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Evaluating the Impact of Flexible Working Arrangements on Employee Satisfaction, Motivation, and Performance

By

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Submitted in fulfilment of the requirements for the degree of Master of Engineering (Industrial)

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University of Pretoria

2022

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Abstract

This study investigated how the implementation of flexible working arrangements (FWA) may be beneficial in improving an employee's performance. It was hypothesised that flexible working arrangements should improve an employee's work-life balance (WLB), and thereby, their level of satisfaction and motivation, and consequently, performance. Comparative analyses were also conducted to determine how various categories impact these relationships. These categories are age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and the breaking down/subdividing Flexible Working Arrangements into Flexible Working Hours (FWH) and Flexible Working Locations (FWL) so as to test their effects separately. This study utilised a survey questionnaire, which was sent out on various social media platforms for the data collection. 153 complete responses were received from professionals across diverse industries, gender, and age categories. The analysis was done using the Partial Least Squares Structural Equation Modeling (PLS-SEM) technique with SmartPLS 3. The main findings were that employee Motivation had a positive direct impact on Performance, employee Satisfaction had a positive direct impact on Motivation, while employee Satisfaction only had an indirect positive impact on employee Performance. The study also found that the relationships between Flexible Working Arrangements and employee Satisfaction, and between Flexible Working Arrangements and employee Motivation were not statistically significant. With regards to the comparative analyses, within each category, Motivation had a positive direct impact on Performance and Satisfaction had a positive direct impact on Motivation, furthermore, Satisfaction had a direct negative impact on Performance in the 30 and Under group, and Satisfaction had an indirect positive impact on Performance in the groups 31 and Over, Female, Yes Has Made Use of Flexible Working Arrangements, and the subdivision of Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations. The relationships between Flexible Working Arrangements and Satisfaction and between Flexible Working Arrangements and Motivation were not significant. The findings of this study may guide companies in their decision to implement flexible working arrangements. It also places more premium on the role of motivation and satisfaction, rather than the type of working arrangement adopted, on the employee's performance.

Keywords: Flexible Working Arrangements, Satisfaction, Motivation, Performance, Partial Least Squares (PLS), Structural Equation Modelling (SEM), Work-life Balance.

Dedication

Firstly, I give all my thanks to my Lord and Saviour, Jesus Christ, for being with me every step of the way, and seeing me through to the completion of this work.

This thesis is dedicated to my beloved Family, with a special thank you to my parents, Celestino and Adrienne, for always encouraging me to keep learning, my brothers, Nicholas and Christopher and their wives Natasha and Jenita, as well as my little nephews Caleb and Nathan and niece Mikayla, that always keep a smile on my face, and to my late grandpa and gran, Daniel and Joan, whom I wish I could have shared this with. They would have been so proud!

Acknowledgements

A warm thank you to my supervisor Professor Olufemi Adetunji, who was so patient and understanding of me and my quirks. He guided me through the course of this work and kept pushing me until it was completed, which I am truly thankful for. He was always available no matter the hour and went out of his way to assist me. He has a warm, friendly disposition and is a wonderful supervisor. I hope many other students receive the honour of being able to work with him.

My appreciation is extended to my Mom, for always reading through my work at any hour, even into the wee hours of the morning and never complaining, and to my Dad, for always popping in to ask "How far are you?" and putting up with my very early wake up alarms. Thank you.

Thank you, Jesus Christ, for everything!

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Abbreviations

AVE: Average Variance Extracted

CB-SEM: Covariance-based Structural Equation Modeling

FWA: Flexible Working Arrangements

FWH: Flexible Working Hours

FWL: Flexible Working Location

HTMT: Heterotrait-Monotrait

PLS-SEM: Partial Least Squares Structural Equation Modeling

SEM: Structural Equation Modeling

WLB: Work-life Balance

Chapter 1: Introduction

This section outlines the research's background. It then presents the problem statement, the objectives of the research, and the contribution to knowledge. It concludes by presenting the thesis framework and what is contained in the proceeding chapters. Additionally, for the ease of reading of this study, when constructs, or latent variables, such as Flexible Working Arrangements, Satisfaction, Motivation, Performance, Flexible Working Hours, and Flexible Working Locations are being referred to, these terms will be presented with their first letters capitalised. When the terms appear in lower case, it is with reference to them in the general sense. This has been done to distinguish the constructs from the general terms as they possess the same names.

1.1. Background and Introduction

Organisations adopt continuous improvement practices to create solutions that continuously take them towards sustained superior performance. They strive to improve business practises and processes and often use available technology to achieve this. Areas addressed typically include how human beings complete all or a portion of the work. It is, therefore, possible to treat human beings as a means to an end; like they are there just to carry out and complete the required work. As such, they may be seen as a resource and primarily analysed according to their output in terms of quantity and quality. Consequently, these workers, generally, only receive training that is either deemed necessary to improve their performance, or to enhance and increase their skills set, so that they will be able to adequately complete future work. In doing so, the human side of the worker is ignored in favour of what the organisation can obtain from the worker, for example, the type of work they can complete and the number of hours that they can work.

Viewing the worker in this light essentially equates them to a machine and is at best reductionist, which is a criticism of the classic method engineering procedure. In such employers' ideal world, this machine could run continually, solely for the purpose of completing the requisite work and only requiring the necessary maintenance, or in the human case, training. It should function every day and hour with no errors at a high level of efficiency. In the real world, human beings are more complex and cannot be treated in this manner. Human beings are living organisms with needs and wants. When the human side is ignored, for example when employees are overworked, there are consequences. With the work requirements placed on workers today, it is common to see stress, burnout, ill-health etc. present in many working individuals. This often impairs their ability to work optimally.

An employee functioning sub-optimally can negatively affect the entire system in the same manner in which a chain is only as strong as its weakest link. Therefore, as improvement specialists seek to ensure that every part in a system is efficient and effective, they must also ensure that the employee is functioning as optimally as possible. To achieve this, not only must the employee have the correct skills, they must be functioning well as human beings.

Work-life balance is a possible means of achieving a multidimensional employee balance, hence, it has been gaining attention in popular press as well as academic writing. As the name states, work-life balance is achieved when an employee is able to balance the responsibilities of both their home and work life. This balance creates a well-rounded employee that has fewer impediments on their performance. Work-life balance, and the terms associated with it, have found fame and recognition in popular press and can easily be seen as hype words. There are a multitude of articles that define it and list ways in which it can be achieved. Due to the wide audience that the popular press reaches and influences, more employees are probably more aware of it now and may actively search for such balance in their own lives, for example, by looking for work positions that cater for it.

Flexible working arrangements is a mechanism that may help to achieve work-life balance. Two concepts in flexible working arrangements are relevant: flexible working location and flexible working hours. Having flexible working hours allows the employee to perform their work at any time of day, ensuring that they meet the required number of hours, while flexible working location allows an employee to perform their work at any desired location whilst ensuring that the correct tools and infrastructure is in place. These two arrangements, depending on the level of freedom offered by the employer, gives the employees the choice as to when and where they work. In doing so the employees can structure their lives as desired to ensure they meet all the requirements and responsibilities of their home role and their work role. Research suggests that the presence of work-life balance helps the employees balance psychological and physiological stress, and improve their job satisfaction, motivation, and performance (Gupta and Singh (2013), Parakandi and Behery (2015), White and Maniam (2020), and Das, Mishra and Narendra (2014)). It is important to note though, that not all types of jobs have the option of making use of flexible working hours and/or flexible working locations. For example, hospital nursing staff may be given the choice as to when they work, but they may not be able to choose their location.

In today's rapidly evolving, globalising, and competitive work environment, organisations are looking for ways to remain a step ahead of their competitors. Employers want employees with high performance, and if they have well-performing workers, they want to retain them. As such, some organisations have started implementing work-life balance practices as a draw and/or retention card for employees.

There are studies involving the topics: work-life balance, flexible working arrangements, satisfaction, motivation, and performance such as Delecta (2011), de Menezes and Kelliher (2011), Aziri (2011), Ramlall (2004), and Mensah (2014), as well as studies where these same topics have been analysed in conjunction, such as Hill et al. (2003), Kröll et al. (2017), Pancasila et al. (2020), and Singh and Tiwari (2011). A number of studies have been favourable with regards to the hypothesised relationships between these topics, but there has also been research where the findings are not favourable, or where the relationships are either unclear or inconsistent, such as Golden and Veiga (2005), Bailey and Kurland (2002), Spieler et al. (2017), Al-Kasasbeh (2016), and Sidabutar et al. (2020). Additionally, the author of this research found a lesser number of studies on how age, gender, and previous use of FWA impact these relationships. As such, it is important to further investigate this. To the best of this author's knowledge, no research has been conducted showing flexible working arrangements, satisfaction, motivation, and performance together in one structural model. This research, therefore, seeks to investigate if flexible working arrangements do, in fact, have a positive impact on satisfaction, motivation, and performance of the worker, and also if these relationships are affected by categories such as age, gender, use of FWA, and the subdivision of FWA into FWH and FWL. If there are positive results, it could be beneficial for an organisation to consider implementing FWA and/or improving employee satisfaction and/or employee motivation for the benefits that may be achieved.

1.2. Problem Statement

With the competitive working world and the desires of the employees, which are often influenced by popular press, to contend with, companies must be at the forefront of talent acquisition, talent retention, and performance. Identifying and evaluating how flexible working arrangements impact on satisfaction, motivation, and performance can be beneficial to both the employer and the employee. If there are strong positive relationships present, it will suggest that implementing flexible working hours and flexible working location should be strongly considered. Additionally, further breaking the analysis down into categories such as age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and breaking down/subdividing Flexible Working

Arrangements into Flexible Working Hours and Flexible Working Locations so as to test their effects separately, will provide further information into what specific elements should be targeted for each category for improved effectiveness. Theoretically, flexible working arrangements act as measures to improve an employee's work-life balance, which should improve employee's satisfaction and motivation. Additionally, the improvement of an employee's satisfaction and motivation can theoretically be used by the organisation to boost the performance of their employees, and by extension, to boost the overall performance of the company.

1.3. Research Objectives

The main objective, of this research is to evaluate if implementing flexible working arrangements, namely flexible working hours and flexible working locations, have an impact on employee satisfaction, motivation, and performance. Additional objectives include determining if satisfaction and motivation impact performance, if satisfaction impacts motivation, and how the categories impact these relationships. These categories are age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and breaking down/subdividing Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations so as to test their effects separately. In this study, flexible working arrangements are considered to be the independent variable, while satisfaction, motivation, and performance are considered as the dependent variables.

The research objectives will be fulfilled by answering the following questions:

1. What relationships exist between Flexible Working Arrangements and Satisfaction, Motivation, and Performance?
2. What relationship exists between Satisfaction and Motivation?
3. What relationships exist between both Satisfaction and Motivation with Performance?
4. How do various categories impact the results? These categories include age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and breaking down/subdividing Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations so as to test their effects separately.

