, such as workshopping ideas and reading nonverbal cues during discussions.

In contrast, face-to-face interactions are praised for their ability to enhance communication through body language and immediate feedback. The physical presence of colleagues fosters a sense of connection and urgency, leading to more spontaneous problem-solving and decision-making. Additionally, the tactile nature of in-person collaboration, such as whiteboard sessions and impromptu discussions, allows for a level of engagement and creativity that may be difficult to replicate remotely.

The data regarding ‘creativity and group bonding’ reveal the perceived importance of social interaction in fostering a sense of camaraderie and creativity within teams. Respondents expressed a sense of loss in spontaneous interactions and casual conversations that often occur in office settings. Remote work has led to a reduction in day-to-day interactions with colleagues outside one’s immediate team, resulting in fewer opportunities for serendipitous conversations and cross-departmental collaboration. This lack of organic interaction can hinder the flow of ideas and limit the exchange of diverse perspectives, which are essential for fostering creativity and innovation.

Respondents highlighted the unique value of face-to-face gatherings for building rapport and strengthening team bonds. Social gatherings, such as informal meetups with drinks, provide opportunities for colleagues to connect on a personal level, share experiences, and build trust. These interactions not only contribute to a positive work culture but also facilitate the exchange of ideas and the exploration of new concepts in a relaxed setting. The absence of these in-person gatherings during remote work has left a void in team dynamics and camaraderie, impacting both social cohesion and creative collaboration.

However, despite the challenges of remote work, respondents also identified innovative ways to maintain connections and foster creativity virtually. Scheduled social

calls, virtual coffee chats, and regular check-ins via video conferencing platforms help bridge the gap and facilitate meaningful interactions outside of formal meetings. These intentional efforts to stay connected, share ideas, and celebrate successes contribute to a sense of belonging and mutual support within the team, even in a remote environment.

The ‘Collaboration and relationships’ theme features the multifaceted nature of interpersonal dynamics and collaborative processes within the modern workplace. The analysis suggests that both remote and in-person collaboration have their merits, and the ideal approach may vary depending on the nature of the work and the preferences of individuals involved. The analysis also reveals that effective collaboration and meaningful relationships are essential drivers of exploring and generating ideas. Employees navigate diverse work contexts, from traditional office spaces to virtual environments, each offering unique opportunities and challenges for collaboration.

Furthermore, fostering strong relationships, whether through face-to-face interactions or digital channels, enhances team cohesion and nurtures employee relationships and teamwork. Remote work offers opportunities for teams to adapt and find new ways of connecting and collaborating. By leveraging digital tools and cultivating a culture of communication, organisations can mitigate the drawbacks of remote work and encourage innovative behaviours, regardless of physical distance.

7.4. Chapter summary

In summary, this chapter discussed the qualitative data analysis undertaken using a thematic analysis approach. The thematic analysis results provide a detailed understanding of the multifaceted experiences and perspectives of employees engaged in remote work. From the challenges and advantages of remote work to the evolving nature of work interactions and the dynamics of creativity and technology, the employee's narratives highlight the complexity of remote work experiences.

The next chapter discusses findings from both the quantitative and qualitative studies, addressing the research questions and objectives.

CHAPTER 8 - FINDINGS AND DISCUSSION

8.1. Introduction

This chapter aims to provide a comprehensive synthesis of the research findings, offering insights into their implications, significance, and potential contributions to the field. This chapter represents a critical juncture in the research process, as it allows for integrating the results with existing knowledge, fostering a deeper understanding of the research objectives and their broader implications.

At the beginning of the chapter, the research questions and objectives that guided this study are revisited. The research questions serve as the foundation for the investigation and provide a clear focus for the subsequent discussion. By restating the research questions, we establish a framework for evaluating the extent to which the research objectives have been achieved and for exploring the implications of the findings.

Sections 8.3 and 8.4 discuss the quantitative study findings and address the first two research sub-questions. Sections 8.6 and 8.7 discuss the qualitative study findings and address the latter two research sub-questions. Beyond presenting the findings, the discussion chapter delves into their interpretation and analysis, establishing connections with existing literature.

8.2. Revisiting the research questions

Although remote work is not a novel concept, the COVID-19 pandemic prompted a sudden shift for many Australian employees from office-based work to remote work in their homes (Beck & Hensher, 2022; Vij et al., 2023). The pandemic has indelibly altered the foundational tenets of the workplace, with employees indicating their desire to persist in remote work either part or all of their working time (Ng et al., 2022; Smite et al., 2023). Therefore, it is reasonable to infer that working remotely is a lasting aspect of the modern work landscape. The thesis aims to enhance our understanding of the dynamic interplay between remote work and IWB from the employee's perspective. The thesis explored the factors under which remote working facilitates or inhibits IWB and how remote work compares to office-bound working arrangements in terms of innovative behaviours.

The central question guiding this research is: How do employees perceive the relationship between remote work and their innovative work behaviour (IWB)?

The research sub-questions shown in Table 8.1 were as follows:

Table 8-1: Research questions and research objectives

	Research sub-questions	Research objectives	Type of study
SQ1	What is the extent of IWB among employees engaged in remote work, both overall and across each phase (idea exploration, idea generation, idea championing, and idea implementation)?	RO1: Understand the extent to which remote workers engage in innovative work behaviour.	Quantitative
SQ2	How do demographics influence the outcomes of employees' IWB engaged in remote work, both overall and across each phase (idea exploration, idea generation, idea championing, and idea implementation)?	RO2: Explore the impact of demographic variables of remote working employees to discern their influence on innovative work behaviours.	Quantitative
SQ3	What factors contribute to fostering or inhibiting innovative work behaviours in remote working environments?	RO3: Explore the factors of remote working that foster or hinder innovative work behaviours.	Qualitative
SQ4	What are the distinctions in employee experience regarding innovative work behaviour when comparing remote and office-based working environments?	RO4: Explore the employee lived experience between remote and office-based working in terms of innovative behaviour.	Qualitative

8.3. SQ1: The extent of IWB among employees engaged in remote work

This research investigated the relationship between the frequency of remote work and the self-reported levels of IWB among Australian employees. Participants were asked to specify the frequency of their remote work engagements (1–3 times per month, once a

week, 2–4 times per week, and always) and detail the frequency of their involvement in activities conducive to innovative behaviour while working remotely. The IWB data is collated as IWB overall and for each phase within the four-phase model: idea exploration, idea generation, idea championing and idea implementation (De Jong & Den Hartog, 2010).

8.3.1. Remote Working Frequency (RWF) and IWB

The findings of the study indicate a positive relationship between the frequency of remote work and the level of IWB. Specifically, IWB increased as employees worked remotely more often. However, those who worked remotely every day showed a slight decrease in IWB compared to employees who worked remotely 2-4 times per week. This suggests that for organisations wishing to increase IWB, employees should partake in regular remote work arrangements yet refrain from working solely remotely (Costa et al., 2021).

This finding is consistent with literature suggesting that remote working can be a double-edged sword for innovation. While it offers flexibility, autonomy, and improved work-life balance, which in turn can enhance innovation (Coun et al., 2021; Lorentzon et al., 2023; Rachman et al., 2022), exclusive remote work may impede innovation efforts due to social isolation and work-home conflicts (Beño & Koreňová, 2021; Chafi et al., 2021; Henke et al., 2022) and reduced opportunities to connect, decreasing the chances of working together on innovative collaborations (Alvarez-Torres & Schiuma, 2022; Costa et al., 2022).

Autonomy and flexibility have been identified as core values that stimulate creativity and innovation within organisations (Akhtar & Ali, 2023; Alpkhan et al., 2010; Amankwaa et al., 2019; Martins & Terblanche, 2003; Nguyen, 2021; Supriyanto et al., 2023). Remote work environments often afford individuals greater autonomy and flexibility in managing their work tasks and schedules, which can enhance innovativeness among employees. Increased flexibility in work location can lead to improved work-life balance, wellbeing, and effective communication, enhancing the conditions for innovative endeavours (Boccoli et al., 2022; Charalampous et al., 2018; Hoeven & Zoonen, 2015).

However, while remote work provides autonomy and flexibility, it may limit critical interaction opportunities necessary for collaborative innovation. The ‘autonomy paradox’ in remote work literature highlights the potential challenges of balancing autonomy with the need for social interaction and collaboration (Çobanoğlu, 2021; Fatima et al., 2022; Mazmanian et al., 2013).

It is essential to consider how autonomy impacts collaborative innovation efforts that rely on teamwork and face-to-face interactions, whereby organisations must also create opportunities for collaboration and teamwork (Mazmanian et al., 2013; Neidlinger et al., 2022). The digital connectivity and collaboration tools available in remote work environments can facilitate communication and knowledge sharing among geographically dispersed teams, enabling individuals to collaborate effectively and exchange ideas in real-time, enhancing the ideation and implementation process.

With reduced distractions and interruptions commonly found in traditional office settings, remote workers may have more focused and uninterrupted time to engage in creative thinking and problem-solving activities (Adekoya et al., 2022), essential components of innovative behaviours. However, too much remote work may lead to isolation (Golden et al., 2008; Hu & Subramony, 2022; Toscano & Zappala, 2020; W. Wang et al., 2020; Zoonen et al., 2021). While the isolation fostered by remote work initially appears conducive to individual creativity and tasks requiring deep focus (Michinov & Michinov, 2021; Takeuchi et al., 2021), it may not effectively support the collaborative activities essential for driving organisational change and development. This might further clarify the slight decrease found in this study in IWB for those employees who always worked remotely.

As the frequency of remote work rises, so does IWB, except where the employee always works remotely. This understanding is pivotal for organisations navigating evolving work landscapes. For managers and organisations, the study indicates that promoting remote work can be advantageous for nurturing innovation, challenging the traditional notion that physical co-location is necessary for creativity and innovation. However, the findings underscore the importance of a balanced approach in implementing remote work arrangements to enhance employee innovation.

When examining the distinct phases of IWB as outlined by De Jong and Den Hartog (2010), the data findings, while lacking statistical significance, imply that with an increase in remote work frequency, there is a corresponding rise in self-reported IWB, notably observed during the phases of Idea Generation and Idea Implementation.

Idea Generation and Idea Implementation

Several factors may contribute to the observed increase in self-reported IWB during idea generation and implementation phases as remote working frequency increases. Firstly, during the idea-generation phase, employees need the time and space to engage in creative thinking (Agrawal et al., 2018; Mullens & Glorieux, 2023). Remote work provides individuals with greater autonomy and flexibility over their work schedules and environment (Akhtar & Ali, 2023; Wicaksono & Pusparini, 2022), which can facilitate creativity. Without the constraints of traditional office settings, remote employees have the freedom to allocate time to engage in deep thinking, reflection, and problem-solving activities conducive to generating new ideas. Additionally, remote work often involves fewer interruptions and distractions than office environments (Amir et al., 2021; Henke et al., 2022), which may facilitate deep reflection and ideation, enabling employees to generate innovative solutions more effectively.

Similarly, during the idea implementation phase, greater control over one's work environment and schedule, enabled by remote work, can enhance productivity and efficiency in executing implementation plans. Remote employees have the flexibility to organise their work in a manner that best suits their preferences and working styles, enabling them to focus their efforts on implementing innovative ideas with minimal disruptions. Moreover, using digital collaboration tools and communication platforms in remote work environments facilitates seamless coordination and collaboration among team members, streamlining the implementation process and enhancing the likelihood of successful outcomes.

Idea Exploration and Idea Championing

However, it is unsurprising that there was no observed relationship between RWF and the phases of idea exploration and idea championing. Increased remote working can hinder employees' ability to explore innovative approaches during idea exploration. Remote work diminishes the frequency of impromptu discussions and casual encounters

that often spark creativity needed in the early phase of innovation. Without the spontaneous exchange of ideas that occurs naturally in office settings, employees may find it more challenging to generate innovative thoughts. Social engagement plays a crucial role in stimulating creativity. Remote work can lead to feelings of isolation and reduced social interaction, which may negatively impact employees' motivation and ability to think creatively.

During idea championing, increased remote working can pose challenges to championing new ideas and garnering support. In traditional office settings, spontaneous discussions, water cooler chats, and casual interactions often provide opportunities to pitch ideas and gather initial feedback. Remote working reduces these informal opportunities, making it harder to introduce new concepts casually.

Further, building trust and rapport with colleagues is essential for gaining support for new ideas. Remote working can hinder the development of these interpersonal relationships, making it harder to persuade others to back innovative initiatives. In a remote work environment, it may be more challenging for innovative efforts to gain visibility across the organisation. Without the physical presence in the office, it can be more challenging for new ideas to spread organically and attract the attention of critical stakeholders or decision-makers.

8.4. SQ2: Demographics and IWB

Demographics have long been recognised as influential determinants in workplace dynamics, impacting individual behaviours, perceptions, and interactions. This research explored the relationship between age, gender, tenure at current organisation, employment status and employment level and the self-reported levels of IWB among Australian employees while they are working remotely.

The results showed the highest prevalence of undertaking IWB activities (i.e. 'Always'), were categorised as follows: the 18–30-year-old age group, female, contract/casual, less than 2 years tenure, managers, working remotely 1–3 times per month.

The categories that showed a consistently high prevalence of undertaking IWB (i.e. ‘Often’), were the 41–50-year-old age group, male, full-time, with 6+ years tenure, managers, working remotely 2–4 times per week.

8.4.1. Demographics and IWB overall

The findings suggest that age and gender had no significant relationship to IWB overall. However, full-time employees exhibited higher IWB than part-time and contract/casual employees. Additionally, IWB increased with higher employee levels, reaching its peak among ‘Managers’, and rose with longer tenure at the current organisation.

Employment Status

When analysing employee behaviour in the context of remote work, employment status must be considered due to its significant impact on various aspects of work dynamics, such as employee wellbeing, engagement, and productivity.

The research found that full-time employees had higher levels of IWB than their part-time counterparts. Full-time employees often experience enhanced job security, fostering a sense of stability and enduring commitment to their roles and the organisation (Feng et al., 2021; Kalmi & Kauhanen, 2008; Peng & Li, 2021). Job security contributes to employees’ sense of meaningfulness, purpose, and connectedness, which are particularly important in remote work settings. The sense of increased stability and assurance can reduce uncertainty and anxiety, especially in remote work settings where the physical distance from the workplace can amplify feelings of isolation and detachment (Golden et al., 2008; Maqableh et al., 2023; Miyake et al., 2022).

Increased job security provides full-time employees with the assurance to explore innovative ideas, take calculated risks, and invest time in creative problem-solving endeavours (Kalmi & Kauhanen, 2008; Loi et al., 2011; Y. Wang et al., 2017). Employer support for creative work significantly correlates with enhanced job security and job satisfaction, ultimately improving the quality of employees’ working lives. This support gives individuals the confidence to explore new ideas and invest time in creative endeavours (Raykov, 2014).

Conversely, part-time, temporary, or contract employees may experience heightened job insecurity, which can diminish their motivation for innovative activities (Montani et al., 2021; Probst et al., 2019; Spiegelaere et al., 2014). Such individuals might prioritise short-term tasks to safeguard their immediate position rather than invest in innovative projects beneficial for the organisation's future.

Furthermore, full-time employees typically have greater access to opportunities for skill enhancement and ongoing learning within the organisation, such as training and development (Jaworski et al., 2018; Kauhanen & Nätti, 2015; Lyonette, 2015), which augment their innovative capabilities (Chaubey & Sahoo, 2019; Miah & Hafit, 2020). Skill enhancement and training opportunities in remote environments can provide employees with the necessary tools and knowledge to adapt to new work structures and emerging technologies, fostering innovation (Ferguson et al., 2023; B. Wang et al., 2021). In contrast, temporary or part-time employees may face constraints in accessing training programs and resources thus impeding their capacity to contribute meaningfully to innovative initiatives. This limited availability also extends to having the time to work on organisational projects. Full-time employees may have more available work time to work on projects than part-time employees with limited availability.

Employment Level

The research found that managers and senior leaders had higher IWB than non-managers and administrators. Considering employment level is essential when analysing employee behaviour in remote work settings. Employment levels have been found to impact job satisfaction, organisational commitment, turnover intentions, communication patterns, collaboration styles, learning behaviours, and knowledge sharing (Ma et al., 2022; Naveed et al., 2022; H. Yu et al., 2021). The research found that a managerial or senior leadership position leads to increased IWB when working remotely compared to administrative staff and non-managers.

More junior employees, often starting their careers, frequently bring fresh perspectives and creative ideas driven by their enthusiasm and eagerness to explore novel concepts (Binnewies et al., 2007; Liu et al., 2016; Miron-Spektor et al., 2022). However, they may lack the experience and confidence needed to effectively pursue their ideas when compared to more senior employees. Creative self-confidence is particularly

important in stimulating innovative behaviour in the workplace (Dar et al., 2022). In remote settings, where physical distance and virtual communication can present challenges, confidently exploring new ideas and approaches is essential for driving innovation.

Managers and senior leaders typically have greater access to resources and information and possess greater decision-making authority within the organisation compared to lower-level employees (Niranga & Dharmadasa, 2021). This autonomy in decision-making also allows them to implement innovative ideas more readily without facing bureaucratic hurdles or needing approval from higher levels of management. In remote settings, decision-making authority allows employees to take ownership of their ideas and initiatives, leading to a sense of empowerment and autonomy that can drive innovative thinking (Hu et al., 2018). Moreover, decision-making authority enables employees to make timely and informed decisions, which is essential for adapting to the dynamic and fast-paced nature of remote work environments (Turner et al., 2017). Having the authority to make decisions empowers employees to experiment, take risks, and explore new ideas, all of which are vital components of the innovation process (Zameer et al., 2020). In remote environments, where communication and collaboration may be challenging, decision-making authority, particularly entrepreneurial decision-making, can streamline processes, enhance efficiency, and create a conducive environment for creativity and innovation (Blauth et al., 2014).

At the upper levels of the organisational hierarchy, leaders establish the groundwork for innovation by cultivating a culture of creativity, embracing experimentation, and tolerating failure. Their strategic vision and direction steer the organisation toward innovative initiatives aligned with its objectives. Managers and senior leaders are responsible for setting strategic direction and long-term goals for their teams or departments. Their strategic perspective enables them to identify opportunities for innovation that align with organisational objectives and drive sustainable growth. Junior employees, lacking exposure to such strategic endeavours, may not receive the requisite support and recognition to encourage them to engage in innovative behaviours (Shipton et al., 2006).

Managers and senior leaders frequently collaborate cross-functionally with colleagues from different departments or units. This collaboration exposes them to

diverse perspectives, expertise, and experiences, fostering creativity and innovation through exchanging ideas and knowledge (Melander, 2017).

While senior employees often exhibit a wealth of experience and a proven track record of innovation, it is crucial not to overlook the potential contributions of junior employees within an organisation. Employees in lower hierarchical positions may have greater motivation to validate their worth and effect a positive influence, motivating them to exert innovative behaviours (Dai et al., 2022). These employees, alongside administrators, usually assume operational responsibilities, engaging more intimately in day-to-day operations and possessing a profound comprehension of operational problems and customer requirements, thereby often being closer to the problems requiring innovative solutions. Junior employees frequently bring fresh perspectives, enthusiasm, and a willingness to explore new ideas that can inject vitality into the innovation process. Their motivation to prove themselves and make a positive impact can drive them to approach challenges with creativity and ingenuity. Moreover, their lack of entrenched habits or biases may enable them to see opportunities that more seasoned employees might overlook.

Tenure

The research found that longer tenure was associated with higher IWB. Tenure within an organisation can influence employee behaviour in remote work settings by affecting performance at both individual and team levels, as well as work attitudes and motivations.

The length of an employee's tenure within a specific organisation can significantly impact their IWB (Liu et al., 2016; Woods et al., 2018). Long-tenured employees often deeply understand the organisation's culture, goals, and existing processes (Ng & Feldman, 2010). This accumulated experience enables them to navigate organisational complexities more effectively and identify opportunities for innovation. With increasing tenure, employees accumulate many experiences, including successes and failures. Reflecting on past experiences allows employees to learn from mistakes, adapt strategies, and apply insights to future innovative endeavours. Remote workers who have been with a company longer tend to be more comfortable with the tools, systems,

and processes in place, making them more adaptable to using those processes in different work contexts. This leaves more time to focus on innovative endeavours.

This familiarity with the organisation can also translate into increased innovation due to the networks and relationships they have cultivated over time (Ng & Feldman, 2010). Longer-tenured employees typically have extensive networks and occupy central positions in internal networks, enabling them to effectively disseminate and implement innovation within organisations and also facilitate collaboration and knowledge sharing while working remotely (Liu et al., 2016; Ng & Feldman, 2010).

