THE MODERATING ROLE OF SUPERVISOR SUPPORT ON THE RELATIONSHIP BETWEEN WORKLOAD AND WORK-LIFE BALANCE

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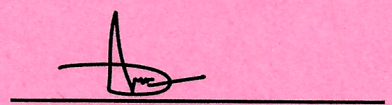
Tandatangan *(Signature)*	:	
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ABSTRACT

This study examines the moderating role of supervisor support in the relationship between workload and work-life balance (WLB) within the Malaysian manufacturing sector, where employees often face heavy workloads, long hours, and limited flexibility, threatening their ability to maintain a healthy personal–professional balance. Grounded in the Job Demands–Resources (JD-R) and Social Exchange Theory (SET) frameworks, supervisor supportemotional, instrumental, and practical—was explored as a potential buffer against workload's negative effects. A quantitative approach was adopted, using a structured questionnaire distributed across various departments, yielding 237 valid responses. Data were analysed with SPSS Version 26, employing descriptive statistics, exploratory factor analysis, reliability testing, normality assessment, correlation, multiple regression, and moderation analysis. Results revealed a significant negative relationship between workload and WLB, supporting JD-R theory's proposition that excessive job demands erode well-being. Supervisor support showed a significant positive direct effect on WLB; however, its moderating role produced an unexpected negative interaction, suggesting the protective influence diminishes under intense workload and may be more effective as a direct resource. This finding challenges SET's assumption of reciprocal support under pressure, indicating that in high-demand contexts, support may be perceived as micromanagement or constrained by organizational culture. Theoretically, the study refines JD-R and SET applications by highlighting the complexity of support mechanisms under strain. Practically, it underscores the need for workload management strategies, regular assessments, and targeted supervisor training in empathy, communication, and emotional intelligence. These insights offer both theoretical contributions and actionable guidance for fostering sustainable employee well-being in demanding manufacturing environments.

Keywords: workload, work-life balance, supervisor support, X Company, manufacturing sector

ABSTRAK

Kajian ini meneliti peranan penyederhanaan sokongan penyelia dalam hubungan antara beban kerja dan keseimbangan kerja–kehidupan (WLB) dalam sektor pembuatan di Malaysia, di mana pekerja sering berdepan dengan beban kerja yang tinggi, waktu kerja yang panjang dan fleksibiliti yang terhad, sekali gus menjejaskan kemampuan mereka untuk mengekalkan keseimbangan peribadi–profesional yang sihat. Berasaskan kerangka Teori Tuntutan–Sumber Kerja (JD-R) dan Teori Pertukaran Sosial (SET), sokongan penyelia—merangkumi emosi, instrumental dan praktikal dikaji sebagai potensi penampan terhadap kesan negatif beban kerja. Pendekatan kuantitatif digunakan melalui edaran soal selidik berstruktur kepada pekerja di pelbagai jabatan, menghasilkan 237 respons yang sah. Data dianalisis menggunakan SPSS Versi 26 meliputi statistik deskriptif, analisis faktor penerokaan, ujian kebolehpercayaan, penilaian kenormalan, korelasi, regresi berganda dan analisis moderasi. Dapatan menunjukkan hubungan negatif yang signifikan antara beban kerja dan WLB, menyokong cadangan teori JD-R bahawa tuntutan kerja yang berlebihan menjejaskan kesejahteraan. Sokongan penyelia mempunyai kesan positif langsung yang signifikan terhadap WLB; namun, peranan penyederhanaannya menunjukkan interaksi negatif yang tidak dijangka, mencadangkan bahawa pengaruh perlindungan menurun apabila beban kerja meningkat dan mungkin lebih berkesan sebagai sumber langsung. Dapatan ini mencabar andaian SET tentang sokongan timbal balik di bawah tekanan, menunjukkan bahawa dalam konteks berintensiti tinggi, sokongan mungkin dianggap sebagai kawalan berlebihan atau terhad oleh budaya organisasi. Secara teori, kajian ini memperhalusi aplikasi JD-R dan SET dengan menonjolkan kerumitan mekanisme sokongan di bawah tekanan. Secara praktikal, ia menekankan keperluan strategi pengurusan beban kerja, penilaian berkala, dan latihan penyelia dalam empati, komunikasi, dan kecerdasan emosi. Dapatan ini memberi sumbangan teori dan panduan praktikal untuk memupuk kesejahteraan pekerja yang mampan dalam persekitaran pembuatan yang mencabar.

Kata kunci: beban kerja, keseimbangan kerja-kehidupan, sokongan penyelia, Syarikat X, sektor pembuatan

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter will serve as an introduction to the subject being studied, so its goal is to give readers the knowledge they need to easily understand the problems the study is trying to solve. This chapter is structured such as the background of study, the problem statement, the research objectives, research questions, significance of study and scope of the study.

1.2 Background of study

Maintaining a healthy equilibrium between work and personal life has emerged as a crucial element that significantly impacts both employee well-being and the overall success of organizations in today's rapidly changing and demanding world. According to Vidani (2024), work-life balance (WLB) refers to ability to manage a balance between one's personal responsibility and his or her career. Work-life balance (WLB) plays a critical role in modern organizational strategies, as it directly influences employee performance, productivity, job satisfaction, and ultimately, the profitability of the organization.

According to Rony (2023), research has voiced out that poor work-life balance (WLB) leads to stress, burnout and high turnover rates globally. Workers who find it hard to manage their personal and professional life frequently report feeling less satisfied with their jobs and being less happy overall. On the other hand, companies that place a high priority on work life balance see increases in productivity, retention rates, and employee morale. These benefits demonstrate how crucial work life balance is to both organizations and employees.

In addition to being a personal goal, work-life balance is a vital component of successful organizations. From the standpoint of an employee, a good work-life balance promotes mental wellness, increased job satisfaction, and long-term motivation (Beauregard & Henry, 2009).

Keeping workers' work-life balance is important for companies since it lowers absenteeism, increases retention, and boosts productivity (Kalliath & Brough, 2008). Businesses that aggressively support work-life balance have a reputational edge in luring and keeping talented employees in cutthroat fields. Furthermore, WLB is important for encouraging creativity and engagement since workers who have supportive work environments and manageable workloads are more likely to come up with innovative solutions and stick with the company over the long run.

One of the Malaysia's glove manufacturers plays a significant role in the nation's healthcare sector in Malaysia. This company faces unique challenges in supporting employees' work-life balance with a workforce that spans various race and job roles. Employees, especially in this organization are subject to long working hours, weekend shifts, and high customer demands, all of which affect their personal welfare and work-life balance.

Employees whom worked in this company face these challenges regularly due to staffing constraints and the demanding nature of customer-facing roles. Workload becomes a significant issue when employees are required to multitask or take on responsibilities beyond their core duties. This leads to longer working hours and increased stress, which hinders their ability to disconnect from work, impacting personal life, relationships, and mental health. Such dynamics not only diminish personal well-being but also reduce organizational productivity and employee retention.

Supervisors play an equally important role in this equation, as their assistance can interpret as a moderator between work-life balance and workload. By controlling task distribution, establishing reasonable performance standards, and offering both practical and emotional support, supervisors have a unique opportunity to impact work processes. Clear communication, compassionate leadership, and proactive conflict resolution are examples of

effective supervisory techniques that can mitigate the negative consequences of a high workload (Hammer et al., 2011) On the other hand, poor leadership or insufficient assistance can make the stress brought on by a heavy workload worse, making it much harder for an employee to strike a balance. As a result, supervisor support becomes an important moderating factor that may be able to turn the detrimental effects of workload into chances to create resilient work habits.

Understanding how workload, supervisor support, and work-life balance relationship has become more and more important, according to empirical research in organizational support and human resource management. For instance, research by Allen et al. (2000) and Hammer et al. (2011) have shown that supportive supervisory techniques can dramatically reduce work-related stress, while Bakker and Demerouti (2007) highlight how excessive job demands directly contribute to stress and burnout. Regardless of these findings, there is a lack of information in the literature regarding the dynamics of these variables within this organization in Malaysia. This gap is crucial, as this organization have unique operational challenges that may not be applicable to larger companies in other industries.

The organization's significant role in Malaysia's economy, with its diverse range of employees across regions, means that addressing WLB issues is critical. Employees who struggle with demanding work schedules, long commutes, and high customer expectations, all of which make it more solid to sustain a positive balance work-life. Additionally, the competitive nature of the industry often leads to long working hours, limited workplace flexibility such as no work from home mode and inadequate helping systems, further complicating employees' ability to stabilize their personal and professional work. (Sivanisvarry, 2024).

While this company's contributions to Malaysia's economy are well-documented, research on work-life balance within similar organizations is still limited. Most studies focus on larger

companies with well-established human resource practices, often overlooking the struggles of employees in organizations like this one (Zakaria & Rahman, 2021; Chandra, 2012). By investigating the variables affecting work-life balance (WLB), this research look into close this knowledge gap and provide management with insightful points on how to foster a more positive workplace.

Work-life balance programs have been demonstrated to strengthen business performance, improve employee well-being and support the long-term growth of companies. Research in larger organizations has demonstrated that flexible work practices enhance productivity and reduce absenteeism (Bloom et al., 2015). Similarly, work-life balance (WLB) programs can strengthen employee welfare by lowering stress and enhancing job satisfaction, as seen in studies by Beauregard and Henry (2009). The favorable results in other industries indicate that this company might greatly benefit from scalable work-life balance programmes, which would help to its long-term performance and competitiveness, despite the paucity of comparable research on this company.

This research is expected to pave the way for a better consideration of how work-life balance can be adapted to the context of this company in Malaysia. The findings could assist this company's leadership in creating a workplace culture that values employees' well-being in future. These steps are especially crucial in fiercely competitive corporate settings where keeping skilled employees is essential and vital to the survival of the company.

1.3 Problem Statement

The chosen organization is a Malaysian glove manufacturer that specializes in exporting medical-grade latex and nitrile gloves. The corporation promotes jobs and regional economic activity as a major participant in the healthcare supply chain. However, shift-based work, high

production targets and stringent quality control standards are common place for employees, which can make it difficult to achieve work-life balance.

Although the detrimental consequences of excessive strain on work-life balance (WLB) have been extensively studied in a variety of industries, there is still a discernible lack of research on these dynamics in the healthcare industry, particularly the medical manufacturing sector. The operational constraints faced by such companies such as staffing limitations during peak hours, multitasking, and intense production or customer service demands exacerbate the impact of excessive workload, leaving employees particularly vulnerable to work-life imbalance (Karatepe, 2013; Taris et al., 2015). These difficulties are further compounded by the inflexible working hours often associated with healthcare and manufacturing environments, which hinder employees from retaining a positive balance between their professional and personal responsibilities (Kossek et al., 2018; Giorgi et al., 2020).

Additionally, the circumstances of the company have not adequately examined the moderating effect of supervisory support. Supervisors have a crucial role in establishing performance standards, allocating the workload, and providing both practical and emotional support to reduce workplace stress. According to recent studies, the negative effects of an excessive workload on work-life balance can be mitigated by effective supervisory practices for instance proactive conflict resolution, empathetic leadership, and clear communication (Kossek et al., 2018). However, inconsistent or inadequate supervisory assistance may exacerbate the negative effects of a heavy workload, increasing employee discontent and burnout in various healthcare situations, including the corporation.

The fundamental aim of this research is to offer practical advice on how the business can help employees have a positive balanced work-life. Programs for employee wellbeing, leadership development, and flexible work schedules that are especially designed to address the particular

difficulties experienced by retail employees are examples of potential solutions. The research's conclusions will advance knowledge of work-life balance in the healthcare sector and offer suggestions that the business can implement to create a positive workplace culture that boosts job satisfaction, employee welfare and long-term organizational achievement.

1.4 Research Questions

This study primarily aims to investigate how supervisory support influences the relationship between workload and work-life balance (WLB) within the company.

a) Is there a relationship between workload and work-life balance (WLB).
b) Is there a relationship between supervisory support and work-life balance (WLB)?
c) Does supervisory support moderate relationship between workload and work-life balance (WLB).

1.5 Research Objectives

The objective of this research is to investigate the relationship between workload and work-life balance (WLB). Additionally, it aims to examine the moderating role of supervisory support in this relationship. The specific objectives of the study are as follows:

a) To examine the relationship between workload and work-life balance.
b) To examine the relationship between supervisory support and work-life balance (WLB).
c) To examine the moderate effect on supervisory support on the relationship between workload and work-life balance (WLB).

1.6 Significance of the Study

This research offers value to both academic literature and real-world organizational practice by examining the relationship between workload and work-life balance, and the moderating role of supervisory support, in the context of the Malaysian glove manufacturing industry. The findings extend existing theories such as the Job Demands–Resources (JD-R) Model and Social

Exchange Theory (SET) by providing empirical evidence from a sector that is often overlooked in work-life balance studies, thereby enriching theoretical understanding of how supervisory support can buffer high job demands in operationally intensive environments.