1.4. Contribution to Knowledge

This research will contribute to the current body of literature in the following ways:

- By adding to discussions on the impact of flexible working arrangements on employees, mainly focusing on employee satisfaction, motivation, and performance.
- By adding to discussions on the relationships between satisfaction, motivation, and performance.
- By adding to discussions with regards to how satisfaction and motivation may improve employee performance.
- By adding to discussions with regards to how satisfaction may improve motivation.
- By drilling down into various categories to provide a more detailed analysis on how these categories affect the relationships between flexible working arrangements, satisfaction, motivation, and performance in the proposed structural model. These categories include age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and breaking down/subdividing Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations to test their effects separately.

1.5. Thesis Framework

The Framework shown in Figure 1 outlines the activities completed by the researcher in completing this research.

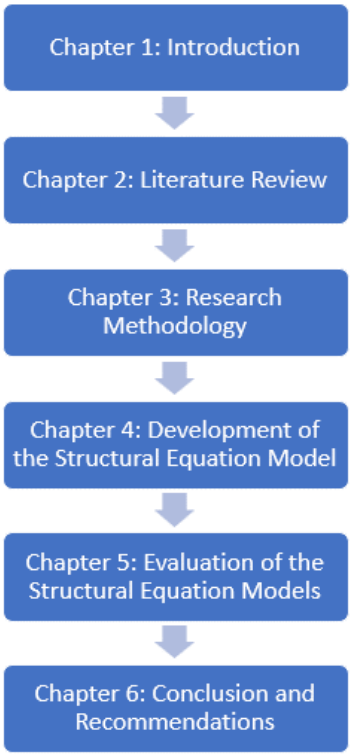

Figure 1: The thesis framework

This thesis contains six chapters. Chapter 1 contains the background, problem statement, research objectives, and the contribution to existing literature. This chapter also ends by providing an overview of the subsequent chapters.

Chapter 2: Literature Review

The chapter presents the Literature Review. It defines work-life balance, flexible working arrangements, flexible working hours, flexible working locations, satisfaction, motivation, and performance, and presents previous hypotheses tested in literature. It also outlines what is said in popular press. The chapter ends by highlighting the research gap.

Chapter 3: Research Methodology

The chapter provides the background of Structural Equation Modelling (SEM) and the components and composition of a structural model. It defines Partial Least Squares Structural Equation Modelling (PLS-SEM) and compares it against Covariance-Based Structural Equation Modelling (CB-SEM). This chapter also describes the method that was used to assess the structural model and details how the questionnaire was developed and how the data was collected.

Chapter 4: Development of the Structural Equation Model

The chapter presents the development of the structural model that is used for evaluating the impact of Flexible Working Arrangements on Satisfaction, Motivation, and Performance. It reviews literature on the hypothesised relationships, which act as supports for these hypothesised relationships between the latent variables.

Chapter 5: Evaluation of the Structural Equation Models

The chapter presents the evaluation of the structural models using SmartPLS 3. This chapter presents what hypothesised relationships in the main model were supported and statistically significant and also the results of the comparative analyses.

Chapter 6: Conclusion and Recommendations

The chapter summarises the results of the study. It also presents the study's contributions to knowledge and the limitations to the study. It ends by providing suggested areas/topics for further research.

Chapter 2: Literature Review

2.1. Introduction

This chapter presents the investigation of the available literature, and in some instances popular press, on topics such as work-life balance, flexible working arrangements, satisfaction, motivation, and performance. The major aim of this chapter is to review the current literature and highlight any potential gaps.

2.2. Work-life Balance

Work-life balance has different definitions according to different authors (Delecta, 2011) and has become an important research topic (Guest, 2002). Delecta (2011) defined it as a person's ability to meet the commitments of their work and family along with additional non-work responsibilities. Vatharkar (2017) cited Clark (2000) who defined it as the satisfaction as well as good functioning in the home and working environments with minimal conflict between the two roles. Kalliath and Brough (2008) defined work-life balance as the way a person perceives their work and personal tasks as being cohesive and bringing about development in accordance with the priorities they have in life. Dhas (2015) stated that the type of work-life balance individuals want, may have more weight on either their home responsibilities or their work responsibilities. Therefore, balance has both objective and subjective meaning and measurement, and it also differs in regards to different conditions and people. This sentiment was followed by Delecta (2011), who stated that the distribution of time is not equal and it changes from one individual to the next, while Gupta and Singh (2013) stated that it is not a one-size-fits-all as each individual has different challenges on their home and work fronts. Gupta and Singh (2013) also stated that professional life is when one wants to excel in their profession, garner respect, and have society recognise them, and that personal life, on the other hand, is caring for their home responsibilities as well as their loved ones.

Arenofsky (2017) presented the birth and early history of work-life balance in her book "*Work-Life Balance"*. She stated that the term may have been coined from between the 1930s to 1986 as stated by the Society for Human Resource Management. In the 1930s, the W. K. Kellogg Company substituted four six-hour shifts for three eight-hour shifts. With this there was an improvement in the morale and efficiency of its employees. The use of the term propagated after it was included in the book "*Work and Family in the United States: A Critical Review and Agenda for Research and Policy"* by Rosabeth Moss Kanter. By 1979 in London, working families had made the term popular and by the 1980s many American corporations were offering some of its benefits, like maternity leave, flexible scheduling, telecommuting, and employee assistance. Additionally, the 1960s Women's Liberation Movement aided its spread. The prominence of work-life balance was also enlarged with endocrinologist Hans Selye's 1970s discoveries on human stress. Selye identified stress as the body's response to change. Good stress can energise and excite but distress or the wrong stress can numb morale and lead to burnout, physical illness and mental illness like depression, heart disease, and obesity. These findings made work-life balance to be recognised around the world and be considered an important issue. Additionally, Guest (2002) stated that work-life balance has been a concern for those that have an interest in the quality of working life and life in general. Within contemporary debates, the concern more is in the affluent societies where excessive work demands are seen as an issue to be addressed. The author went on to state that when work demands start ruling a person's life, a sense of work-life imbalance follows.

Good work-life balance is important to maintain a balance between both psychological and physiological stress (Gupta and Singh, 2013). When it is present, it enables the employees to be able to balance both their work and personal responsibilities and this is often achieved by having and

preserving a work environment that is healthy and supportive (Dhas, 2015). This, in turn, will strengthen employee loyalty and productivity. Das, Mishra and Narendra (2014) found that work-life balance is a common challenge in the industrialised world and that organisations have been developing ways to have psychological relationships with their workers, which will help them reduce stress, improve performance, increase productivity, reduce costs, and enhance profitability. On the other hand, when there is a lack of work-life balance, or when work-life conflict is present, there have been physical and mental implications like more smoking and increased alcohol consumption, weight gain, and depression (Dhas 2015). Additionally, jobs with long working hours and high stress levels deter the harmonisation of work and family life. White et al. (2003) stated that a source of job-to-home spill-over is long hours, and that when work hours increase, work time at home decreases. Additionally, when there is work of a high intensity or where there is a lot of pressure, there can be fatigue, anxiety, or even negative psycho-physiological consequences, all of which can affect the quality of a person's work and home life.

Solanki (2013) stated that studies showed that with work-related pressure and home-related pressures, employees are often incapable to meet the targets associated with time and, as such, have difficulty achieving work performance that is optimal. Some responsibilities people have to deal with include children, a spouse, work around their home, and the care of both the elderly and children. Additionally, problems can arise when there is conflict present between the life and work roles or people and this can affect them, their employers, and the community. This ties into the sentiment of Vathakar (2017), who stated that individuals have multiple roles that they play in their everyday life and that due to the finite resources of energy, attention, money and time, each role's demands tend to cause stress and role conflict. Dhas (2015) also echoed this sentiment stating that workers today have responsibilities that compete. These responsibilities include work, children, housework, volunteering, and caring for a spouse or elderly parents. These responsibilities cause stress on individuals, families, and communities. It was also noted that this seems to be increasing. From a broad perspective, the problem is intensified with globalisation, the aging population, and historically low unemployment. From a narrow perspective, the problem is intensified due to the more and more single-parent families, the pervasiveness of two-income families, the budding elder care trends, and the increase in female participation in the working world. For example, Guest (2002) stated that the western industrial society has the highest count of women partaking in paid employment than ever before. Allen et al. (2013) also stated that work and family compete for the finite resources of time, attention, and energy, and that flexibility ostensibly gives the employee the choice of when and/or where they can complete their work, which can allow the employee to decide on an optimal way to allocate these resources between their work and family. Additionally, the most consistent findings have suggested that there may be more benefit for those with more parental responsibilities in comparison to those whom have fewer.

Parakandi and Behery (2015) stated that companies are realising that they require policies and practices for a sustainable workforce so as to embrace work-life balance as a way to better productivity, satisfaction, and retention of employees. Dhas (2015) similarly stated that employers are becoming more and more cognisant of work-life balance and have started to realise that it can aid in employee recruitment, retention, commitment, satisfaction, absenteeism, and productivity. Therefore, there are a multitude of organisations that have started implementing the associated policies and practices so that they are able to attain the associated gains. For example, there have been significant discussions in corporate America about how to balance the excessive demands of work and family/life (Hobson et al., 2001). If there is no balance, there may be grave consequences, like higher stress and absenteeism, and reduced productivity. This was echoed by Dhas (2015) who stated that where there are over-worked employees, there are associated costs such as operating and

productivity expenses, increased absenteeism, less punctuality and commitment, and reduced performance.

Work-life balance practices and arrangements are the initiatives that are introduced by organisations voluntarily to reconcile both the work and personal lives of workers (McCarthy et al., 2010) and work-life balance programs can be seen as sponsored benefits or working conditions offered by an employer to help employees balance both their work demands and their non-work demands as well (Cascio (2000) in McCarthy et al. (2010)). Some practices help with handling stress and effective coping whereas others help to reduce stress with the balancing of work and life (Dhas, 2015). Examples of current practices include wellness programmes, healthy eating initiatives, programmes on stress management, and lengthened vacations. HR policies have also been put in place to improve work-life balance. These include time off in lieu of overtime pay arrangements, limited paid leave days for child and/or elder care and/or personal problems, as well as weekend and evening laptop and phone use policies. Additionally, an employer can offer their support by allowing flexi-hours, compressed work weeks, telecommuting, and child-care support. This grants the worker further control over their lives and engenders greater productivity. It is important to note that the appropriate parameters should be in place for the initiatives to ensure that the desired effect is achieved. Additionally, it was found that the development of managers that are supportive helps in increasing work-life balance and that with regards to work-life balance, employees must have self-management, which includes the control of their own behaviour and their expectations of work-life balance. McCarthy et al. (2010) stated similar examples such as temporal arrangements, flexible working arrangements, and work-life balance supports. Hobson et al. (2001) also listed policies and programs such as a) childcare that is available at work, or child/elder care that is subsidised, b) flexible work hours, c) job sharing, d) dependent care spending accounts, e) employee assistance programs that can be easily accessed by the employee, and, f) work-life balance importance training. Parakandi and Behery (2015) stated that the choice of strategy used in a company is dependent on the industry and the job's nature as not one-size-fits-all, and also suggested provisions such as flextime, telecommuting, part-time work, staggered hours, job sharing, annualised hours, child-care provisions, and leave provisions. Additionally, Delecta (2011) stated that there are organisational strategies which include flexible working hours, child care, elderly care, working from home, and job sharing that have been on executives' agendas to decrease work-family conflicts.