Long-standing employees often enjoy higher levels of trust and credibility within the organisation. This trust enables them to propose and implement innovative ideas more effectively, as they are perceived as reliable and knowledgeable contributors. As remote workers gain trust and autonomy from their employers over time, they feel more empowered to explore innovative ideas without constant supervision. Longer-tenured remote workers may have earned this trust, allowing them more freedom to experiment and innovate. These employees also often attain higher levels of job mastery and proficiency in their roles. Greater job mastery gives individuals the confidence and autonomy to experiment with new approaches and solutions, increasing innovative behaviours.

However, long-tenured employees can become entrenched in established modes of thinking, thereby resisting change and impeding the adoption of innovative practices (Dam et al., 2008; Lauterbach & Kunze, 2023). Conversely, employees with shorter tenures bring fresh perspectives and a readiness to challenge existing norms (Liu et al., 2016; Woods et al., 2018). Their detachment from historical processes can propel them to propose innovative solutions and explore uncharted territories. Ng and Feldman (2010) discovered a positive relationship between tenure and job performance for employees with shorter average tenure, while for those with longer average tenure, the relationship turns negative. Liu et al. (2016) identified that factors like status hierarchy and position tenure influence the relationship between organisational tenure and innovative behaviour, being positive for individuals with low-status hierarchy and short position tenure but negative for those with longer tenure. Similarly, Yuan (2021) observed that as tenure increases, employees with higher levels of conscientiousness tend to display less innovative behaviour.

Employees with longer tenure often possess a wealth of experience and a deep understanding of the organisation's inner workings, which can lead to heightened levels of innovation. However, this extensive tenure can also inadvertently result in employees becoming set in their ways and resistant to change. In contrast, with their fresh perspectives and eagerness to make an impact, newcomers to the organisation can bring innovative ideas to the table. Their lack of historical attachment to established processes enables them to approach challenges with a sense of curiosity and a willingness to try new approaches.

Gender

The findings around the relationship of gender and age to IWB suggest that they are not linearly related but rather influenced by several personal and contextual variables.

The findings reveal that gender does not significantly influence IWB among remote employees, suggesting that regardless of gender, individuals demonstrate similar levels of creativity and innovation in their work. This is supported by J. Wang et al. (2017), who suggested that employees of different genders are similarly willing to share knowledge and engage in innovation.

However, the relationship between gender and IWB in remote working contexts is complex. It can be influenced by various factors, thereby explaining why our findings did not show a statistical effect. Moreover, numerous studies IWB often adopt the employer perspective, potentially introducing gender biases and perceptions into the analysis of which gender shows more IWB (Carmeli & Spreitzer, 2009; Carpini et al., 2023; Cortland & Kinias, 2019; Heilman & Eagly, 2008; Luksyte et al., 2017; Martin & Barnard, 2013; Nusair et al., 2012; Reuvers et al., 2008). In contrast, this study adopts the employee's perspective, reducing the likelihood of bias against one's own gender, as individuals are less inclined to exhibit such biases when evaluating themselves. Other factors such as organisational cultures, access to resources, work-life balance initiatives, and technology utilisation are among the numerous variables that can shape this relationship. Therefore, while gender may not directly impact IWB in remote work settings, its influence can be mediated by these multifaceted elements.

The presence of work-life balance opportunities notably affects IWB, indicating that access to such opportunities can positively enhance an employee's capacity to engage

in IWB (Damayanti & Kurniawan, 2023; Li & Liu, 2023; Mishra et al., 2017). This can be achieved through opportunity-enhancing human resources (Bos-Nehles, Renkema, et al., 2017; Prieto & Pérez-Santana, 2014) that impact autonomy, task composition, feedback, job demands and time pressure (Berkel et al., 2021; Bos-Nehles, Bondarouk, et al., 2017; Singh et al., 2020). While increased flexibility aids in achieving work-life balance, there is a risk of overworking and difficulty disengaging from work while operating from home.

The heavy use of technology in remote work removes many traditional barriers that would otherwise have hindered women's participation in innovation. The digital workplace provides equal access to information and resources that are essential for innovation activities. Remote work is particularly beneficial for women, who often tend to have a 'second shift' at home afforded by the availability of technology, juggling work with a host of domestic obligations. This flexibility and control over where and when to do one's job help enhance job satisfaction and positively impact creativity.

While gender did not directly impact IWB, the literature suggests that diverse teams, including those with gender diversity, tend to foster a wider array of ideas and perspectives, consequently enhancing innovation (Dutcher & Rodet, 2018; H. Leroy et al., 2021; Li et al., 2018; Salazar et al., 2017). Diverse teams often outperform homogenous ones in creativity, problem-solving, and idea generation. Further, gender-diverse teams improve participative communication, coordination, cohesion, and mutual support within the team, thereby bolstering innovative activities (Dai et al., 2018; Rejeb et al., 2019).

Age

The findings reveal that age does not exert a significant influence on IWB among remote employees, suggesting that regardless of age, individuals can demonstrate similar levels of creativity and innovation when they work remotely (Parsons, 2015; Stoffers & Heijden, 2018; Tams & Dulipovici, 2019). Although age may have some influence on factors such as experience and perspective, it is not a determining factor in predicting IWB in remote work contexts. Other individual and contextual factors play a more significant role in fostering innovation in the workplace (Russo et al., 2020).

Traditional perspectives argue that younger employees are best positioned to adapt to the technological and uncertain nature of remote work, making them inherently better suited to innovative performance in such settings. Younger employees frequently offer novel viewpoints and possess an innate familiarity with technology, facilitating their rapid adaptation to new tools and platforms (Kim et al., 2011). In a remote environment, effectively using digital communication tools is vital. Often labelled as digital natives, these younger employees tend to demonstrate greater innovation levels than their older counterparts, often referred to as digital immigrants. The digital natives' ease with technology and adeptness in utilising digital tools significantly contribute to their heightened innovation behaviour (Buhl et al., 2016).

Younger employees' enthusiasm and willingness to take risks can drive creative thinking and experimentation, leading to innovative solutions (Kim et al., 2011). In contrast, older employees' preference for the security and more stable nature of traditional work settings may inhibit risk-taking behaviours and engagement in innovative activities when working remotely. This perspective is rooted in theories of adaptability and work motivation; as employees age, they might prefer work environment stability and routine, reducing their inclination for innovation in less structured environments.

So, while younger employees often exhibit a greater receptiveness to change and may challenge conventional approaches, thereby nurturing an atmosphere conducive to innovation, older employees, drawing from their extensive experience and profound industry knowledge, offer invaluable perspectives (Kim et al., 2011; Meyer, 2008). Moreover, older employees typically excel in problem-solving and decision-making, which are pivotal competencies in the innovation process (Guillén & Kunze, 2019; Meyer, 2008).

The findings around age suggest that work outcomes and behaviour are more likely a function of changing life circumstances than chronological age per se. Rather, other factors such as life stage, career phase, personal circumstances, and individual adaptability should be considered when considering employees in remote working contexts. As employees age, there are indeed changes in their behaviour and motivations (Klopota et al., 2018). Older employees are less motivated by extrinsic factors but more by intrinsic rewards, indicating a change in motivational drivers with age (Inceoglu et al., 2011; Kooij et al., 2011). As individuals age, there is a transition in motivational priorities

from knowledge acquisition and competition towards the pursuit of emotional satisfaction (Williams et al., 2006). This shift is attributed to an increasing awareness of a limited lifespan and changes in emotional stability over age.

8.4.2. Demographics and each phase of IWB

Exploring each phase of IWB separately, in addition to an overall assessment, is crucial for several reasons. It allows for a more nuanced understanding of how different aspects of innovation may unfold throughout the innovation process (Davids & Frenken, 2017; Koskull & Strandvik, 2014). Examining each phase individually allows researchers to identify whether demographic or contextual factors may exert varying degrees of influence across different stages of the innovation process. The first two phases of IWB are defined as ‘creativity’ phases, and the latter two phases are defined as ‘innovation’ phases. This distinction is supported by De Jong and Den Hartog (2007), who suggest that creativity is a fundamental component of innovative behaviour, particularly evident in the early stages of the innovation process, where ideas are generated in response to the need for innovation. This aligns with the notion that the early stages of IWB are characterised by creative thinking and idea generation. Costa et al. (2022) also emphasise the temporal separation of creativity from other stages of IWB, highlighting creativity as a precursor to subsequent phases of innovation. This temporal distinction underscores the idea that creativity is foundational to the innovation process and is particularly prominent in the initial phases of IWB.

The research findings underscore the significant influence of employment status on IWB when working remotely. Being full-time over part-time is associated with higher levels of innovative behaviour across all four phases of IWB.

Longer tenure was found to be correlated with increased innovative behaviour during the idea-championing phase. Conversely, advancing age was linked to lower levels of IWB during this same phase.

Additionally, increasing employment levels corresponded with increased innovative behaviour during the idea implementation phase.

8.4.2.1. *Demographics and idea exploration*

During the first phase of IWB, idea exploration, employees engage in activities to identify opportunities, explore, contemplate, and seek solutions to identified problems or challenges.

This phase is characterised by individual efforts to brainstorm, research, and conceptualise innovative concepts. This phase involves the process of investigating, researching, and understanding a problem or opportunity. The focus of idea exploration is to gather information, identify relevant insights, and explore different perspectives related to the subject matter.

Employees rely on their cognitive abilities (Bagheri & Akbari, 2017; Eisenbart et al., 2023; Shahid et al., 2022), knowledge, and creativity to generate novel ideas that have the potential to drive innovation within the organisation. This phase involves a process of deep reflection, analysis, and creativity as individuals delve into the problem space, seeking to understand its intricacies and potential avenues for resolution. Employees may research extensively and gather relevant information and data to gain insights into the underlying issues.

This phase focuses on exploration rather than immediate idea generation, with individuals actively probing and testing different hypotheses, concepts, and approaches to uncover innovative solutions. Ultimately, the idea exploration phase serves as a critical precursor to idea generation, laying the groundwork for developing novel and creative solutions to problems. The goal is to lay the groundwork for idea generation by creating a rich and diverse pool of information and insights to draw upon.

The research found that part-time employees are less likely to engage in idea exploration behaviours when working remotely compared with their full-time counterparts. There is a critical link between the nature of one's employment and the ability to engage in the early, creative stages of innovation in remote working settings. This may be due to factors such as time availability, continuity of focus, collaboration opportunities, autonomy, and flexibility.

Full-time remote employees typically have more dedicated time available for work compared to part-time employees (Adekoya et al., 2022). This extra time allows

them to delve deeper into ideas, engage in brainstorming sessions, and explore new ideas without the constraints of limited work hours. They can also maintain continuity in their work and thought processes without the distractions and interruptions common in office settings (Ford et al., 2020; McGee et al., 2023), which is essential for effective idea exploration. Unlike part-time employees who may need to switch between work and other commitments, full-time remote employees have more work time which they can dedicate uninterrupted blocks of time to explore ideas thoroughly.

Full-time remote employees often have more opportunities, by virtue of increased time, for collaboration with colleagues, both within and outside their organisation. Virtual collaboration platforms, which are used heavily in remote working environments, facilitate idea exchange, feedback sessions, and collective brainstorming, enabling full-time remote workers to explore ideas collaboratively and benefit from diverse perspectives (Chantziaras et al., 2021; Kwon et al., 2019; Suortti & Sivunen, 2023).

Full-time remote workers typically enjoy greater autonomy and flexibility in managing their work schedules and priorities. Increased autonomy has been consistently linked to fostering creative and innovative behaviours among employees (Acar et al., 2018; Elsetouhi et al., 2022; Spiegelaere et al., 2014). Studies such as those by Kpinpuo et al. (2022), Peng et al. (2019), and Purc and Laguna (2019) have highlighted the positive relationship between autonomy and innovation. These studies suggest that when employees have a higher level of autonomy in their work, they are more likely to engage in innovative behaviours due to increased intrinsic motivation and self-determination.

8.4.2.2. *Demographics and idea generation*

During the second phase of IWB, idea generation, employees actively generate new ideas, devise solutions to problems, and develop innovative approaches to address identified challenges.

A burst of creative activity characterises this phase as individuals harness their creativity and critical thinking skills to conceive novel concepts and possibilities. Employees may engage in brainstorming sessions, idea-generation workshops, or collaborative discussions to generate various potential solutions. These activities often involve free-flowing ideation, where individuals explore unconventional perspectives, challenge assumptions, and push the boundaries of conventional thinking.

Additionally, employees may draw inspiration from diverse sources, including previous experiences, industry trends, customer feedback, and emerging technologies, to inform their idea-generation process. The goal of idea generation is to produce a diverse set of potential solutions or concepts that can be further refined, evaluated, and developed into actionable plans or prototypes.

As with the first phase, the findings show that during this second phase, an employee's employment status affects their capacity to participate in the early, creative stages of innovation within remote work setups. Part-time employees are less likely to engage in idea-generation behaviours when working remotely compared to their full-time counterparts.

Part-time employees' reduced exposure to an organisation's day-to-day dynamics may be a critical challenge. Part-time employees may have limited engagement with the organisation's culture, values, and long-term goals due to their reduced hours and presence in the workplace (Joung et al., 2018; Wang, 2014). Such limited immersion can make it harder for them to understand the bigger goals of the organisation and how they fit in with innovation efforts (Cletus et al., 2018). Studies have shown that awareness of organisational goals increases organisational commitment, work attitudes, engagement, and performance outcomes, such as creativity (Ayers, 2015; Lü, 2023).

Research indicates that job security is associated with organisational commitment, job satisfaction and employee performance. The commitment and increased job security associated with full-time employment may foster a greater sense of ownership and investment in the organisation's goals and challenges, motivating employees to proactively engage in innovative solutions (Hur & Perry, 2019; Maqableh et al., 2023; Umrani et al., 2019).

Part-time employees often have limited access to resources that are available to full-time employees (Burgess, 2005; Conway & Briner, 2002; Saini & Jawahar, 2019; Sobaih et al., 2011). Accessible resources include physical and intangible resources such as training and development, mentoring in the creative process and participation in meetings, such as brainstorming meetings, where creativity is practised and developed. Organisations that provide adequate resources, such as infrastructure, intellectual capital development programs, incentives, and knowledge-sharing platforms, are more likely to

cultivate a creative environment that enhances innovation and problem-solving capabilities (Cai et al., 2020; Cirella, 2021; Sonenshein, 2014).

8.4.2.3. *Demographics and idea championing*

During the third phase of IWB, idea championing, employees undertake a series of strategic activities to advocate for and promote a new idea within the organisation. Once an idea is generated, it needs support and endorsement to gain traction and move towards implementation.

This phase involves actively championing the proposed innovation, gathering support from key stakeholders, overcoming resistance, and rallying backing for its implementation. Employees typically engage in persuasive communication efforts to articulate the benefits and potential impact of the idea, compelling others to align with its vision and objectives. This may involve delivering persuasive presentations, conducting stakeholder meetings, and leveraging various communication channels to disseminate information and garner support.

Additionally, employees may seek to identify and enlist influential backers and allies within the organisation who can champion the idea on their behalf and advocate for its adoption at higher levels. This phase focuses on building momentum and consensus around the idea, mobilising support from across different departments and hierarchical levels to ensure its successful implementation. Ultimately, the idea championing phase requires proactive leadership, effective communication skills, and political acumen to navigate organisational dynamics and secure buy-in for the proposed innovation.

As observed in the findings of preceding two phases, part-time employees are less inclined to exhibit idea-championing behaviours than their full-time counterparts when operating in a remote environment. Also, longer tenured employees exhibited higher levels of idea-championing behaviours, while older employees exhibited decreased idea-championing behaviours.

Part-time employees may have varying levels of commitment to their roles and the organisation compared to full-time employees. Their roles often entail narrower job scopes or specific tasks, which may not always align with activities related to promoting new ideas and championing them within the organisation. Therefore, part-time employees

might prioritise other commitments of their work and role responsibility, over their engagement in idea promotion and advocacy activities. Part-time employees may have also have other more critical roles outside of the organisation and are therefore only partially involved in their job (Wang, 2014).

Similar to the idea exploration and generation phases, the limited work hours of part-time employees may restrict their capacity to effectively promote new ideas and advocate for them. Further, factors such as commitment and job security can cultivate a stronger sense of ownership and dedication to the organisation's objectives and obstacles (Hur & Perry, 2019; Maqableh et al., 2023; Umrani et al., 2019). This heightened allegiance can fuel an employee's motivation to champion and advocate for novel ideas that will benefit their organisation

Unlike in the preceding two phases of IWB, longer tenure led to increased idea-championing behaviours. The initial two phases predominantly depend on the individual and their personal skills and cognition. However, there is a heightened requirement for interacting with others in this phase, which can pose different challenges in remote work settings.

Employees with longer tenure typically have a deeper understanding of the organisation's culture, goals, and decision-making processes (Ng & Feldman, 2010; Pei et al., 2018). This familiarity allows them to navigate the organisational landscape more effectively and confidently advocate for new ideas. Employees with longer tenure might possess insights into the organisation's social fabric, aiding in pinpointing the optimal channels for introducing new ideas and navigating resistance to change (Ng & Feldman, 2013). Individuals with lengthier tenure within the organisation may exhibit greater confidence in the worth of their innovative concepts, thereby experiencing reduced apprehension in advocating for their new ideas (Clercq & Pereira, 2019). This experience and accumulated knowledge of the organisation also give them insights into past initiatives, successful strategies, and potential barriers to innovation, which they can leverage to promote and advocate for new ideas more effectively.

Longer-tenured employees have established organisational networks and relationships (Ng & Feldman, 2010). Employees with longer tenure may enjoy advantages in championing innovative concepts compared to those with shorter tenure.

This is because long-tenured employees often occupy more central roles in the organisation's internal network, and possess broader external social networks for the organisation (Liu et al., 2016). In remote settings, these established connections are critical due to the reduced physical visibility to garner support for new ideas and champion them among key stakeholders (Björk & Magnusson, 2009). A deep understanding of organisational dynamics, coupled with networks and relationships, can be essential in navigating the politics of managing, selling, and advocating for new ideas, and how to frame and promote innovative ideas in a manner that resonates with key stakeholders. In remote work settings, idea champions need to be even more strategic and intentional in their communication, using synchronous and asynchronous tools to involve stakeholders who can help develop their own or others' new ideas.

Employees who have been with the organisation longer may feel a stronger sense of ownership and investment in its long-term success. As a result, they may be more motivated to promote and advocate for new ideas that they believe will contribute to the organisation's growth and longevity (Hur & Perry, 2019). Moreover, longer tenure often signifies a proven track record of performance and reliability, which enhances their credibility and trust among colleagues and superiors. Research supports the importance of trust in remote working environments for enhancing performance (Ferguson et al., 2023; Soomar, 2020; Stavrova et al., 2023; Zheng et al., 2023). Increased trust has also been consistently linked to increased creativity in various contexts. Studies have shown that trust plays a crucial role in fostering creativity at both individual and team levels (Kmieciak, 2020; Rodrigues & Veloso, 2013; C. Yu et al., 2021). C. Yu et al. (2021) highlight that trust can be particularly beneficial in enhancing creativity, especially in situations involving high uncertainty and risk, where creativity requires a departure from existing norms. Building trust in remote settings can present various challenges. Thus, longer-tenured employees who have established trust may enjoy certain advantages in navigating these obstacles.

Differing from the preceding two phases of IWB, advancing age resulted in diminished idea championing behaviours. The reduced likelihood of older employees engaging in the idea-championing phase challenges our expectation that with their years of experience and influence, they are more likely to advocate for new ideas. Years of accumulated knowledge and insights enable older employees to draw upon past

experiences and lessons learned to craft persuasive arguments and compelling narratives in support of new ideas. However, it may suggest a reluctance on the part of older employees to take risks in advocating for change. Older individuals tend to report lower willingness to take risks compared to younger individuals (Albert & Duffy, 2012; Banks et al., 2020; Boyle et al., 2012). Younger employees, who may be earlier in their careers and less risk-averse, may be more willing to take the initiative and champion innovative ideas to distinguish themselves and advance their professional development. In contrast, older employees, who may be closer to retirement or have established career trajectories, may prioritise stability and risk avoidance over innovation and may be less inclined to invest time and energy in championing new ideas. Older employees may be more resistant to change, as they may be accustomed to traditional methods and processes and may feel uncomfortable or sceptical about embracing new ideas and innovations.