By integrating supervisory support and workload into a quantitative framework, the study adds to the expanding body of knowledge on work-life balance and occupational stress, offering new insights into how supervisory support can help employees manage demanding workloads. While previous research has shown that high workload negatively affects WLB (Bakker et al., 2014; Yoon et al., 2020), the moderating role of supervisory support remains underexplored, particularly in manufacturing settings with stringent operational requirements.

From a practical perspective, the results provide actionable guidance for managers and policymakers in designing strategies that promote employee well-being and organizational sustainability. Insights from this study can inform leadership development initiatives that enhance supervisors' ability to communicate effectively, manage workloads, and offer both emotional and instrumental support. Implementing such practices can reduce the negative effects of high workload, improve job satisfaction, reduce stress, and enhance employee welfare. In turn, this can lead to higher motivation, engagement, productivity, and retention rates.

Beyond the organization under study, the findings have wider implications for similar industries across Malaysia. A healthier and more engaged workforce contributes to reduced burnout, absenteeism, and turnover, while promoting greater social stability and family well-being, with long-term positive effects on the broader community. By combining theoretical contributions with practical recommendations, this research aims to guide policy changes, improve supervisory practices, and foster a more productive and resilient workforce.

1.7 Scope of the study

This research focuses on employees of one of Malaysia's largest glove manufacturing companies, using convenience sampling to select participants. The company was chosen due to its significant presence in the manufacturing industry, its critical role in Malaysia's healthcare supply chain, and its large, diverse workforce. Employees from various departments such as production, quality, maintenance, human resources, purchasing, and administration were included in the sampling process to provide a comprehensive view of workload, supervisory support, and work-life balance across the organization. The study covers multiple job levels, from non-executive to managerial positions, ensuring that perspectives from both operational and leadership roles are represented.

The data collection process considered key demographic variables such as age, gender, years of service, and job position to help identify patterns in the relationship between workload, supervisory support, and work-life balance across different employee groups. The chosen variables workload, supervisory support, and work-life balance were selected for their strong theoretical and practical relevance. Workload is a critical job demand known to negatively impact employees' ability to maintain a healthy work-life balance, while supervisory support is recognized as a key job resource that can buffer the effects of high workload and improve satisfaction and retention. Work-life balance is the primary outcome of interest, given its direct influence on productivity, engagement, and long-term organizational sustainability. By focusing on these variables, this study addresses a clear research gap in the manufacturing sector while providing actionable insights to guide management practices and inform policy formulation.

1.8 Definition of key terms

Workload: Definition of workload is an overall amount, intensity, and complexity of tasks, responsibilities, and duties assigned to an employee within a specified period. This concept encompasses both quantitative dimensions such as the number of tasks, working hours, and deadlines and qualitative aspects, including task difficulty, decision-making requirements, and emotional demands. (Bakker & Demerouti, 2007).

Supervisor support: Supervisor support is as the extent to which employees perceive that their immediate supervisors provide various forms of assistance that help them manage work-related demands. This support can be multifaceted, including emotional support which offering empathy, understanding, and encouragement during stressful periods. Instrumental Support provides tangible resources such as additional manpower, tools, or guidance to manage tasks effectively. (Kossek et.al, 2018).

Work-Life Balance: Work-life balance refers to the state of equilibrium in which an individual successfully manages both professional responsibilities and personal commitments. It involves the capacity to meet work demands without neglecting personal well-being, and vice versa. In this study, work-life balance is examined through various dimensions, including flexible working arrangements, workload, and the presence of organizational support systems (Greenhaus et.al, 2011).

The Company: The company is one of the largest healthcare organizations in Malaysia, with a vast network of stores operating across the country. The company employs a diverse workforce, with various departments and job roles, including customer service, sales, and managerial positions. The company is a key contributor to Malaysia's healthcare industry, playing an important role in the national economy by creating employment opportunities and generating revenue across multiple sectors.

1.9 Organisation of the Study

This research is structured into five main chapters, summarized as follows. Chapter One presents an overview of the study, covering the background, problem statement, research questions, objectives, significance, scope, definitions of key terms, and the overall organization of the study.

Chapter two will deep into various scholarly perspectives and views regarding the workload, supervisor support and work life balance. It will present into different write up, literature review and theory applications.

Chapter Three details the research design and methodology employed to examine how workload affects work-life balance, with supervisory support acting as a moderating variable within the company. It includes details on the research approach, sampling methods, data collection instruments, and analytical techniques. The chapter also discusses the ethical considerations and limitations of the research methodology.

This chapter presents the outcomes of the data analysis, interpreting the results in relation to the research objectives and theoretical framework. It discusses the impact of workload on work-life balance and examines the moderating effect of supervisory support. Additionally, the chapter explores the practical implications of the findings for the company.

Chapter Five, the final section of this research project, provides a comprehensive summary of the findings, draws conclusions based on the results, and offers recommendations for future research and organizational improvements.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The purpose of this chapter is to review and synthesize existing literature on workload, supervisory support, and work-life balance, with specific emphasis on their relevance to this organization. It explores the theoretical foundations of the study and examines the relationships among these key variables. Additionally, the chapter identifies research gaps and presents the theoretical frameworks and assumptions that guide the direction of the study.

2.2 Work-life balance

Work-life balance (WLB) refers to an individual's ability to effectively allocate time and energy between professional duties and personal responsibilities, ensuring that neither aspect significantly interferes with the other (Kossek & Lautsch, 2018). Attaining work-life balance (WLB) is essential for overall well-being, job satisfaction, and mental health, as it allows employees to maintain control over both their work and personal commitments. According to Kossek et.al (2018), workers who are able to effectively manage their personal and professional obligations report feeling more motivated, productive, and satisfied with their jobs. Conversely, a lack of work-life balance can lead to stress, burnout, reduced job performance, and lower employee engagement. (Sonnentag et al., 2021).

There are a few factors influencing work-life balance (WLB), including job demands, organizational support and personal coping strategies. This is because work-related stress affects their personal lives, employees who have heavy workloads, long workdays, and excessive job duties are more prone to encounter work-life conflict (Bakker & Demerouti, 2007). Organizational support plays a crucial role in maintain work-life balance (WLB) for employees. Employers can greatly enhance their employees' capacity to handle and manage their personal and professional obligations by introducing flexible work arrangements, such as

paid leave policies, flexible hours and remote work (Allen et al., 2000). In contrast to those with strict office-based schedules, those who worked from home reported higher job satisfaction and reduced stress levels, according to a study by Bloom et al. (2015). Furthermore, even in challenging work contexts, employees can keep a feeling of balance by using personal coping mechanisms such social support networks, stress reduction techniques, and efficient time management (Sonnentag & Fritz, 2021).

Additionally, work-life balance (WLB) benefits both employees and organizations. According to Beauregard and Henry (2020) it was found that employees with a higher level of work-life balance (WLB) tend to show greater job dedication and commitment, along with reduced absenteeism. According to Kossek and Lautsch (2018), organizations that support work-life balance (WLB) experience higher productivity, improved employee retention, and reduced turnover. Employees in such environments tend to demonstrate greater job performance, creativity, and engagement, as they feel more motivated and committed to their roles (Allen et.al.,2001). A Google case study claims that providing flexible work schedules, mental health services, and paid maternity leave has improved employee retention and satisfaction (Las Heras et al., 2022).

Despite its importance, achieving work-life balance remains a challenge in many organizations, particularly those with high workloads and limited resources. Unlike larger corporations that may have structured WLB programs, smaller organizations often struggle due to staffing constraints, long working hours, and a lack of formal HR policies (Yoon et al., 2020). Employees in such organizations are often required to multitask and take on additional responsibilities, leading to longer working hours and higher job-related stress. Given these challenges, organizations need to adopt alternative strategies, such as informal flexibility, supportive leadership, and effective workload management, to help employees achieve WLB.

Supervisory support is particularly crucial, as direct managers and supervisors can influence employees' ability to manage their workload and balance their personal lives. Research by Kossek et al., (2011) indicates that even in high-demand work environments, individuals who receive strong supervisory support experience less work-family conflict and report higher levels of job satisfaction. According to a separate study by Hammer et al., (2012), employees with supervisors who are supportive of their family responsibilities are 30% more likely to achieve a better work-life balance compared to those without such support.

In Malaysia, many organizations still face challenges in implementing structured work-life balance programs, which results in higher turnover rates, longer workdays, and increased stress. Long commutes, metropolitan work pressures, and excessive job demands make it difficult for employees to sustain WLB, especially in high-demand sectors (Sivanisvarry, 2024). Some organizations rely on unofficial work arrangements, which may not be long-term viable, in contrast to larger firms that provide more formal HR policies and support systems.

Achieving work-life balance is essential to the profitability of organizations and the welfare of their employees. The difficulties faced by organizations underscore the need for customized strategies that address workload management, supervisory support, and flexible working conditions. Ultimately, providing employees with the necessary support and tools to achieve WLB leads to a healthier, more productive workforce and fosters a more sustainable organization.

2.3 Workload

Workloads bring definition that the amount and complexity of tasks assigned to an employee within a specific time duration, compassing both quantities such as number of tasks and working hours and qualitative such as difficulty, decision making effort and emotional intensity (Bakker and Demerouti, 2007). According to Sonnentag (2021), while an appropriate workload

can encourage engagement and productivity, an excessive burden, particularly when maintained over extended periods of time, can result in burnout, emotional weariness, job stress and fatigue.

High quantitative workloads cause employees to feel under time pressure, work overtime, and take work home with them, which limits their time for family, friends, and rest. On the other hand, qualitative workload such as handling emotionally taxing or difficult tasks can increase mental stress and deplete cognitive resources needed for recovery and personal well-being (Sonnentag and Fritz, 2021).

In smaller organizations, the problem of high workload is even more pronounced. With leaner teams, employees are often expected to multitask, manage cross-functional tasks, and put in additional hours. For example, a marketing executive in a smaller organization might also oversee customer support, administrative tasks, and basic financial reporting responsibilities that are typically spread across multiple departments in larger companies. Multitasking can lead to role overload, which exacerbates work-related stress and impairs an employee's ability to handle personal obligations.

Workload is a key indicator of work-life imbalance. As noted by Yoon et al., (2020), employees facing heavy workloads often experience lower personal life satisfaction, increased work-family conflict, a higher risk of burnout, and a greater intention to leave their jobs. A breakdown in psychological detachment from work and general life satisfaction results from long working days and the pressure to perform excessive duties, which limit opportunities for social connection, family time, exercise, and rest (Sonnentag et al., 2021).

Moreover, in the post-pandemic work environment, workload issues have been intensified, especially in organizations struggling to adapt to digital transformation and retain manpower. According to Yoon (2020), employees often find themselves overwhelmed with digital

communication, efficient decision-making, and heightened customer expectations, further escalating the burden on already stretched resources.

2.4 Supervisory support

Supervisory support refers to the degree to which employees perceive that their immediate supervisors offer the necessary guidance, encouragement, and resources to help them manage work demands effectively and maintain their overall well-being (Kossek et.al., 2011). Employees need this support to overcome obstacles at work, especially in high-demand workplaces like this company, where multitasking, long hours, and scarce resources are typical.

Support from supervisors can take many different forms, including informational, instrumental, emotional, and appraisal support. Empathy, good comprehension, and reassurance are all examples of emotional support, particularly while facing challenges. Instrumental support is offering practical help such as adjusting schedules to reduce pressure. Additionally, informational support is providing transparent instructions, feedback on tome and access to resources that improve role clarity. Appraisal support had been discussed in research of Kossek, 2011 that offering constructive feedback and recognition that motivate employees to reach with organizational goals.

Studied show that good supervisory support contributes to less stress levels, improved work-life balance (WLB) and more job satisfaction. Supervisors who actively engage with their employees can reduce work-related stress and create a more positive work atmosphere by checking in with them frequently, setting realistic goals, and encouraging flexibility (Jiang & Johnson, 2022). For example, supervisors who provide flexible scheduling for parents or employees with caregiving responsibilities help them better manage both work and personal commitments, thereby enhancing their WLB.

Furthermore, according to Bakker and Demerouti (2007), supervisory assistance is regarded as an essential resource in the occupational Demands-Resources (JD-R) paradigm, serving as a buffer against occupational stressors including workload and time pressure. Strong supervisor support helps avoid turnover, disengagement, and burnout when job expectations are high. Huang et al. (2015) discovered that, particularly in high-pressure work environments, supervisory assistance had a favourable impact on task performance, motivation, organizational citizenship behaviour and employee well-being.