From the foregoing, it can be seen that maintaining a work-life balance can be beneficial to employees and employers, and that the lack thereof, may actually have a negative effect. Two of the suggested implementations for better work-life balance, flex hours and telecommuting, are interesting areas that are further evaluated in this study. If employees can make use of flex hours and telecommuting, this should enable them to schedule when and where they work. Hypothetically, by doing so, it should provide the opportunity for them to easily fulfil home roles that might not have been possible, or not easily achievable with traditional working hours and locations, for example, children's doctor's appointments. Allowing the employee this scheduling freedom also gives them choice and allows them to structure their lives as they see fit. By doing so, the employees should, in theory, be able to achieve better work-life balance and the associated benefits.

2.3. Understanding Flexible Working Arrangements, Flexible Working Hours, and Flexible Working Locations

Flexible Working Arrangements

Flexible working arrangements are changes to the traditional working arrangements and various terms have been used in their description (de Menezes and Kelliher, 2011). Thompson et.at. (2014)

described flexible working arrangements as a way in which employers can offer employees more control over their work boundaries. According to Hobfoll (1989) and Voyandoff (2005) in Thompson et al. (2014), they allow the employees to change the place and time where they meet their work demands. They are widely used by organisations for purposes which include recruitment and the relationships with regards to flexible working arrangements and organisational attraction is slightly stronger in those that like integrating their work and non-work roles (Thompson et.at., 2014). The appeal of flexible working arrangements has been propagated by popular press, and of late, increased attention has been given to flexibility in scholarly literature and popular press as a means to assist in the management of family and work responsibilities (Allen et al. 2013). Govender, Migiro and Kyule (2018) stated that flexible working arrangements were made as a means to sustain employee motivation and satisfaction in their work and non-work roles and that most studies on the relationship between flexible working arrangements and performance were performed in developed countries. Austin-Egole et al. (2020) stated that flexible working arrangements offer benefits to both employees and employers. These authors also stated that flexible working arrangements are important and significant in the 21st century as organisations are burdened with having to manage the work-life balance of their workers. Hill et al. (2008) though, stated that, even though the use of workplace flexibility is widespread in literature, it is not well understood and had been ambiguously defined.

de Menezes and Kelliher (2011) conducted a systematic literature review of 148 selected pieces of literature and stated that there has been interest in flexible working arrangement outcomes since the mid-1970s. At this time researches were attempting to assess the impact of flexitime on worker performance. The 1990s saw an intensification in research with large empirical studies, particularly in Western Europe and North America. By the end of the decade, some meta-analytical and review studies presented a general concern regarding the consequences that are linked to flexible working arrangements. The authors also stated that in the UK in 2003, parents with young and disabled children received the legal right to request flexible working. In 2007, this was extended to carers, and in 2009 this was extended to parents with children under 16. This was a family friendly approach and by looking at the 2005 Chartered Institute of Personnel and Development (CIPD), de Menezes and Kelliher stated further that a wider debate has begun on whether flexible working arrangements has a real business case and whether or not it should be available for all employees. In their summary, they found that many studies found a form of performance that was linked to flexible working arrangements, but they also found several studies indicating a lack of association or an association that is negative. This highlighted that the collected evidence was inconclusive. They also stated that in literature, a clear business case which is unequivocal with regards to giving employees flexibility in their working arrangements is not demonstrated. On the other hand, Govender, Migiro and Kyule (2018) conducted a study in South Africa and found that flexible working arrangements could aid employees and that they had correlation that was strong and positive to performance. They concluded that employee retention and job satisfaction, which can lead to higher productivity, was enhanced by flexible working arrangements.

The two major forms of flexible working arrangements are flexibility with regards to time (flextime) and location (flexplace) and according to Allen et al. (2013), granting this timing and location choice to the employee can help in reducing employee strain and allowing them to attend to non-work matters. This, in turn, benefits the employees as they have less preoccupation and worry that comes about with handling activities that are not related to their work when flexibility is not available. This flexibility is thought to be valuable as it grants control and autonomy to adapt to the demands on the work and family fronts. Additionally, according to the resource allocation theory, flexibility use should allow workers to plan and manage their responsibilities on both fronts. Flexibility though, creates more choices and decisions for an employee which may be hard to manage. Iyengar and Lepper (2000)

stated that in the current psychology theory and research, personal choice provides positive, affective, and motivational consequences, which has influenced the belief that it is better when there is more choice, and that the desire and ability to manage all these choices is unlimited. In the authors experimental studies though, they found something contrary to this. They found that people are more likely to buy something or take up an optional class assignment when there was limited choice and that the participants reported higher subsequent satisfaction and wrote better essays when the number of options was smaller. In flexible working arrangements, these choices are the work options that permit this flexibility of the time and place that work is conducted, which is referred to as telecommuting or flexplace and flextime or scheduling flexibility respectively (Rau and Hyland (2002) in Allen et al. (2013)).

Flexible Working Hours and Flexible Working Locations

Historically, flexible working hours and flexible working locations have different origins. The origin of flexible working hours is in 1967 with its introduction by the German aerospace company Messerschmitt-Bolkow-Blolm. Here, it was introduced for 3000 employees mainly involved with R&D to lower the lines during clocking in and out and to reduce the traffic jams that were present when everyone was coming and leaving at the same times. Once implemented, it was shown as a way to improve productivity and reduce absenteeism (John, 2017). The origin of flexible working location dates back to the 1970s when Jack Nilles defined the term telecommuting (Yu et al., 2019). With the advancements in personal computers and the internet since 2000, there has been increased telecommuting popularity among large corporations around the world. Baruch (2000) looked earlier into history and stated that in the pre-industrial era, many people mainly worked at home or near their home in, for example, craft workshops or on local land. During the industrial revolution, there was a migration of people to centralised work places which included factories and offices. Today, people are moving back to their home environments.

Looking at flexible working hours, Das, Mishra and Narendra (2014) defined flextime as an arrangement that allows an employee to deviate from the starting and ending times of their core working hours, while still maintaining the number of hours that they work within a week. According to Solanki (2013), flextime is a suitable arrangement for employees that are willing to use this flexibility and can be applied in sectors like education, hotels, advertising, marketing and some manufacturing industries. The employees should also be more independent and have self-control and self-regulation. Lazăr et al. (2010) stated that flextime permits a worker to regulate or be included in the determination of when they start and end their work day while still ensuring that a certain number of hours has been worked. This can allow employees to meet commitments and/or emergencies that are both predictable and unpredictable, and it allows for a change in commute times to avoid rush hours. Adding to this, Allen et al. (2013) stated that time flexibility allows employees to adjust their schedule to enable better management of their activities relating to domestic and dependent care activities such as their children's school events during work hours, commute time to and from the work, and allowing for a schedule that is in line with their personal productivity. Additionally, Solanki (2013) stated that when working flextime, employees can work at a time convenient to them, under certain guidelines usually, and that in doing so, the employees are more likely to be relaxed and less stressed, which aids their productivity. At the same time, decreased stress aids employee dedication. Therefore, the use of flextime increases productivity, job satisfaction, motivation, and reduces stress levels. According to John (2017), organisations can increase productivity and efficiency by using flexible working hours, if they are on a level that is strategic and if there has been appropriate thought into what the employee's needs as well as wants are. The author also noted that there has not been much research on how flexible working hours, when used in the form of a strategy, enhances organisational productivity. Adding to that, Spieler et al. (2017) stated that it is uncertain if flextime provides benefits

to employees and Campione (2015) stated that evidence is mixed with regards to the effectiveness of flextime on job satisfaction.

When looking at the work by Solanki (2013), the author noted that employees with flexible working hours were more satisfied and better performers within certain industries, thereby, helping the organisation to enhance their productivity. Flexible working hours can be useful in helping employees complete their work efficiently and also in balancing their personal life. Additionally, it has been identified that limited organisations offer them because they believe that they decrease worker productivity. It was also identified that it has a limited awareness among employers and that their knowledge of how it can impact their employees' career growth and organisations probability is also limited. The researcher also stated that there is limited attention from researches on how flexible working hours relate to job performance and that there are only a few studies that look at the relationship that flexible working hours has with employee productivity, motivation, job satisfaction, and reduction in stress levels. Solanki went on to identify associated advantages, such as assisting employee and organisation development, employee retention, and in helping to develop employees that have better focus and that are more result-oriented. Disadvantages identified included that flextime may not be the best option for all organisations in all business situations and that it cannot be applied to all industries. Additionally, Dhas (2015) identified disadvantages such as flexitime possibly leading to a lack of face-time with other staff members, employees being unavailable for clients, as well as providing negative results if implemented without the correct conditions.

Next, looking at flexible working locations, there are many names associated with it. These include telecommuting, teleworking, virtual work, off-site work, and flexible work-place etc. Allen et al. (2013) stated that flexplace may involve working from home or any remote location. Telecommuting, according to Das, Mishra and Narendra (2014), is defined as a work arrangement allowing some or all work to be completed out of the office in places such as the employees home or office space that is near their home. To achieve this, the employees keep contact with their colleagues and employers by using telephones, email, conference calls and videoconferencing. Bailey and Kurland (2002) had a similar definition which was that it is when an employee works outside of the traditional workplace and communicates with said workplace using telecommunication or computer-based technology, which the authors developed from the work of Nilles (1994) and Olson and Primps (1984). Uchenna, Uruakpa and Uche (2018) provided two definitions for telework which are: a) a schedule where workers complete their work out of office for a part of their core working hours; and b) a work practice where workers can substitute some of their regular hours of work to work out of office and completing work tasks and communicating with outers by making use of technological means. These researchers observed that telecommuting can be done on either a full-time or part-time basis. They stated that if it is done full-time, all work is usually done off-site and not in their employer's office. In this instance, the employee has limited to no face-to-face interaction with colleagues and managers. If it is done part time, only some of the work is done off-site, and the employee has limited, but usually scheduled interaction with co-workers and managers. Lazăr et al. (2010) stated that telecommuting is becoming more common and that it can be beneficial because it permits workers to organise their day so that they are able to meet both personal as well as family needs, lower expenses relating to their jobs, reduce commute times, allow the employee to work in an environment that is not as stressful or disruptive, and allow the employee to work during their peak personal productivity periods, which may also help the company's bottom line. Additionally, telecommuting works best with workers that require more autonomy as it permits them to work without supervision and also allows them to structure their work schedule, but is not conducive for workers that require a lot of social interaction (Das, Mishra and Narendra, 2014). Additionally, work positions with a lot of reading, writing, and

activities that require extended concentration periods, also work well (Uchenna, Uruakpa and Uche, 2018).