The reluctance on the part of older employees to engage in idea-championing behaviours may stem from technological proficiency and adaptability variations. Younger employees, who are often more familiar and comfortable with digital communication tools and social media platforms, may find it easier to navigate virtual networks and effectively promote their ideas in remote work environments (Buhl et al., 2016). In contrast, older employees may face challenges adapting to new communication technologies (Hecker et al., 2021; Raymundo & Castro, 2019; Soja & Soja, 2020) or may be less inclined to engage in online promotion and advocacy due to generational differences in communication preferences (Bencsik et al., 2016; Mehra & Nickerson, 2019; Stewart et al., 2017). Older employees who may also be less familiar with emerging technologies and trends than their younger counterparts and therefore find it challenging to understand and advocate for new ideas effectively.

8.4.2.4. Demographics and idea implementation

During the fourth phase of IWB, idea implementation, employees are actively involved in translating conceptualised ideas into tangible actions and outcomes within the organisation.

This phase encompasses a range of activities to execute the proposed innovation or new idea, turning it into a practical solution that addresses identified needs or challenges. Employees may collaborate with cross-functional teams to develop detailed

implementation plans, outlining specific tasks, timelines, and resource allocations required to bring the innovation to fruition.

Additionally, individuals may take on leadership roles, overseeing the execution of various project components, monitoring progress, and addressing any obstacles or setbacks encountered along the way. Communication and coordination play a pivotal role during this phase, as employees work collaboratively to ensure alignment and synergy across different departments and stakeholders involved in the implementation process. Moreover, employees may engage in continuous monitoring and evaluation to assess the effectiveness and impact of the implemented innovation, making necessary adjustments and refinements as needed to optimise outcomes.

Comparable to the previous three phases, part-time employees are less inclined to participate in idea implementation activities when working remotely compared to their full-time counterparts. Also, employees holding increased seniority exhibited more idea implementation behaviours.

The findings also show that the idea implementation phase is a crucial stage in the innovation process, as it involves converting creative ideas into concrete outcomes or products. Innovation and creativity are often discussed in relation to each other, with a key distinction being that innovation involves the transformation of creative ideas into tangible outcomes. Creativity is typically seen as the generation of novel ideas, while innovation encompasses the implementation of these ideas to create new products, processes, or services (Anderson et al., 2014; Doran & Ryan, 2017; Panasiewicz, 2021).

An interesting facet of the idea implementation phase is its reliance on collaborative action (Nguyen & Hunter, 2021; Sørensen & Torfing, 2016), which has unique dynamics in remote settings (Arunprasad et al., 2022; Rudzin et al., 2022; Waizenegger et al., 2020). As with the idea championing phase, this phase necessitates increased interaction with others. It also requires considerable time and effort, as it involves participating in the implementation process (Ng & Feldman, 2012). Full-time employees often have more frequent interactions with colleagues and supervisors by virtue of their additional working hours, which enables better coordination and collaboration on idea implementation projects, which can be crucial in remote work

environments where physical proximity is lacking. These additional hours also allow them to allocate sufficient time and focus to implement ideas internally.

Additionally, full-time employees typically enjoy enhanced access to resources, support systems, and professional development opportunities within the organisation (Burgess, 2005; Conway & Briner, 2002; Saini & Jawahar, 2019; Sobaih et al., 2011). This access equips full-time employees with the necessary tools and knowledge to execute ideas effectively, as well as fostering a proactive attitude towards idea implementation initiatives, even in dynamic and challenging remote work environments. In contrast, part-time employees receive lesser investment from organisations and fewer job resources. As a result, they tend to exhibit lower levels of organisational identification compared to their full-time counterparts, which can result in a lack of commitment to the organisation (Mauno et al., 2015), thereby reducing their motivation to participate in idea implementation activities.

The idea implementation phase is the only IWB phase where the employment level of the employee exerts some influence. Managers and senior leaders are more likely to work on idea implementation activities when working remotely compared to junior employees.

Managers and senior leaders are more likely to have roles that include overseeing and facilitating the implementation of ideas within their organisations (Birken et al., 2012; Engle et al., 2017). Managers are therefore more likely to be accountable for the success of projects and initiatives within their purview. They may feel a greater sense of responsibility to ensure that idea implementation activities are carried out effectively, meeting organisational objectives and delivering desired outcomes.

Senior leaders are instrumental in providing support and resources to their employees needed for idea implementation. Supervisor support, can enhance employees' access to necessary resources needed for implementing ideas, as well as increasing responsiveness within organisations, which can foster innovation and change and make creative ideas more implementable (Bedenik et al., 2024; Škerlavaj et al., 2014). Their organisational authority allows them to mobilise and allocate resources, allocate budgets, and prioritise initiatives in alignment with strategic objectives, facilitating the implementation of innovative ideas. They may also have a greater insight into the

organisation's strategic priorities and be better equipped to coordinate and execute tasks autonomously. In remote work environments, the freedom to carry out responsibilities autonomously enables employees to swiftly address emerging challenges or seize opportunities, free from the constraints of bureaucratic procedures or delays.

Autonomy in decision making also plays a role. Senior leaders and managers possess greater decision-making authority (Shaed et al., 2018), which enables them to drive the execution of innovative ideas with greater efficacy (Chenger & Woiceshyn, 2020; Hammedi et al., 2011). By having this authority to make decisions autonomously, their involvement can accelerate the execution of ideas and remove obstacles that may hinder the implementation process. In remote work settings, decision-making authority can increase efficiency when implementing new ideas. These managers and senior leaders can make decisions in real-time without needing to wait for approval from higher levels of management, streamlining the process and eliminating bottlenecks.

In contrast, administrative or non-managerial employees may have limited authority, autonomy, and influence to execute innovative ideas independently. While they may contribute to the implementation process as team members or collaborators, their role in driving and shaping the implementation strategy is often more circumscribed. The leadership and managerial roles held by senior employees afford them greater agency, resources, and influence in remote work settings to actively lead and participate in the implementation of innovative ideas, without needing to be in the office environment.

8.5. Summary of quantitative study findings

The findings of this study reveal a nuanced relationship between remote work and IWB, where increased remote working correlates positively with greater levels of IWB up to a certain threshold. However, a noteworthy caveat emerges: employees who work remotely exclusively may experience diminishing returns regarding their IWB. Therefore, the key takeaway underscores the significance of maintaining a balance between remote and in-office work arrangements. While remote work offers opportunities for autonomy and flexibility, improved work-life balance, minimised distractions, and heightened concentration conducive to innovation, occasional in-office interactions are essential to sustain optimal levels of IWB. This counteracts obstacles such as social isolation, conflicts between work and home life, and limited collaborative

opportunities, which may hinder the innovation process. Achieving this balance ensures that individuals can leverage remote work's benefits while capitalising on the collaborative and social dynamics inherent in traditional office settings to effectively support innovation endeavours.

The findings also show that demographic factors' impact on IWB in remote work settings was a complex relationship that showed differences in the various phases of IWB.

Compared to their part-time counterparts, full-time employees demonstrate a higher propensity for IWB across all phases, due to enhanced job security, organisational commitment, increased access to resources and skill development opportunities, and greater time allocation towards innovation-related tasks.

Younger employees show increased levels of promoting and championing new ideas, demonstrating that younger employees find it easier to navigate virtual networks to promote ideas in remote work settings. It also suggests a difference in attitude towards change and risk tolerance.

Senior employees and those with longer tenures exhibit increased levels of IWB during the latter two phases, which require increased interaction with colleagues. This is attributed to their elevated decision-making authority, confidence, experience, established networks, historical insights, and job mastery.

In contrast, gender does not wield a notable influence on IWB among remote employees. Irrespective of gender, individuals exhibit comparable levels of creativity in their work, implying that IWB is not inherently linked to gender identity within the framework of remote work environments.

Companies aiming to encourage IWB within remote work settings should broaden their focus beyond mere work arrangements. It demonstrates the importance of recognising how various organisational roles and responsibilities impact such behaviour and what tools can be implemented to facilitate this process. This emphasises the necessity for inclusive strategies to enable all employees, irrespective of their age, tenure, position, or employment type, to actively participate in the innovation process.

8.6. SQ3: Factors of remote working that foster and hinder IWB

In the contemporary landscape of remote work, understanding the dynamics of innovative behaviour among employees is crucial for organisations striving to thrive in an increasingly competitive and dynamic environment. The Ability, Motivation, and Opportunity (AMO) framework offers a comprehensive lens (Cai et al., 2020) through which to examine the dynamics of innovative behaviour among remote employees and the factors that either nurture or impede IWB. Table 8.2 outlines the themes, sub-themes (codes) and AMO framework.

Table 8-2: Themes, codes and the AMO Framework

Theme	Ability, Motivation, Opportunity	Code
Resources and tools	A	Tangible resources for remote work
		Exploring and generating new ideas
Perspectives and feelings	M	Negative side of remote working
		Positive side of remote working
		Approach to risk
		Importance of remote working
Support and culture	O	Intangible support for remote work
		Company's support and encouragement of innovation
Work spaces and tasks	A	Work remotely
		Creative Work
		High Focus Work
		Work Environment
		Innovation while remote working
Communication and interactions	O	Interactions between coworkers
		Post-COVID work interactions
		Pre-COVID work interactions
		Impromptu connections
		In-person communications
Collaboration and relationships	A	Collaborating in different contexts
		Creativity and group bonding

8.6.1. Ability of remote working employees to demonstrate IWB

Within the AMO framework, ‘ability’ is a foundational pillar, encompassing the skills, knowledge, and cognitive capacities that individuals bring to their work (Bhatti et al., 2020; Obaid et al., 2022). For remote employees, the ability to engage in IWB hinges on their proficiency in leveraging digital tools and technologies, as well as their aptitude for independent problem-solving and creative thinking. Moreover, the rapidly evolving nature of remote work demands adaptability and continuous learning as employees navigate virtual collaboration platforms and adapt to new modes of communication.

8.6.1.1. Tangible resources for remote work

The tangible resources provided to employees for remote working can play a crucial role in enabling their ability to engage in innovative behaviours while working remotely. The availability of resources is strongly related to employees’ innovative results (Choi et al., 2021; De Jong & Den Hartog, 2007; Simon et al., 2019; Yang & Wu, 2021). These resources, ranging from office equipment allowances to financial contributions towards home office setups, can significantly impact employees’ comfort and, therefore, their productivity and creativity in their remote work environments (Ahmad et al., 2023; Russo et al., 2020). With the right tools, employees are better equipped to focus on creative problem-solving and explore new ideas without the limitations of an inadequate setup (Barrero et al., 2021; Lee, 2016).

‘So we got given the \$250 allowance for office equipment, like if it was a chair or a screen, something like that, whatever you felt you needed. So I used the allowance on the screen, but I went out and bought a better chair...’ EMP01

‘We were all given money to go and buy an extra screen or whatever it was you needed to...It might have been a printer or something, whatever equipment you needed to be able to do your job efficiently from home.’ EMP02

Providing financial contributions towards home office setups, such as subsidies for desks, monitors, or even electricity costs, demonstrates an organisation’s commitment to facilitating the adaptation of office spaces in their homes. By investing in employees’ remote work environments, organisations not only remove barriers to innovation but also signal their recognition of the importance of remote work in today’s landscape (Baumann

& Marcum, 2023; Chafi et al., 2021; Klerk et al., 2021; Toh et al., 2022). Employees who feel supported and valued are more likely to feel motivated to think creatively, experiment with new ideas, and drive innovation within their roles (Janssen, 2005; Jebali & Meschitti, 2020; Opoku et al., 2021).

'...But after the pandemic, everyone is given, well, it's \$750 to go to towards a work home, a home work setup.' EMP09

'...they offered you know, give you monitors, you could get money back for buying a desk. And then they also paid a portion of, they increased our salary by \$40 a fortnight I think it was, or \$40 a month to contribute to the cost of electricity.' EMP14

8.6.1.2. Exploring and generating new ideas

Remote work transformed how employees explored and generated new ideas, leveraging various digital tools and experiences to facilitate collaboration, knowledge sharing, and innovation (Gudžinskienė & Mačiuikienė, 2022; Olokundun et al., 2022). With the shift to remote work, employees have adapted using platforms like Microsoft Teams, Zoom, and instant messaging systems to connect with colleagues, share ideas, and brainstorm solutions (Shockley et al., 2021). These tools facilitated seamless communication and provided a platform for spontaneous collaboration, enabling employees to engage in innovative behaviours regardless of their physical location (Kähkönen, 2023; Lee & Kim, 2022; Oyekan et al., 2017).

'We moved from Skype for Business to Microsoft Teams, which allowed us to video call a lot more easily. I assume it was part of the whole shift of working from home that led them to do it...So we have a kind of teams group chat. So if it's small things like minor processes that we need to improve on, I'll drop it in that.' EMP01

'It's a very simple matter of setting up a Team's call. And almost it's amazingly convenient to...And I find that people are more inclined to attend...' EMP02

'...if it's talking to the developers about, you know, this is an idea I had, can we implement it? This is what I've had a look at and, and scoped out. That's usually by Slack message. So the, the whole company uses Slack.' EMP10

'...we had Zoom and we had a an instant chat messenger messaging thing system that we used as well...So there'd be a lot of, and also some colleagues at, at level. There'd be a lot of just quick messages you know, bouncing ideas.' EMP16

Moreover, remote working has spurred the development of new processes and work activities that foster idea exchange and creativity (Costa et al., 2022; Coun et al., 2021; Rachman et al., 2022). Employees have embraced technologies like SharePoint for collaborative document editing and project management, creating a virtual space where ideas can be refined and developed collaboratively. Additionally, some respondents discussed the adoption of weekly or monthly team meetings which provided a structured forum for discussing priorities, sharing progress, and aligning on strategic objectives. Regular meetings are crucial for fostering innovation within organisations as they play a significant role in regulating and ordering interactions in the context of innovation development, serving as a valuable resource for driving innovative activities (Bürkland et al., 2019). Team meetings promote interaction, cooperation, and information sharing, positively influencing innovation activities (Prokop & Hájek, 2023). By leveraging these digital platforms and processes, employees can harness the collective intelligence of their teams and drive innovation forward in a remote work environment.

'It was amazing. And just the way people were more confident to share their ideas and yeah, it was interesting. I actually really enjoyed that dynamic where people that didn't speak up before suddenly did and had a lot to share because there were different ways for them to communicate, particularly if you're introverted, that you had different tools to use to speak up about things. Where in meetings, you have to be an extrovert to speak up...' EMP09

'...so I ramped up my comms with my team...We have a weekly meeting at the beginning cuz I wanna create the space and understand the priorities and people hearing from each other what they're doing.' EMP14

However, the transition to remote work has also presented challenges that can impact employees' ability to engage in innovative behaviours. In a virtual environment, where interactions are mediated through digital channels, some employees may find it challenging to generate ideas organically or to express themselves fully. The absence of face-to-face interactions can limit spontaneous brainstorming sessions and informal

exchanges, which can hinder the flow of creative energy that often occurs in physical workspaces (Ferguson et al., 2023; Gajendran & Harrison, 2007; Gruber et al., 2022). Additionally, the asynchronous nature of some digital communication tools may lead to misinterpretation or misunderstandings, potentially stifling collaboration and innovation. The asynchronous nature of these tools can limit immediate feedback, visual cues, and the time available for conversations to develop, potentially leading to misinterpretations and communication breakdowns (Forbes & Gedera, 2019; Vukašinović et al., 2020).

'...if you're in meetings personally and you had, you know, the detractors in the room, you would've been able to kind of move them and change 'em a little bit. Whereas now, you know, if you've got a teams channel going that's 24-7, someone could write a really negative comment that's seen by everyone.' EMP12

Despite these challenges, remote working has created opportunities for employees to explore new ways of thinking and collaborating. By leveraging digital tools and experiences, employees can overcome geographical barriers, connect with colleagues across time zones, and access a wealth of resources and expertise. With the right tools and processes, employees can continue to engage in innovative behaviours, driving meaningful change and progress within their organisations, even in a remote work environment.

8.6.1.3. Creative work

Employees employ various strategies and unconventional spaces to foster creative thinking while working remotely, influencing their ability to engage in innovative behaviours.

Respondents found unconventional settings outside the traditional workspace more conducive to creative thinking. Whether lying in bed, sitting under a tree in the park, or taking a walk, these individuals seek out environments that provide peace, quiet, and a change of scenery to stimulate their creativity. The freedom to explore different spaces outside the confines of the office allows them to approach problems from new perspectives, opens up the free flow of ideas and stimulate creativity (Keinänen, 2015; Oppezzo & Schwartz, 2014).

'I do my best thinking when I'm laying in bed. And quite often, and maybe that's because that's the only time of the day I actually manage to have peace and quiet and thinking time. So I'm not sure. I've never stopped to analyse why I do it...but that's where I solve problems.' EMP02

'Working remotely and in the park that's just around the corner sitting under a tree, like lying under a tree sometimes or walking around and just getting, getting a bit of fresh air and space. For some reason that triggers my brain to kind of have a, a different kind of focus...If I'm in the office, I know that I don't, I don't have the space to actually allow creativity.' EMP10

Routine activities such as showering or driving also serve as opportunities for private focus and problem-solving. The solitude and repetitive nature of these activities create moments of mental clarity and reflection, enabling individuals to work through challenges and generate ideas. Solitude has been demonstrated to offer various benefits that can enhance reflection, mental clarity, and problem-solving abilities. Research indicates that spending time alone can promote concentration, insight and creativity (Lay et al., 2019; Pauly et al., 2018; Thomas et al., 2021).

'That 10 minutes in the shower with the hot water and that silence, just the water running, gives you that time to think. And you're in the robot mode anyway, taking care of business and stuff. But also then the drive.' EMP06

'If I have to really think a problem through, I'll, I'll have a, I'll have a shower.' EMP11

Furthermore, many remote workers highly value the ability to create a private, distraction-free environment. Whether turning off distractions in their home office or stepping away from the screen to think deeply, these individuals prioritise privacy and autonomy to engage in focused, uninterrupted work. Away from the hustle and bustle of the office, they find solace in their home environment, allowing them to delve into complex problems with fewer distractions, thereby fostering innovative behaviours (Adekoya et al., 2022; Amir et al., 2021; Henke et al., 2022).

'...if there's things that I really know I need to knuckle down without distractions, those are the days that over the last 12 months when the office was an option, I chose to work from home to kind of work through those with fewer distractions...I need time to work through it and time to myself to kind of get through the detail of the problem and work out what the resolution will be. I'd say I'd prefer to do that in private at home just because of fewer distractions.' EMP01

'I'm sort of that operator that is almost a little bit pensive. And I kind of brewed over things. And I find when I'm at home, I can just sort of sit there, literally I can turn away from my computer and just look at a blank wall and sort of let things tick over in my brain. You can't do that in the office.' EMP03

8.6.1.4. Innovation

Participants highlighted various strategies and experiences influencing their ability to engage in innovative behaviours while working remotely.

For some employees, the shift to remote work accelerated decision-making and concept approval processes, removing barriers and encouraging a proactive approach to problem-solving. The ability to focus without distractions and allocate dedicated brainstorming time allowed for quicker solutions to emerge.

'In sort of period of the month once COVID hit, we approved our concepts that would've otherwise taken a decade because there was all the naysayers who couldn't say nay because there was no option. You just had to do it...I've got the ability to focus and not be distracted as much as if I was sitting in the office, I can come up with a solution a lot quicker than...I don't have to lay awake at night coming up with it. I've got time during the day to actually turn my mind to it.' EMP02

'... But the extent that you do identify a problem at home when you're at home, I think it's easier to find the time to get the head space to think about the solution than when you're in the office...And plus, the person who brings you the problem also joins in terms of trying to create the solution. So it sort of almost becomes a brainstorming session, just an informal brainstorming session rather than just sort of sitting in the corner quietly contemplating by yourself. And that's got merit.' EMP02

However, virtual collaboration also presents challenges, such as the potential for miscommunication (Vukašinović et al., 2020) or the lack of spontaneous interactions that occur in traditional office settings. Despite technological advancements, some individuals need help with specific platforms or find virtual brainstorming less dynamic than in-person sessions (LaPensee et al., 2021), which can hinder the flow of ideas and impede the creative process. The dynamic nature of face-to-face interactions, where participants can engage in spontaneous discussions and build on each other's ideas, is often challenging to replicate in virtual brainstorming environments. Nonetheless, the motivation to innovate remains high, driven by the need to overcome inherent weaknesses and adapt to new ways of working.

'Or a new idea is really a solution to a problem, right? So if you don't have the problem. The problem is the thing that stimulates the new idea. You come across more problems in the office because other people are inclined to tell you their problems just by virtue of the fact that you're sitting there. So you do spend more time stimulated thinking about solutions when you're in the office than when you're at home, I think.'