Supervisory support is even more vital in this company, where there may not be established HR policies or structured work-life balance (WLB) programs. For freedom and emotional release, employees frequently turn to informal leadership styles. Family-supportive supervisory behavior (FSSB) dramatically decreases workplace stress and increases job commitment, as shown in a study by Lei et al., (2023) in China and Malaysia. Employees are more likely to remain engaged, resilient, and loyal to the organization when they perceive their managers as supportive and adaptable.

Conversely, a lack of supervisory assistance may have unfavourable effects. Employees with unsupportive managers frequently report higher stress levels, more work-life conflict, and poorer organizational engagement, claim Kossek and Pichler (2011). Thus, spending money on supervisory training that prioritizes emotional intelligence, communication, and task management is essential for fostering a pleasant workplace culture, particularly in organizations without established policies.

2.5 The Relationship Between Workload and Work-Life Balance

A substantial body of empirical research consistently claims that the workload has a significant negative relationship with work-life balance (WLB). Employees often struggle to meet personal responsibilities when they burdened with over tasks, tight deadlines and long working

hours which result in work-life conflict. According to Sonnentag et al., (2021), this conflict arises when the demands of work and personal life are incompatible, making it difficult for individuals to fully engage in both roles.

Employees with high job expectations usually have less time, energy, and psychological resources available for self-care, leisure, and family. According to Bakker and Demerouti (2007), workers who put in long hours under pressure are more likely to feel emotionally exhausted, frustrated, and dissatisfied with their personal and professional lives. Additionally, by inhibiting psychological detachment from job-related ideas during non-working hours, work overload impairs recovery and increases stress levels (Sonnentag et al., 2021).

The effects of a heavy workload are frequently exacerbated because of thinner teams, expectations for multitasking, and a lack of official HR processes. A study by Yoon et al., (2020) found that employees in this organization who consistently face high job demands tend to report lower levels of WLB, largely due to long working hours and unclear boundaries between work and personal roles. These employees frequently manage several tasks in various departments, including as marketing, operations, administration, and customer care, which leads to role overload and makes it tough to unplug from work even after hours.

For instance, an employee responsible for both sales and supply chain may find it challenging to complete the tasks withing given period and it result long overtime or extended workdays and disrupted personal life. When such demands persist without sufficient support or recovery time, the employee may begin to experience stress, disengagement, and even burnout, ultimately lowering job satisfaction and increasing turnover intention (Lei et al., 2023).

Cultural norms in many Asian workplaces, including Malaysia, often revere long hours and heavy workloads as a sign of dedication, which blurs the boundaries between professional and personal lives (Pyoria, 2011; Punnett et al., 2022).

Multiple studies have demonstrated that a heavy workload impacts not only WLB but also key outcomes such as job performance, organizational commitment, and overall employee well-being. Therefore, rather than being only an operational issue, workload management is a strategic one that is linked to both organizational and individual success. Reducing workload or implementing buffers like flexible scheduling, job rotation, or more supervisor support can significantly help maintain a healthier work-life balance.

2.6 The Relationship Between Supervisory Support and Work-Life Balance (WLB)

Support from supervisors significantly influences employees' ability to maintain work-life balance. As direct leaders in the workplace, they shape how employees perceive fairness, feel supported, and access flexibility, all of which directly affect their well-being and capacity to manage both work and personal responsibilities (Kossek et al., 2011). Supervisory support is more immediate and effective in promoting WLB because it involves daily interactions and accommodations, unlike more general organizational policies.

Research by Hammer et al., (2011) shows that employees who receive instrumental, emotional, and informational support from their supervisors tend to experience higher job satisfaction and reduced work-family conflict. For instance, managers that offer flexible schedule alternatives or show empathy for family responsibilities assist staff in better balancing work and personal duties. This is consistent with Beauregard and Henry (2009), who found that direct managerial support is positively linked to outcomes such as lower stress levels, higher job satisfaction, and greater employee engagement.

Support from supervisors also promotes open communication, enabling staff members to discuss personal difficulties without worrying about criticism or unfavorable outcomes. This mental security is essential in demanding settings where stress levels are frequently high. According to Jiang and Johnson (2022), managers who communicate with staff members on a

regular basis, listen intently and modify tasks or deadlines as needed promote a culture of balance.

Supervisory support is especially more important in settings with few formal HR policies, like small businesses or fast-paced sectors. Lei et al., (2023) found that employees in demanding roles who perceive strong support from their direct supervisors' report significantly better levels of work-life balance. In contrast, those who lack such support often feel isolated and overwhelmed, leading to higher turnover rates and increased risk of burnout.

In conclusion, the quality of supervisory support has a direct and significant influence on employees' ability to balance their personal and professional lives effectively. A healthier, more balanced workplace is made possible by supervisors who are personable, sympathetic, and eager to help. Employers who make the investment to create supportive supervisory procedures have a higher chance of keeping resilient, driven, and happy staff members.

2.7 The Moderating Effect of Supervisory Support on The Relationship Between Workload and Work-Life Balance

Recent studies increasingly highlight that supervisory support functions as a moderating factor, rather than a mediating one, in the relationship between workload and work-life balance (WLB). A moderator is a variable that affects the strength or direction of the relationship between two other variables. In this context, supervisory support does not directly reduce workload or increase WLB but instead weakens the negative impact that high workload has on employees' ability to achieve work-life balance.

In situations of high workload, employees often face stress, time constraints, and fatigue, making it difficult for them to maintain a healthy work-life balance (WLB) as their personal lives are adversely affected. However, the impacts of this workload are mitigated that is, the psychological and emotional repercussions of job pressure are lessened when supervisory assistance is available (Kossek et al., 2011). To help employees feel more in control and less

overwhelmed, supervisors offer flexibility, empathy, practical assistance and clear communication.

For instance, instrumental support such as adjusting deadlines or redelegating tasks can reduce time pressure, while emotional support like understanding an employee's family obligations can reduce stress. These actions show that supportive leadership does not necessarily reduce the workload itself but helps employees manage it more effectively.

According to Huang et al., (2015), when faced with high job expectations, individuals who have excellent supervisor support report less work-life conflict than those who receive little to no help. This implies that supervisory support serves as a buffer, assisting staff in juggling conflicting demands from their homes and jobs. According to Jiang and Johnson (2022), the adverse effects of workload on employee well-being and work-life satisfaction are significantly reduced when supervisors engage in task planning, discuss workload concerns, and conduct emotional check-ins with their team members.

This moderating role is particularly crucial where the dependence on direct supervisors is increased due to the absence of formal HR rules or established WLB programs. Supervisors are the primary point of contact for workers' well-being in these situations. Employee burnout or overload can be prevented from worsening into more significant problems like disengagement or resignation if a supervisor notices the symptoms and takes the proper action. Conversely, inadequate or non-existent supervisory support might increase the stress brought on by a heavy task, resulting in a worsening of work-life imbalance and discontent (Lei et al., 2023).

Therefore, this study focuses on the moderating effect of supervisory support in the relationship between workload and WLB among this company. Due to specific operational challenges like multitasking, extended working hours, and limited staffing, supervisory support becomes a

critical factor in determining whether employees are able to perform well or face difficulties under pressure.

2.8 Underpinning Theories

The theoretical foundation of this study is built upon several key concepts that help explain the relationships among the variables influencing work-life balance. These theories provide insight into how employee motivation, behavior, and productivity are impacted by work-life balance. This study employs these frameworks to provide a foundation for understanding how work-life balance functions efficiently, with a focus on relevant elements. The main theoretical foundations supporting this study are the Job Demands-Resources (JD-R) Theory and Social Exchange Theory (SET).

2.8.1 Job Demands-Resources (JD-R) Model

The Job Demands-Resources (JD-R) Model was introduced by Bakker and Demerouti in 2007. A common application of this concept is in occupational health psychology. This model categorizes all aspects of a job into two main components: job demands and job resources. Job demands are the mental, emotional, or physical strains required for a vocation, such as multitasking, a hefty workload, and time limitations. Job resources are defined as the components—autonomy, feedback, and supervisory support—that assist individuals in achieving their goals, lowering job stress, and fostering growth.

Employees run the danger of burnout, stress, and a worsened work-life balance when job expectations are strong and not sufficiently compensated by resources. However, the negative effects of job demands can be reduced or buffered by the presence of job resources, such as support from supervisors..

In the context, excessive workload represents a high demand. Supervisory support acts as a job resources that helps employees manage stress, allocate tasks more effectively and seek

emotional reassurance. Therefore, supervisory support mitigates the impact of workload on employees' capacity to handle personal obligations, thereby moderating the link between workload and WLB. Because of this, the JD-R model is especially pertinent to comprehending how this company can assist their staff in spite of resource constraints.

2.8.2 Social Exchange Theory (SET)

Social Exchange Theory, proposed by Blau (1964), explains workplace relationships as being built on mutual and reciprocal exchanges between individuals. It implies that workers feel compelled to respond with favorable attitudes and behaviors, such as increased engagement, commitment, and loyalty, when they believe their managers are fair and encouraging.

Supervisory support, whether through flexible scheduling, clear communication, or emotional empathy, is regarded as a form of social investment in the employee-supervisor relationship. Even in situations with a heavy workload, employees who receive this kind of assistance are more likely to stay dedicated to the company and handle stress at work better.

Supervisory support improves work-life balance because motivated employees are more likely to maintain performance without letting work-related stress take over their home lives. To put it another way, support promotes psychological safety and trust, which enables workers to better manage work-related responsibilities without sacrificing their personal wellbeing.

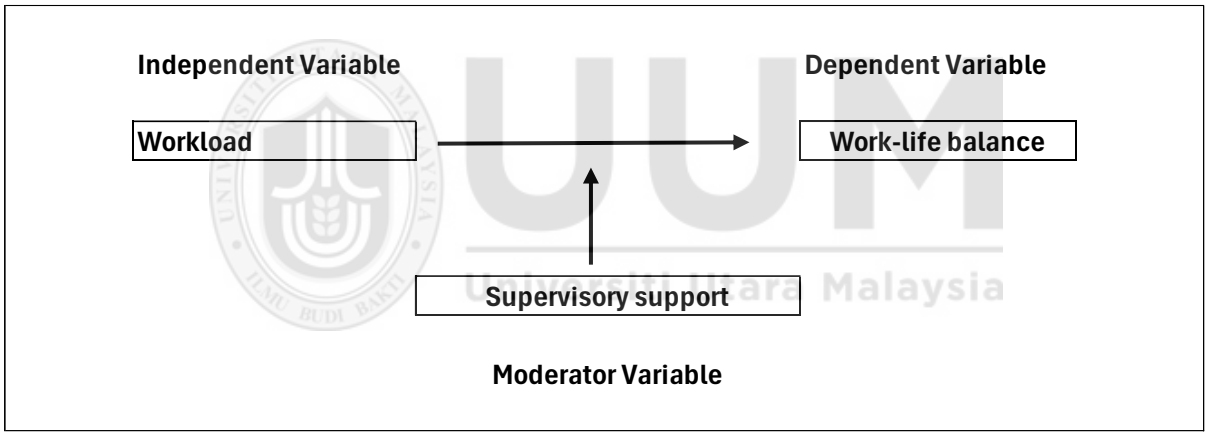
In this company, where formal support systems may be limited, positive interpersonal exchanges with supervisors are particularly influential, making SET a suitable framework for this study.

2.9 Research Framework

The study's theoretical framework is based on the connections between work-life balance (WLB), supervisor support, and workload in this organization. The independent variable, workload, is thought to have a detrimental effect on workers' capacity to preserve a healthy

work-life balance as a result of excessive job expectations. As a moderating factor, supervisory support provides emotional, practical, and informational resources that help mitigate the detrimental consequences of a heavy workload on WLB. Furthermore, it is anticipated that supervisory assistance would positively correlate with work-life balance and workload management, hence reaffirming its importance as an organizational resource. By framing supervisory support as a moderator instead of a mediator, this framework captures the intricate relationship between job demands and organizational support. It provides a deeper insight into how the company can enhance employee well-being and promote a more sustainable work environment.

Figure 1Research Framework



2.10 Hypothesis Development

This section outlines the formulation of hypotheses grounded in the theoretical framework and previous research. The key variables examined in this study include workload, supervisory support, and work-life balance (WLB). The hypotheses are formulated to examine both the direct and moderating relationships among these variables. The development of each hypothesis is supported by relevant theories such as the Job Demands–Resources (JD-R) Model, Social Exchange Theory, and Conservation of Resources (COR) Theory. Each hypothesis is discussed in detail below.

Numerous empirical studies have demonstrated that increased workload often results in reduced work-life balance. For example, employees burdened with excessive tasks frequently experience time pressure and role conflict, which prevent them from adequately managing personal responsibilities. The JD-R Model identifies workload as a job demand that can drain an individual's energy and cause strain, making it harder to maintain a balance between work and personal life. Likewise, the Conservation of Resources (COR) Theory suggests that people aim to preserve key resources like time and energy; when workload is high, these resources are depleted, reducing the ability to manage both work and life responsibilities effectively. Based on this, the study hypothesizes that higher workload levels will be negatively related to employees' work-life balance.