Telework is part of the new world of work (Baruch, 2000). According to Das, Mishra and Narendra (2014), organisations came across this work arrangement to reduce the tug of war between responsibilities that link to work and non-work, and quicken the process of satisfying customer demands. Additionally, balancing work and family obligations can bring about job satisfaction. Also, research shows telecommuting reduces stress, thereby bringing about work-life balance. Many organisations are assessing telecommuting to lower expenses and traffic pollution, as well as retaining high performers. As such, telecommuting is becoming a more and more popular organisational dynamic. The authors also believe that telecommuting use is growing because a) there are more dual career and single parent households, meaning that those workers have more family demands and need more capability to meet them, b) employees want to excel at work but also want to be essential within their family, c) employees are starting to demand flexibility with regards to the undertaking of their work tasks to enable them to have access to pleasurable activities as well as work, without it having to be constrained to a specific location, and d) costs with regards to technology are decreasing and technology required for telecommuting is also more available. Additionally, according to Baruch (2000), employers receive benefits such as a) cost effectiveness, as there is a reduction in overhead costs and, occasionally, the transfer of costs to the worker such as the cost of space and electricity, b) a larger labour market as additional employees can be employed which includes single parents, secondary earners like mothers, or disabled persons, c) schedule flexibility, and flexibility in scheduling and how work is conducted, which also benefits the worker in saving costs, time, and the convenience of not coming into the office, and d) employee well-being. Uchenna, Uruakpa and Uche (2018) stated that telecommuting is supported or utilised at different speeds within different organisations and is not the same but varies from organisation to organisation and Lazăr et al. (2010) said that there are few collective agreements that have telework provisions and stated that this is partly because not all occupations can use this agreement. Additionally, employers are concerned about the cost of implementation, potential legal liabilities, and how to supervise and appraise the employees.

The implementation of flexible working location has advantages and disadvantages. According to Das, Mishra and Narendra (2014) these advantages include it being useful in recruiting, staff retention, reducing in-office interruptions, bettering productivity, concentration, and morale, as well as decreasing travelling costs, time and the associated energy, and the costs of office space, equipment, and parking. Uchenna, Uruakpa and Uche (2018) stated that it lowers the typical constraints found in the work environment and improves unity amid work and family life, as the employee is provided with a feeling that their managers care about them. Lazăr et al. (2010) stated that research indicates that employees that have control over the environment in which they work, in one form or another, typically have reduced bad health that is associated with stress. Adding to this, Gajendran and Harrison (2007) in their work found that the effects of telecommuting on proximal outcomes, like the autonomy that is perceived and the reduced conflict on the work-family front, was mostly beneficial but small. They also found that, generally, the quality of relationships in the workplace experienced no harmful effects, and that there were advantageous effects on satisfaction, performance, turnover intent, and role stress, but that these seemed to be mediated, in part, by perceived autonomy. It was also found that when telecommuting was done more than two and a half days a week, it heightened the benefits on work-family conflict but harmed the employee's relationship with their colleagues. On the other hand, Bailey and Kurland (2002) in Golden and Veiga (2005) reviewed telecommuting literature and found that, with regards to empirical evidence, it is unclear how telecommuting links to job satisfaction. Golden and Veiga (2002) also looked at several studies and found that many researchers have concluded that job satisfaction is positively impacted by telecommuting, but they also found

other research showing that telecommuting may have a toll on job satisfaction, showing that results are, however, inconsistent. Bailey and Kurland (2002) also stated that employees' reasoning behind teleworking is not clear as the usual perceived reasons, like reduced commuting and family obligations do not seem instrumental. They stated that the past investigations into the reasoning behind telework were centred on factors related to transportation such as commute time, the length of the person's commute, and the stress associated with it, but that the reduced travel has not been shown to be a factor that strongly influences telework as the early forecasters deduced. Additionally, being able to balance work and family duties was also a suspected reason for telecommuting and the authors stated several studies that support this, particularly with regards to women but also stated that women are not dominant in the teleworking populations. It was concluded that the reasons for people pursuing telework have not been borne out, as such. Other possible disadvantages, according to Das, Mishra and Narendra (2014) include that telecommuting may create displeasure in the employees that have jobs that are not fit for telecommuting, be challenging to supervise, disrupt the typical interpersonal relationships due to the virtual relationships, require schedule changes to enable this telecommuting, and pose costs if alternate work sites need to be set up. Specifically, for those that are telecommuting, they may experience compromised productivity if they do not have good supervision and they are not fit to be telecommuters, they may also face isolation from work and its social environment.

Therefore, when looking at both flexible working hours and flexible working locations, there can be many benefits available for the organisation and employee, but care should be taken before implementation, to ensure that flexibility suits their organisation, to ensure that during implementation, the correct policies and procedures are in place, and that the correct type of employees are making use of it.

2.4. Understanding Satisfaction, Motivation, and Performance

Satisfaction

Job satisfaction is a topic that has been extensively researched (Kabak et al., 2014). According to Aziri (2011), job satisfaction is a term that is widely used both in everyday life and in scientific research. Despite this, the author states that different authors have different approaches to defining it, that there is no general agreement on what it is, and that there is no final definition of what it represents. Aziri presented several definitions supporting this from as early as 1935 to the late 2000s from various authors, such as Hoppock in 1935, Vroom in 1964, Spector, Kaliski in 2007, Statt in 2004 and Armstrong in 2006. Jalagat (2016) agreed that there is no universally accepted definition, as it is complex and multifaceted, and as a result, it provides varying definitions and perceptions to different individuals. Saari and Judge (2004) stated that Locke's 1976 definition is the one that is most used in research and it states that job satisfaction is an emotional state that is pleasurable or positive and that it comes about because of the appraisal of a person's job or their job experiences. Schneider and Snyder (1975) defined it as personal evaluation of the existing job conditions such as work and supervision, or the outcomes that come about due to having a job, such as pay and security. It is the perception of internal responses or feelings and is made up of perceptions that have been filtered and processed, and that have gone through and been refined by the employee's norms, values, and expressions. Das, Mishra and Narendra (2014) defined job satisfaction as the level to which a worker is content with their job and that it is a pleasant or positive state of emotion that results from one appraising their job or their job experiences.

Job satisfaction can be broken down into intrinsic job satisfaction and extrinsic satisfaction (Das, Mishra and Narendra, 2014). These authors stated that intrinsic satisfaction is associated with the kind of work that is done and the tasks that must be completed and that extrinsic job satisfaction relates to work conditions like pay, co-workers and the relationship with the supervisor. Sypniewska (2014)

stated that in literature, multiple authors use the term job satisfaction interchangeably with job contentment, while Singh and Jain (2013) stated that if a person is happier in their job, they will be more satisfied. Adding to this, Spector (1997) stated that job satisfaction can be seen as the extent to which people like their work as well as how they feel about this work, and its various aspects. Spector stated that some people like their job and consider it as an integral aspect of their life, but on the other hand there are those who dislike their job and will only undertake their work because they are obliged to. Adding to this, Delecta (2011) stated that some follow the philosophy of 'working to live' but others follow the one of 'living to work' which shows what different people consider their centre of life to be. Kabak et al. (2014) stated that satisfaction can be seen as fulfilment that comes about because of the workers emotions like love, loyalty, and dedication to their job, that research has revealed that job satisfaction affects satisfaction with life, and that work-life satisfaction impacts the satisfaction in other areas of life as well. Spector (1997) also stated that job satisfaction, up to a point, is a reflection of good treatment and is considered a gauge of emotional wellbeing or psychological health and can also be a reflection of organisational functioning. Job satisfaction, from a utilitarian perspective, can lead to employee behaviour which affects the functions of an organisation.

Latif et al. (2013) stated that workers with high levels of job satisfaction hold attitudes that are positive towards their job, but dissatisfied employees hold negative attitudes about the job and even the organisation. As such, the authors believe that employee satisfaction is an innermost concern for an organisation. Aziz-Ur-Rehman and Siddiqui (2019) stated that satisfied workers yield more, have work of a higher quality, and improve the organisation's competitiveness, productivity, and success. Workers that are unsatisfied have work of a lower quality, they are late for work more frequently, absent from work, and evoked to leave the organisation. Additionally, a satisfied worker contributes to organisational goals and objectives but, one who is dissatisfied, may not contribute, but may act in a way that these goals and objectives could be destroyed (Abbah, 2014). Sypniewska (2014) stated that job satisfaction has a close relation to a worker's performance as well as their work quality and that this, as a consequence, translates to organisational success because when an employee is satisfied, they build and participate in the company's success. Aziri (2011) stated that job satisfaction is a complex area and that those in the position of management must face it when managing employees. Additionally, it has a curiously large impact on the motivation of an employee. An employee's motivation also impacts the productivity, as well as the performance, of an organisation. Aziri also stated that job satisfaction is a main factor for an organisation's efficiency and effectiveness and the logic behind this is that when an employee is satisfied, they are happy, and a happy employee is one who is successful. This author also noted that when there is job dissatisfaction, there were negative consequences such as reduced loyalty, more absenteeism, and more accidents, but satisfaction increased loyalty, productivity, and improved absenteeism. Akin to this, Tietjen and Myers (1998) stated that satisfaction creates confidence and loyalty, and that it can improve employee output. Jalagat (2016) stated that with regards to efficiency and effectiveness, satisfaction is one of the major considerations for assessment. Additionally, Solanki (2013) identified that job satisfaction is attained when a worker meets their goals at work and that the worker should determine their performance criteria. Kurdi et al. (2020) stated that the satisfaction of an employee is of paramount importance when defining organisational achievement, especially when one is observing the service industry. They also stated that it is key to improve employee satisfaction because it betters organisational operations due to its improved employee productivity over the long term, and it also retains the customers that are profitable to the organisation.