EMP02

'If you're in meetings personally and you had, the detractors in the room, you would've been able to kind of move them and change 'em a little bit. Whereas now, if you've got a teams channel going that's 24-7, someone could write a really negative comment that's seen by everyone for, you know, however long it takes you to be able to respond. But then you go back and like the opportunity for things to blow up can be quite strong...I just think for multiple barriers, even if you've got a great technology, not everyone has the same handle on it...' EMP12

'I'd say [motivation to be innovative] it's possibly higher more than when we are in person just because, like I said before, there's that kind of inherent weaknesses that you need to overcome...It's much more difficult for people these days to kind of work with their desk neighbour to solve an issue like they would've done in the past. You just ask the person next to you if they're on your team or not...' EMP01

Participants employ various techniques to foster innovation in the remote environment, such as engaging in creative thinking outside the office, leveraging alternative spaces like cafes or implementing virtual whiteboard sessions to encourage

brainstorming and idea generation. Minimising external distractions fosters clearer thinking and problem-solving. Similarly, engaging in creativity exercises like virtual brainstorming, which mirrors office practices, enhances overall IWB.

'I do that at home, but then I've also, I'll also go to the cafe. So I might take a break and, go and get a coffee and sit down there and with my notebook and do some sort of creative thinking there...However, I do miss a whiteboard sesh, so I'm such a big fan of, let's jump in the room and chuck it on a whiteboard kind of thing. I did a whiteboard, I've got one here. That was one of the first, I bought that before a decent desk. Cause that was the first thing I noticed I missed working at home was, a whiteboard. Like just that creative piece. And so yeah, I still try and encourage that with the types of meetings with my team and my direct reports...let me know if you wanna just book a book the time and say whiteboard sesh. Yeah. And so I know that we're just gonna have a brainstorm creative time.' EMP14

'[feel more creative] outside the office environment. It's the space. And because, well, my mind is at rest, I think. So I'm not thinking about, but I have to do this and I have to do that at rest, but that particular big problem has been weighing on my mind all day. And so it's sitting there and then suddenly it comes to me. So I think it's just getting rid of the white noise.' EMP09

Furthermore, participants emphasise the importance of collaboration and dialogue in the virtual workspace in order to foster innovation. While remote communication may lack the spontaneity of face-to-face interactions (Ferguson et al., 2023), effective communication technology provides opportunities for sharing ideas, receiving feedback, and refining solutions collaboratively (Adibe et al., 2023; Batarseh et al., 2017). Regular virtual team meetings and virtual presentations for example enable individuals to share insights, trigger ideas, and explore new possibilities collectively, enabling innovative thinking despite physical distance (Bürkland et al., 2019; Prokop & Hájek, 2023).

'So I'm like, oh, I saw a great article. I'll just share it on the, on the messaging. Like, just have a read of this guys. This could be great for us doing blah, blah, blah. And see what the reaction is. And then we have a team meeting online. And the good thing about that is that I can do presentations, I can share my screen and I can show where I'm thinking with things...I need some time to think that through. And so yeah, I'd prefer to

do that in sort of a quieter space, but where that might, I get some ideas triggered and I start thinking about things maybe after a conversation with people.’ EMP17.

8.6.1.5. Connections in the digital realm

Maintaining connections and relationships while working remotely poses challenges (C.-L. Yang et al., 2022), but employees have devised strategies to nurture these bonds, recognising their importance in fostering innovation and collaboration (Charalampous et al., 2018; Cripe & Burleigh, 2022; Salaran & Maritz, 2013).

Some respondents found that remote working limits their day-to-day interactions, leading to a sense of disconnection from colleagues outside their immediate teams, which is supported by literature (Felstead & Henseke, 2017; Hafermalz & Riemer, 2020).

‘I’d be speaking with them throughout the office and that kind of thing. Whereas now I have a social call or two a day with some a couple of my close friends in the office. And then really only be speaking with the people that are on my team rather than a wider division. There’d be people in the audit team that if we were in the office, I’d be speaking to once a week that I probably haven’t spoken to this month or even the last couple of months [because I am remote working].’ EMP01

‘I don’t think it can replace...get everybody together in a room with a drink in their hand. I think that’s a different experience.’ EMP05

To bridge this gap, they schedule regular social calls or virtual meetings to catch up with coworkers, fostering a sense of camaraderie and shared experiences. These informal gatherings provide opportunities to discuss work-related matters and personal experiences, providing a sense of belonging and connection (Flannery et al., 2022; Kuntz, 2020)

‘...we don’t have a lot of day-to-day interactions. So we made time to FaceTime yesterday and, and we’re gonna do that, you know, maybe once a month, just have a half-hour chat on FaceTime...’ EMP10.

'I had a weekly team meeting and so that was really good. We'd catch up on a Monday morning, talk about our weekends. So it was, you know, yes we'd talk about work, but we'd also be trying to catch up a bit socially.' EMP16

Additionally, employees emphasise the importance of celebrating successes and fostering a culture of gratitude in virtual environments. Research has shown that recognising and celebrating achievements can act as a catalyst for promoting creative problem-solving and thinking (Dai et al., 2019; Malik et al., 2023; Naushad, 2022). Weekly virtual team meetings serve as forums for recognising achievements and expressing appreciation, reinforcing a sense of belonging and motivation. By acknowledging and celebrating each other's contributions, teams cultivate a positive work environment that encourages creativity and innovation.

'And it also prompts other people I've noticed too, to say, okay, you know, this person's done something extraordinary, I'm gonna tell everybody about it. And so it just, it fosters that that kind of real vibe of celebrating everybody's successes, even if they're really tiny.' EMP10

'And then the Friday meeting was a, what have we done this week and kind of a congratulations and a kind of Oh, fantastic. Gratitude and recognising what had been done well that week.' EMP11

Furthermore, employees leverage technology to maintain ongoing communication and connection with colleagues. They make deliberate efforts to reach out to coworkers for casual conversations, ensuring that interactions are not solely task oriented. By incorporating spontaneous interactions into their daily routines, employees create opportunities for serendipitous connections and idea-sharing, mirroring the informal interactions that occur in physical office spaces.

'And then our meetings were turning into more about the health and wellbeing, "What are you doing, what ideas have you got to share with the team about managing your mental and physical health when we're in lockdown?" and we can't easily connect with our friends and we can't or our family.' EMP09

'And so there's generally kind of there's a couple of key people that I kind of, hey, you know, thinking about this quite informal, it'll come through on a teams chat or I'll give them a call like, if, if you are green on teams, I'll call you instead of emailing you. I think you know, it gives us more of that connection as well. And you get to speak to different people all day and it's not just an email inbox kind of thing...it's less about the in-person and virtual, it's more about the don't make every interaction only when you need something from them...I'll have a look in my, my chat list on who's green and I'll just ring 'em. So, a lot of people interact for purposeful reasons now. So, because I need something from you. Yeah. I think yeah, people need to be more mindful of those kind of, you know, pass by the office, create those moments.' EMP14

Several key insights emerge in analysing employees' 'ability' to engage in IWB while working remotely. Providing tangible resources for remote work, such as additional screens and communication platforms, enhances employees' technical capabilities. This facilitates innovative behaviours by providing the necessary infrastructure and tools for idea generation, collaboration, and problem-solving in virtual environments. Employees demonstrate their ability to adapt to remote work setups and utilise digital platforms effectively, contributing to the organisation's innovation efforts.

Ability also refers to individuals' skills, knowledge, and resources necessary to innovate effectively. In the remote work context, participants discussed their ability to adapt to digital tools and platforms for collaboration, with acknowledgment of technology's role in enabling virtual brainstorming sessions. Participants demonstrate cognitive skills such as problem-solving and critical thinking while working remotely, particularly in environments and situations that amplify these abilities, which are essential for IWB.

Employees demonstrate varying capabilities to innovate based on their access to resources, skills, and knowledge. For example, those who express a preference for face-to-face collaboration rely heavily on interpersonal communication skills and the ability to read nonverbal cues to foster creativity. Conversely, individuals who thrive in virtual environments possess strong digital literacy skills and are adept at leveraging technology to facilitate idea-sharing and collaboration. Thus, IWB is contingent upon employees' proficiency in utilising both traditional and digital mediums for collaboration and communication.

8.6.2. Motivation of remote working employees to demonstrate IWB

At the heart of the AMO framework is ‘Motivation’, which is pivotal in shaping individuals’ willingness and eagerness to engage in IWB (Knies & Leisink, 2013; Obaid et al., 2022). For remote employees, motivation emerges as a key determinant, fuelled by factors such as autonomy, work-life balance, flexibility, and personalised work environment. Nevertheless, the virtual nature of remote work also brings forth challenges, including sentiments of isolation, disconnection, and tendencies towards overworking, which can impede employee motivation to undertake innovative activities.

8.6.2.1. *Positive side to remote working*

Remote working offers a plethora of benefits that can significantly enhance employees’ motivation to exert innovative behaviours. One notable advantage highlighted by respondents is the elimination of the daily commute. For many, this means reclaiming valuable time that would otherwise be spent navigating traffic or crowded public transportation. This newfound time can be directed towards other endeavours, like creative thinking, brainstorming or ideation, ultimately increasing IWB (Agrawal et al., 2018; Mullens & Glorieux, 2023).

‘...avoiding that commute just to be in a certain location for no particular reason.’

EMP10

‘...just having that opportunity not to have to travel...You gain some more time, which is really nice. And you do get a little bit of thinking time.’ EMP07

Moreover, remote work provides employees the freedom of creating their ideal physical work environment to suit their individual preferences and needs. Personal control over the workspace can reduce environmental distractions, enhance mood, improve environmental satisfaction, and increase productivity and creativity at work (Samani et al., 2015; Yu & Wu, 2021). This autonomy over one’s surroundings can inspire a sense of ownership and empowerment, increasing motivation to engage in positive work outcomes such as exploring new ideas (Jebali & Meschitti, 2020).

'If I'm in the office, I know that I don't, I don't have the space to actually allow...having that time and the quiet and the space to, to just focus on something differently. To just take it a take a different angle in trying to find a solution.' EMP10

'So positives definitely that for me the ability to have my own space...I don't know if you've ever heard of misophonia, it's a neurological condition where certain noises can cause their triggers and they can cause a reaction. And even you know, some noises in the office. So, for me that's fantastic having my own space.' EMP16.

Additionally, the absence of office noise and distractions (Amir et al., 2021; Henke et al., 2022) can be advantageous for concentration and uninterrupted focus. The findings underscore the necessity of having the time, quiet, and space to focus on tasks without interruptions, a luxury often challenging to achieve in a traditional office setting. Without the interruptions and distractions commonly found in a bustling office environment, employees can delve deeply into complex problems, explore new ideas, and devise innovative solutions with greater clarity and efficiency (Eerde et al., 2022).

'So, you have the tools now to kind of set yourself two to three hours on 'Do not disturb' or whatever, where you can just rip through the work distraction-free. Whereas if you're in the office, someone might come up and ask you a question, and you're probably more easily going to get sidetracked....we've come up with a lot of things that help us work better remotely over the last two years.' EMP01

'Because it's a lot more private. And those interruptions. You get those long breaks, of say four to five hours uninterrupted...Smash things out. Strategy. We call it thinking time as well.' EMP06

'...And for somebody like me who is an introvert...Having the luxury of not having all that noise and distraction and activity around me.' EMP10

The flexibility to manage one's schedule enables individuals to pursue personal interests and empowers employees to work in a manner that best suits their individual preferences and rhythms (Lange & Kayser, 2022). Integrating work and personal life facilitated by remote work can contribute to a greater sense of work-life balance (Blumberga & Berga, 2022; Mattarelli et al., 2022; Neidlinger et al., 2022). Improved work-life balance can lead to higher levels of creativity, productivity, and job

performance (Haider et al., 2018). By eliminating the need for a physical separation between work and home, employees can structure their day to accommodate both professional responsibilities and personal commitments. This balance allows individuals to approach their work with a clear mind and a renewed sense of purpose, enabling them to tackle challenges with creativity and innovation.

'...having that time and the quiet and the space to, to just focus on something differently. To just take it a take a different angle in trying to find a solution.' EMP10

'...being able to balance my lifestyle around my work.' EMP12

'... allows me to have a better work life balance and to do more things in my life which makes my weekend freer.' EMP14

'...work-life balance and being able to manage being a working parent, manage being a carer. And I went back to study last year as well, so I was excellent too and trying to manage that and, could do all of that because I didn't have the commute and feel a bit more flexible in my own like work if I don't finish things when I need to, I can stagger my day a bit more.' EMP17

Furthermore, remote work offers flexibility for working parents and caregivers (Augustine et al., 2023; Koreshi & Alpass, 2023). The convenience of being close to home allows employees to attend to family matters or unexpected emergencies swiftly. This seamless integration of work and personal life provided by remote working enhances overall employee wellbeing and engagement (Costantini & Rubini, 2021; Klerk et al., 2021; Wong et al., 2020), which in turn can positively influence innovative behaviours (Honkaniemi et al., 2015; Smith et al., 2022; J. Wang et al., 2017).

'I would say the positives definitely like flexibility around family life. Like it just, it's nice to be able to do drop-offs pickups can ride the bike and pick my daughter up...I think structuring my day and being able to, you know, work how and when I, I like Yeah.' EMP13.

'The positives are definitely for me have been around work-life balance and being able to manage being a working parent, manage being a carer. And I went back to study last year as well, so I was excellent too and trying to manage that and, and could do all of

that because I didn't have the commute and feel a bit more flexible in my own like work if I don't finish things when I need to, I can, I can stagger my day a bit more and yeah.'

EMP17

8.6.2.2. Negative side to remote working

While remote working offers numerous advantages, such as flexibility and autonomy, it also presents various challenges that may hinder employees' motivation to display innovative behaviours. One of the most commonly cited drawbacks is the feeling of isolation (Saurombe et al., 2022; Toscano & Zappala, 2020). The lack of face-to-face interaction with colleagues can lead to feelings of isolation and disconnection (Juchnowicz & Kinowska, 2021; Noh & Lee, 2022) which hinders collaboration and idea exchange (Babin et al., 2021; Waizenegger et al., 2020), essential components of IWB.

'I certainly don't think that I would want to work five days from home every day. I think that'd be isolating.' EMP03

'I know some of my colleagues were finding it quite isolating. And we used to have a daily check-in and I was a bit like, can we not have a daily check-in? And they went, no, this might be the only time I see another person, so could we keep them on?' EMP17

Furthermore, remote work can blur the boundaries between work and personal life, making it difficult for individuals to disconnect (Andrade & Fernandes, 2021; Baumann & Sander, 2021; Palumbo et al., 2020). Work can tend to encroach on personal time, leading to longer work hours, potential conflict and burnout (Bakarich et al., 2022; Hayes et al., 2021). Individuals experiencing high levels of burnout tend to exhibit lower overall creativity (Alessandri et al., 2018; Şahin, 2023). Burnout has been identified as a moderating factor between intellectual capital and IWB, indicating a significant negative relationship between burnout and IWB (Narzary & Palo, 2021). The absence of clear delineation between work and leisure can diminish motivation and impede creativity, as employees struggle to find time for relaxation and rejuvenation (Yu & Wang, 2022).

'One thing that does happen I think is it makes it a little bit harder to disconnect. Even though you can set your own hours and set your own day, it's definitely easier for things to creep and for you to while I'm already at home, it's easier for me to do the extra hours and just work through to like say 10:00 pm or something...I think now I've

noticed that there are things that take a lot longer than they used to because the face time made it easier to sort of teach people and also to interact with the clients. Working as a team is easier when you actually are kind of together as a team.’ EMP01

‘...the working too long an hour. So, for example, you jump on first thing in the morning, and then I’m still online at 7:30 at night, and I’ve barely left my seat. And on weekends, you’d walk past your desk, and your computer was on, so you would check your emails or...It’s just you were never off. I found that challenging.’ EMP07

‘I found that I was working on Friday and then it would just go to 8:00 and then I’d find I was working on Saturday and Sunday as well, just because it was there. It was almost an addiction...’ EMP09

Remote working employees may encounter challenges in proving their value and achievements to their peers and superiors, which can impact motivation. In addition to feelings of isolation and reduced social interactions, employees experience a lack of visibility, which may hinder employees in showcasing their contributions effectively (Chafi et al., 2021). Supervisors may also struggle to monitor and evaluate the performance of remote employees effectively due to reduced visibility (Gong et al., 2022; Maden-Eyiusta & Alparslan, 2022; Zoonen et al., 2021). Employees working remotely may need to adapt their communication strategies, seek opportunities to showcase their work through virtual platforms, and actively engage with supervisors to ensure that their value and achievements are recognised in a remote work environment. There is also the perceived additional effort required to demonstrate productivity in remote settings. This pressure to constantly showcase one’s work can create a culture focused more on output quantity rather than quality, potentially stifling innovative thinking and experimentation (Lykourantzou et al., 2022).

‘The negatives I think it is just a little bit of extra energy to prove your value or especially if you’re a remote and then it’s a KPI-driven job. Like you just need to make sure you’re achieving and that’s, you are sharing with people your achievements.’

EMP13

'Some of the negatives are that yes, you're a bit invisible in the organisation. In terms of there's a lot of that also out of sight, out of mind...' EMP17

Another expressed significant downside of remote work is that it can exacerbate communication challenges, particularly in collaborative settings. Without the face-to-face interactions and spontaneous, informal discussions that occur in an office environment, communication may become more formalised (Cao et al., 2021; Kershaw et al., 2021) and motivation to develop new ideas can decline. Remote work has been shown to lead to a decrease in informal communication and incidental exposure to other employees (Choudhary & Mishra, 2021; Ferguson et al., 2023; Viererbl et al., 2022). Coordinating meetings and ensuring everyone is on the same page can require additional time and effort, potentially slowing decision-making processes and hindering collaboration. This lack of informal communication can impede the flow of ideas and inhibit IWB.

'I think now I've noticed that there are things that take a lot longer than they used to because the face time made it easier to sort of teach people and also to interact with the clients. Working as a team is easier when you actually are kind of together as a team.'

EMP01

'Now you got to set up a time and you got to see if you're both free. And then it's quite formal because it's a call. So, there's something to be said about being back in the

office...' EMP02

Furthermore, logistical issues such as inadequate workspace or distractions at home can impede concentration (Edilson et al., 2022; Pang et al., 2021) and hinder innovative behaviours. This can include noisy home environments or limited space for dedicated work areas. The lack of necessary equipment and adequate space can impede employees' creativity and innovation (Bergefurt et al., 2023).

'...if you've got kids at home or if you've got a noisy dog or if you don't have the space.'

EMP10

Employees in remote settings also lament the loss of the social aspect of work (Felstead & Henseke, 2017; Hajjami & Crocco, 2023; Pradhan & Hati, 2019). There is the loss of casual interactions (Gilmartin et al., 2020; C.-L. Yang et al., 2022) and camaraderie with colleagues, which can serve as sources of inspiration and support for innovative thinking. Casual interactions and social aspects have been shown to play a significant role in fostering creativity and innovation. Spontaneous communication, casualness, and interpersonal familiarity create an atmosphere conducive to innovation, idea generation, and creativity (Gerards et al., 2020; Lee et al., 2005; Tønnessen, 2022).

'...there's also the social aspect. People you'd like to have that, what did you do on the weekend? Or did you win on the races or whatever...' EMP02

8.6.2.3. Importance of remote working to employees

The importance of remote working to employees extends beyond mere convenience; it represents a fundamental shift in how individuals perceive and approach their work-life balance. For many, remote working is not just a preference but a necessity, offering them the flexibility and autonomy needed to thrive in both their professional and personal lives. This recognition of remote work's value is a powerful motivator for employees to engage in innovative behaviours, even when working remotely.

Employees who value remote working emphasise the importance of flexibility and empowerment. They view remote work as a means of reclaiming control over their time and environment (Adekoya et al., 2022; Felstead & Henseke, 2017; Koekemoer et al., 2021), enabling them to balance professional responsibilities and personal commitments (Brooks et al., 2022). Increased autonomy is linked to fostering creativity and innovation (Beugelsdijk, 2008; Lumpkin et al., 2009) and IWB (Criscuolo et al., 2014; Giebels et al., 2016; Sönmez & Yıldırım, 2019). This sense of autonomy empowers individuals to approach their work with renewed enthusiasm and creativity, knowing that they have the freedom to structure their day in a way that optimises their work pursuits.