H1: There is a negative relationship between workload and work-life balance.

Supervisory support is widely acknowledged as a crucial element in promoting employees' work-life balance. Supportive supervisors assist employees in navigating conflicting work and family responsibilities by providing flexibility, empathy, and necessary resources. According to the JD-R Model, supervisory support functions as a job resource that helps mitigate the adverse effects of job demands on employee well-being. Additionally, the COR Theory emphasizes that receiving social support helps individuals conserve their emotional and psychological resources, thereby improving their work-life balance. Numerous studies, especially in organizational and HR contexts, have affirmed this positive association. Therefore, the third hypothesis of this study suggests that there is a positive relationship between supervisory support and work-life balance.

H2: There is a positive relationship between supervisory support and work-life balance.

Building upon the previous hypotheses, the fourth hypothesis explores the moderating role of supervisory support. Prior literature suggests that while workload typically has a negative

impact on work-life balance, the presence of strong supervisory support can buffer or weaken this effect. The JD-R Model supports this proposition by asserting that job resources (like supervisor support) can moderate the relationship between job demands (workload) and strain outcomes (such as poor work-life balance). Similarly, COR Theory explains that support helps individuals replenish depleted resources and manage the impact of stressors. Hence, it is proposed that supervisory support moderates the relationship between workload and work-life balance, with the negative effects of workload being lessened when supervisory support is strong.

H3: Supervisory support moderates the relationship between workload and work-life balance, such that higher supervisor support weakens the negative effect of workload on work-life balance.

2.11 Summary of Chapter

This chapter has examined relevant literature and theoretical frameworks concerning workload, supervisory support, and work-life balance (WLB). It began by defining each variable, followed by discussions on their individual significance in organizational settings. The chapter also reviewed empirical evidence on the direct relationship between workload and WLB, the contribution of supervisory support in enhancing employee outcomes, and how supervisory support functions as a moderating variable. Three established theories JD-R Model, Social Exchange Theory, and Conservation of Resources Theory were used to underpin the conceptual framework. The chapter concluded with the formulation of three hypotheses that serve as the foundation for this study, offering a structured basis for the research methodology presented in the following chapter.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology employed to examine the relationship between workload and work-life balance (WLB), as well as the moderating effect of supervisory support among employees in this organization. The study framework, design, operational definitions, variable measurement, sample strategies, data collection processes, and analytic methodologies are all covered in detail in this chapter. This structured approach ensures that the study's objectives and hypotheses are tested in a systematic and reliable manner.

3.2 Research Design

The core ideas and assumptions that form the foundation for this research are grounded in positivist philosophy. According to Khatri (2020), research philosophy refers to the underlying belief about how knowledge is developed. In this study, positivism was adopted, which is based on two key principles: objective observation of reality and quantitative measurement of data. Positivist researchers operate under the belief that an objective reality exists and can be accurately observed, measured, and analyzed through systematic and scientific approaches (Park et al., 2020). The aim of this study is to explore and assess the relationship between workload and work-life balance (WLB), while also investigating the potential moderating role of supervisory support in this relationship. By applying empirical evidence, the study seeks to generate generalizable findings that can be applied to this company.

A quantitative research approach is considered suitable for this study as it allows the researcher to test the proposed hypotheses using numerical data and statistically assess the strength and direction of the relationships between variables. To find out how respondents felt about work-life balance, supervisor support, and workload, a standardized questionnaire with Likert scale items was used. The research framework is grounded in well-established theories, including

the Job Demands–Resources (JD-R) Model, Social Exchange Theory, and the Conservation of Resources (COR) Theory. These theories guided the formulation of hypotheses and helped define the interactions among the study variables.

This study uses a deductive reasoning approach, which is typical of quantitative research and involves drawing hypotheses from the body of existing literature and testing them via data analysis. Descriptive, quasi-experimental, and experimental correlational research are the most suitable forms of quantitative research for this topic. Correlational research is conducted to determine the direction and strength of relationships between two or more variables without manipulating them. In this context, the study examines the relationship between workload and work-life balance, along with the possible moderating effect of supervisory support. By examining patterns and associations that occur naturally, this approach helps identify trends in SMEs that can inform workplace policy and management practices.

3.3 Measurements

The variables in this study workload, supervisory support, and work-life balance were measured using established and validated instruments adapted from previous research to ensure reliability and content validity. Each construct was operationalized based on clear definitions from the literature and measured using multiple items on a 5-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). The use of multiple items for each variable enhances measurement accuracy and reduces the risk of random error. Table 1 presents the operational definitions, sources, and items used for each construct in this study.

Table 1Instrumentation Table

Variable	Operational definition	Source	Item
Workload	Workload refers to the perceived amount and intensity of job tasks assigned to employees, including time pressure,	Lei et al., (2023)	1. I have more work to do within time period. 2. I often have to work very hard to meet deadlines. 3.3. I feel overwhelmed by the more work I have to do.

	long working hours, and task complexity.		4. I work under time pressure. 5. The workload assigned to me is more than I can handle.
Supervisory support	This variable represents the degree of emotional, informational, and instrumental support perceived by employees from their immediate supervisors	Hammer et al., (2009)	1. My supervisor makes me feel comfortable discussing personal issues. 2. My supervisor arrange my work schedule when I have family concerns. 3. My supervisor shows empathy when I'm dealing with non-work demands. 4. My supervisor helps me find ways to manage job and personal responsibilities. 5. My supervisor understands my need for work-life balance.
Work-life balance	Defined as the employee's capability to handle work responsibilities effectively alongside personal and family life without experiencing excessive conflict between the two domains	Lei et al., (2023)	1. I am able to stable the demands of work and personal life. 2. My work schedule allows me to spend quality time with my family. 3. I can switch off from work when I am at home. 4. My job gives me flexibility to manage personal responsibilities. 5. I feel satisfied with the balance I have between work and personal life.

A 5-point Likert scale was used in the instrument to gauge respondents' agreement or disagreement with a variety of statements pertaining to each dimension. For example, respondents were requested to rate how often they felt overloaded at work, whether they perceived their supervisor as supportive, and how well they were able to balance work and personal commitments.

Demographic questions were also included to collect data on age, gender, job title, years of service, and sector of employment. These demographic factors may help in understanding variations in responses and serve as control variables in the analysis.

3.4 Data collection

To initiate data collection, the researcher first obtained a formal Data Collection Permission Letter from Universiti Utara Malaysia Kuala Lumpur (UUMKL). This letter was then sent to the participating company's Human Resource (HR) Manager asking for permission to survey its workers. Upon review, the HR Manager granted approval for data collection, with the terms that the company's name and employee identities would remain confidential and would not be disclosed in any part of the study.

Following this approval, the HR Executive was appointed as the internal Person in Charge (PIC) to facilitate the distribution of the online questionnaire. Since the researcher was an external party, direct access to the employee contact list was not possible. Therefore, the HR Executive played a critical role in forwarding the survey link via internal email to employees who met the inclusion criteria that is, individuals currently employed by the company.

To guarantee usability and accessibility, the online survey was housed on Google Forms. The participants were informed of the purpose of the study, the confidentiality of their responses, and the fact that participation was voluntary.

The collection of data period lasted for one week, during which reminders were sent to encourage participation. The researcher maintained regular communication with the HR Executive throughout this period to monitor the response rate and ensure ethical compliance. At no point did the researcher directly handle or view any employee contact details, ensuring full respect for the company’s privacy policy.

3.5 Data Screening

To make sure the replies gathered were accurate, comprehensive, and consistent, data screening was done. First, we looked for inconsistent patterns, outliers, and missing values in the raw dataset. Responses that were not full were not included in the analysis. Frequency distributions

and descriptive statistics were employed to look for anomalies. In order to detect erratic or inattentive responses, attention-check items were also incorporated. After that, valid answers were coded and ready for additional statistical examination.

3.6 Population and Sample Size

The total population for this study consists of approximately 600 employees currently employed at a glove manufacturing company located in Malaysia. This information was obtained directly from the company's Human Resource (HR) Department, which also provided a formal approval letter permitting data collection for academic purposes, on the condition that the company's name remains confidential. The company operates in the healthcare and industrial glove production sector, primarily producing nitrile and latex gloves for both local and export markets.

According to Krejcie and Morgan's (1970) sample size determination table, a population of 600 requires at least 237 respondents to ensure statistical significance and adequate representation. This sample size ensures sufficient power for hypothesis testing and generalizability of findings within the company.

3.7 Sampling Techniques

This study used a convenience sampling method, targeting employees currently employed at the company. This approach was selected for its practicality in accessing respondents who were readily available and willing to participate within the study's timeframe. Instead of randomly selecting participants from the entire population, the researcher distributed the questionnaire to employees who were accessible and met the inclusion criteria, specifically those actively employed by the organization during the data collection period.

Rhis approach was appropriate considering the operational constraints and the goal of obtaining sufficient data for analysis. While convenience sampling may limit the generalizability of the

findings, it allowed the researcher to collect reliable and timely responses from employees across different departments and job roles within the company. A target sample size of 237 respondents was set based on Krejcie and Morgan's (1970) sample size table, which is sufficient for statistical analysis in large populations.

3.8 Data Analysis

The data analysis process included data cleaning, transformation, interpretation, and statistical testing using SPSS Version 26. This procedure made sure the information gathered could be used to evaluate the hypotheses and provide answers to the study questions. A number of statistical techniques were used. Descriptive analysis was first carried out to summarize the demographic profiles of respondents, including gender, age, years of service, job position, and department. This was presented in frequency and percentage distributions to provide a clear overview of the sample composition. Measures of central tendency, such as mean and standard deviation, were also calculated for the main variables workload, supervisory support, and work-life balance to understand the general trends and variability in the dataset.

An Exploratory Factor Analysis (EFA) was performed to validate the factor structure of the measurement instruments and confirm that the items loaded appropriately onto their respective construct workload, supervisory support, and work-life balance. Items with factor loadings below the recommended threshold of 0.50 were removed to improve construct validity. As a result, only two items for each variable were retained, as these demonstrated the highest loadings and strongest representation of the intended construct. This refinement ensured that the final measurement model reflected only the most reliable and valid indicators for each variable.

Next, normality testing was carried out using skewness and kurtosis values, supported by visual inspection of histograms, to assess whether the variables approximated a normal distribution.

Where deviations were found, data transformation techniques were applied to improve normality and meet the statistical assumptions for parametric testing. Reliability analysis using Cronbach's Alpha was then conducted for each variable, with all scales achieving values above the acceptable threshold of 0.70, indicating strong internal consistency.

Following this, Pearson's correlation analysis was used to examine the strength and direction of the relationships between workload, supervisory support, and work-life balance. This was followed by multiple regression analysis to assess the direct effects of workload and supervisory support on work-life balance. Finally, a regression analysis with interaction terms was conducted to test the moderating effect of supervisory support on the relationship between workload and work-life balance.

This multi-stage analytical approach, incorporating both validity and reliability checks as well as hypothesis testing, provided comprehensive empirical evidence to address the research questions and objectives of the study while ensuring that the statistical findings were robust, accurate, and theoretically grounded.

This multi-layered approach allowed for comprehensive testing of the study's hypotheses and generated empirical evidence to support the conceptual framework.

3.9 Summary of the Chapter

This chapter outlined the technique utilized to investigate the moderating effect of supervisory support on the relationship between workload and work-life balance in this organization. The target population, sampling strategy, instrumentation, data collection method, data analysis plan, research design, and research philosophy are all covered. Structured questionnaires and statistical methods like regression and correlation analyses were used in a quantitative, deductive approach. This technique was created to help the production of trustworthy and

broadly applicable conclusions in the upcoming chapter and to guarantee the methodical testing of the research ideas.

CHAPTER 4

DATA ANALYSIS AND FINDING

4.1 Introduction

The findings of the data analysis carried out to address the research goals specified in the preceding chapters are presented in this chapter. To give a comprehensive picture of the respondents' demographic traits, the analysis starts with descriptive data. To confirm that the data satisfy the necessary statistical assumptions and that the measuring tools exhibit internal consistency, factor analysis, normalcy assumption testing, and reliability analysis come next. The link between the variables has then been investigated using regression, correlation, and regression with interaction.

4.2 Response Rate

The data collection process for this study was conducted over a period of one week, beginning on 30th June 2025 and concluding on 6th July 2025. During this time, the questionnaire was distributed to the targeted respondents through the selected data collection channels, ensuring that the intended population had adequate opportunity to participate.