Measuring job satisfaction is difficult as it changes from person to person, has a dynamic nature, and its factors affect employees' behaviours at different levels. These factors include salaries, promotions, the job's structural properties, management styles, and colleagues (Kabak et al., 2014). Adding to this,

Singh and Jain (2013) stated that job satisfaction involves a number of variables, feelings, conditions, and behavioural tendencies, and that a person's satisfaction can be impacted by factors like benefits and pay, the perceived fairness of the promotion system, the working conditions' quality, what leadership is present, and what social relationships are present. The actual job, its tasks, interest, challenges, and description clarity/requirements can also influence the level of satisfaction. Kurdi et al. (2020) stated that employee satisfaction does not occur by chance, and is influenced by a set of drivers. These requirements include communication and rewards. To explain these, Kurdi et al. (2020) cited Pincus (1986) who found that job satisfaction was impacted by how the employee perceives top managements, how they communicate, and their management activities, and Kurdi et al. also cited Richmond et al. (1982) who stated that an employee's satisfaction was affected by the communication style of management. Looking at rewards, Kurdi et al. (2020) believed that both benefits and rewards should please and go beyond what the employee expects. They mentioned items such as wages, promotions, acknowledgement, personal growth, and work that is meaningful. The authors also stated that employee satisfaction can be influenced by training. Interestingly, Staw and Ross (1985) in Houghton and Jinkerson (2007) argued a dispositional view of job satisfaction and stated that people who are predisposed to typically be happy or satisfied with life are generally happier and more satisfied within their jobs in more than contextual factors that are positive or negative. This approach was subjected to criticism, but empirical evidence from research that was undertaken at a later stage gave credence to it.

From these studies, it can be seen that employee satisfaction is beneficial to an organisation, and being satisfied is also a desire of an employee. Implementing flexible working arrangements should, in theory, enhance satisfaction. Improving employee satisfaction is an area that organisations should look into, with the aim being to improve upon it, and thereby, improve performance.

Motivation

Motivation, according to Humphreys and Revelle (1984), is a construct that is hypothetical and has been conventionally used to describe and explain both the strength and direction of behaviour. It is also seen as the state resulting from the combination of a person's needs and wants with the stimulus properties that are present in the situation. Robbins (1993) in Ramlall (2004) defined motivation as a person's readiness to exert high amounts of effort in obtaining the goals of the organisation and that it is influenced by the effort's skill to gratify a certain need. Elvina and Chao (2019), after a review of a number of different definitions, defined it as a force that causes individuals to take action to complete goals on a personal and organisational level. There are two apparent forms of motivation: intrinsic and extrinsic. Factors of intrinsic motivation include work that is interesting, the appreciation of one's job, satisfaction, and stress, and factors of extrinsic motivation include job security, promotion and growth, wages that are decent, as well as recognition. Both intrinsic and extrinsic motivation impact the performance of an organisation and organisations must choose motivation strategies to boost worker performance. Additionally, it was stated that motivation can also be used to engage employees with their work, whereas stress is a demotivator, and stress and heavy workloads together, as well as long working hours, can increase a worker's stress levels. França et al. (2014) stated that motivation can improve productivity and reduce staff turnover. They also stated that 'motivation' is applied like an umbrella term and is used to cover a number of organisational behaviours that, strictly speaking, are not linked to a worker's desire to work. Latham and Ernst (2006) stated that motivation can be seen as energetic forces that start in and beyond a person and that it is a psychological process that comes about because of the reciprocal interaction between a person and the environment impacting that person's choices, effort, and persistence.

With regards to organisations, a motivated employee is a valuable asset because they strengthen revenue and growth, and a long-term benefit of employee motivation is high productivity (Chaudhary, 2012). Abbah (2014) stated that employee motivation is indispensable with regards to organisational management, and when motivation is applied correctly, the organisation can achieve long lasting success. Motivation also improves employee efficiency, activates human resources, builds friendly relationships, helps in achieving organisational goals, and leads to workforce stability. Additionally, the success of an organisation depends on how it entices, recruits, motivates, and keeps their workers (Sandhya and Kumar,2011). Appropriate salaries also nurture employees with regards to being flexible, motivated, and loyal, and this is important in organisational competitiveness. Additionally, motivation is important for the improvement of an organisation's performance, and an employer can use it to encourage their workers by advancing their skills and heightening their morale. Low morale may be identified by reduced productivity and increased absenteeism, tiredness, defective products, accidents, waste materials, and scraps (Abbah, 2014). Motivation is also a key component of organisational culture (Sokro, 2012). Ganta (2014) stated that motivation has been problematic for managers and leaders because with unmotivated employees, there is minimal exertion given towards their jobs, they give their workplace a wide berth as often as possible, they resign from their company if the opportunity arises, and their work quality is low, which is in contrast to when an employee is motivated because they then are likely to be creative, persistent, productive, and have work that is of a high quality. Motivated employees are also excited with regards to their jobs and undertake their responsibilities to the best of their abilities, which results in an increase in production numbers. Motivation, therefore, improves employee performance and productivity.

Ganta (2014) further stated that most workers require motivation to perform well and have a good feeling with regards to their jobs. The author stated that employers must know their workers and use various tactics in motivating them based on their individual needs and wants. For example, some employees are motivated by money, while others find recognition and rewards motivating. From an employer's perspective though, planning what workers need to focus on to motivate and encourage them is not easy (Sandhya and Kumar, 2011). Similarly, Abbah (2014) stated that different people are motivated differently, and what works on one might not work on the other, and this is a reason why managers should get to know those who work under their supervision. For the best results, managers may need to motivate individuals and also the team as a whole. Motivation also involves providing leadership, inspiring workers, and creating good morale and spirit among these workers. Motivation that is strong and also effective is required on multiple levels of the organisation in order to satisfy workers and keep them committed to their jobs. Echoing this, De Vito et al. (2016) stated that managers and organisational leaders have a responsibility to provide a motivational work environment, which is important, especially in environments with low compensation levels. Additionally, factors that can trigger motivation include money, security, working relationships that are considered good, appreciation, engagement, and the opportunity for both growth and development (Abbah, 2014). Sandhya and Kumar (2011) said that strategies that use motivation improve employees on a daily basis and also stated that motivation factors include compensation, career growth, and feedback strategies, and that incentives, perks, and cash prizes are also seen as good motivators. Similarly, Latham and Ernst (2006) stated that money, job security, recognition, and status evoke people to be happy. Interestingly, Jalagat (2016) stated that monetary consideration is more important than other motivation strategies, but Sandhya and Kumar (2011) stated that monetary compensation is not the highest employee motivator. Additionally, Ramlall (2004) stated that motivation to perform is muted by jobs that are boring and monotonous, but jobs that are challenging improve motivation.

From these studies, it can be seen that employee motivation is beneficial to an organisation. Improving employee motivation is an area that organisations should look into, and thereby, improve performance.

Performance

Productivity can be defined as the manner or grade to which a person is being productive (Google Dictionary, n.d.), while performance can be defined as: a) the way in which a job or an action is carried out; and b) a job or process viewed according to how it was carried out in a successful manner (Google Dictionary, n.d.). For the purpose of this study, the terms will be used interchangeably as they refer to the output of the employee. Looking at various other definitions, Mensah (2014) stated that there is no agreement and that there is no definition that is universally accepted with regards to performance. The author went on to state that their preferred definition is an employee's positive contribution to an organisation's performance. Murphy (1989) in Boon et al. (2012) stated that job performance is the behaviour that applies to an organisation's goals or the organisational unit where the employee works, and stated that job performance is a very important construct in the study of human resources. Boon et al. (2012) also stated that performance can fluctuate, and that with regards to an individual, their performance changes by changing the time that is spent on a specific job. Shahzadi et al. (2014) stated that performance is what is done or not done by an employee and that it includes both the quality and quantity with regards to output, attendance at work, a nature that is helpful and accommodative, as well as timeous output. Wu and Lee (2011) stated that job performance is a worker's total performance in attaining the anticipated quality and achievement of responsibilities within the policy and time that the organisation requires. Jackson and Frame (2018) stated that it is the behaviour which an employee has while working, and Aguinis (2005), in Jackson and Frame (2018), stated that it is about what is and is not done by the employee on the job, and that performance behaviours are judged as being positive, negative, or neutral with regards to the extent the behaviours contribute to attaining the goals of the employee, the objectives of the department, or the mission of the organisation.

According to the agreement of managers, the 21st century contains more efficiency and productivity demands than others have had (Markos and Sridevi, 2010). Businesses are striving to improve performance and managers are facing challenges to put their company ahead of competitors. Therefore, job performance is an important issue in organisational management (Wu and Lee, 2011) and employee performance engenders the accomplishment or disaster of an organisation (Elnaga and Imran, 2013). Pancasila et al. (2020) stated that if an employee's performance is outstanding, it is probable that the performance of the company will be as well. They also said that an employee's performance will be excellent if they have high skills, a willingness to work because they receive monetary compensation, and have future expectations that are better. It was also said that leadership is important for giving direction to workers and that it is important on all levels of the organisation. Additionally, Elvina and Chao (2019) stated that Human Resource management can strongly influence performance with regards to the way employees work and behave, and as such, impacts organisational goals. They also stated that when an employee's needs are met, that employee is likely to take responsibility for their performance, and in the process of this, they will perform well and achieve organisational goals. Additionally, it was stated that an employee must be able to present results that are of a good standard and have high levels of productivity, and that good employee performance influences production, sales, profit, progress, and market position of the organisation. Therefore, productivity in the workplace is a key factor that must be addressed by an organisation to ensure that it remains competitive. Additionally, if an employee is satisfied and happy, they will work well, which can motivate the other employees in the office. Adding to this, Latif et al. (2013) stated that, when viewing employees, the usual judgement is that a worker who is satisfied is productive,

and that when they are satisfied, there is a pleasant work atmosphere which allows better performance and efficiency. As a result of this relationship, organisational performance and its relation to job satisfaction are major topics in research studies. The authors also found that employers must know what employees feel, think, and wish. Having this knowledge, employers can use it to devise strategies to improve staff dedication and commitment, and in doing so, improve business outcomes, productivity, and commitment. Sandhya and Kumar (2011) stated that retaining quality performers benefits and ensures the productivity of the organisation and also boosts morale among its employees.