'I'd say it quite important to me. I'm someone who wants to go back into the office at least to some extent. So, I'm pretty comfortable with saying it's important to have the flexibility.' EMP01

'I think it's very important. I think it's all about the hybrid balance and giving you that feeling of empowerment as well.' EMP06

Remote working is viewed as a competitive advantage in today's evolving work landscape. Employees recognise the need for organisations to adapt and embrace flexible work arrangements to remain competitive (Klindžić & Marić, 2019; Xiu et al., 2017), attract top talent (Onken-Menke et al., 2017; Schmoll & Süß, 2019) and retain valuable employees (Bainbridge & Townsend, 2020; Bilan et al., 2020; Haddad et al., 2023). By offering remote working options, businesses signal their commitment to supporting employee wellbeing leading to higher levels of organisational commitment and job satisfaction. This positive perception of the organisation can contribute to increased motivation to engage in innovative behaviours, knowing that their organisation values and prioritises flexibility and their wellbeing.

'I think we need to be more flexible...I think as a business, we need to offer some more flexibility for our staff. Because everybody's offering it. If we don't get on this bandwagon, we are going to get left behind.' EMP07

Many employees express a deep appreciation for the ability to integrate work and life seamlessly, allowing them to pursue their professional goals while also prioritising personal priorities, such as spending time with family. In this regard, remote work is closely linked to job satisfaction (Kähkönen, 2023; Mostafa, 2021). Higher levels of job satisfaction positively affect innovation performance (Banerjee & Bag, 2022; Hu & Zhao, 2016; Nasution et al., 2021). This alignment between work and personal values enhances employee motivation, creating an environment where individuals are more inclined to explore new ideas, and engage in innovative behaviours.

'I want to keep working from home. I just enjoy, it gives you balance...I think it really comes down to just the freedom to be able to sort of work how you want to work. And where you think you're going to be able to deliver the best results.' EMP03

'...the ability to integrate work and life, gotta get the boundaries right...the ability of work my life, work around my life so much more now is just, it's so great for me to be able to progress and work at a level in my career that I didn't think was possible...'

EMP14

Several key insights emerge from analysing the ‘motivation’ of employees to engage in IWB while working remotely. Employees prioritising flexibility often cite its positive impact on work-life balance, job satisfaction, and personal fulfilment. The ability to balance work and personal commitments is a crucial driver of job satisfaction and wellbeing. This balance between work and personal life can drive individuals to approach tasks and challenges with renewed energy, enthusiasm, and creativity, thereby fostering IWB.

However, while remote work offers flexibility and comfort, many employees yearn for the camaraderie of office life. The absence of daily interactions can lead to feelings of isolation and detachment. Recognising this, organisations must prioritise fostering social connections and providing opportunities for meaningful engagement to cultivate a thriving remote work culture.

8.6.3. Opportunity of remote working employees to demonstrate IWB

Within the AMO framework, ‘opportunity’ is a critical determinant, delineating the organisational and environmental conditions that facilitate or hinder innovation (Marín-García & Martínez-Tomas, 2016). For remote employees, opportunities for innovation manifest in various forms, ranging from access to intangible resources and technology to supportive organisational culture and encouragement of innovation. Remote work environments often offer unparalleled flexibility and autonomy, providing individuals with the freedom to explore new ideas and experiment with novel approaches. Additionally, virtual communication tools and digital collaboration platforms bridge geographical distances, fostering seamless interactions and idea exchange among remote teams. However, the virtual nature of remote work also presents challenges, such as potentially limited informal interactions, which can impact employees' opportunities for innovative collaboration.

8.6.3.1. *Intangible support for remote working*

Remote workers often receive intangible support from their organisations, ranging from mental health programs to team-building initiatives aimed at enhancing wellbeing and resilience. These support systems play a crucial role in ensuring that employees feel valued, connected, and equipped to navigate the challenges of remote work (Park et al.,

2021; Tuzovic & Kabadayi, 2020), where increased wellbeing can enhance creativity (Smith et al., 2022; Tan et al., 2021; J. Wang et al., 2017).

'...we've got mental health type programs running. We try and make sure that we do some team building type stuff fairly regularly...' EMP02

'...they've got a subscription to some employees' service or something or other, that they give us....It's called Be Well. There's an actual company that they outsource it to. So we've got that subscription...' EMP03

One aspect of this support is the emphasis on mental health and wellbeing, particularly during times of crisis such as the COVID-19 pandemic. Organisations may offer access to Employee Assistance Programs (EAPs) and mental health resources to help employees cope with stress and maintain their emotional wellbeing. By supporting employees in achieving a healthy balance between work and personal life, organisations create an environment where individuals feel more energised, motivated, and capable of generating innovative ideas.

'They enrolled us into I think it's called The Resilience Project. We got those presentations. I think that was mostly all linked to kind of improving mental health and that sort of thing for working from home...' EMP01

'There was a lot of mental health support. Lot of mental health support. The EAP program went through the roof. That was offered to...immediate family...But again, the same things, a lot of contact, a lot of checking in, all that kind of stuff,'. EMP06

'..we do get access to EAP through work, those sorts of things. We have health and wellbeing teams, so they do take that quite seriously...So they're constant, so that was long before the pandemic, but obviously I think a few more layers were added to that, a few more offerings.' EMP09

In addition to mental health support, organisations may implement team-building activities and virtual initiatives to foster a sense of community and belonging among remote workers. Virtual social events, such as online gatherings and casual meetups, provide opportunities for employees to connect with their colleagues, share experiences, and build meaningful relationships outside of work tasks (Ghosh et al., 2023;

Rathnaweera & Jayathilaka, 2021). Social interactions can stimulate creativity (Costa et al., 2022; Lebuda et al., 2016), and in remote settings it can reduce social isolation and contribute to a positive work culture, which are essential ingredients for IWB.

'We made a point of just having little check-in points with them, a message or a phone call.' EMP10

'There was certainly a focus on getting people together socially every now and then socially online.' EMP16

8.6.3.2. Organisational support for innovation

Companies actively support and encourage innovation among their employees through various initiatives and programs, recognising the value of fostering a culture of creativity and forward-thinking. One common approach is the implementation of formal innovation programs or competitions where employees are invited to submit their ideas for consideration. These programs often involve a structured process of evaluation and selection, with awards or recognition given to individuals or teams whose ideas demonstrate significant potential for driving positive change within the organisation. These programs serve not only to acknowledge innovative efforts but also to inspire and motivate others to think outside the box and explore new ideas, even when working remotely (Engelen et al., 2017; Malik et al., 2023; Shanker et al., 2017).

'So we definitely used to have a big innovation program that was formally rewarded, but I don't think that's necessarily happening anymore. Innovation is one thing that we look for as we kind of encourage people to develop when they're going for promotions.'
EMP01

'We run an international run innovation competition. And some guys out of our group went through the national final...And they won a prize for that.' EMP02

'I know we have an office award,...And every quarter, there's one person from each service line that is selected as the winner of this award. And it's assessed on a submission basis.' EMP03

In addition to formal programs, companies may create opportunities for idea generation and collaboration through informal channels such as working groups or innovation hubs. Innovation oriented clusters and hubs play a crucial role in driving collaboration and idea generation (Haukipuro et al., 2023; Littlewood & Kiyumbu, 2018). By providing platforms for employees to share their ideas and collaborate with colleagues across different departments or service lines, organisations can tap into the diverse perspectives and expertise of their workforce, leading to more innovative solutions and approaches (Cui et al., 2022; Yoo et al., 2023). By leveraging digital platforms and communication tools, organisations can facilitate virtual brainstorming sessions, innovation workshops, and knowledge-sharing sessions, allowing employees to connect and collaborate regardless of their physical location.

'We used to have the opportunity hub...and the simplification program...I think the role of simplification, and we haven't met as a committee for some time now, but the opportunities of simplification program are still there.' EMP08

'I've always had a lot of freedom in the role because I manage all the operations, so I have quite a bit of freedom to do what I want...But yeah, always encouraged with innovation.' EMP09

'There's definitely recognition when people do come up with something that, that creates a change that's a really good enhancement. And there, I mean, everybody's got an opportunity to contribute ideas and I mean...we actually created a working group because quite often I was asking for a lot of changes. And I thought there must be other people in the business that, that have ideas as well. So we'd get people to bring together ideas.' EMP10

Company support and encouragement for innovation play a crucial role in shaping the opportunities for employees to engage in innovative behaviours (Khalili, 2016; Kock et al., 2014; Sharifirad & Ataei, 2012). Through formal programs, informal initiatives, recognition efforts, and professional development opportunities, organisations can create an environment where creativity, collaboration, and ideation are not only encouraged but also rewarded, ultimately driving innovative behaviours.

8.6.3.3. *Impromptu connections*

The shift to remote work has altered the dynamics of impromptu connections within workplaces, influencing innovative behaviours. Spontaneous interactions in corridors, coffee breaks, and desk-side chats are common in office environments (Maisha et al., 2023; Oshima & Asmuß, 2017; Seddigh et al., 2015). These unplanned interactions often sparked brainstorming sessions, facilitated idea exchanges, and nurtured the relationships crucial for fostering innovation. However, remote work has introduced a more formalised approach to communication (Ferguson et al., 2023; Viererbl et al., 2022), with impromptu interactions giving way to scheduled meetings and structured conversations (Cao et al., 2021; Kershaw et al., 2021), which can be more rigid. The informality and spontaneity of face-to-face exchanges have been replaced by deliberate efforts to initiate communication, often through digital platforms. Without the casual interactions that occur in traditional office settings, employees may they have less opportunity to spontaneously brainstorm or bounce ideas off one another, reducing IWB.

It's a bit more difficult when you're working remotely, because yeah, like you say, it's more rigid. You schedule a time, so it seems more formal. It's not just

that sort of impromptu, "Hey, can I just ask you this? I'm having a bit of trouble with something." Yes, definitely a lot less. And it's a lot more narrow focused.' EMP01

I mean, if I've got a meeting with my manager sort of coming up, I might just sort of tack on at the end, "Oh gee, do you have two minutes me to run something past you?"'

EMP03

'Yes, that's right. So people had to deliberately contact me rather than stop me in the corridor.' EMP07

The absence of impromptu connections extends beyond mere convenience; it also impacts the depth and breadth of professional relationships. Respondents lament the loss of small talk and informal check-ins, recognising these interactions as crucial for building trust and rapport on a personal level. Small talk serves as a social ritual that is fundamental to nurturing relationships and building new relationships (Ferrante, 2021; Methot et al., 2021). Fostering both formal and informal relationships is key to innovation performance and desirable employee behaviour (Ahmad et al., 2022; Muñoz-Pascual & Galende,

2020). If employees lack relationships with their colleagues, it can reduce the opportunity for them to collaborate and generate new ideas together.

'I think the challenge was not being able to do those ad hoc, you know, just turn around and have a chat...I've already got established relationships with a lot of people where I am now, so that probably makes it a bit easier because I've got that establishment. But certainly you know, you're just not having those regular chats ' EMP016

'I love it when I go into the office because I get to see my team and that typical, "Let's go for a coffee," and just having that informal, that chit chat where you get to connect on a more personal and a human level so that you're building up that trust and rapport with someone.' EMP09

'Most of the time in the office I would be meeting with people, like chatting, you grab people in the hallways and that's, it's valuable stuff.' EMP17

The formality of remote communication presents challenges in maintaining the spontaneity and informal exchange of ideas that drive innovation. The act of initiating a conversation has become a deliberate decision, perceived as a barrier that can restrict the flow of ideas and inhibit spontaneous collaboration.

'And just you being able to sort of turn your head and ask the person next to you and answer to a question.' EMP02

'I do feel like there's a whole segment of the company that I, I feel like I don't know well at all. Because it's, you know, they're busy too. So suddenly popping up in their chat and saying, "Hey, can we have a chat and can we organise a meeting?" It's different to popping by their, their desk and having a two-minute chat with them and, you know, then popping back in a month later and saying, "How are you settling in? How are you finding things?" I guess cuz it's impromptu, whereas like this, it's more purposeful. You, you have to actually have it, you know, make a point of sending an email or picking up the phone.' EMP010

Several vital insights emerge in analysing the 'opportunity' of employees to engage in IWB while working remotely. Opportunity plays a pivotal role in enabling employees to translate their abilities and motivations into innovative actions. The findings

highlight the importance of creating a conducive environment that fosters collaboration, interaction, relationship building and knowledge sharing. Platforms such as innovation forums, newsletters, and conferences provide employees with opportunities to exchange ideas, seek feedback, and collaborate on innovative projects. While digital platforms offer new avenues for collaboration and knowledge sharing, they may also impose barriers to spontaneous and informal communication. There are diminished opportunities for impromptu discussions, which foster collaborative brainstorming and idea generation. As organisations navigate remote work arrangements, addressing the need to foster impromptu connections become crucial for encouraging IWB.

Additionally, organisational support and resources, such as mental health programs and engaging social team initiatives, play a pivotal role in bolstering employee wellbeing by providing avenues for support and connection within the workplace. These initiatives not only contribute to a healthier and happier workforce but also cultivate a sense of belonging and camaraderie among employees. This conducive environment not only encourages collaboration but also sparks innovation as individuals feel empowered to share ideas and work together towards common goals, ultimately fostering IWB.

8.6.4. Summary of factors that foster and hinder IWB

Employee perceptions of remote work presented a myriad of factors that foster and hinder IWB. On the fostering end, providing tangible resources to employees, such as necessary equipment and materials, lays a solid foundation for creative endeavours. Additionally, financial contributions to enable remote working and ensuring access to the right tools and technology empower employees to explore new ideas and methods efficiently. Regular meetings and get-togethers, whether virtual or in-person, facilitate collaboration and idea exchange, while access to unconventional settings and moments of peace and quiet offer opportunities for uninterrupted creative thinking. Private spaces and fewer distractions contribute to an environment conducive to deep focus and innovation, as does dedicated time allocated explicitly for brainstorming and ideation. Social calls and informal gatherings, as well as celebrating successes, cultivate a sense of camaraderie and motivation, fostering a positive atmosphere for innovation. Autonomy, flexibility and a balanced work-life dynamic further empower individuals to experiment and innovate, while personalised work environments, mental health support, and well-being initiatives ensure that employees feel supported and motivated to bring their best

ideas forward. Lastly, organisational encouragement to exchange and generate new ideas fosters a culture of innovation and continuous improvement within remote work settings.

Conversely, several factors can impede IWB in remote environments. The lack of face-to-face interactions diminishes spontaneous exchanges and can lead to misinterpretations or misunderstandings in digital communications, hindering the flow of ideas. Disparities in technology skills can create barriers to collaboration and idea sharing, while feelings of disconnection and isolation from colleagues can stifle creativity. Burnout and blurred boundaries between work and personal life can erode motivation and creative energy, as can the expectation of working longer hours and constant distractions at home. Inadequate home workspaces and a diminished social aspect further compound these challenges, making it harder for individuals to stay engaged and inspired. Formalised communication channels and added time spent coordinating meetings detract from time that could be allocated to innovative pursuits, while feelings of invisibility and difficulty proving one's worth can dampen enthusiasm for contributing new ideas. Additionally, a focus on outcomes rather than quality may prioritise quantity over innovation, inhibiting the exploration of novel approaches and solutions.

8.7. SQ4: The employee experience between remote and office-based working

In today's rapidly evolving work landscape, there is a question surrounding the optimal work environment for encouraging innovative behaviours, particularly in light of the contrasting experiences of employees in office-based versus remote settings. This research question seeks to compare the intricate dynamics of IWB within these divergent contexts. By delving into these findings, this section aims to offer a comprehensive understanding of how the working environment shapes the IWB of employees.

8.7.1.1. Frequency of working remotely

Employees' frequency with remote working varies widely, ranging from those who predominantly work from home to those who only occasionally opt for remote work. The frequency of remote work can significantly impact an individual's ability to engage in innovative behaviours as found in the quantitative study, influencing factors such as work environment, routine, and collaboration opportunities.

For employees who predominantly work remotely, having a dedicated home office setup is crucial to create an environment conducive to innovation (Ahmad et al., 2023; Russo et al., 2020; Samani et al., 2015). These individuals have invested time and resources into creating a workspace tailored to their needs, allowing them to focus and be productive. However, there is still an appreciation for going into the office occasionally.

'But predominantly from home on like what was...I probably didn't even have a setup at the time. I would've just been sitting at a dining table. Whereas now when I work remotely, it's pretty much all from home. I've got a proper home office set up now that I work from.' EMP01

'So I set up a home office, so I was sort set up before the lockdown occurred. Well, truly, yeah. But I'd already organised and I've done it for some years since, well, since I first had children, so needing to juggle the childcare and those sorts of things.'
EMP09

'I'd probably be fully remote. As in internal meetings I like, like I go to the strategy days, which are in person or you know, things like that. But outside of that, yeah, like I, I'd happily be fully remote.' EMP13

'...as a single working mom, that's so good for me...so I work at least one day in the office every week and I might work a second day...So the four days at home and the one day in the office, maybe sometimes the second day in the office.' EMP14

Hybrid models of remote and in-office work offer a balanced approach that combines the benefits of both settings (Baumann & Marcum, 2023; Chafi et al., 2021). This flexibility allows individuals to leverage the collaborative advantages of face-to-face interactions and social interaction while enjoying the focus, quiet and autonomy of remote work, enhancing their innovative contributions.

'I don't think I've spoken to a single person that is dead set on coming into the office five days, or zero days. I think easily 90% of the people that I speak to, within my team and my friend and family, just colleagues and peers more generally, but all very heavily weighted towards some sort of hybrid model. Whether that's one day in the office, two days, three or four. Very rarely do you get someone that feels five days, either way.'
EMP03

'And even so now, you look at the numbers we talked about when we first started this call, 50% of the office continuously working from home is...Or working remotely rather is...And seeing no tangible impact to the bottom line, I think that's the answer there.'

EMP06

'Remote working covid has been a godsend for me. I'll never work full-time in an office again.' EMP14

'I'm contracted four days a week with them. Um, and I've generally been doing two in the office and two at home...' EMP15

'It's probably maximum two days in the office. On average it will probably change over coming months. But my preference is to stick to two days in the office, three days at home.' EMP16

The diverse preferences for remote working arrangements underscore the importance of flexibility in fostering innovative behaviours. By accommodating individual work preferences, organisations can create environments that empower employees to thrive creatively, whether they prefer remote, in-office, or hybrid work setups.

8.7.1.2. High focus work

Participants in remote work settings employ various strategies and seek out specific spaces conducive to high concentration and focus work, recognising the impact of their environment on their ability to engage in innovative behaviours. Many individuals prefer isolating themselves in quiet environments when tackling tasks that require deep thinking and problem-solving. For them, the tranquillity of their home environment provides the ideal setting for uninterrupted focus (Amir et al., 2021; Henke et al., 2022), allowing them to delve into complex tasks without distractions more often found in office settings (Adekoya et al., 2022; Eerde et al., 2022).

'I like isolating myself, when I really have to kind of apply my brain.' EMP03

'I think it's just easier at home. I've got a dual screen set up. Everything's set up, ready to go. It's quiet...I like my space...' EMP07

'...so yes, I will a hundred percent do my deep thinking work at home because there's no way on God's green earth it's happening in the office...The added energy to try and screen out the bright lights and the constant loud noise and the people wanting to chat about the football...when I go to office, I literally don't get any work done.'

EMP11

In contrast, the office environment, with its open-plan layout and constant foot traffic, can be challenging to maintain high concentration levels. Employees find themselves drawn to quieter spaces within the office, such as meeting rooms or designated quiet areas, to escape disruptions and immerse themselves in deep thinking or problem-solving work. However, even these measures may not always suffice, as the presence of colleagues and the buzz of the office can still prove distracting (Haynes et al., 2017; Methot et al., 2021; Öhrn et al., 2021).

'But then the flip side of that is, it's also quite distracting when I'm in the... because of all the people walking through the door and the constant disruption. So really, I think it's outside that office environment.' EMP09

'so most of the time I'd put headphones in, you know, occasionally block out a meeting room to try and get some space away...Definitely at home because I, I get very distracted with this like, open office space does not work for me well...At the hospital I have an office where I can like shut the door and Yeah. So I do, I will go there if I've got sort of things I wanna focus on. But yeah, home, home.' EMP12

'Yeah, so when I was working from an office, I would always book a meeting room somewhere a bit off. There used to be one that was downstairs and away from everyone or at one place I've worked in previously that had something called a quiet room that you could go to and not be disturbed...I wanna be away from people away from the buzz of an open plan office.' EMP17

Away from the office, individuals value the ability to create a private, distraction-free workspace where they can focus without interruptions. Whether it's having a dedicated home office or finding solace in a quiet room, individuals prioritise environments that allow them to concentrate deeply and engage in innovative thinking. The absence of external disturbances and the ability to step away from the computer when needed further enhance their capacity for high-focus work.