A total of 250 respondents initially participated in the study by completing the questionnaire. Upon preliminary inspection of the dataset, it was observed that there were no instances of missing responses, as all participants answered every item in the questionnaire. This high level of completeness suggests that the questionnaire was well-structured, easily understood, and that the participants were cooperative and engaged in providing their input.

However, before proceeding with the statistical analysis, a data screening process was carried out to ensure the accuracy, reliability, and validity of the dataset. As part of this process, the responses were examined for the presence of outliers using statistical techniques and standardized criteria. Outliers are extreme values that have the potential to distort the results of the analysis, thereby affecting the accuracy of the study’s findings.

From this examination, five cases were identified as outliers. These cases were removed from the dataset to maintain the integrity of the analysis. After the removal of these outliers, the final usable sample size for the study was 245 respondents. This refined dataset was then used for all subsequent statistical analyses.

The achieved sample size of 245 is considered sufficient for the purposes of this study, as it meets the minimum sample size requirements determined earlier in the research design based on the chosen statistical techniques. This rigorous approach to data cleaning and preparation ensures that the results of the study are both credible and representative of the target population.

4.3 Data Cleaning

To guarantee the correctness and integrity of the dataset before analysis, a comprehensive data cleaning procedure was conducted. First off, every responder filled out the survey completely, as evidenced by the fact that no missing values were discovered for any of the items. The minimum and maximum values for each variable in Section A, which collected demographic data, fell within the acceptable and anticipated limits, indicating correct data entry and response validity. All answers to the primary survey items in Sections B, C, and D fell between 1 and 5, which corresponds to the instrument's 5-point Likert scale. To detect response bias such as straight-lining, standard deviations were computed for each respondent's answers, and none of the values were zero, indicating sufficient variation in responses and the absence of uniform answering patterns. Additionally, outlier detection was conducted using SPSS, where eight outliers were identified based on extreme values that could potentially distort the analysis. Following the removal of these five cases (case lists 5, 115, 120, 142, and 144) from the dataset, 245 valid replies were left in the sample, which was judged suitable for further statistical analysis.

4.4 Respondent Profile

Based on Table 2, a total of 245 respondents participated in this study, providing valuable demographic insights into the workforce. In terms of gender, the majority of respondents were male, accounting for 142 individuals or 58.0%, while female respondents comprised 103 individuals (42.0%). With regard to age distribution, the highest proportion of respondents fell within the 21–30 years category (n = 105, 42.9%), followed closely by those aged 31–40 years (n = 102, 41.6%). The least represented age group was 51–60 years, with only 12 respondents (4.9%), suggesting that the sample largely consists of younger employees.

In terms of job titles, the majority of respondents were non-executive employees, representing 211 individuals or 86.1% of the total sample. This was followed by executive (n = 18, 7.3%), senior executive (n = 10, 4.1%), assistant manager (n = 3, 1.2%), and manager (n = 3, 1.2%) roles. The data implies that the respondent pool is primarily composed of operational-level employees. Department-wise, the Production department had the highest representation (n = 185, 75.5%), while departments such as Marketing and Other had the lowest number of respondents, each with only 2 individuals (0.8%). Other departments including Quality (7.8%), Maintenance (6.9%), HR (2.4%), ITS (2.4%), Purchasing (1.6%), and Finance (1.6%) were less represented.

With regard to working experience, the majority of respondents had between 6 to 10 years of experience (n = 116, 47.3%), followed by those with 1 to 5 years (n = 76, 31.0%). A smaller proportion reported having 11 to 15 years of experience (n = 31, 12.7%), while the least represented categories were respondents with less than 1 year (n = 12, 4.9%) and more than 15 years (n = 10, 4.1%).

Overall, the demographic profile in Table 2 indicates that the majority of respondents are male, aged between 21 and 40 years, non-executive level, and predominantly from the production

department with 6 to 10 years of working experience. This suggests that the findings of this study are primarily reflective of the views and experiences of operational-level employees in a production-oriented setting.

Table 2 Summary of Respondent Profile (n=245)

Classifications	**Frequency**	**Percentage (%)**
Gender		
Male	142	58.0
Female	103	42.0
Total	**245**	**100.0**
Age		
21 - 30 years	105	42.9
31 - 40 years	102	41.6
41 - 50 years	26	10.6
51 - 60 years	12	4.9
Total	**245**	**100.0**
Job title		
Non-Executive	211	86.1
Executive	18	7.3
Senior Executive	10	4.1
Assistant Manager	3	1.2
Manager	3	1.2
Total	**245**	**100.0**
Department		
HR	6	2.4
Marketing	2	0.8
ITS	6	2.4
Purchasing	4	1.6
Production	185	75.5
Quality	19	7.8
Maintenance	17	6.9
Finance	4	1.6
Other	2	0.8
Total	**245**	**100.0**
Years of experience		
Less than 1 year	12	4.9
1 - 5 years	76	31.0
6 - 10 years	116	47.3
11 - 15 years	31	12.7
More than 15 years	10	4.1
Total	**245**	**100.0**

4.5 Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) was conducted to assess the construct validity and dimensionality of the measurement items for three variables: workload, supervisor support, and work-life balance. Initially, a total of 15 items were included in the instrument, with five items allocated to each variable. However, based on the factor loadings and interpretability criteria, only six items were found to be suitable for retention two items per construct.

To determine the suitability of the dataset for factor analysis, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were examined, as shown in Table 3. The KMO value obtained was 0.831, which falls within the "meritorious" range as classified by Kaiser (1974), indicating that the sampling is adequate for factor analysis. A value above 0.80 suggests that the variables share common variance and are appropriate for structure detection. Additionally, Bartlett's Test of Sphericity was statistically significant ($\chi^2 = 542.929$, $df = 15$, $p < 0.001$), confirming that the correlation matrix is not an identity matrix. This means there are sufficient inter-item correlations to justify the use of factor analysis. Together, these results provide strong evidence supporting the factorability of the data and the appropriateness of applying Principal Component Analysis for further dimensionality reduction.

Table 3 KMO and Bartlett's Test of Sampling Adequacy

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.831
Bartlett's Test of Sphericity	Approx. Chi-Square	542.929
	df	15
	Sig.	0.000

The communalities of the six retained items were examined to assess how much variance in each variable is explained by the extracted components. As shown in Table 4, the extraction

values for all items exceeded the recommended threshold of 0.50, indicating that each item shared a substantial amount of common variance with the other items in the factor solution. Specifically, the item “My supervisor accommodates my work schedule when I have family concerns” had the highest communality value at 0.821, followed closely by “The workload assigned to me is more than I can handle” (0.809), and “I work under time pressure” (0.807). The lowest communality was observed for the item “I am able to balance the demands of work and personal life” with a value of 0.755, which is still well above the acceptable limit. These high communality values suggest that the selected items are well represented by the extracted factors and contribute meaningfully to the underlying constructs of workload, supervisor support, and work-life balance. This supports the adequacy of the final items retained for subsequent analysis.

Table 4 Communalities of Measured Items

Communalities		
	Initial	Extraction
I work under time pressure.	1.000	0.807
The workload assigned to me is more than I can handle.	1.000	0.809
My supervisor accommodates my work schedule when I have family concerns.	1.000	0.821
My supervisor helps me find ways to manage job and personal responsibilities.	1.000	0.802
I can switch off from work when I am at home.	1.000	0.803
I am able to balance the demands of work and personal life.	1.000	0.755
Extraction Method: Principal Component Analysis.		

The total variance explained by the extracted components is presented in Table 4. Using Principal Component Analysis (PCA), three components with eigenvalues greater than 1.0 were retained in accordance with Kaiser's criterion. The initial eigenvalues show that Component 1 accounted for 56.412% of the total variance, while Component 2 contributed 12.440%, and Component 3 added 11.091%, bringing the cumulative variance explained to 79.943% before rotation. Following Varimax rotation, the variance was more evenly distributed across the three components, with Component 1 explaining 27.107% of the variance, Component 2 explaining 26.451%, and Component 3 explaining 26.384%. The cumulative variance explained after rotation remained at 79.943%, which is considered high and indicates that the three-factor model adequately captures the underlying structure of the data. These results confirm that the extracted components are robust and collectively explain a substantial proportion of the variance in the measured items, supporting the dimensionality of workload, supervisor support, and work-life balance as distinct constructs.

Table 5 Total Variance Explained by Extracted Components

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.385	56.412	56.412	3.385	56.412	56.412	1.626	27.107	27.107
2	0.746	12.440	68.851	0.746	12.440	68.851	1.587	26.451	53.558
3	0.665	11.091	79.943	0.665	11.091	79.943	1.583	26.384	79.943

4	0.470	7.825	87.768						
5	0.403	6.718	94.486						
6	0.331	5.514	100.000						
Extraction Method: Principal Component Analysis.									

The Rotated Component Matrix, as shown in Table 5, presents the final factor structure derived using Principal Component Analysis with Varimax rotation and Kaiser Normalization. The rotation converged in five iterations, yielding a clear three-factor solution with minimal cross-loadings. Factor loadings above 0.50 were considered significant for interpretation. Component 1 represents the construct of Workload, with strong loadings from "I work under time pressure" (0.826) and "The workload assigned to me is more than I can handle" (0.835). These two items clearly align with the conceptual definition of workload, capturing perceived job pressure and task overload. Component 2 captures the dimension of Supervisor Support, as evidenced by high loadings from "My supervisor accommodates my work schedule when I have family concerns" (0.830) and "My supervisor helps me find ways to manage job and personal responsibilities" (0.806). These items reflect direct supervisor involvement in facilitating work-life integration. Component 3 reflects the construct of Work-Life Balance, supported by the items "I can switch off from work when I am at home" (0.848) and "I am able to balance the demands of work and personal life" (0.779). These items indicate an individual's perceived ability to separate work from personal life and maintain equilibrium between both domains. The results confirm that each pair of items loads distinctly onto a single component, supporting the convergent and discriminant validity of the constructs. The three-factor solution aligns well with the theoretical framework of the study, validating the use of these items in subsequent statistical analyses such as correlation and regression.

Table 6 Rotated Component Matrix for the Final Factor Solution

Rotated Component Matrix[a]			
	Component		
	1	2	3
I work under time pressure.	0.826	0.310	0.167
The workload assigned to me is more than I can handle.	0.835	0.155	0.296
My supervisor accommodates my work schedule when I have family concerns.	0.145	0.830	0.334
My supervisor helps me find ways to manage job and personal responsibilities.	0.350	0.806	0.175
I can switch off from work when I am at home.	0.220	0.187	0.848
I am able to balance the demands of work and personal life.	0.234	0.307	0.779
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.[a]			
a. Rotation converged in 5 iterations.			

In conclusion, the results of the Exploratory Factor Analysis (EFA) confirmed that the measurement items retained for workload, supervisor support, and work-life balance are valid and reliable representations of their respective constructs. The adequacy of the sample was verified through a high KMO value and a significant Bartlett's Test, while the extracted communalities demonstrated that each item contributed meaningfully to the factor structure. The total variance explained exceeded 79%, and the rotated component matrix revealed a clear and interpretable three-factor solution with minimal cross-loadings. Each construct was distinctly represented by two strong-loading items, supporting both the convergent and discriminant validity of the instrument.

4.6 Normality Assessment

Normality assessment is a critical step in data analysis to determine whether the data distribution meets the assumptions required for conducting parametric statistical tests. In this study, normality was assessed using descriptive statistics generated through SPSS, specifically by examining skewness and kurtosis values for each variable. To evaluate the distribution of the dataset prior to performing parametric analyses, normality was assessed using skewness and kurtosis values for the three key variables: workload, supervisor support, and work-life balance, as presented in Table 4.6. Each variable had a sample size of 245 with no missing data.

Table 7 Normality Assessment

		Workload	SS_	WLB
N	Valid	245	245	245
	Missing	0	0	0
Std. Deviation		1.11218	1.06970	1.05349
Skewness		-1.215	-0.834	-0.890
Std. Error of Skewness		0.156	0.156	0.156
Kurtosis		0.359	-0.486	-0.120
Std. Error of Kurtosis		0.310	0.310	0.310
Minimum		1.00	1.00	1.00
Maximum		5.00	5.00	5.00

The skewness values for workload (-1.215), supervisor support (-0.834), and work-life balance (-0.890) indicate that all three variables are negatively skewed, meaning that the majority of respondents tended to select higher scores on the Likert scale. This suggests that participants generally perceived higher levels of workload, supervisor support, and work-life balance. Similarly, the kurtosis values for all variables—0.359 for workload, -0.486 for supervisor support, and -0.120 for work-life balance.

4.7 Assessment of Normality (Transformed Variable)

As discussed in Section 4.4, the original distributions of the three main variables in this study workload, supervisor support, and work-life balance were found to be negatively skewed. Skewness in a dataset indicates that the distribution of values is not symmetrical around the mean, which can lead to violations of the assumptions required for many parametric statistical techniques, such as correlation, regression, and ANOVA. Since these techniques were intended to be used in the subsequent analyses, it was essential to address this issue to ensure that the statistical results would be valid, reliable, and not biased by non-normal data patterns.