Employee performance is affected by many factors, and one significant factor is motivation because it largely affects productivity (Chaudhary, 2012). Abbah (2014) stated that motivation highly influences performance. The author also stated that performance is dependent on factors like performance appraisals, the satisfaction of the employee, wages, development and training, job security, and the structure of the organisation. Solanki (2013) stated that with regards to an employee's working life, job satisfaction and motivation are considered as essential components which influence an employee's performance in the workplace. Satisfaction and motivation can also affect physical and mental capabilities, which affect worker's performance. Jalagat (2016) on the other hand, stated that satisfaction and performance have had many studies conducted on them but, that the relationship is subject to many heated debates, particularly ones that try to determine the extent of its relationship. Saari and Judge (2004) stated that the history regarding the study of satisfaction and performance has been controversial. In the 1930s, the Hawthorn studies, which were about the effects of employee attitudes on performance, elicited investigation into the saying 'a happy worker is a productive worker'. A lot of early work gave the impression that the relationship between satisfaction and performance was weak and somewhat inconsistent. In 1985, work by Iaffaldano and Muchinsky suggested that the statistical correlation was only 0.17 and that the relationship between the variables was a 'management fad' and 'illusionary'. Further research though, came to a different conclusion. Organ (1988) suggested that a strong relationship was not found because performance was narrowly defined, and that when behaviours not included in appraisals are included, the relationship improves. In 2001 Judge, Thoresen, Bono and Patton reviewed 301 studies and when there was proper sampling and measurement error correction of the correlations, the average correlation was actually 0.30. Additionally, this value is higher when jobs are more complex, for example professional jobs. It was, therefore, concluded that satisfaction predicts performance and that when professional jobs are considered, this becomes even stronger. Additionally, employees require a healthy mind and body to perform well. Elnaga and Imran (2013) also stated that training and development is important for enhancing the performance of an employee, while Sandhya and Kumar (2011) stated that for organisations to improve employee productivity, they should look at reducing or preventing employees' anxiety, insecurity, and stress. Sandhya and Kumar (2011) said that the level of an employee's performance can be impacted as a result of their esteem. When an employee feels discouraged and inferior, it affects their performance and their enthusiasm. Additionally, feedback and input from an employer is necessary as it helps the employee improve their performance and also enhance their efficiency. Boon et al. (2012) stated that empirical evidence shows that rewarding performance is a strong management tool that can be used in creating an organisation that has high performance because it motivates employees to perform as they feel that their work and input are being recognised, valued, and appreciated. Rewards of a monetary nature also influence the attraction and retention of top performers. The employees' work environment also affects their satisfaction and performance when one looks at attention, energy, commitment, and contribution, depending on whether the said environment is supportive or unsupportive. Aarabi et al. (2013) also stated that money is a fundamental inducement and that, with regards to influential value, no other incentive or

motivational techniques are as significant. Organisations use pay, promotion, bonuses etc. for motivating and encouraging high performance levels and that it is able to magnetise, maintain, and motivate employees to move towards higher performance.

As can be seen from the review above, it is important that an organisation induce good employee performance to meet their goals and remain competitive. As such, organisations should consider improving employee performance, and a way of achieving this involves improving employee satisfaction and motivation.

2.5. Work, Wellbeing, and Popular Press

Work is a universal human activity (Aziri, 2011) and it rises to the same level as a basic need (Arenofsky, 2017). It has existed through time and has also evolved. It influences health and wellbeing both positively and negatively (Litchfield et al., 2016). The past saw many negative aspects that were associated with industrial diseases and health hazards like cancer that came about because of the chemicals, physical, and biological agents that workers came across in their work. Today, workplace hazards have more to do with the manner in which work is organised, and the resultant harm tends to focus more on the psychological aspects than the physical aspects. Litchfield et al. said that the most harm that work causes today is to psychological minds as they are shattered by systems with a brutish design, and which are carelessly applied.

In recent decades, work pressures have been escalating due to factors that require time and these can be sources of pressure (Guest, 2002). These factors include IT advancements, the load of information, the required response speed, quality of customer service and its constant availability, and the rate of change and the associated upheavals and adjustment. Along with this, the work environment can also cause strong emotions because it is considered a source of physical (money) and psychological (esteem) need fulfilment (Spector and Fox, 2002). Employees monitor situations, and these situations can improve or be detrimental to well-being, and when this happens, they generally invoke emotions which produce actions, tendencies and interactions. These can either improve positive or lower negative states. For examples, when a negative event takes place, the person may resort to intimidation or threats, or even avoiding work and drinking alcohol. When something positive happens, an individual may want to be involved more.

The UK Health and Safety Executive had research commissioned to better comprehend work factors and how they impact psychological health (Litchfield et al., 2016). From this, they published management standards that covered the sources of stress, which included: a) demands from workloads, the patterns or work, and the environment of the work; b) control and the amount of say that an employee has with regards to the way in which they are able to do their work; c) support in the form of encouragement, sponsorship, and resources; d) relationships that, for example, promote positive working, the avoidance of conflict and how unacceptable behaviour is dealt with; e) the understanding of roles and ensuring that there are no roles that are in conflict; and f) change such as how it is managed and communicated within an organisation. These standards were found to be helpful, but also identified shortages with regards to psychological health.

The modern business world faces competitive markets and there is also a focus placed on organisations that are sustainable (Parakandi and Behery, 2015). Organisations are complex social structures in which their employees are role players (Roodt et al., 2002). Organisations become competitive through their workers involvement and commitment and both organisations and employees influence the others' ability to achieve results that are positive. This was echoed by Manzoor (2012), who stated that employees are the most central part within an organisation and, therefore, need to be influenced and persuaded so that they fulfil tasks. Many organisations, though,

do not believe that their workers are their main assets that can take them to success. Additionally, organisations also want to be successful and constantly progress, especially in the highly competitive era of today. To accomplish this, they design strategies so that they are able to compete and better their organisational performance, but they are unable to progress or achieve this success unless their workers are satisfied and motivated to undertake and complete their tasks and the achievement of their goals. Additionally, Ali and Anwar (2021) stated that the utmost aspect affecting the productivity of an organisation are people and the knowledge that they have. According to Litchfield et al. (2016), there have been organisations that have attempted to mitigate harm and respond to change with regards to the possible mental and physical harm that is caused from work, but there have been even less organisations that have tried to boost good health, which could help engage employees and foster productivity.

Sokro (2012) stated that organisational culture influences how an employee feels about their work, their levels of motivation, their commitment, and their job satisfaction. Hobson et al. (2001) stated that organisations' efforts, such as creating work-life balance initiatives, say to the employee that they are valued as human beings. This results in a psychological bond with large implications on the success of the organisation. For example, organisations that have initiatives relating to work-life balance which are comprehensive, do not have to deal with waning commitment of employees, loyalty, or motivation. Additionally, they do not experience issues in hiring and retaining employees that are talented and productive. The author also stated that if an organisation fails to recognise that their workers do in fact have responsibilities that they face outside of their work roles, they will always have problems with their personnel, and that this may jeopardise the organisation's survival. For example, when employees have to work long hours, this can foster resentment over the long term (Dhas, 2015). Additionally, according to U.S. residents, it is said that a person's most stressful life events are linked to major life and family issues and that they are not actually related in a direct manner to work (Hobson et al. (1998) in Hobson et al. (2001)).

According to Litchfield et al. (2016), there is change in the pattern of work, in the nature of tasks, and also in how activities are organised. We see populations moving to cities, an increased number of females in the working world, and the emergence of 24/7 culture. This has disturbed the traditional outline of work-life balance and the mechanisms of social support. Additionally, there have been changes in the work roles of different genders, and there have been changes in how workers are managed, their rights in asking for flexible work, long hour culture, and the glass ceiling which women face, as well as other diversity issues that are found in the workplace. There are more workers that are working independently, outside of organisations, and the work styles are different from a lot of the current organisational behaviour theories. These work structure shifts have progressed as workers and organisations become less and less reliant on and loyal to one another. Barley et al. (2017) noted that this change in the nature of work and employment has been taking place over the last forty years and that it has been taking place in many countries. The authors also believe that this change will continue further into the future and stated that this can be seen in the demise of manufacturing and other jobs that were considered as well-paying and middle-class jobs that used bureaucratic employment contracts. Under these contracts, there would be an exchange with workers giving their labour and loyalty and receiving security for it. Now, these jobs have been sent offshore where labour is cheap. Jobs that are professional and technical have also begun being sent offshore. There has been an increase in contingent work, work where employment is tied to a task and has a short duration. This includes self-employed contractors, the contractors that go through staffing agencies, temporary workers that staffing agencies place, and gig workers (this involves spot labour markets where participants get jobs via online platforms and do not meet their employers) which is a phenomenon that has only been discussed by a small number of organisations and management studies. The

technology revolution has also changed what people do for a living and how they work (Litchfield et al., 2016). Technology can help manage demands that are complex, but it can also have an influence that is oppressive and not allow breathing room from work. For example, emails and social media may lead to what is called electronic overload and can interfere in non-work-lives. This can undermine productive work and it can also impact the health of employees and their families. As such, the way that technology is used and organised is important for the wellbeing of individuals and societies. Additionally, Baran et al. (2012) stated that the organisational support theory recognises that between workers and employees, a healthy relationship meets important employee needs when one is looking at the socio-emotional aspect. This may enhance employee well-being by reducing stress and increasing mood, job satisfaction, and safety. The author also explored felt obligation, which refers to the duty that is perceived by an employee which makes them feel that they should add value to the organisation in return for the perceived support that they receive from it. According to the organisational support theory, this happens when employees perceive support from the organisation and feel indebted, to which they look for ways to restore balance.

Next, taking a cursory glance at popular press and news outlets, one will stumble upon many an article that makes mention of stress, burnout, job dissatisfaction, mental and physical health issues, as well as low wellbeing of employees. One will also find suggestions on how to improve or remediate this. It is important for employers and researchers to know what is being portrayed in the media as this is where many employees receive information, and it often influences their outlook on topics. A theme that is found in popular press is that of employees being likened to machines, cogs in a machine, and robots with article headlines such as: “As Workers Are Increasingly Treated Like Robots Where Will The Breaking Point Be?” (Forbs, 2019); “I Worked at an Amazon Fulfilment Centre; They Treat Workers Like Robots” (Time, 2019); “Are you treating your employees like machines?” (Linkedin, 2015). With headlines such as these, it is important for employers to know what is being reported in the press, what type of sentiment is influencing the worker, and importantly, what employees are looking for in their working world, or what they believe will make them happy in the working world. Of course, each of these should be investigated to ensure that it is not just a fad and that there are benefits available for the employer and employee in the suggestions that are purported.

Delving further into this theme of linking humans to machines, in the article “Treat your people more like machines!” (Management Issues, 2014), it asks how someone can suggest treating people like machines that are soulless and inarticulate. The response was that most organisations are set up to treat machines better than people. It then went on to say that in most organisations, machines are treated as investments and people are treated as costs. In the article “Treating workers as machines? Business can be part of the cure” (Ethical Trading Initiative, 2017), it was stated that human machines noiselessly take care of mechanical ones, which is quite a poignant statement. In “Do We Treat Employees Like Machines?” (XQ Innovation, n.d.), Peter Senge’s, an MIT Sloan School of Management Senior Lecturer and the author of the book titled “*The Fifth Discipline: The art and practice of learning organization*”, train of thought was discussed. The article mentions that Senge believes that most business thinking still resembles that of the Industrial Age and that it is a bubble ready to pop. He describes certain Industrial Age philosophies such as standardisation and centralised control as “The Machine Metaphor”, which he believes is a large amount of core assumptions within management and organisations today. He likens an organisation to a machine that is owned. This machine exists to make money and its systems and procedures are created externally and imposed on the organisation. If any changes are required, someone externally has to come and make these changes. It then goes on to say that a machine doesn’t have living parts and, therefore, members of the organisation are just mechanical parts where human resources are humans on standby and waiting to be used. Senge

also stated that most employees now have resentment towards being a slave to the machine and being forced to be 'machine-like' so that they can fit in.