'I'll often just pack up and go for a walk depending on the weather. Yeah. and, and moving and thinking for me is, is kind of combined. So I, I feel like my brain shifts gear a little bit.' EMP09

'...there were times where I found it was good to be home to have kind of an uninterrupted thinking base. I think part of it is even being able to be away from the computer.' EMP15

'So yeah, definitely that sort of thing is, is better from home. And I'm really lucky, as I said, I've got, my office is set up here so I can shut the door.'

There's no distractions, I don't have kids.' EMP16

Irrespective of work location, employees adopt various strategies and seek out specific environments conducive to deep concentration and focus, recognising the profound impact of their surroundings on their ability to engage in innovative behaviours.

8.7.1.3. Work environments

Employee preferences for work environments significantly influence their productivity, energy levels, and interpersonal dynamics, ultimately impacting their ability to engage in innovative behaviours. While remote work offers benefits such as quiet and less distractions, some individuals miss the spontaneous interactions and informal conversations that occur in traditional office settings. Water cooler conversations and face-to-face interactions provide opportunities for relationship-building and camaraderie, which can be challenging to replicate virtually. For certain tasks, being in the office facilitates quick access to colleagues for assistance or clarification, streamlining processes and decision-making.

'And just you being able to sort of turn your head and ask the person next to you and answer to a question.' EMP02

'I think some things are a little bit easier to do when you're in the office. So sometimes, you know, you just need to check in a process with someone. It's easier to just to go to their desk and, and say "How do I do this?" Or "What do I do for that?"' EMP17

Equally, the office serves as a vital source of energy and inspiration. The presence of colleagues fosters a dynamic atmosphere which can be conducive to collaboration and idea generation. Physical proximity can also increase collaboration (Miranda & Claudel, 2021; Wohlers & Hertel, 2016). The physical workspace also allows for socialising and networking, especially with new team members, while maintaining existing working relationships. These interactions not only facilitate relationship-building but also encourage the exchange of diverse perspectives (Chantziaras et al., 2021; Suortti & Sivunen, 2023), which is essential for IWB.

'There's still situations where especially the younger people really missed out by not having those sort of water cooler conversations you get in the office. I can only imagine how hard it would be starting a new job where you couldn't actually meet people. I mean, virtually meet them that's okay. But meet them in the flesh and just get a feel for the people.' EMP02

'I need people. I'm a HR person, and so managing people is what I do. And it's very difficult to do that, although it can be done from home. But I just prefer...I get the energy from the people around me. So even when we have a choice, my preference is to be here. Unless we're in lockdown and I have to, my preference is still to work from the office.' EMP07

'There's a lot of companies that are very successful in not having face-to-face time. But I think I just like to have that as the basis of, you know, the, the working relationship. It certainly, it still works. I still have a really good working relationship with anybody who's joined that I haven't met face-to-face, but it's just nicer.' EMP10

'That's been one of the benefits of going back into the office. For me there's lots of people who are new since I left the department and came back. So getting to know who they are...' EMP16

Moreover, the shift to remote work has prompted individuals to reconsider their management styles and communication methods. Managers must navigate the balance between respecting employees' boundaries and fostering open communication. While remote work offers autonomy, it may also lead to a sense of isolation or a need to seek permission before interrupting colleagues, potentially hindering the flow of ideas and collaboration.

'...it's a really interesting thing if I reflect on lockdown and what a lot of people worried about with their teams is, "Oh, how do I manage their performance?" And I just think, goodness sakes, then you're not a very good manager, are you? I don't need to have people with me or I don't need to be eyeballing someone...what's interesting with working from home is I feel I have to ask permission more for interrupting somebody. You feel that, "Oh, am I imposing on your time?" Whereas yeah, I have felt that when I'm in the office, we just go in and out of each other's offices and say, "Oh, have you got a quick minute? Or why don't we run for a coffee and have a chat about X, Y, Z?' EMP09

Employee preferences for work environments vary based on individual needs, tasks and job requirements. Striking a balance between these preferences is essential for organisations seeking to cultivate a culture of innovation and collaboration, regardless of the chosen work environment.

8.7.1.4. Collaborating in different contexts

Collaborating in different work environments, whether remote or in-office, presents unique dynamics that can influence an employee's ability to engage in innovative behaviours.

Some participants find that being in the office and having face-to-face interaction facilitates spontaneous idea generation and collaboration, as they benefit from bouncing ideas off colleagues and engaging in face-to-face discussions. Collaboration is a multifaceted process that involves individuals working together towards a common goal

through direct interpersonal interactions. In office environments, where interactions occur in person, nonverbal cues and engaging in group brainstorming sessions can foster IWB (Singh et al., 2022; Yagolkovskiy, 2013).

'If it's like sort of I guess more creative stuff where you're coming up with new ideas, I'd maybe stay in the office...I do benefit from bouncing ideas off people in those kind of situations rather than just coming up with something on my own. So if it was something like that where the team had to work through a solution or where I had to come up with something as a member of a team and I wanted to bounce ideas around, I'd go in the office. There are other things that are easier when we're all in the same room because we can bounce ideas off each other more easily...' EMP01

'...but there's things that you miss out on and there's things that others miss out on because you are not in the office. The person who brings you the problem also joins in terms of trying to create the solution. So it sort of almost becomes a brainstorming session, just an informal brainstorming session rather than just sort of sitting in the corner quietly contemplating by yourself.' EMP02

'I think still in the office would've worked better for me. Yeah, I just work better with people around me. And normally, most of my ideas are because people have come up, "I've got this really good idea." That's where my creativity comes from. Or I see someone else doing something, "I could do that."' EMP07

In remote working environments, ensuring the correct tools for effective and seamless communication and information sharing can facilitate remote brainstorming sessions and idea exchanges (Oyekan et al., 2017; Shockley et al., 2021). Remote workers leverage virtual platforms for brainstorming and collaboration, utilising screen sharing and online meetings to facilitate idea generation and problem-solving.

'It was amazing [working remotely]. And just the way people were more confident to share their ideas and yeah, it was interesting. I actually really enjoyed that dynamic where people that didn't speak up before suddenly did and had a lot to share because there were different ways for them to communicate, particularly if you're introverted, that you had different tools to use to speak up about things. Where in meetings, you have to be an extrovert to speak up...I think workshopping and getting people on board with your ideas [is harder when working remotely]. And it might be where I'm working,

I'm working in higher education in a university, people with old ways of thinking where they prefer that being in together and thrashing out ideas.' EMP09"

'Because we can actually share screens so effectively where it's actually better sometimes to, you know, if you, you are showing how it's all working. You can share the screen better. People can, you know, put it onto multi screens and work their way through it. If you're in a, an office environment, a meeting room for example, and you're putting it up on a screen, it's often harder. So that's, that's actually better being able to just let people look at it in their own way. Whether it's clients or colleagues, it's, it's, it's actually an advantage to have people just sitting at their own laptops and viewing it in their own way.' EMP10

'I send a quick message and say, do you have five minutes? And you know, we jump on and I share a screen and so it's not much different. I think the, in the office stuff is more off the cuff, so it's less about the deliberate and planned work, but it's more about, you know, hearing conversations, maybe listening into something so that you've got an idea of what's going on, that sort of thing.' EMP16

'So my boss and I might catch up on teams, what we do for an hour a week. We'll talk about some stuff and I'll start triggering some things. I'll do some research and then I'll come up with the ideas and then by the next week I can bounce that back with her and do this is what, where I'm going with it, this is what I'm thinking.' EMP17

However, some respondents note challenges in capturing the spontaneity and dynamics of in-person interactions, as well as immediacy of feedback and the ability to read nonverbal cues (Singh et al., 2022), which can impact the quality of collaboration and creativity.

'And of course we could have done that online and I have done it online, but something felt different about being face-to-face and being able to have that rapid connection for that time...the engagement, the body language, I don't think as much as we try to adopt to the best kind of tech tools to support some of this planning, there's nothing better than being in a room with post-it notes and markers and being able to, you know, mix and communicate and sort of edit people's stuff on the fly...' EMP12"

‘ So I definitely will arrange face-to-face stuff on campus with like the key stakeholders...I feel like I can’t read the nuances of what’s going on in the room...Cause I just like can’t see the nuances of like people’s behaviour or how they’re receiving an idea [when remotely working].’ EMP13

Effective collaboration transcends physical boundaries, as individuals find ways to connect, communicate, and collaborate regardless of their work environment. By leveraging the strengths of both remote and in-office settings, and ensuring effective tools and technology, employees can engage in idea generation and IWB.

8.7.1.5. In person communications

The perceived importance of in-person (face-to-face) communication in fostering innovative behaviours cannot be overstated, as highlighted by respondents' insights.

‘I think now I’ve noticed that there are things that take a lot longer than they used to because the face time made it easier to sort of teach people and also to interact with the clients.’ EMP01

‘Yeah, that’s pretty important. I had an advisory board meeting yesterday, I think we got a better outcome because it was face to face than online.’ EMP08

‘If you’re in meetings personally and you had the detractors in the room, you would’ve been able to kind of move them and change ’em a little bit.’ EMP12

The nuanced understanding gained from face-to-face interactions, where subtle cues and energies are more easily discerned compared to virtual encounters (Sidi et al., 2021; Thunberg & Arnell, 2021). This ability to read non-verbal cues contributes to a deeper understanding of colleagues’ perspectives, which is needed for effective collaboration and problem solving. Nonverbal cues, such as facial expressions and body language which are considered to convey the majority of meaning when communicating feelings, intentions and attitudes, provide valuable information that is often lost in purely digital interactions or text based digital communication (Chretien & Kind, 2013; Erle et al., 2022). While virtual platforms offer opportunities for collaboration, face-to-face interactions are easier for gauging reactions during collaborative endeavours.

'...but you could read a person's energy a lot easier face-to-face than you can on the camera.' EMP06

'So you can't really tell what people are thinking, but in a room I can tell what they're thinking without them having to say as much. And so yeah, it's, I don't know that any is better, but it's, it's good to have both options. It's good to be able to go, this is you know, explain. I think the online version helps me explain the concept more thoroughly and the in person is helping me gauge reaction better.' EMP17

'All aspects I think that body language thing...body language thing that we talked about before is pretty important in the overall communication field. I've got expressive eyes and I can't hide. With my speech I can sort of mask how I'm really feeling, but apparently the eyes give it away so that's not happening on Teams. You can't pick that up. So I think people are probably almost a bit more polite. And because when two people start talking at the same time, it becomes a bit awkward, whereas in a room they just, the body language and everything else.' EMP02

'You could then deal with some of the emotion, some of the tensions that the general manager was going through. And you could read that, you could experience it a little bit more. And then, the general manager could say something on the side, without other people hearing. And whereas with an online meeting, everyone's there, you've then got to, say, make the request, "Oh, Craig, can you stay on? I want to have another chat with you." Everyone knows you're having another chat, versus something just happens on the side...Because you can have more conversations, you can explain things, you can see people's reactions.' EMP08

Employees found the absence of face-to-face interactions in remote working settings diminishes the spontaneity of idea generation and reduces opportunities for inclusive discussions. The lack of casual exchanges and impromptu brainstorming sessions hinders the serendipitous flow of ideas that often occurs in physical work environments.

'Working as a team is easier when you actually are kind of together as a team. I think that's the main challenge. Obviously in audit, we work with a lot of young staff that come in, graduate intakes that need a lot of training and need to ask a lot of questions. And I think the one thing that I've noticed as someone who's meant to manage these people is that it's harder to get that upwards feedback or for them to ask questions because they can't just tap you on the shoulder...there are other things that are easier when we're all in the same room because we can bounce ideas off each other more easily.' EMP01

'There's still situations where especially the younger people really missed out by not having those sort of water cooler conversations you get in the office. I can only imagine how hard it would be starting a new job where you couldn't actually meet people. I mean, virtually meet them that's okay. But meet them in the flesh and just get a feel for the people.' EMP02

'Cause that was the first thing I noticed I missed working at home was, a whiteboard. Like just that creative piece. And so yeah, I still try and encourage that with the types of meetings with my team and my direct reports...let me know if you wanna just book a book the time and say whiteboard sesh.. And so I know that we're just gonna have a brainstorm creative time.' EMP14

8.7.2. Summary of employee experience between remote and office-based working

Different work environments, such as remote, hybrid, and in-office setups, can influence employees' ability to engage in IWB. Those predominantly working from home create dedicated workspaces conducive to thinking, focus and innovation. Employees adopt strategies, whether at home or in-office for deep concentration and problem-solving, preferring quiet environments for focused work.

However, while remote settings allow for uninterrupted focus, some miss spontaneous interactions of office settings. In-person interactions can facilitate spontaneous idea generation, as well as foster energy, collaboration, and relationship-building.

Digital tools available in remote working environments enable effective communication and brainstorming, however virtual interactions can present challenges in capturing the energy of in-person meetings and reading nonverbal cues. Nonverbal cues enhance communication and relationship-building, which may be lost in virtual interactions.

Hybrid models foster IWB by offering a balance between the benefits of office environments, such as collaboration and informal discussions, and the benefits of remote working, such as fewer disruptions and space to think. Effective collaboration to generate new ideas can transcend physical boundaries, and organisations can strike a balance between remote and in-person interactions to cultivate IWB.

8.8. Summary of qualitative study findings

The findings show that remote working has a multitude of factors that both encourage and inhibit IWB, contrasting with lived experiences of remote working compared to in-office working. On the positive side, providing tangible resources such as necessary equipment and materials lays a strong foundation for creativity. Financial support for remote work and access to appropriate tools empower employees to explore new ideas efficiently. Regular virtual or in-person meetings facilitate collaboration, while access to quiet spaces allows for uninterrupted creative thinking. Autonomy, flexibility, and a balanced work-life dynamic further empower individuals to innovate. Additionally, personalised work environments and mental health support ensure employees feel motivated. Organisational encouragement fosters a culture of innovation.

However, several challenges hinder IWB in remote settings. The lack of face-to-face interactions can lead to misunderstandings, while disparities in technology skills create barriers to collaboration. Feelings of isolation and burnout can stifle creativity, as can blurred work-life boundaries and constant distractions at home. Inadequate home workspaces and a diminished social aspect make it harder for individuals to stay engaged. Formalised communication channels detract from time for innovative pursuits, while a focus on outcomes over quality inhibits the exploration of novel solutions. Different work environments, such as remote, hybrid, and in-office setups, influence employees' ability to engage in innovative thinking.

The thesis advocates for the promotion of hybrid models as a strategic approach to fostering IWB by leveraging the advantages inherent in both traditional office settings and remote work environments (Baumann & Marcum, 2023; Chafi et al., 2021). By integrating elements of both work environments, hybrid approaches offer a unique opportunity to transcend physical limitations and optimise conditions for innovation. This approach aligns with the findings of both the quantitative and qualitative studies that found that increased, but not exclusive, remote working fosters IWB.

Hybrid models, by their very nature, enable organisations to harness the collaborative energy and spontaneous interactions often associated with in-person office environments while simultaneously providing the flexibility and autonomy characteristic of remote work setups. This blend of benefits not only acknowledges the diverse needs and preferences of employees but also maximises the potential for creative thinking and problem-solving.

However, the successful implementation of hybrid models requires a delicate balance. Organisations must navigate the intricacies of remote and in-person interactions, ensuring that each mode of engagement is effectively utilised to support and enhance IWB. This entails thoughtful consideration of factors such as communication channels, meeting structures, and collaboration tools to create an environment conducive to innovation regardless of physical location.

8.9. Summary of findings by research question

Four sub-research questions were developed to guide the study. A short summary of the findings for each research question is provided below.

SQ1: What is the extent of IWB among employees engaged in remote work, both overall and across each phase (idea exploration, idea generation, idea championing, and idea implementation)?

The key findings for this question are as follows. First, employees who work remotely two to four times per week exhibit the highest levels of IWB. Therefore, increased remote work leads to higher IWB, as long as it is not the sole mode of working. Employees who work remotely exclusively may experience diminishing returns in their IWB.

Second, although the findings were not statistically significant, an increase in remote work frequency corresponded to a rise in IWB particularly during the idea generation and idea implementation phases. During the idea generation phase, employees require time and space to engage in creative thinking. Remote work offers employees the autonomy and flexibility to engage in creative thinking without the constraints of a traditional office setting. This environment allows for deep thinking, reflection, and problem-solving, fostering the creation of new ideas. Additionally, remote work often involves fewer interruptions and distractions, enabling employees to focus more effectively on generating innovative solutions.

During the idea implementation phase, remote work enables greater control over one's work environment and schedule, which can enhance productivity and efficiency in executing plans. Employees can organise their work to suit their preferences and working styles, minimising disruptions. The predominant use of digital collaboration tools and communication platforms in remote settings also facilitates seamless coordination and collaboration among team members, streamlining the implementation process.

SQ2: How do demographics influence the outcomes of employees' IWB engaged in remote work, both overall and across each phase (idea exploration, idea generation, idea championing, and idea implementation)?

The key findings for this question are as follows. In the context of demographic factors, several key variables emerged from the findings as influential in shaping IWB among remote workers. Full-time employment status, longer tenure within an organisation, and managers and senior leaders had increased levels of IWB overall. Conversely, gender showed no association with IWB, either overall or within any of the four phases.

The findings also revealed the following profile of employees who exhibited the most IWB when considering all demographic variables together: 'Always' undertaking IWB activities were the 18–30-year-old age group, female, contract/casual, less than 2 years tenure, managers, working remotely 1–3 times per month. The categories that showed a consistently high prevalence of undertaking IWB (i.e. 'Often'), were the 41–50-year-old age group, male, full-time, with 6+ years tenure, managers, working remotely 2–4 times per week.

When examining each phase individually, the findings showed that employment status was the only demographic variable which showed an influence across all four phases. Full-time employment status was associated with higher IWB across each phase. Longer tenure was found to increase IWB specifically during the idea championing phase, whereas higher age was associated with decreased IWB in this same phase. Additionally, higher levels of employment seniority were linked to increased IWB during the idea implementation phase.

Companies aiming to foster IWB in remote work settings should expand their focus beyond work arrangements. The findings highlight the importance of recognising how different organisational roles and responsibilities influence such behaviour. These findings underscore the need for inclusive strategies that enable all employees, regardless of employment type, tenure, age or position, to be able to actively engage in the innovation process.

SQ3: What factors contribute to fostering or inhibiting innovative work behaviours in remote working environments?

The key findings for this question are as follows. First, perceptions of employees engaged in remote work presented a number of key factors that foster their IWB. Providing essential resources like equipment and materials formed a strong foundation for creativity. Financial support for remote work, along with access to necessary tools and technology, empowers efficient exploration of new ideas. Regular meetings to facilitate collaboration and idea exchange, while access to quiet spaces supports their uninterrupted creative thinking. Private environments and minimised distractions enhances deep focus and innovation, supported by dedicated time for brainstorming. Social connections and celebrations cultivate camaraderie and motivation, fostering a positive atmosphere where ideas can be discussed and exchanged. Autonomy, flexibility, and work-life balance encourage experimentation and innovation. Personalised work environments and well-being initiatives ensured employee support and motivation. Further, organisational encouragement for idea exchange fosters a culture of continuous improvement in remote work settings.

Second, the findings showed that there were factors perceived by employees as impeding their IWB in remote environments. Reduced face-to-face interactions limited

spontaneous exchanges and could lead to misunderstandings in digital communications, hindering idea flow. Technology skill disparities and feelings of isolation from colleagues can impede collaboration and creativity. Burnout, blurred work-life boundaries, and distractions at home diminished motivation and creative energy. Inadequate home workspaces and reduced social interaction further challenged engagement and inspiration. Formal communication channels and increased meeting coordination detract from time available for innovative pursuits. Feelings of invisibility and challenges in proving one's value can dampen enthusiasm for contributing ideas. Lastly, a focus on outcomes over quality was thought to prioritise quantity, limiting exploration of innovative solutions.

Therefore, while employees perceive that remote work supports IWB by providing autonomy, freedom, quiet, and time needed for ideation and innovation, the findings also highlight that isolation, overworking, reduced opportunities for spontaneous collaboration, reduced face-to-face interactions, and challenging interpersonal connections can hinder their IWB. Consequently, organisations need to ensure remote working employees sustain regular communication and interpersonal connectivity to maintain relationships and meaningful connections, despite the physical distance. The integration of technological infrastructure and collaborative tools assumes paramount importance to perpetuate cohesive teamwork and foster IWB. Implementing practices aimed at fostering interactivity and sharing of ideas, among all employees, irrespective of their work location is important.

SQ4: What are the distinctions in employee experience regarding innovative work behaviour when comparing remote and office-based working environments?