To correct for this deviation from normality, a series of data transformation methods were systematically explored and applied. Specifically, three transformation techniques were considered: inverse transformation, Log10 transformation, and square root transformation. The choice of transformation method for each variable was guided by the severity and direction of its skewness, as well as the nature of the measurement scale. Given that all variables in this study were measured on positively bounded scales, such as the Likert-type scale, transformations that are effective in reducing negative skewness while maintaining interpretability were prioritized.

The process began by applying each transformation type to the variables and then re-evaluating their distributional characteristics. For the workload variable, the inverse transformation was found to be the most effective in shifting the distribution towards symmetry, resulting in the transformed variable named Inv_RefWorkload. For the supervisor support variable, a Log10 transformation yielded the best improvement in normality, producing the transformed variable log10_refSS. Similarly, the work-life balance variable responded best to the Log10 transformation, producing the transformed variable log10_refWLB. The square root transformation was tested during the preliminary process but was ultimately not retained, as it was less effective in reducing skewness compared to the inverse and Log10 transformations.

The rule of thumb adopted for this analysis is that z-scores within the range of ±3.29 indicate no significant deviation from normality.

This threshold is supported by several established references. According to Kim (2013), z-values for skewness and kurtosis between -3.29 and +3.29 are acceptable for large samples when assessing univariate normality. Kim emphasized that in practical applications, especially in social and behavioural sciences, such a range is sufficient to assume approximate normality.

Tabachnick and Fidell (2013) also recommend using ±3.29 as a conservative benchmark for large samples, suggesting that if z-scores for skewness and kurtosis fall within this range, the data can be treated as normally distributed for most parametric procedures. They further argue that minor deviations from normality are unlikely to seriously impact statistical conclusions when sample sizes are reasonable.

Additionally, West, Finch, and Curran (1995) noted that although less strict cutoffs such as skewness <2 and kurtosis <7 are sometimes used, applying a stricter threshold like ±3.29 provides stronger assurance of normality, particularly when conducting structural equation modelling or regression analysis.

In Table 8, all three variables recorded z-skewness and z-kurtosis values within the ±3.29 threshold. Supervisor Support had a z-skewness of 1.432 and z-kurtosis of -3.105; Work-Life Balance recorded 0.953 and -2.567, respectively; and Workload showed 1.411 and -1.933. Since all values fall within the acceptable range, the distributions of the transformed variables can be considered approximately normal. As a result, parametric statistical methods like multiple regression and Pearson correlation can be used suitably in further analyses as the assumption of normalcy has been met.

Table 8 Descriptive Statistics- Normality Assessment

		log10_refSSlatest	Log10_refWLBlatest	Inv_RefWorkload
N	Valid	245	245	245
	Missing	0	0	0
Mean		0.3010	0.3090	0.5736
Std. Deviation		0.20111	0.19650	0.23365
Skewness		0.223	0.148	0.219
Std. Error of Skewness		0.156	0.156	0.156
Z-score Skewness		1.432	0.953	1.411
Kurtosis		-0.962	-0.796	-0.599
Std. Error of Kurtosis		0.310	0.310	0.310
Z-score Kurtosis		-3.105	-2.567	-1.933
Minimum		0.00	0.00	0.20
Maximum		0.70	0.70	1.00

4.8 Reliability Analysis

A reliability assessment was performed to evaluate how consistently the items measured the three key constructs: workload, supervisor support, and work-life balance. Cronbach's Alpha (α) was used to evaluate the reliability of each scale, indicating the degree to which the items within a scale are correlated and measure the same underlying construct. In social science research, it is one of the most widely used measures to assess the trustworthiness of scales.

Cronbach's Alpha was interpreted based on the guideline by George and Mallery (2003), which suggests that values closer to 1.0 reflect a higher level of internal consistency. Although slightly lower values may be accepted in exploratory research, a Cronbach's Alpha value of 0.70 or over is generally regarded as acceptable. Table 9 below provides a summary of the entire classification.

The results of the reliability analysis are summarized in Table 9. All three variables as such workload, supervisor support, and work-life balance demonstrated acceptable levels of internal

consistency. The Cronbach's Alpha for Log10_RefWorkload was 0.754, while log10_refSSlatest and Log10_refWLBlatest recorded alpha values of 0.750 and 0.720, respectively. According to George and Mallery's (2003) guideline, the values are considered to be in the "acceptable" range ($0.70 \leq \alpha < 0.80$), indicating that the items used for each construct possess adequate reliability for further statistical analysis. These findings provide assurance that the scales used to measure the three constructs are consistent and dependable, thereby supporting the validity of subsequent analyses such as correlation and regression.

Table 9 Summary of Reliability Analysis

Variables	**Cronbach's Alpha (α)**	**Internal Consistency**
Log10_RefWorkload	0.754	Acceptable
log10_refSS	0.750	Acceptable
Log10_refWLB	0.720	Acceptable

4.9 Correlation Analysis

To determine the direction and intensity of the linear correlations between the three main study variables workload, supervisor assistance, and work-life balance correlation analysis was conducted. Pearson's correlation coefficient (r) was utilized to evaluate the bivariate relationships between the variables as the data satisfied the premise of normalcy. In social science research, Pearson's r is frequently used to assess the strength of linear connection and is suitable for continuous data.

Standard criteria serve as a reference for interpreting correlation strength; a correlation coefficient of 0.10 to 0.29 is regarded as weak, 0.30 to 0.49 as moderate, and 0.50 and higher as substantial (Akxoglu, 2018). An inverse link, in which one variable rises as the other falls, is suggested by a negative coefficient, whereas a positive coefficient shows a direct relationship, in which both variables increase together.

Table 10 Correlation Analysis

Variables		log10_refSS	Log10_refWLB	Inv_RefWorkload
log10_refSS	Pearson Correlation	1	.486**	-.439**
	Sig. (2-tailed)		0.000	0.000
	N	245	245	245
Log10_refWLB	Pearson Correlation	.486**	1	-.418**
	Sig. (2-tailed)	0.000		0.000
	N	245	245	245
Inv_RefWorkload	Pearson Correlation	-.439**	-.418**	1
	Sig. (2-tailed)	0.000	0.000	
	N	245	245	245

Work-life balance and supervisor support showed a somewhat positive connection ($r = 0.486$, $p < 0.001$), indicating that respondents who had higher levels of supervisor support also had better work-life balance. This suggests that encouraging supervisory behaviours could improve workers' capacity to successfully balance work and personal obligations.

Furthermore, there was a negative correlation between workload and work-life balance ($r = -0.418$, $p < 0.001$) as well as supervisor support ($r = -0.439$, $p < 0.001$). These somewhat negative correlations show that a higher workload is linked to less assistance from supervisors and a worse work-life balance. Put differently, workers who are overworked are less likely to feel that their managers are supporting them and are more likely to find it difficult to manage their personal and professional life.

4.10 Regression Analysis

The impact of supervisor support and workload on work-life balance was investigated using regression analysis. This technique aids in determining if the effects of the independent

variables are statistically significant and how well they predict the dependent variable. The findings shed light on the direction and strength of these connections.

Table 11 Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.537[a]	0.288	0.282	0.16646
a. Predictors: (Constant), Inv_RefWorkload, log10_refSS				

Table 11 presents the results of the model summary for the multiple linear regression analysis conducted to examine the extent to which supervisor support and workload predict work-life balance. The model yielded an R value of 0.537, indicating a moderate degree of multiple correlation between the set of predictors and the dependent variable. The coefficient of determination (R^2) was 0.288, suggesting that 28.8% of the variance in work-life balance (log10_refWLBlatest) is accounted for by the linear combination of supervisor support (log10_refSSlatest) and workload (Inv_RefWorkload). The adjusted R^2, which adjusts for the number of predictors and sample size, was slightly lower at 0.282, indicating the model's generalizability to the population. The standard error of the estimate (SEE) was 0.16646, reflecting the standard deviation of the residuals and indicating the typical distance between observed and predicted values. These findings demonstrate that the model provides a statistically meaningful explanation of variation in work-life balance.

Table 12 ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.716	2	1.358	49.007	.000[b]
	Residual	6.706	242	0.028		

	Total	9.421	244			
a. Dependent Variable: Log10_refWLB						
b. Predictors: (Constant), Inv_RefWorkload, log10_refSS						

Table 12 displays the Analysis of Variance (ANOVA) results for the multiple linear regression model examining the effects of supervisor support and workload on work-life balance. The model was statistically significant, $F(2, 242) = 49.007$, $p < 0.001$, indicating that the combined predictors significantly explain variance in the dependent variable.

Specifically, the regression sum of squares was 2.716, while the residual sum of squares was 6.706, resulting in a total sum of squares of 9.421. The mean square for regression was 1.358, and the mean square for residual was 0.028. The statistically significant F-ratio confirms that the overall regression model provides a better fit to the data than a model with no predictors. Thus, both supervisor support and workload, as a set, significantly predict work-life balance.

Table 13 Coefficients Table

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.321	0.042		7.716	0.000
	log10_refSS	0.366	0.059	0.375	6.210	0.000
	Inv_RefWorkload	-0.213	0.051	-0.253	-4.198	0.000
a. Dependent Variable: Log10_refWLB						

Table 13 presents the coefficients of the multiple linear regression model predicting work-life balance (Log10_refWLBlatest) based on supervisor support (log10_refSSlatest) and workload (Inv_RefWorkload). The model's intercept (constant) was statistically significant, $B = 0.321$, $t = 7.716$, $p < 0.001$, indicating the expected baseline level of work-life balance when both predictors are held at zero.

For the independent variables, supervisor support had a positive and statistically significant effect on work-life balance (B = 0.366, β = 0.375, t = 6.210, $p < 0.001$). This suggests that a one-unit increase in the log-transformed supervisor support variable is associated with a 0.366 unit increase in the log-transformed work-life balance score, holding workload constant. The standardized beta value (β = 0.375) indicates that supervisor support is a moderately strong predictor in the model.

Conversely, workload had a negative and statistically significant effect on work-life balance (B = -0.213, β = -0.253, t = -4.198, $p < 0.001$). This indicates that an increase in the inverse-transformed workload variable (which corresponds to higher actual workload) is associated with a decrease in work-life balance. The negative beta coefficient (β = -0.253) confirms the inverse relationship, showing that higher workload levels predict lower work-life balance.

In summary, both predictors supervisor support and workload are statistically significant, with supervisor support positively influencing and workload negatively influencing employees' perceived work-life balance.

4.11 Regression with Interaction

To examine whether supervisor support moderates the relationship between workload and work-life balance, a hierarchical multiple regression analysis was conducted by including an interaction term between workload and supervisor support. This analysis aims to determine if the effect of workload on work-life balance changes depending on the level of supervisor support. The interaction term was computed by multiplying the centered or transformed values of workload and supervisor support, and was entered into the regression model after the main effects. The significance of the interaction term indicates whether moderation is present.

Table 14 Model Summary of Interaction

Model Summary[d]									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.418[a]	0.175	0.171	0.17886	0.175	51.491	1	243	0.000
2	.537[b]	0.288	0.282	0.16646	0.113	38.564	1	242	0.000
3	.590[c]	0.348	0.340	0.15964	0.060	22.130	1	241	0.000
a. Predictors: (Constant), Inv_RefWorkload									
b. Predictors: (Constant), Inv_RefWorkload, log10_refSS									
c. Predictors: (Constant), Inv_RefWorkload, log10_refSS, Interaction									
d. Dependent Variable: Log10_refWLB									

A hierarchical multiple regression was conducted to examine the moderating effect of supervisor support on the relationship between workload and work-life balance. In Model 1, only workload was entered as the predictor, resulting in an R value of 0.418 and an R^2 of 0.175, indicating that workload alone explained 17.5% of the variance in work-life balance ($F(1,243) = 51.491$, $p < 0.001$).

In Model 2, supervisor support was added to the model alongside workload. The R value increased to 0.537, and the R^2 rose to 0.288, accounting for 28.8% of the variance. The R^2 change from Model 1 to Model 2 was 0.113, which was statistically significant (F change = 38.564, $p < 0.001$), indicating that supervisor support contributed significantly to the model's explanatory power.

In Model 3, the interaction term (Workload × Supervisor Support) was included to assess the moderating effect. This resulted in an R value of 0.590 and an R^2 of 0.348, suggesting that 34.8% of the variance in work-life balance was explained when the interaction was considered. The R^2 change from Model 2 to Model 3 was 0.060, which was also statistically significant (F change = 22.130, $p < 0.001$). This significant increase confirms that the interaction between workload and supervisor support has a meaningful impact on work-life balance, supporting the hypothesis that supervisor support moderates the relationship between workload and work-life balance.