From the evidence above, although not all from academic research, it is clear to see that the human aspect, the happiness and wellbeing of individuals, is being overshadowed for efficiency, performance, and monetary gain to name but a few. In the process of this, individuals are losing out on life and time off. One important aspect to note on this is that although these arguments are common in popular press, when these same searches are done in academic research, such as on Google Scholar, these results are few and far between. Typing something such as "Employees treated like machines" into a normal search engine produces a number of articles relating to this, while academic sites do not. As such, it is important to consider the human aspect by taking into account the employees' work and home roles, their satisfaction, and their motivation, to make them feel like they are not just cogs in a machine.

2.6. Hypotheses Found in Literature

Previously Tested Hypotheses Regarding Flexible Working Hours, Flexible Working Location, Satisfaction, and Motivation

Kröll et al. (2017) investigated flexitime and telecommuting and their effect on stress management training. These authors tested if these arrangements relate positively to job satisfaction and found that flexitime does, but telecommuting does not, as it had no significant effects.

Al-Kasasbeh (2016) conducted a study to test flexible working time arrangement's influence on satisfaction at a university. These arrangements included compressed week, flexible working hours, and telecommuting. It was found that flexible working hours does influence satisfaction but that telecommuting does not.

Solanki (2013) conducted an analysis on flextime's association to job satisfaction, motivation, and worker stress levels, testing to see if the relationship is positive and if an association that is positive can be found between flextime and reduced stress levels of employees. Solanki found that flextime can assist organisations upgrade job satisfaction, motivation, and productivity, and also reduce stress.

Das, Mishra and Narendra (2014) undertook a study exploring the relationship that exists between telecommuting and extrinsic job satisfaction, testing the significance of the relationship between telecommuting and job satisfaction, and if males and females have different perceptions with regards to telecommuting and its impact on motivation, work-life balance, and productivity. They found that there was a significant relationship between telecommuting and job satisfaction and no difference between the different genders' perceptions towards telecommuting.

Hill et al. (2003) conducted a study on how different work venues (traditional, virtual, and home offices) influence various aspects of work that included performance and motivation, among others. Some relevant findings were that workers in virtual offices have a response that is more positive than workers in traditional offices with regards to job motivation but more negatively on work-life balance. Workers in the virtual office have a response that is more positive compared to workers in the traditional office with regards to job motivation but a response that is more negative with regards to work-life balance. Workers in the home office have a response that is more positive compared to workers in the traditional office with regards to job motivation and work-life balance. Workers in the home office also responded more favourably when compared to workers in the virtual office with regards to work-life balance.

Schade et al. (2021) undertook an investigation on workers and how well they worked and how they felt working from their home during the COVID-19 pandemic for an extended time. In a network model, the authors looked at the associations and dynamics of variables that included the employees work engagement, their flow, their detachment from work, and the positive and negative effects. The results suggested that the workers were able to adapt well to the situation that they faced and that their motivation and well-being showed levels that were adequate and had a trajectory that was increasing.

Work by Balasundran et al. (2021) also included the COVID-19 pandemic. These authors focused on teachers, and part of their work examined if there was a positive relationship between working from home and a teacher's job satisfaction. It was found that a teacher's job satisfaction was significantly affected by working from home.

Memon (2019) conducted a study to determine how flexible working arrangements impact motivation of female employees. They looked at the arrangements, flextime, compressed work week, and part-time work. They also investigated if flextime availability has a relation to motivation in females. They found that flextime had a strong correlation with employee motivation and a relationship that was significant between flextime and female employee motivation.

Ahmad et al. (2013) looked into flexible working hours, of which flexitime was included, and its relationship with employee motivation. They found a strong correlation that is positive between flexible working hours and employee motivation, and that these results established that implementing a flexible working hour schedule does contribute to the motivation of workers.

From these previous studies, it appears that most relationships are positive, but there was an instance where the relationship was not supported. Therefore, it will be beneficial to determine how flexible working arrangements, satisfaction, motivation, and performance respond in the proposed structural model.

Previously Tested Hypotheses Regarding Satisfaction, Motivation, and Performance

Murgianto et at. (2016) conducted a study examining how employee performance is affected by commitment, competence, motivation, and satisfaction. They tested to see if satisfaction impacted motivation and if motivation impacted performance. They found that work satisfaction significantly affected work motivation, and that work motivation significantly affected employee performance.

Pancasila et al. (2020) investigated if work motivation and leadership affect job satisfaction and the implications on the performance of employees. They tested if there was an effect that was significant and positive with motivation on performance as well as with satisfaction on performance. They found a positive and significant effect of work motivation on job performance and of job satisfaction on job performance.

The authors, Elvina and Chao (2019) conducted a study between employee motivation and work performance. In particular they looked at both intrinsic and extrinsic motivation. They found that there was a relationship and that there was a positive impact of both intrinsic and extrinsic motivation on employee performance and also that extrinsic motivation had a stronger relationship with performance than intrinsic motivation. It was also stated that, for performance, the respondents considered the following factors important: a) for extrinsic motivation, they were job security, wages that are good, promotion and growth, and recognition; and b) for intrinsic motivation, they were work that is interesting, job appreciation, satisfaction, and stress level.

Also, Latif et al. (2013) undertook a study to identify if job satisfaction impacts organisational performance. They tested their hypothesis to see if there is a relationship that is positive between employee satisfaction and organisational performance. They found that job satisfaction significantly impacted organisational performance.

Sidabutar et al. (2020) investigated if compensation, motivation, and job performance affect employee performance. They tested if there were positive relationships between motivation and job satisfaction, job satisfaction and employee performance, and motivation and performance. They found that there is a strong positive relationship between motivation and satisfaction, and between satisfaction and performance. With this, they stated that the more an employee is motivated, the more satisfied they will be to carry out their work and that the higher an employee's satisfaction, the higher their performance. There was no positive relationship between motivation and performance and as such stated that motivation does not affect the performance of employees.

Pusparani, Amin and Ali (2021) completed work which in part looked at the effect job satisfaction had on the performance of employees who worked in Sarolangun Regency, for the Department of Population Control and Family Planning. The authors found that job satisfaction directly positively affects employee performance. They also found that job satisfaction indirectly positively affects employee performance through organisational commitment.

In the work by Rožman et al. (2020), the authors looked at mature employee's stress level, motivation, satisfaction, and their relationships. They tested the hypothesis that there was a positive impact of employee satisfaction on employee motivation and found that satisfaction was a strong predictor of motivation and that there was a strong positive impact of satisfaction on motivation.

Theresia et al. (2018) conducted a study examining culture, job satisfaction, and motivation's influence on performance of lecturers. They tested the hypothesis that there was a significant effect of satisfaction on motivation, satisfaction on performance, satisfaction on performance through motivation, and motivation on performance. They found that satisfaction significantly influenced motivation positively, that job satisfaction significantly influenced performance positively, that job satisfaction significantly influenced performance through motivation, and that there was a significant effect of motivation on performance.

In addition, Singh and Tiwari (2011) completed an evaluation on motivation and its relationship with job satisfaction in white-collar employees. They checked if there was a large difference when comparing the Mean Motivation Score of employees that have both high and low satisfaction. They found a significant difference in the Mean Motivation Scores, and stated that this implies that motivation can be seen as a function of job satisfaction. They also stated that motivation's value increases when satisfaction's value increases and vice-versa.

From these previous tested studies, it appears that most relationships are positive, but there were instances where the relationships were not supported. Therefore, it will be beneficial to determine how flexible working arrangements, satisfaction, motivation, and performance respond in the proposed structural model.

2.7. Research Gap

As can be seen from the research in areas like flexible working arrangements and its constituents, as well as satisfaction, and motivation, there are no set definitions. This may cause confusion to not only academics, but everyday individuals as well, as each person has their own perspective. As with the definitions, each person has different requirements for work-life balance and flexible working arrangements, as no one-size-fits-all. It can also be seen that the working world is evolving. Certain

companies have implemented certain types of flexible working arrangements. The research also showed that flexible working arrangements could be beneficial to employees and employers in various aspects, but there was also some research that showed that it is not beneficial, or the relationship is unclear. Additionally, the literature is also compartmentalised. Research was mainly conducted on one or two items of the research topics included in this study, without taking some other factors into account.

The main gaps identified though, were that even though a number of studies have spoken favourably with regards to the hypothesised relationships between these topics, there has also been research where the findings were not favourable, or where the relationships were either unclear or inconsistent. Additionally, the author found a lesser number of studies on how age, gender, and particular use of FWA impact these relationships. As such, it is important to further investigate these relationships and the suggested categories. To the best of this author's knowledge, no research has been conducted showing flexible working arrangements, satisfaction, motivation, and performance together in one structural model. This research, therefore, seeks to evaluate all four of these topics together and investigate if flexible working arrangements do, in fact, have a positive impact on satisfaction, motivation, and performance of the worker, and also if these relationships are affected by categories such as age, gender, use of FWA, and the subdivision of FWA into FWH and FWL. If there are positive results, it could be beneficial for an organisation to consider implementing FWA and/or improving employee satisfaction and/or employee motivation for the benefits that may be achieved.

2.8. Chapter Conclusion

In this chapter, literature was reviewed on topics such as work-life balance, flexible working arrangements, satisfaction, motivation, performance, work, and wellbeing. It also looked at what is said in popular press. The chapter ended by describing the research gap that motivated this study.

Chapter 3: Research Methodology

3.1. Introduction

Chapter 3 presents the methodology that was followed to undertake the research's Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis. It also details the history, basic concepts, and structure of a structural equation model, defines PLS-SEM, and compares this method against the Covariance Based Structural Equation Modelling (CB-SEM). This chapter also details how the questionnaire was developed and how the data was collected.

3.2. Structural Equation Modeling

Background and History of SEM and its Analytical Packages

Structural Equation Modelling (SEM), according to MacCallum and Austin (2000), is a technique used to specify and estimate models which contain relationships between variables that are linear. It is a common statistical modelling technique that is used prolifically in behavioural sciences. It provides a framework that is general and convenient and includes traditional multivariate procedures which include factor analysis, regression analysis, discriminant analysis, and canonical correlation (Hox and Bechger, 1998). Grace and Bollen (2008) also stated that SEM can evaluate complex multivariate hypotheses with regards to systems of an ecological nature, allow both observed and unobserved variables to be incorporated into probabilistic models that are based on theory, and that it builds on path analysis and factor analysis, which can be seen as its predecessors. Additionally, Blunch (2013) stated that it is a collection of models brought together from various disciplines and times because they can be shown as special cases of a general model. It allows for increased flexibility with regards to the interplay of theory and data, and allows a researcher to: a) model relationships between several predictor and criterion variables; b) construct unobservable latent variables; and c) test both theoretical and measurement assumptions statistically against empirical data (Chin, 1998). According to Hair et al. (2017), SEM is a statistical analysis technique. It emerged in the social sciences and has become extremely prominent. The authors described it as a type of multivariate techniques (second-generation), as it draws together factors associated with analysis and regression and, thereby, allows one to examine the relationships between constructs and their indicators (measurement theory assessment), and between constructs (structural theory assessment). They stated that SEM can analyse multiple variables simultaneously, and allows unobservable variables to be measured indirectly via indicator variables. Chin (1998) stated that when compared to techniques of the first generation like principal component analysis, factor analysis, discriminant analysis, and multiple regression, SEM provides greater flexibility for the interplay of theory and data and that, depending on which of the two are stronger, theory or data, the researcher can allow them to have a stronger say.