The key findings for this question are as follows. In today's rapidly evolving work landscape, there is a question surrounding the optimal work environment for encouraging innovative behaviours, particularly in light of the contrasting experiences of employees in office-based versus remote settings. The findings revealed that when employees work remotely, they cultivate dedicated spaces at home conducive to thinking and focus, while both remote and in-office employees prioritise quiet environments for deep concentration and problem-solving.

However, the findings showed that remote settings, while offering uninterrupted focus, may lack the spontaneous interactions and energy of office environments that foster collaboration, and relationship-building. In-person interactions were valued for their ability to generate new ideas, facilitate spontaneous discussions and brainstorming, and enhance communication through nonverbal cues. These factors were identified by employees as crucial for building relationships. The findings found that when working remotely, employees use and valued digital tools to facilitate remote communication and brainstorming, but considered they do not fully capture the energy and nuances of face-to-face meetings.

8.10. Chapter summary

This chapter discussed the analysis, interpretation, and synthesis of the research findings to address the research objectives and provide valuable insights. This chapter represents the culmination of the study, integrating the results with existing knowledge and theories while highlighting their implications.

The chapter began with a restatement of the research questions and aims, serving as a guidepost for the subsequent discussion. It then presented a comprehensive overview of the key findings obtained from the data analysis from both of the studies conducted. The findings are systematically explored and contextualised within the broader academic discourse, allowing for a deep understanding of their implications. The next chapter provides a summary and conclusion of the thesis.

CHAPTER 9 - CONCLUSION

9.1. Introduction

The purpose of this chapter serves as the culmination of the research journey, bringing together the key findings, contributions to knowledge, limitations, and future areas of research. The previous chapter summarised the main research findings that emerged from the data analysis and interpretation. The conclusions drawn from these findings provide answers to the research questions and demonstrate the extent to which the research objectives have been achieved. The conclusion chapter provides an opportunity to reflect on how the study has expanded and enhanced existing knowledge and theoretical frameworks in the field.

The aim of this thesis was to examine the influence of remote working on employees' innovative work behaviour within the Australian context. The specific objectives of the thesis were to assess the extent to which remote workers engage in IWB, explore how demographic variables might influence IWB among remote employees, explore employee perceptions regarding the supportive elements and obstacles in engaging in IWB, and understand from the employees' viewpoint, the distinctions in their innovative behaviour when contrasting remote work with in-office work. This thesis draws several broad conclusions and implications, identifying key contributions.

9.2. Key contributions and implications

Extensive data was collected through questionnaires and in-depth interviews to explore the experiences and perceptions of employees, specifically focusing on how remote working influences their innovative behaviour. Based on the key findings, the thesis makes a significant contribution towards existing literature and knowledge in the field.

9.2.1. Remote working frequency and demographics influence on IWB

While there have been studies looking at IWB and remote working (Coun et al., 2021; Rachman et al., 2022), focusing on factors such as employee engagement and human resource management, there are no studies, to the best of the author's knowledge that explore specifically the impact of remote working frequency on IWB and the

influence of specific employee demographics. The findings contribute to the literature by identifying the optimal frequency of remote working that fosters IWB, and by revealing which demographic factors influence IWB and which do not. The findings revealed that frequent remote working leads to higher IWB. This is attributed to increased autonomy, flexibility, lack of disruptions, spaces for focus and thinking, all of which are conducive to fostering ideation (Theurer et al., 2018; Thi Minh Ly et al., 2023; Wicaksono & Pusparini, 2022; C. Yu et al., 2021). However, to foster IWB, employees should not work remotely exclusively. Working exclusively remotely can bring forth feelings of isolation, disconnection and communication challenges (Garlatti Costa et al., 2022; Golden et al., 2008; Oyekan et al., 2017; Singh et al., 2022) which need to be addressed in remote work environments. Further, when considering IWB overall, the findings revealed that employment status, tenure, and employment level significantly influenced IWB, whereas gender and age did not have a notable impact. This is significant because it allows for the exploration of tailored strategies and interventions. By considering diverse working preferences and demographics, organisations can develop initiatives that support all employees in exhibiting IWB.

9.2.2. Employee experience and perspective

The findings of the study extends the empirical research in the domain of employee IWB by focusing on the employee's experience and perspectives to understand how they engage in innovative activities outside traditional office settings. Employee driven innovation and the role of employees in the innovation process is underscored as a significant and often overlooked resource for driving innovation within organisations (De Jong & Den Hartog, 2007; Høyrup, 2010; Janssen, 2000) . By focusing on the employee perspective, the findings explore the subjective experiences and agency of employees in driving innovation (Weigt-Rohrbeck & Linneberg, 2019). It is the individual employee who will look for new ideas and determine how to implement them (Agarwal, 2014; Carmeli & Spreitzer, 2009; De Jong & Den Hartog, 2007; Kozlowski & Klein, 2000), as usually they are closer to the customer or the process than actual departments tasked with innovation such as research and development (R&D). Getz and Robinson (2003, p. 134) found that in practice '...80 per cent of improvement ideas come from employees' with the remaining coming from planned improvement activities.

Existing literature on employee driven innovation discuss in-person collaboration, shared physical spaces, and face-to-face in person interactions as catalysts for creativity (Tønnessen, 2022; Yagolkovskiy, 2013; Yström & Agogué, 2020). However, the emergence of remote work challenges these assumptions and the findings of this study contributes to the literature by re-evaluating the factors that foster or inhibit innovation in all work settings.

Employees perceived that there are communication challenges when remote working which can impede their IWB. Lack of informal communication, rigidity of communication and employee capability with using various communication tools (Shockley et al., 2021; Sidi et al., 2021; Suortti & Sivunen, 2023) were expressed. Respondents also missing out on the spontaneous discussions and hallway conversations which can spark new ideas or collaboration (Oyekan et al., 2017; Singh et al., 2022; Waizenegger et al., 2020). Organisations need to provide regular opportunities for brainstorming and collaboration (Domingo et al., 2021), where employees from different departments and levels of the organisation can come together irrespective of where they are working, to generate new ideas and solutions, encouraging diverse perspectives and collaboration. Further consideration for the types and method of communication platforms. Remote working employees should have access to the necessary technology and resources to access information and perform their jobs effectively. This includes not only providing the digital communication tools, but providing support for technical issues and accommodating any accessibility needs.

Employees also perceived that when working from home they benefit from the quiet, solitude and lack of disruptions, which affords them the time and space to explore new ideas (McGee et al., 2023; Skountridaki, 2023; Thi Minh Ly et al., 2023). In the office, organisations should replicate the elements of the home work environment by providing spaces for deep thinking, reflection and seclusion.

The study also found that employees often felt disconnected from their colleagues and missed the informal social aspects of work, which can impact on their working relationships and reduce motivation for IWB (Viererbl et al., 2022). Creating a supportive environment where employees feel comfortable and connected leads to higher job satisfaction and employee engagement, which have been shown to positively influence IWB.

A supportive workplace culture extends to work-life balance and autonomy. Autonomy as perceived by the employee was shown to be a key contributor to IWB. Employees expressed that working remotely often led to working longer hours and experienced a blur in boundaries between work and home. This can lead to burnout and less motivation to engage in creative pursuits. Allowing employees to choose when and how they work, and encouraging rest and clear delineation between work responsibilities and connectivity expectations, can mitigate some of these challenges and provide employees the freedom and time to explore new ideas.

9.2.3. Four phase model of IWB

The study's examination of each of the four phases of IWB – idea exploration, idea generation, idea championing, and idea implementation – individually represents a theoretical contribution to prevailing literature, which often argues that IWB is a unidimensional construct (Phil-Thingvad & Klausen, 2020; Rodrigues & Rebelo, 2022; Wicaksono & Pusparini, 2022). Scott and Bruce (1994) and Basu and Green (1997) state that employees could be engaged in various phases simultaneously or in any order and the process is not always sequential. Dorenbosch et al. (2005) pointed out that each phase builds on its predecessor and the phases are highly interrelated and connected by feedback loops. However, there are distinctions in each phase in terms of activities that are undertaken and behaviours that are demonstrated (De Jong & Den Hartog, 2010; Gkontelos et al., 2022; Kleysen & Street, 2001; Sari et al., 2021; Shahid et al., 2022; Soputan & Sumual, 2022), that warranted exploration particularly when looking to understand which demographic factors could have an influence. Shahid et al. (2022) emphasised the necessity of evaluating each phase of IWB, recognising each stage of innovation holds its own importance. By examining each phase of IWB separately, the findings of the study provide a more nuanced understanding of how different factors impact the innovation process at various stages, offering deeper insights that can inform both existing theory and practice.

The study found that employment status was the only demographic variable that influences IWB across all four phases. Full time employees typically benefit from increased job security, greater access to resources, increased working hours and autonomy which are factors which contribute to increased IWB (Kumar et al., 2023; Probst et al., 2019; Spiegelaere et al., 2014).

Increasing age was found to decrease IWB during the idea championing phase only. The decreased prospect of older employees participating in the idea championing phase contradicts an assumption that, given their extensive experience and influence, they would be more inclined to support new ideas. The wealth of accumulated knowledge and insights empowers older employees to leverage past experiences and lessons learned, enabling them to construct persuasive arguments and compelling narratives to promote new ideas. Nonetheless, this might indicate a hesitation among older employees to embrace risks associated with advocating for change (Albert & Duffy, 2012; Banks et al., 2020). Younger employees, typically earlier in their careers and less risk-averse, are often more proactive in championing innovative ideas to distinguish themselves and advance professionally. Conversely, older employees, nearing retirement or with established career paths, tend to prioritise stability over innovation, showing reluctance in championing new ideas, particularly in different work contexts such as working remotely. Moreover, technological proficiency differences contribute to this reluctance (Hecker et al., 2021; Raymundo & Castro, 2019). Younger employees, more adept with digital tools and social media, find it easier to promote new ideas when communicating virtually (Mehra & Nickerson, 2019; Stewart et al., 2017). In contrast, older employees may struggle with new communication technologies, hindering their ability to engage in virtual advocacy.

Longer tenure was found to increase IWB during the idea championing phase only. Employees with longer tenure tend to possess a profound understanding of the organisation's culture, goals, and decision-making processes, enabling them to advocate for new ideas confidently and navigate the organisation remotely (Ng & Feldman, 2010; Pei et al., 2018). Their familiarity with the organisational landscape aids in identifying optimal channels for introducing innovations and managing resistance to change in a virtual setting. Moreover, their experience equips them with insights into past initiatives and potential barriers to innovation, enhancing their effectiveness in promoting new ideas (Clercq & Pereira, 2019; Ng & Feldman, 2013). Longer-tenured employees also benefit from established organisational and external networks, which are crucial for championing innovations, especially in remote settings where physical visibility is limited (Björk & Magnusson, 2009; Liu et al., 2016; Ng & Feldman, 2010). Their deep understanding of organisational dynamics, coupled with strong networks, facilitates navigating the politics of promoting new ideas and garnering support from key stakeholders. Longer tenure can

foster a stronger sense of ownership and investment in the organisation's success, motivating employees to advocate for ideas that contribute to its growth (Hur & Perry, 2019). Their proven track record of reliability and performance enhances their credibility and trustworthiness among colleagues and superiors, which is particularly vital in remote work environments where trust is essential for enhancing performance and fostering creativity (Rodrigues & Veloso, 2013; Taştan & Davoudi, 2015; C. Yu et al., 2021).

This finding was particularly interesting because, while increased age was associated with lower IWB, increased tenure correlated with higher IWB, which is unexpected given that we would typically assume increased tenure to coincide with increased age. This difference could be due to several factors. Older employees who are resistant to change may not leverage their knowledge of the organisation's culture, processes, and key stakeholders to champion new ideas as effectively as longer-tenured employees. Older employees might not utilise their internal networks to rally support for new ideas as enthusiastically due to a preference for maintaining existing relationships and routines. Championing ideas often involves taking risks and stepping outside comfort zones. Older employees might be more risk-averse, focusing on minimising disruptions, whereas tenured employees, regardless of age, may feel more secure in their positions and therefore more willing to take risks. Also, older employees might face implicit age-related biases that question their adaptability and enthusiasm for new ideas.

Increased employment level showed an influence during the idea implementation phase only. Managers and senior leaders play pivotal roles in overseeing and facilitating the implementation of ideas within organisations (Birken et al., 2012; Engle et al., 2017). They are accountable for project success and ensuring effective idea implementation to meet organisational goals. Senior leaders provide support and resources necessary for idea implementation, enhancing employee access to resources and fostering innovation (Bedenik et al., 2024; Škerlavaj et al., 2014). Their authority allows them to mobilise resources, allocate budgets, and prioritise initiatives, facilitating idea implementation and aligning with strategic objectives. Moreover, their decision-making authority accelerates the execution of ideas and removes obstacles (Chenger & Woiceshyn, 2020; Shaed et al., 2018), particularly advantageous in remote work settings where swift and autonomous decision-making is crucial. In contrast, non-managerial employees may have limited autonomy and influence in executing innovative ideas independently. Leadership roles

afford senior employees greater agency, resources, and influence in driving and shaping implementation strategies, even in remote work settings.

9.2.4. Ability, Motivation, Opportunity (AMO) framework

The study contributes to the Ability, Motivation, Opportunity (AMO) framework literature by exploring how employees' ability, motivation, and opportunity to participate in IWB activities are driven in remote settings as well as how it compares between remote and office settings. The AMO framework has played a crucial role in examining the factors that influence innovation within organisations. Researchers have gained valuable insights into how HR practices, high-performance work systems (HPWS), and organisational strategies can affect innovation performance (Alkhalaf & Al - Tabbaa, 2023; AlMunthiri et al., 2023; Bhatti et al., 2020; Shahzad et al., 2019). The theoretical contribution of extending the AMO literature through the lens of remote working lies in exploring how remote work environments influence these three dimensions. It adds to existing knowledge of how remote work impacts employees' abilities (skills, knowledge), motivations (intrinsic and extrinsic factors driving behaviour), and opportunities (environmental factors enabling or constraining behaviour). This perspective helps to refine AMO theory in the context of remote work, offering insights into how organisations can optimise these factors to enhance performance and innovation in dispersed work settings.

The analysis of employees' 'ability' to engage in IWB while working remotely revealed that providing tangible resources, such as additional screens and communication platforms, significantly enhanced employee's technical capabilities. These resources facilitated IWB by offering the necessary infrastructure for idea generation, collaboration, and problem-solving in virtual environments. Employees effectively adapted to remote work setups and digital platforms. Moreover, the ability to innovate is tied to individuals' skills, knowledge, and resources. Participants highlighted their proficiency with digital tools, cognitive skills like problem-solving and critical thinking, and the ability to leverage technology for virtual collaboration.

The analysis of employees' 'motivation' to engage in IWB while working remotely revealed that flexibility is a key factor, positively impacting work-life balance, job satisfaction, and personal fulfillment. This balance drives employees to tackle tasks with

renewed energy, enthusiasm, and creativity, enhancing IWB. However, despite the benefits of remote work, many employees missed the camaraderie of office life, experiencing feelings of isolation and detachment. To address this, organisations should prioritise fostering social connections and providing opportunities for meaningful engagement.

The analysis of employees' 'opportunity' to engage in IWB while working remotely revealed that creating a conducive environment for collaboration, interaction, relationship-building, and knowledge sharing was crucial. Opportunities such as innovation forums, newsletters, and conferences enabled idea exchange and feedback. However, digital platforms can hinder spontaneous and informal communication, reducing opportunities for impromptu discussions that drive collaborative brainstorming. Organisations must address the need for impromptu connections to encourage IWB. Additionally, organisational support enhances employee well-being, fostering a sense of belonging and camaraderie. This supportive environment empowers employees to share ideas and work together towards common goals, ultimately promoting IWB.

9.3. Conclusions from research findings

The thesis explores the relationship between IWB and remote work among Australian employees, acknowledging innovation as a pivotal strategy for organisational competitiveness and recognising that innovative ideas often stem from employees. The research problem arises from the contemporary landscape, characterised by the rise of remote working, and accentuated by the COVID-19 pandemic, necessitating an exploration of how remote work may impact an employee's ability to engage in innovative practices.

The pandemic provided a unique opportunity to explore the current and pertinent issue of remote work, which is increasingly recognised as a lasting feature of evolving workplace dynamics (Costa et al., 2022; Smite et al., 2023; B. Wang et al., 2021). Further, given the pivotal role of creativity and innovation in the enduring viability of organisations, managers must navigate the balance among accommodating employees' aspirations for flexible working arrangements, incorporating remote work, and sustaining the momentum of innovation to uphold organisational competitiveness (Thevanes & Harikaran, 2020; Wong et al., 2020).

The findings highlight that remote working serves as a double-edged sword for IWB, where it can both foster and impede in various ways. The thesis suggests finding a balance by embracing hybrid work models, integrating remote working with periodic in-person interactions (Baker, 2020; Degerli, 2023; Rauv, 2022; Telstra, 2021). These face-to-face encounters are essential for IWB, as they allow for spontaneous interactions, collaboration and relationship building. In a 2022 study of Australian knowledge workers, 54% reported adopting a hybrid work model, with 56% expressing that this arrangement was ideal for them (Hopkins & Bardoel, 2023). Hybrid working has gained significant attention due to its potential benefits such as optimisation of labour costs, increased organisational commitment, and enhanced flexibility (Beno, 2021; Peprah, 2023). Furthermore, the positive influence of work flexibility, work-life balance, and team building has been highlighted as benefits of the hybrid work model (Sampat et al., 2022).

When accounting for demographic factors and IWB, it becomes imperative for organisations to actively foster inclusivity and equity. The literature supports the notion that employees, regardless of their position or education, possess the potential to contribute to innovative endeavours through their experience-based knowledge and active participation in innovation processes (Kristiansen & Bloch-Poulsen, 2010; Tan & Sim, 2022). However factors such as education level, experience, and managerial position can impact individuals' attitudes towards innovation and their subsequent adoption of innovative practices in the workplace (Farmer et al., 2003; Jafari & Zarghami, 2017; Wipulanusat et al., 2021). Additional factors such as technology, job security, networks, time, authority and access to resources can influence employees' potential to engage in IWB. The thesis suggests organisations actively pursue measures to ensure that every member of their workforce, regardless of their position, employment status, or tenure, has an equal opportunity, capability and motivation to demonstrate IWB.

9.4. Limitations of the study

Doctoral research projects, like all research endeavours, are subject to limitations (Brutus et al., 2013; Hwang et al., 2015; Marshall & Rossman, 1999; Price & Murnan, 2004).

The COVID-19 pandemic introduced significant challenges in data collection for the study. Initially designed with some in-person interactions, the scope had to be

broadened and transitioned fully online, necessitating new methods for recruiting participants for both the questionnaire and interviews. Traditional recruitment channels were disrupted, requiring adaptation and flexibility to reach a diverse and representative sample. However, the pandemic also presented a unique and valuable opportunity. With more people working remotely, the study's relevance heightened as it addressed timely and critical issues for both employers and employees. This shift allowed the research to capture real-time data on remote work experiences, making the findings particularly pertinent and impactful in understanding the evolving dynamics of the workplace during a global crisis.

The sampling drew on the views of 18 Australian-based employees in the interviews and 324 Australian-based employees in the survey. Therefore, the results may not be generalisable beyond Australia. Replicating the study in other countries would improve the generalisability of the results (Cheng et al., 2016; Franklin & Thomas, 2022; Schmidt, 2009). By replicating studies in various countries, researchers can assess the extent to which the results hold true across different cultural, social, and economic contexts. Nevertheless, the findings could be generalised to other countries with similar labour force characteristics, such as New Zealand, Canada and the United Kingdom. Australia and New Zealand share historical, cultural, and economic ties, resulting in similar labour force characteristics. Likewise, Australia and the United Kingdom and Canada have comparable labour market structures, where each possess diverse industries, a skilled workforce, and high labour force participation rates.

The level of IWB reported in the questionnaire is based on the judgments of the employees themselves. Therefore, these self-reported levels may be subject to bias (Chan, 2010; Kimberlin & Winterstein, 2008). However the adage 'perception is reality' (Fernandez & Pitts, 2011, p. 211) supports the objective of this thesis to explore employees' perceptions and their lived experiences. Behaviour is a function of individuals' interpretation (perception) of reality rather than reality itself (Cantor et al., 2013). The research objectives were to gain insight from the employees' standpoint. Hence, relying on self-reported data suffices as it captures their subjective reality and perspectives that we aim to uncover.