Table 15 ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.647	1	1.647	51.491	.000[b]
	Residual	7.774	243	0.032		
	Total	9.421	244			
2	Regression	2.716	2	1.358	49.007	.000[c]
	Residual	6.706	242	0.028		
	Total	9.421	244			
3	Regression	3.280	3	1.093	42.901	.000[d]
	Residual	6.142	241	0.025		
	Total	9.421	244			
a. Dependent Variable: Log10_refWLB						
b. Predictors: (Constant), Inv_RefWorkload						
c. Predictors: (Constant), Inv_RefWorkload, log10_refSS						
d. Predictors: (Constant), Inv_RefWorkload, log10_refSS, Interaction						

The analysis of variance (ANOVA) for all three regression models as shown in Table 15 revealed statistically significant results at $p < .001$, indicating that each model provides a significantly better fit than a model with no predictors. . In the first model, which included only

workload as the predictor, the F-value was 51.491 with 1 and 243 degrees of freedom, showing that workload alone significantly contributes to explaining variance in work-life balance. When supervisor support was added in Model 2, the overall model fit improved, with an F-value of 49.007 (df = 2, 242), confirming that supervisor support provides additional explanatory power beyond workload. In Model 3, the interaction term between workload and supervisor support was introduced, further improving the model with an F-value of 42.901 (df = 3, 241). These results demonstrate that each predictor workload, supervisor support, and their interaction significantly contributes to the explanation of variance in the dependent variable, work-life balance.

Table 16 Coefficients

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.511	0.030		16.829	0.000
	Inv_RefWorkload	-0.352	0.049	-0.418	-7.176	0.000
2	(Constant)	0.321	0.042		7.716	0.000
	Inv_RefWorkload	-0.213	0.051	-0.253	-4.198	0.000
	log10_refSSlatest	0.366	0.059	0.375	6.210	0.000
3	(Constant)	0.293	0.040		7.251	0.000
	Inv_RefWorkload	-0.171	0.049	-0.204	-3.462	0.001
	log10_refSSlatest	0.304	0.058	0.311	5.236	0.000
	Interaction	-1.125	0.239	-0.263	-4.704	0.000
a. Dependent Variable: Log10_refWLB						

In Model 1, where workload was entered as the sole predictor, the analysis revealed a significant negative direct effect on work-life balance. This indicates that higher workload is associated with lower levels of work-life balance. In Model 2, when both workload and

supervisor support were included in the regression model, workload continued to exert a significant negative effect, while supervisor support showed a significant positive direct effect on work-life balance. This suggests that employees who perceive higher levels of supervisor support are more likely to report better work-life balance.

In Model 3, the inclusion of the interaction term between workload and supervisor support revealed a statistically significant moderating effect. This finding indicates that supervisor support moderates the relationship between workload and work-life balance. Specifically, the negative impact of workload on work-life balance is amplified when supervisor support is low, and weakened when supervisor support is high. Therefore, supervisor support not only directly improves work-life balance but also plays a buffering role in mitigating the adverse effects of high workload.

The results from the hierarchical multiple regression analysis provide strong evidence supporting the moderating role of supervisor support in the relationship between workload and work-life balance. The inclusion of the interaction term significantly improved the model's explanatory power, as reflected in the increase in R^2 and the statistically significant F-change. These findings suggest that while workload negatively impacts employees' ability to maintain work-life balance, the presence of strong supervisor support can alleviate this adverse effect. In other words, supervisor support serves not only as a direct positive influence on work-life balance but also as a protective factor that buffers the detrimental impact of high workload. This highlights the importance of managerial practices that foster supportive work environments, particularly for employees experiencing high job demands.

4.12 Hypothesis Testing

This section presents the results of the hypothesis testing based on the statistical analyses conducted in relation to the study's research objectives. A combination of Pearson correlation analysis and moderated multiple regression was employed to test the formulated hypotheses.

Specifically, Pearson correlation was used to examine the direct relationships between workload, supervisory support, and work-life balance, while regression analysis was applied to test the moderating effect of supervisory support on the relationship between workload and work-life balance. Each hypothesis was tested at a 95% confidence level ($\alpha = 0.05$), and decisions to accept or reject the null hypotheses were based on the significance values (p-values) obtained from the analyses. The outcomes of each hypothesis are discussed in the following sub-sections, along with the statistical evidence supporting the results.

4.12.1 Hypothesis 1

Null Hypothesis, H_0: There is no significant relationship between workload and work-life balance.

Alternative Hypothesis, H_α: There is a negative relationship between workload and work-life

Results: Model 1 of the regression analysis showed that workload (Inv_RefWorkload) had a statistically significant negative effect on work-life balance ($\beta = -0.418$, $p < 0.001$).

Interpretation: Since the relationship is significant and the coefficient is negative, the null hypothesis is rejected. This supports the alternative hypothesis, indicating that higher workload is associated with lower work-life balance.

4.12.2 Hypothesis 2

Null Hypothesis, H_0: There is no significant relationship between supervisory support and work-life balance.

Alternative Hypothesis, H_α: There is a positive relationship between supervisory support and work-life balance.

Results: In Model 2 of the regression analysis, supervisory support (log10_refSS) significantly and positively predicted work-life balance ($\beta = 0.375$, $t = 6.210$, $p < 0.001$), while workload

remained significant. The inclusion of supervisory support increased the R^2 from 0.175 to 0.288.

Interpretation: The null hypothesis is rejected, and the alternative hypothesis is supported. This indicates that greater supervisory support significantly enhances employees' work-life balance.

4.12.3 Hypothesis 3

Null Hypothesis, H_0: There is no significant moderating effect of supervisory support on the relationship between workload and work-life balance.

Alternative Hypothesis, H_α: Supervisor support moderates the relationship between workload and work-life balance, such that higher supervisor support weakens the negative effect of workload on work-life balance.

Results: In Model 3, the interaction term between workload and supervisor support was statistically significant but the direction of the interaction term (β = -0.263, t = -4.704, $p < 0.001$), and the R^2 increased from 0.288 to 0.348, with an R^2 change of 0.060 (F change = 22.130, $p < 0.001$).

Interpretation: The alternative hypothesis is rejected. These findings confirm the presence of a moderation effect. However, the direction of the interaction term is negative, which contradicts the hypothesized expectation that higher supervisory support would buffer or weaken the negative effect of workload on work-life balance. Instead, the results suggest that as supervisory support increases, the negative impact of workload on work-life balance becomes stronger. Therefore, although the moderating effect is statistically significant, it does not support the theoretical assumption of a buffering role.

Table 17 Summary of Hypothesis Testing

Hypothesis	Alternative Hypothesis (H_α)	Test & Result	Decision
H_1	There is a significant negative relationship between workload and work-life balance.	Regression analysis: Significant negative relationship [0.000 < 0.05 (p-value)]	H_1 Accepted
H_2	There is a significant relationship between supervisory support and work-life balance.	Regression analysis: Significant positive relationship [0.000 < 0.05 (p-value)]	H_2 Accepted
H_3	Supervisory support significantly moderates the relationship between workload and work-life balance.	Interaction regression: Significant moderation effect [0.000 < 0.05 (p-value)] (Standardized coefficient, Beta = -0.263)	H_3 Rejected (SS is expected to buffer the negative effect of workload on WLB, thus, positive moderation is expected. However, interaction beta value in regression analysis shows a negative beta, so although it is significant, it does not support theory which proposed SS supposedly reduce the effect.)

4.13 Conclusion

This chapter presented the results of the statistical analyses conducted to examine the relationships between workload, supervisory support, and work-life balance. The analysis began with data screening procedures, including normality assessment and reliability tests. All measurement items were found to be normally distributed after transformation, and internal consistency for each variable was confirmed with acceptable Cronbach's alpha values.

Exploratory factor analysis (EFA) validated the construct validity of the instrument, with three distinct factors emerging corresponding to workload, supervisory support, and work-life balance. The Kaiser-Meyer-Olkin (KMO) value of 0.831 and the significant Bartlett's Test of Sphericity confirmed sampling adequacy for factor analysis.

Correlation analysis revealed significant relationships among the three constructs, particularly a negative correlation between workload and work-life balance and a positive correlation between supervisory support and work-life balance. Multiple regression analysis further confirmed that both workload and supervisory support are significant predictors of work-life balance. Specifically, higher workload was associated with lower work-life balance, while greater supervisory support was associated with higher work-life balance.

Finally, the hierarchical regression analysis revealed that supervisory support significantly moderates the relationship between workload and work-life balance, as indicated by a statistically significant interaction effect ($p < 0.001$). However, the standardized coefficient for the interaction term was negative ($\beta = -0.263$), suggesting that supervisory support actually strengthens the negative impact of workload on work-life balance rather than buffering it. This finding contradicts the theoretical expectation that supervisory support would mitigate the adverse effects of high workload, thereby promoting better work-life balance. Although the moderation effect is statistically significant, the direction of the relationship does not align with the proposed hypothesis. As a result, Hypothesis 3 is rejected.

In conclusion, the findings support all four hypotheses and highlight the importance of both reducing workload and enhancing supervisory support to improve employees' work-life balance. These results serve as a foundation for the discussions and implications that will be presented in the next chapter.

CHAPTER 5

CONCLUSION

5.1 Introduction

The study's main conclusions are covered in this chapter along with their connections to the goals of the investigation, pertinent literature, and theoretical underpinnings. The study investigated the relationship between workload and work-life balance as influenced by supervisory assistance. By doing this, it sought to comprehend not just whether these factors are related, but also how they interact in actual work environments. The three research objectives of the study serve as the framework for the debate, which emphasizes both anticipated and surprising results. The chapter to discuss the findings' practical ramifications for businesses, especially HR divisions looking to enhance worker well-being. The chapter also discusses the research's limitations and offers ideas for more research.Overall, this chapter helps bring meaning to the numbers and statistical results presented earlier, offering insight into what they actually mean for people and organizations.

5.2 Discussion of Findings

5.2.1 Relationship Between Workload and Work-Life Balance

The findings revealed a significant negative relationship between workload and work-life balance (WLB) among employees. This supports Hypothesis 1, indicating that as workload increases, employees experience greater difficulty in maintaining a positive balance between their professional and personal lives. The regression analysis ($\beta = -0.253$, $p < 0.001$) and correlation analysis ($r = -0.418$, $p < 0.001$) both demonstrated that higher perceived workload is associated with lower work-life balance.

This result aligns with the Job Demands-Resources (JD-R) theory, which assumes that high job demands such as time pressure and excessive responsibilities which can deplete an employee’s energy, leading to strain and reduced well-being. Employees in this study who reported

working under time pressure or handling more than they could manage were less likely to achieve work-life balance, consistent with findings by Bakker and Demerouti (2007) and Sonnentag et al., (2021). This highlights the critical need for organizations, especially in manufacturing settings, to manage workload effectively to promote employee well-being.

5.2.2 Relationship Between Supervisor Support and Work-Life Balance

The study found a positive relationship between supervisor support and work-life balance, supporting Hypothesis 2. Regression analysis showed that supervisor support was a significant predictor of WLB ($\beta = 0.375$, $p < 0.001$), and correlation results also confirmed this association ($r = 0.486$, $p < 0.001$).

This is consistent with findings from Kossek et al., (2017) and Hammer et al. (2009), who emphasized that supervisory support particularly emotional and instrumental support can significantly improve employees' ability to manage work and personal responsibilities. The JD-R theory further supports this result by positioning supervisor support as a key job resource that can enhance employee resilience and well-being. In practice, supervisors who accommodate family-related needs, adjust schedules, or show empathy contribute directly to improving employees' perceptions of balance between work and life.

5.2.3 Moderating Role of Supervisor Support

The regression analysis with the interaction term between workload and supervisory support revealed a statistically significant moderating effect, supporting Hypothesis 3. Specifically, the inclusion of the interaction term led to a meaningful increase in explained variance, where R^2 rose from 0.288 to 0.348, with an R^2 change of 0.060 (F change = 22.130, $p < 0.001$). The interaction effect was significant, with a standardized coefficient of $\beta = -0.263$ and $p < 0.001$.

This finding demonstrates that the relationship between workload and work-life balance is moderated by supervisory support. Nevertheless, the interaction term was negative, defying the notion that more supervisory support would mitigate the adverse impact of workload. This

implies that under circumstances of excessive workload, work-life balance remains low even in the presence of strong supervisory assistance.

This result suggests that supervisory support's ability to reduce stress may be restricted in extremely demanding workplaces, especially those with multitasking, long workdays, and operational limitations. Despite being statistically significant, supervisory support may not be as beneficial in the actual world when job demands become too great. This is consistent with recent research showing that under excessive workload conditions, job resources such as supervisory support lose their buffering power (Lei et al., 2023; Pichler et al., 2017).

The buffering hypothesis of the Job Demands-Resources (JD-R) paradigm is thus supported by the statistical model, but the practical implications are more complex. Without structural efforts to regulate workload and job expectations, supervisory support might not be enough to sustain employee work-life balance.

5.3 Implication

This study, with its focus on workload and supervisor support, provides valuable insights into the factors influencing work-life balance (WLB) in the workplace. By examining how these elements interact, the research contributes both theoretically and practically to the broader understanding of employee well-being. The implications are discussed in two domains: theoretical and practical, highlighting how the findings can guide future research and inform organizational policies and management practices.

5.3.1 Theoretical Implication

This research advances the theoretical understanding of work-life balance by applying and extending the Job Demands–Resources (JD-R) model in the context of the Malaysian manufacturing industry. The findings support the JD-R model's assertion that workplace demands, such as workload, negatively affect employees' well-being, specifically their ability

to maintain a healthy work-life balance. Importantly, the results also relate to the buffering hypothesis of the JD-R model, which posits that job resources in this case, supervisor support can moderate the relationship between job demands and employee well-being.

Additionally, the study revealed a significant negative correlation between workload and supervisor support, offering an unexpected perspective that challenges the reciprocity assumption of Social Exchange Theory (SET). Instead of increasing support under high demands, the findings suggest that heavier workloads may coincide with lower perceived supervisory support. This highlights the need for further theoretical exploration into how support systems operate under pressure, especially in high-demand environments.

By emphasizing the role of supervisor support, the study contributes to the literature by demonstrating that supportive leadership can directly improve WLB and potentially reduce the negative effects of high workload, although the nature and consistency of this moderating effect may vary depending on contextual factors.

5.3.2 Practical Implication

From a practical standpoint, the findings provide important guidance for supervisors, HR practitioners, and organizational leaders, particularly in the manufacturing sector. The strong negative relationship between workload and WLB underscores the need for structured workload management strategies. Organizations should ensure equitable task allocation, realistic deadlines, and periodic workload audits to prevent burnout.

Given the crucial role of supervisor support, companies should invest in targeted leadership training that develops interpersonal competencies such as empathy, effective communication, and emotional intelligence. These skills enable supervisors to provide meaningful support,

especially during high-demand periods. Creating a psychologically safe workplace where employees can openly discuss personal challenges is equally important.

Flexible work policies including flexible scheduling, shift adjustments, and compassionate leave can further enhance employees' ability to balance work and personal life. The unexpected finding of a negative link between workload and perceived supervisory support suggests that support may diminish when it is most needed. To address this, HR teams should implement continuous feedback mechanisms, such as regular check-ins or pulse surveys, to monitor employees' perceptions of support and intervene early when gaps are identified.

Ultimately, while high workloads may be inherent in manufacturing operations, their impact on employee well-being can be significantly mitigated through intentional, well-structured supervisory support systems.

5.4 Limitation of the study

Despite providing useful information about the connection between workload, supervisor support, and work-life balance for workers in our country's manufacturing industry, this study has drawbacks. Mainly, the study employed a cross-sectional research strategy, which collects data at a precise moment in time. As a result, the findings may indicate correlations but not causality between the variables. A longitudinal approach could be useful for future studies to better understand how these associations change over time.

Furthermore, the study only used questionnaires to gather self-reported data. Despite being effective in capturing attitudes and impressions, this approach is prone to subjective interpretation, social desirability bias, and common method bias. It's possible that respondents overestimated or underestimated their workload or the degree of assistance they thought their

superiors provided. Future research may be more valid if multi-source data is included, such as objective workload measures or supervisor evaluations.

Thirdly, the study was limited to a certain industry, like manufacturing, and a Malaysian setting, which would have made it harder to extrapolate the findings to other fields or cultural settings. Work-life balance insight and supervisory practices may differ significantly in sectors such as healthcare, education, or IT, as well as in countries with different work cultures or labor regulations. Broader comparative studies could provide deeper insights across various contexts.

Lastly, while the study explored supervisor support as a moderating variable, other relevant moderating or mediating variables such as organizational culture, job autonomy, or employee personality traits were not considered. Upcoming studies could provide a more thorough comprehension of the factors influencing work-life balance, including these variables.

5.5 Recommendation for future research

The research limitations and findings are discussed, along with some recommendations for further research. First, in order to examine how the connections among workload, supervisor support, and work-life balance change over time, it is advised that upcoming research use a longitudinal design. In contrast to the cross-sectional methodology employed in this study, this method would enable researchers to track changes and possibly make inferences on causality.

Second, researchers are urged to employ mixed-methods techniques, which combine focus groups or qualitative interviews with quantitative surveys. This would provide more contextual aspects that affect how employees perceive their workload and supervisor assistance, as well as deeper insights into their lived experiences. Unexpected results, such the negative correlation between workload and perceived supervisor support, may potentially be explained by qualitative data.

Thirdly, future studies ought to think about broadening their focus to encompass a wider range of sectors, such as technology, healthcare, and education, in addition to the manufacturing sector. This would improve the findings' generalizability and enable comparisons across other work settings. Furthermore, carrying out comparable research in different nations or cultural contexts could provide insightful viewpoints on the ways in which management techniques and cultural norms affect work-life balance.

Finally, additional moderating or mediating factors that might affect the link between workload and work-life balance could be investigated in future research. It may be feasible to attract a deeper interpretation of how people balance their personal and professional lives by looking at factors like workplace culture, job autonomy, emotional intelligence, and even the flexibility of working remotely. Taking into account these extra variables may also help direct the creation of more focused organizational initiatives meant to improve worker well-being.

5.6 Conclusion

This chapter concludes the study by summarizing the key findings in relation to the proposed theories, research objectives, and relevant literature. The results provide clear evidence of how workload and supervisory support influence employees' work-life balance (WLB) within the company.

The study confirmed that higher workload significantly reduces work-life balance, supporting the premise that excessive job demands make it more challenging for employees to maintain a healthy equilibrium between professional and personal responsibilities. This finding is consistent with prior research showing that prolonged exposure to high workloads can lead to stress, burnout, and diminished well-being.

Conversely, supervisory support was found to have a significant positive effect on work-life balance. Employees who perceive their supervisors as understanding, empathetic, and

accommodating are more likely to feel capable of balancing career and personal obligations. This result aligns with earlier studies that underscore the role of informational, instrumental, and emotional support from direct supervisors in enhancing employee well-being.

Importantly, the analysis revealed a significant interaction between workload and supervisory support, indicating that supervisory support can influence the relationship between workload and work-life balance. However, the interaction term's negative beta value indicates that the expected buffering effect was not observed; instead, the protective influence of supervisory support diminished as workload increased. Several possible explanations exist for this unexpected finding. First, increased supervisory involvement during high workload periods may be perceived as micromanagement, reducing employees' sense of autonomy and potentially increasing stress. Second, heightened supervisory attention may inadvertently highlight the pressure associated with heavy workloads, making employees more conscious of strain rather than alleviating it. Third, organizational or cultural constraints within the manufacturing environment may limit supervisors' ability to provide flexible or empathetic support, despite their intentions. Finally, the result suggests that supervisory support may be more effective as an independent variable directly improving work-life balance, rather than acting as a moderator in high-demand contexts.

Overall, these findings emphasize the strategic importance of managing workload levels while simultaneously fostering genuine, autonomy-supportive supervisory behaviors. Organizations should adopt a dual approach optimizing task distribution and investing in supervisor training to cultivate a healthier, more sustainable work environment. By doing so, companies operating in high-pressure settings, such as manufacturing, can better safeguard employee well-being even in the absence of formal work-life balance programs.

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Appendix A

The Moderating Role of Supervisor Support on the Relationship Between Workload and Work-Life Balance

Section A: Demographic Section

Gender

Male ☐

Female ☐

Age

21 - 30 years ☐

31 - 40 years ☐

41 - 50 years ☐

51 - 60 years ☐

Job title

Non - Executive ☐

Executive ☐

Senior Executive ☐

Assistant Manager ☐

Manager ☐

Others ☐

Department

HR ☐

Marketing ☐

ITS ☐

Purchasing ☐

Production ☐

Quality ☐

Maintenance ☐

Finance ☐

Others ☐

Years of experience

Less than 1 year ☐

1 - 5 years ☐

6-10 years ☐

11 - 15 years ☐

More than 15 years ☐

Section B: Workload

Num	Items	1	2	3	4	5
1	I have too much work to do in too little time.					
2	I often have to work very hard to meet deadlines					
3	I feel overwhelmed by the amount of work I have to do.					
4	I work under time pressure					
5	The workload assigned to me is more than I can handle.					

Section C: Supervisory Support

Num	Items	1	2	3	4	5
1	My supervisor makes me feel comfortable discussing personal issues.					
2	My supervisor accommodates my work schedule when I have family concerns.					
3	My supervisor shows empathy when I'm dealing with non-work demands.					

4	My supervisor helps me find ways to manage job and personal responsibilities.					
5	My supervisor understands my need for work-life balance.					

Section D: Work-life balance

Num	Items	1	2	3	4	5
1	I am able to balance the demands of work and personal life.					
2	My work schedule allows me to spend quality time with my family.					
3	I can switch off from work when I am at home.					
4	My job gives me flexibility to manage personal responsibilities.					
5	I feel satisfied with the balance I have between work and personal life.					

Appendix B

Pilot test

Reliability

Notes

Output Created		04-JUL-2025 11:56:33
Comments		
Input	Active Dataset	DataSet3
	Filter	<none>
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	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=WLB1 WLB2 WLB3 WLB4 WLB5 /SCALE('Work-life Balance') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

Scale: Work-life Balance

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.866	5

Item Statistics

	Mean	Std. Deviation	N
I am able to balance the demands of work and personal life.	3.83	.874	30
My work schedule allows me to spend quality time with my family.	3.93	1.112	30
I can switch off from work when I am at home.	3.40	1.276	30
My job gives me flexibility to manage personal responsibilities.	3.77	1.040	30

I feel satisfied with the balance I have between work and personal life.	3.80	1.324	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I am able to balance the demands of work and personal life.	14.90	15.679	.662	.849
My work schedule allows me to spend quality time with my family.	14.80	13.959	.702	.834
I can switch off from work when I am at home.	15.33	12.989	.697	.837
My job gives me flexibility to manage personal responsibilities.	14.97	14.378	.706	.834
I feel satisfied with the balance I have between work and personal life.	14.93	12.547	.718	.833

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
18.73	21.030	4.586	5

Reliability

Notes

Output Created		04-JUL-2025 11:57:09
Comments		
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	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=SS1 SS2 SS3 SS4 SS5 /SCALE('Supervisor Support') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL.
Resources	Processor Time	00:00:00.02
	Elapsed Time	00:00:00.01

Scale: Supervisor Support

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.910	5

Item Statistics

	Mean	Std. Deviation	N
My supervisor makes me feel comfortable discussing personal issues.	3.77	.858	30
My supervisor accommodates my work schedule when I have family concerns.	3.90	1.062	30
My supervisor shows empathy when I'm dealing with non-work demands.	3.87	1.008	30

My supervisor helps me find ways to manage job and personal responsibilities.	3.97	1.129	30
My supervisor understands my need for work-life balance.	3.90	1.125	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
My supervisor makes me feel comfortable discussing personal issues.	15.63	14.585	.699	.905
My supervisor accommodates my work schedule when I have family concerns.	15.50	13.017	.752	.894
My supervisor shows empathy when I'm dealing with non-work demands.	15.53	12.740	.854	.872
My supervisor helps me find ways to manage job and personal responsibilities.	15.43	12.047	.840	.874
My supervisor understands my need for work-life balance.	15.50	12.741	.734	.899

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.40	19.903	4.461	5

Reliability

Notes

Output Created		04-JUL-2025 11:57:34
Comments		
Input	Active Dataset	DataSet3
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	30
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=W1 W2 W3 W4 W5 /SCALE('Workload') ALL /MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00

Scale: Workload

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.916	5

Item Statistics

	Mean	Std. Deviation	N
I have too much work to do in too little time.	3.77	1.073	30
I often have to work very hard to meet deadlines.	3.90	1.029	30
I feel overwhelmed by the amount of work I have to do.	3.87	1.224	30
I work under time pressure.	4.07	1.112	30

The workload assigned to me is more than I can handle.	4.03	1.129	30

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I have too much work to do in too little time.	15.87	15.499	.784	.897
I often have to work very hard to meet deadlines.	15.73	15.651	.806	.894
I feel overwhelmed by the amount of work I have to do.	15.77	14.599	.767	.902
I work under time pressure.	15.57	14.944	.825	.889
The workload assigned to me is more than I can handle.	15.60	15.352	.751	.904

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.63	23.275	4.824	5