9.5. Future areas of research

Several avenues for future research stem from this thesis. First, future research in IWB and remote working should focus on addressing the intricate dynamics between technology and organisational culture. As technology continues to advance, understanding how emerging tools and platforms influence IWB is essential (Parker et al., 2017; Wen et al., 2021). Research could explore how artificial intelligence, virtual reality, and collaborative software impact creativity, problem-solving, and knowledge sharing among remote employees. Additionally, investigating the role of organisational culture in fostering innovation within virtual teams is crucial. Organisations with a supportive culture that encourages experimentation, rewards risk-taking, and values diverse perspectives are more likely to foster IWB among remote employees. Identifying the specific elements that promote innovation in a remote context can provide valuable insights into employee innovation in distributed work environments.

Second, future research could delve into the psychological aspects of remote work and how they influence IWB. Remote working can lead to feelings of isolation, burnout, and reduced motivation (Bakarich et al., 2022; Hayes et al., 2021), all of which can negatively impact an employee's ability to engage in innovative behaviours. Understanding the psychological factors that contribute to or hinder innovation in remote settings is vital for designing interventions and support systems that nurture creativity and innovative thinking among employees. Exploring evidence-based strategies to maintain a sense of belonging and social connection within virtual teams, as well as investigating the impact of flexible work schedules on creative ideation and problem-solving, can provide valuable insights into optimising remote work environments for innovation.

Finally, it is recommended that future research be conducted on the ethical implications of remote work and IWB. As remote work and hybrid working becomes more prevalent, ethical considerations related to data privacy, surveillance, and intellectual property rights become increasingly significant. Researchers should examine how these ethical concerns intersect with IWB in remote settings. Understanding the ethical challenges faced by remote employees and organisations can inform the development of policies and guidelines that protect both employees' rights, privacy and the organisation's intellectual assets, ensuring a balance between innovation and ethical responsibility in the evolving landscape of work.

SUMMARY

In conclusion, the thesis has investigated and addressed key research questions in the field of innovative work behaviour and remote working, making a significant contribution to the existing body of knowledge and offering valuable insights. Through rigorous collection of both quantitative and qualitative data, analysis, and interpretation, this study has shed light on an important phenomenon and their implications. The findings and conclusions of this research have not only expanded IWB theory and understanding of the topic but also provided practical implications for various stakeholders. While this study has made significant contributions, it is important to acknowledge its limitations and recognise the potential for further research. Ultimately, it is the hope of the researcher that this thesis will inspire and inform further investigations, fostering progress and advancements in the understanding of employee innovative behaviours regardless of where, when, and how we work.

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APPENDIX A - Ethics approval

Quest.noreply@vu.edu.au

To: Shahnaz.Naughton@vu.edu.au

Cc: snjezana.ahlgren@students.vu.edu.au; Wesley.Mcclendon@vu.edu.au

Mon 12/7/2021 12:05 PM

Dear DR SHAHNAZ NAUGHTON,

Your ethics application has been formally reviewed and finalised.

- » Application ID: HRE21-055
- » Chief Investigator: DR SHAHNAZ NAUGHTON
- » Other Investigators:
- » Application Title: Remote Working and Innovative Work Behaviours: A Case of Employees in Australian Professional Services Organisations
- » Form Version: 13-07

The application has been accepted and deemed to meet the requirements of the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007)' by the Victoria University Human Research Ethics Committee. Approval has been granted for two (2) years from the approval date; 12/07/2021.

Continued approval of this research project by the Victoria University Human Research Ethics Committee (VUHREC) is conditional upon the provision of a report within 12 months of the above approval date or upon the completion of the project (if earlier). A report proforma may be downloaded from the Office for Research website at: <http://research.vu.edu.au/hrec.php>.

Please note that the Human Research Ethics Committee must be informed of the following: any changes to the approved research protocol, project timelines, any serious events or adverse and/or unforeseen events that may affect continued ethical acceptability of the project. In these unlikely events, researchers must immediately cease all data collection until the Committee has approved the changes. Researchers are also reminded of the need to notify the approving HREC of changes to personnel in research projects via a request for a minor amendment. It should also be noted that it is the Chief Investigators' responsibility to ensure the research project is conducted in line with the recommendations outlined in the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007).'

On behalf of the Committee, I wish you all the best for the conduct of the project.

Secretary, Human Research Ethics Committee

Phone: 9919 4781 or 9919 4461

Email: researchethics@vu.edu.au

This is an automated email from an unattended email address. Do not reply to this address.

APPENDIX B – Questionnaire protocol

Part 1: Demographic Information

- 1) Gender Identity
 - Male
 - Female
 - Non-binary
 - Prefer not to say

- 2) What is your age?
 - 18-22
 - 23-30
 - 31-40
 - 41-50
 - 51-60
 - 61+

- 3) What is your Employment Status?
 - Full-time
 - Part-time
 - Casual/Temporary
 - Contract/Project based

- 4) What is your current employment level?
 - Administration
 - Not a manager or supervisor
 - Manager/supervisor without direct reports
 - Manager/supervisor with direct reports
 - Senior leadership/senior executive
 - CEO/GM/Owner

- 5) How long have you been at your current organisation?
 - Less than 2 years
 - Between 2-5 years
 - Between 6-10 years
 - More than 10 years

- 6) Which of the following categories can your organisation be classified under?
 - Accounting Firm/Legal Firm
 - Arts/Design/Entertainment/Sports/Media
 - Construction
 - Consulting
 - Education
 - Engineering
 - Farming, Fishing/Agriculture
 - Financial Services/Investment/Banking
 - Food and Beverage manufacturing/development
 - Government/public administration
 - Hospitality/events

- Insurance
- IT
- Manufacturing
- Medical/Pharma
- Non-profit
- Other (please specify)
- Real Estate
- Retail
- Sales
- Technical services/engineering services/architecture
- Telecommunications
- Transport/Aviation

7) How often do you work remotely e.g. from home?

- Once a week
- 2-4 days per week
- Once a month
- twice a month
- 3 times per month
- Always

Part 2: Innovative Work Behaviour and Remote Working

8) Idea Exploration

		1	2	3	4	5
<i>When you are working AWAY from the office (e.g. at home, at a café, co-working space) how often do you:</i>	Source of question (IWB Measurement Study)	Never	Rarely (once a month)	Sometimes (2 to 3 times per month)	Often (4 to 8 times per month)	Always
Wonder how things can be improved	De Jong and Den Hartog (2010)					
Pay attention to issues that are not part of your daily work	De Jong and Den Hartog (2010)					
Look for opportunities to improve an existing process	Kleysen and Street (2001)					
Look for opportunities to improve an existing product/service	Kleysen and Street (2001)					
Recognise opportunities to make a positive client difference	Kleysen and Street (2001)					

Keep myself informed about the organisation's processes	Messmann and Mulder (2012)					
Keep myself informed about the organisation's products/services	Messmann and Mulder (2012)					
Keep myself informed about new work-related concepts	Messmann and Mulder (2012)					
Keep myself informed about new industry-related developments	Messmann and Mulder (2012)					
Exchange ideas with my colleagues	Messmann and Mulder (2012)					

9) Idea Generation

		1	2	3	4	5
<i>When you are working AWAY from the office (e.g. at home, at a café, co-working space) how often do you:</i>	Source of question (IWB Measurement Study)	Never	Rarely (once a month)	Sometimes (2 to 3 times per month)	Often (4 to 8 times per month)	Always
Try to generate solutions for problems	De Jong and Den Hartog (2010) & Kleysen and Street (2001)					
Find new approaches to execute tasks	De Jong and Den Hartog (2010)					
Generate new ideas	De Jong and Den Hartog (2010) & Kleysen and Street (2001)					
Ask critical questions about existing processes	Messmann and Mulder (2012)					
Ask critical questions about existing products/services	Messmann and Mulder (2012)					
Suggest improvements to ideas expressed by others	Messmann and Mulder (2012)					
Evaluate the strengths and weaknesses of new ideas	Kleysen and Street (2001)					

10) Idea Championing

		1	2	3	4	5
<i>When you are working AWAY from the office (e.g. at home, at a café, co-working space) how often do you:</i>	Source of question (IWB Measurement Study)	Never	Rarely (once a month)	Sometimes (2 to 3 times per month)	Often (4 to 8 times per month)	Always
Promote new ideas to gain the support of colleagues	Messmann and Mulder (2012)					
Promote new ideas to gain the support of my managers	Messmann and Mulder (2012)					
Make organisational members enthusiastic about an idea	De Jong and Den Hartog (2010)					
Persuade others of the importance of a new idea	De Jong and Den Hartog (2010) & Kleysen and Street (2001)					
Promote new ideas in my own work	Messmann and Mulder (2012)					

11) Idea Implementation

		1	2	3	4	5
<i>When you are working AWAY from the office (e.g. at home, at a café, co-working space) how often do you:</i>	Source of question (IWB Measurement Study)	Never	Rarely (once a month)	Sometimes (2 to 3 times per month)	Often (4 to 8 times per month)	Always
Contribute to implementing new ideas	De Jong and Den Hartog (2010)					
Put effort to developing new processes	De Jong and Den Hartog (2010)					
Put effort to developing new products/services	De Jong and Den Hartog (2010)					
Work out the bugs in new ideas and solutions	Kleysen and Street (2001)					
Implement beneficial changes	Kleysen and Street (2001)					

- 12) Would you like to participate in a one-on-one interview with the PhD student researcher regarding your experiences with working remotely?

The interview will be conducted via Zoom and will take 30 min of your time. You will be able to choose the time and date for the interview. You will be asked about your experiences and opinions of working away from the office. All information provided will be anonymous and confidential, and you will not be identified in any reports or the final thesis.

If you agree, you will be taken to a new window to enter your email address. This ensures your survey response remain anonymous.

- Yes
 No

APPENDIX C – Information to survey participants

INFORMATION TO SURVEY PARTICIPANTS INVOLVED IN RESEARCH

You are invited to participate

You are invited to participate in a research project entitled “*Remote Working and Innovative Work Behaviours: A Case of Australian employees*”.

This project is being conducted by a student researcher Ms Snjezana Ahlgren as part of a PhD study at Victoria University under the supervision of Dr Shahnaz Naughton and Dr Wesley McClendon from College of Business, Victoria University, Australia.

Project explanation

The nature of how, where and when work gets done has fundamentally shifted over the past decade, with employees increasingly given the autonomy and flexibility to organise their work to suit the tasks they need to undertake. Another prominent development in modern economies is the ever-increasing importance of innovation for organizational success. Utilising different ways of working, such as working remotely away from the main office building, will influence employee behaviours, including innovative behaviours of employees. While the academic community has paid extensive attention to both concepts separately, not much is known about the relationship. This research study explores employee experiences in Australia, which utilise remote working practices to understand the relationship to their Innovative Work Behaviour (IWB). A mixed methods approach using employee interviews, and a questionnaire will be employed for the study, to provide deep insights into how employees experience the influence of working remotely on their innovative behaviour, and what factors may influence this relationship.

What will I be asked to do?

As a participant, you are being invited to answer questions in an online survey which will take from 10 to 15 minutes to complete. You will be asked for your experiences of working away from the main office building and how this relates to innovative behaviour. Your consent will be implied by submitting a completed questionnaire.

What will I gain from participating?

Your experiences and perceptions will provide valuable insights to the study. Your participation will make a significant contribution to the knowledge of remote working and innovative behaviour. The findings of this study will contribute to innovation management and assist practitioners to encourage employee innovation within their organisations.

How will the information I give be used?

The information provided by participants will be analysed and used for a Doctoral thesis, undertaken by Snjezana Ahlgren under the supervision of Dr Shahnaz Naughton and Dr Wesley McClendon. The raw data collected will be confidentially kept in a safe place during all stages of the project and only accessible

to the student and supervisors. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions. I understand that the researcher will not identify me by name in any reports using information obtained from this survey, and that my confidentiality as a participant in this study will remain secure.

The information may be used for the purpose of academic publication.

What are the potential risks of participating in this project?

There are no expected risks from participating in this project.

How will this project be conducted?

A mixed-methods approach will be used to investigate the aims of the study. First, an Online Questionnaire will be distributed to Australian based employees to test the hypothesis. Secondly, qualitative data will be collected from 15 semi-structured interviews. That data will be used to understand the experience of remote working and the relationship and influence this may have to their innovative work behaviour.

Who is conducting the study?

Dr Shahnaz Naughton, College of Business, Victoria University, Australia
(shahnaz.naughton@vu.edu.au)

Dr Wesley McClendon, College of Business, Victoria University, Australia
(wesley.mcclendon@vu.edu.au)

Snjezana Ahlgren, PhD Candidate, College of Business, Victoria University, Australia
(snjezana.ahlgren@live.vu.edu.au)

Any queries about your participation in this project may be directed to the Chief Investigator listed above. If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email researchethics@vu.edu.au or phone (03) 9919 4781 or 4461.

APPENDIX D – Information to interview participants

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH

You are invited to participate

You are invited to participate in a research project entitled “*Remote Working and Innovative Work Behaviours: A Case of Australian employees*”.

This project is being conducted by a student researcher Ms Snjezana Ahlgren as part of a PhD study at Victoria University under the supervision of Dr Shahnaz Naughton and Dr Wesley McClendon from College of Business, Victoria University, Australia.

Project explanation

The nature of how, where and when work gets done has fundamentally shifted over the past decade, with employees increasingly given the autonomy and flexibility to organise their work to suit the tasks they need to undertake. Another prominent development in modern economies is the ever-increasing importance of innovation for organizational success. Utilising different ways of working, such as working remotely away from the main office building, will influence employee behaviours, including innovative behaviours of employees. While the academic community has paid extensive attention to both concepts separately, not much is known about the relationship. This research study explores employee experiences in Australia, which utilise remote working practices to understand the relationship to their Innovative Work Behaviour (IWB). A mixed methods approach using employee interviews, and a questionnaire will be employed for the study, to provide deep insights into how employees experience the influence of working remotely on their innovative behaviour, and what factors may influence this relationship.

What will I be asked to do?

Participation involves being interviewed by Snjezana Ahlgren from Victoria University, Australia. The interview will last approximately 45-60 minutes and will be conducted via video conferencing (Microsoft Teams or Zoom). Notes will be written during the interview. The interview will only be audio recorded to protect your privacy and subsequently transcribed. You will be asked about your experiences of working away from the main office building and how this relates to innovative behaviours. You will be required to sign and return a Consent Form for Interview Participants as evidence of your consent to participate in the interview prior to the interview date.

What will I gain from participating?

Your experiences and perceptions will provide valuable insights to the study. Your participation will make a significant contribution to the knowledge of remote working and innovative behaviour. The findings of this study will contribute to innovation management and assist practitioners to encourage employee innovation within their organisations.

How will the information I give be used?

The information provided by participants will be analysed and used for a Doctoral thesis, undertaken by Snjezana Ahlgren under the supervision of Dr Shahnaz Naughton and Dr Wesley McClendon. The raw

data collected will be confidentially kept in a safe place during all stages of the project and only accessible to the student and supervisors. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions. I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. The information may be used for the purpose of academic publication.

What are the potential risks of participating in this project?

There may be potential low risk where employees may comment on their manager or colleague's behaviour during the interviews. However, the interview protocol is designed to ask the employee about their own experience and does not specifically ask them to comment on their manager or colleague's behaviour. Further, the participants can participate in the interview in their own time and away from their workplace, so there is a low probability their comments will be known to others.

How will this project be conducted?

A mixed-methods approach will be used to investigate the aims of the study. First, Questionnaires will be distributed to Australian based employees to test the hypothesis. Secondly, qualitative data will be collected from 15 semi-structured interviews. That data will be used to understand the experience of remote working and the relationship and influence this may have to their innovative work behaviour.

Who is conducting the study?

Dr Shahnaz Naughton, College of Business, Victoria University, Australia
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Snjezana Ahlgren, PhD Candidate, College of Business, Victoria University, Australia
(snjezana.ahlgren@live.vu.edu.au)

Any queries about your participation in this project may be directed to the Chief Investigator listed above. If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email researchethics@vu.edu.au or phone (03) 9919 4781 or 4461.

APPENDIX E – Consent form for interview participants

CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH

INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study into the relationship between remote working practices and innovative work behaviours, of Australian employees. The results of this study are expected to provide an employee perspective framework that describes the influence of remote working practices and innovative work behaviours.

CERTIFICATION BY PARTICIPANT

I,, of

certify that I am at least 18 years old* and that I am voluntarily giving my consent to participate in the study: *“Remote Working and Innovative Work Behaviours: A Case of Employees in Professional Services Organisation”* being conducted at Victoria University by Dr Shahnaz Naughton, Dr Wesley McClendon and PhD Candidate Snjezana Ahlgren.

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by Snjezana Ahlgren and that I freely consent to participation involving the below mentioned procedures:

- My participation in this project is voluntary. I understand that I will not be paid for my participation.
- I may withdraw and discontinue participation at any time without penalty.
- Most participants will find the discussion throughout the interview interesting and thought provoking. If, however, I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question or to end the interview.
- Participation involves being interviewed by Snjezana Ahlgren from Victoria University.
- The interview will last approximately 45-60 minutes. Notes may be written during the interview.
- Only an audio recording of the interview will be taken to protect my privacy. No video recording of the interview will be made. If I do not want to be audio taped, I will not be able to participate in the study.
- I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and organisations.
- Staff and other managers from my company will neither be present at the interview nor have access to raw notes or transcripts. This precaution will prevent my individual comments from having any negative repercussions.

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed:

Date:

Any queries about your participation in this project may be directed to the researcher Dr Shahnaz Naughton +61 3 9919 1923 or Dr Wesley McClendon +61 (0) 432 419 116.

If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email Researchethics@vu.edu.au or phone (03) 9919 4781 or 4461.

APPENDIX F – Interview protocol

PART 1. PARTICIPANT'S BACKGROUND

- 1) To begin, please tell me about your work background (e.g. employment status; years of service at current organisation; highest education level; department, role level)
- 2) Tell me a little about your current role and what your responsibilities are?

PART 2: USAGE OF REMOTE WORKING

- 3) Where do you usually work when working remotely? Please think about your working routine prior to COVID-19 as well as currently e.g. home, cafe
- 4) How many days per week do you work remotely? Please think about your working routine prior to COVID-19 and currently.
- 5) What are the main reasons for working remotely when you do? (Aside from COVID-19 restrictions)

PART 3: ABILITY (A), MOTIVATION (M), OPPORTUNITY (O) FACTORS

- 6) (O) What resources are you provided with by your organisation to enable remote working? E.g. Tangible (laptop, internet access, mobile phone, home office equipment, home office furniture), Intangible (support, courses, mental health initiatives)
- 7) (O) What additional resources have you acquired yourself to enable remote working? Why did you purchase these items?
- 8) In terms of your role responsibilities, do you feel you can be innovative? Probe: why/why not? Is your experience the same in the office as working remotely?
- 9) (M) In terms of your approach to risk in your work life, would you say you are risk averse, a risk taker, or takes risk if you see an opportunity?

10) (M) Would you describe yourself as either an extrovert or introvert in your work life?

11) (M) How do you manage your well-being and balance when working remotely?

12) (O) In your view, what are some of the positives and negatives of working remotely?

13) (O) How important is it to you to have the option of working remotely? Why?

Idea Exploration

14) (O) Where do you normally do your "thinking" for work? probe: In the office or when working remotely, where are you sitting? Why there?

15) (O) What do you find yourself thinking about? probe: Do you find yourself thinking about new ideas, or looking at ways things can be improved/changed? How does this compare to when you are in the office? Why? What works/what doesn't?

16) (M) Where do you feel more "creative"? E.g., In the office or working remotely? Why?

17) Is this the same for your "operational" or "productive" type of work?

Idea Generation

18) (A) Collaboration refers to working jointly with one or more team members on an activity or project. When working remotely, how do you collaborate with your work colleagues? Probe: how does the collaboration experience compare to when you are working in the office? What works/doesn't work?

Idea Championing

- 19) (A) When you have new ideas/thoughts, do you share them with colleagues, managers etc? probe: why/why not? How do you share them? is this different to how you would share when you are in the office? Is it effective/not as effective?
- 20) (O) When you are not working in the office, are you hearing about new ideas from your workplace? probe: why/why not? Do you promote these new ideas to others or talk about them with others? Why/why not?
- 21) (A) What about your interactions with your teams/colleagues when working remotely? probe: interacting more/less? Barriers/challenges? Relationships? Ability to network?
- 22) (A) In your experience, how important is face time with your colleagues? Probe: which aspects? Any particular tasks?

Idea implementation

- 23) (A) As part of your role, would you contribute to the development or implementation of new ideas/changes? probe: Yes/No? Why? How does your remote experience compare to when you are in the office? What works/what doesn't? Barriers?
- 24) (M) Do you know of any incentives that your organisation provides to encourage employees to be innovative? E.g. programs, rewards, competitions probe: Is your experience the same when working remotely?