Its history is linked to the early 1900s with work conducted by C. Spearman on factor analysis in 1904, by L. L. Thurstone on multi-factor analysis and factor rotation in the 1930s, and by S. Wright on path analysis (Blunch,2013). Tarka (2018) stated that researchers in academic fields and practitioners in social science needed effective methods for understanding the structure as well as the interactions of latent phenomena and that from there, SEM disseminated and developed. The author also went into the history and stated that Spearman laid the foundations of SEM with the construction of the first factor model in 1904 and 1927. This work was extended by Thurstone in 1935 to the vanishing of higher-order determinants. Following this, Wright initiated real works concerning SEM and the approach he used was based on path analysis with structural coefficients, which were estimated according to the correlation of the observed variables. He showed that the correlations among

variables can be linked using model parameters and that the model's equations can be used when one needs to estimate direct, indirect, and total effects of a variable that is influencing another.

In the 1950s econometricians became aware of Wright's work (Goldberger (1972) in Blunch (2013)). This areas approach was mainly promoted by Haavelmo in 1943, Koopmans in 1945, and Frisch and Waugh in 1933 (Tarka, 2014). In psychology, SEM was introduced successfully mainly due to work by Werts and Linn in 1969 and Issac in 1970. In the field of sociology, there were several pieces of work completed by Blalock, and in sociological literature, Duncan has been given the main credits (Tarka, 2014). Additionally, there was a substantial increase in the interest of SEM models due to the work completed by Goldberger in 1971 and 1972 and the publication of "*Structural Equation Models in Social Sciences"* by Goldberger and Duncan in 1973. Methodological concepts which related to SEM were also presented in work by Jöreskog in 1970 and 1973, Keesling in 1972, and Wiley in 1973, but in literature, the work by Jöreskog in 1973 is mainly credited with the first development of SEM, which includes the computer software LISREL. This can, for example, be seen in the work by Blunch (2013), who stated that the general SEM was formed by combining path analysis and factor analysis, of which Jöreskog was foremost in its development with the creation of LISREL. The author then stated that because Jöreskog published in psychological journals, psychology is where this new way of thinking initially gained widespread use, followed by marketing, and that now, most areas in social and life sciences are giving it appreciation.

Looking at the analytical packages, SEM software development had a boom because of the development of commercial computer packages like EQS, MPLUS, AMOS, PROC CALIS, HLM, SIMPLIS, and GLAMM as well as the freeware packages, such as OpenMX, SEM package, and LAVAAN that relate to R (Tarka, 2014). Software's common advantage is that it: a) provides very advanced as well as fast computational solutions; b) provides the more precise confirmation of correlations among variables; and c) provides the testing of cause-effect relationships. Additionally, automated computing processing allowed upgrades over existing calculator and analogue computing. Computer technology advancements have also allowed professionals and novices to use SEM on intense analyses that have large datasets which are possibly complex, unstructured problems.

CB-SEM vs PLS-SEM

There are many structural equation modelling techniques, which include covariance-based (CB) and Partial Least Squares (PLS) types, of which CB-SEM is well-known and widely used in social science research, and PLS-SEM is a less widespread technique (Chin, 1998). Additional techniques include Generalized Structured Component Analysis (GSCA) and Nonlinear Universal Structural Relational Modelling (NEUSREL) (Wong, 2013). These two approaches are relatively new and the literature on them is limited. As such CB-SEM and PLS-SEM were considered for this research. According to Hair et al. (2017), the one that is used should be the one that is the best suited to the objectives of the research, the characteristics of the data, and the model set up. The authors also noted that both techniques have different objectives, and as such, they depend on differing measurement philosophies.

Looking at CB-SEM, it is widely used and preferred for confirming or rejecting theories via hypothesis testing. It can be used when there is a large sample size, there is normally distributed data, and the model is specified correctly (Wong, 2013). Industrial practitioners and researchers have noted the difficulty in obtaining data sets that meet the requirements. CB-SEM software packages include AMOS, EQS, LISREL, and MPlus.

Looking at PLS-SEM, its uses include theory confirmation, the suggestion of where relationships may exist, or not exist, and in providing propositions that can be tested at a later date. (Chin, 1998). Hair

et al. (2017) said that it is mainly utilised in the development of theories in research that is exploratory by giving an explanation of the dependent variables' variance and it is also used for exploratory research. Wong (2013) also stated that its focus is on the analysis of variance. PLS-SEM software packages include PLS-Graph, VisualPLS, SmartPLS, and WarpPLS, and the PLS module can be used in R.

When debating which technique to use, the following should be considered. Looking at the positive aspects, PLS-SEM is suitable for small sample sizes and models that are complex. Additionally, the assumptions that it makes regarding the data that is underlying are less stringent (Cassel, Hackl and Westlund (1999) in Hair et al. (2017)). In comparison, CB-SEM needs data that has a normal distribution and regression using sum scores (Hair et al., 2017). PLS-SEM handles formative models, reflective models, and single-item constructs well with no problems linked to identification, and it can be used in various research situations. PLS-SEM compared to CB-SEM allows higher parameter estimation efficiency and statistical power, and will, therefore, show that a relationship is significant when it is significant within the population. PLS-SEM is also superior in situations with little prior knowledge of the relationships within the model or the measurement characteristics of the constructs, or when the focus is more on exploration rather than confirmation. From a negative perspective, PLS-SEM cannot be used when causal loops or circular relationships are present. It also, at present, doesn't have a global goodness-of-fit measure that is well recognised, and therefore, has limited use in theory testing and confirmations. Development of a measure of goodness-of-fit has begun though (Bentler and Huang (2014) in Hair et al. (2017)).

Lowry and Gaskin (2014) also looked at choosing CB-PLS or PLS-SEM, stating that a lot of the characteristics and benefits associated with CB-SEM can also be seen in PLS-SEM. PLS-SEM has advantages in theory building that is preliminary, but CB-SEM has advantages in the validation of models. PLS-SEM also includes a number of statistical techniques that CB-SEM does not. CB-SEM permits one to compare observed and proposed covariance matrices to evaluate the overall 'fit' with regards to the causal model that is proposed, can deal with imperfect measures more so than PLS-SEM, but should only be used when testing theories that are well-established and empirically validated. Confirmatory and exploratory studies can be conducted with PLS-SEM as it avoids factor indeterminacy and deals with errors in measurement quite well.

Hair et al. (2017) provided 'rules of thumb' to determine which technique to use. They suggested using PLS-SEM for instances which include: a) when predicting key target constructs is the goal; b) when the structural model contains formatively measured constructs; c) when the structural model is complex; d) when there is a small sample size or the data is distributed non-normally; and e) when there is a plan for subsequent analyses using latent variable scores. The authors suggested CB-SEM for instances which include: a) when testing, confirming, or comparing theories is the goal; b) when error terms need more specification; c) when there are circular relationships; and d) when the criterion global goodness-of-fit is required. Additionally, Lowry and Gaskin (2014) outlined when to choose PLS-SEM or CB-SEM and stated that there should be consideration regarding whether the research is exploratory or confirmatory. If exploratory, PLS-SEM is preferable, and if it is confirmatory, either may be used. Additionally, with small sample sizes, CB-SEM is unreliable if it does converge and that often, it will not converge. Considering this, PLS-SEM was selected as the sample size was not exceptionally large, there were no circular relationships, a global goodness-of-fit criterion was not required, and the research was more exploratory. A summary of the advantages and disadvantages of PLS-SEM and CB-SEM can be found in Appendix A, Table 48.

Background and History of PLS-SEM and an Outline of the Software Used for this Research

PLS-SEM has its origins in the sixties when Herman Wold presented two iterative procedures that used least squares estimation for both single and multicomponent models and for canonical correlation (Chin, 1998). In 1977, the basic design was finished. PLS-SEM was then elaborated by Bookstein in 1982 and fully programmed by Lohmöller in 1984 (Lohmöller, 1988). Modeling programs, at the time of the article's publication included LISREL, EQS, COSAN, and PLS. PLS-SEM is evolving, has increasing visibility in social sciences, and has gained interest among methods researchers (Hair et al., 2017). Lowry and Gaskin (2014) stated that PLS-Sem has been used into the thousands in the articles of behavioural research fields such as information systems, management, and marketing. Hair, Sarstedt, Hopkins and Kuppelwieser (2014) stated that much of this increased usage stems from its ability of handling problematic modelling issues well.

One software available today is SmartPLS 3. It is a licensed software, but it also has a free student version that provides access to limited features. It executes a number of the newest extensions and is considered very easy to use. It also has new algorithms and features that in the past had to be completed by hand. Some of these features include advanced bootstrapping, the importance-performance map analysis, multigroup analysis, confirmatory tetrad analysis, and additional segmentation techniques. This software was selected as it is user-friendly and can conduct the required analyses.

3.3. Components and Composition of a Structural Model

To understand SEM, one first needs to understand the concepts, items, and terms used. This section identifies and explains important aspects of structural equation modelling. Structural equation models are often presented graphically as a path diagram (Hox and Bechger, n.d.). A path diagram, as defined by Loehlin and Beaujean (2017), is a representation of the relationships among variables in an easy and convenient manner. MacCallum and Austin (2000) stated that they show the hypothesised directional and non-directional linear relationships between the measured variables and the constructs. According to Hair et al. (2017), PLS-SEM uses path models to display hypotheses and variable relationships, visually. In these models, the variables can be latent variables or measured variables, where latent variables are hypothetical constructs that one is unable to measure directly, and measured variables are indicators of a construct, where the constructs generally have multiple measured variables (MacCallum and Austin, 2000), or as described by Hair et al. (2017), constructs are indirectly measured variables, and indicators are the directly measured variables that correlate to a specific construct and, which contain the raw data. Within the path model, latent variables are represented by circles or ovals, and indicators are represented by rectangles.

Hair et al. (2017) stated that the relationships between the constructs and between the constructs and their indicators are represented as single-headed arrows which also represent the directional relationship. They follow a left to right sequence. Variables presented on the left-hand side of the model are independent and those presented on the right-hand side are dependent. Some variables may be both independent and dependent. In this study, Flexible Working Arrangements, Satisfaction, Motivation, and Performance are considered as the constructs, with Flexible Working Arrangements acting as an independent variable, Satisfaction and Motivation acting as both independent and dependent variables, and Performance acting as the dependent variables. Each of these constructs also have indicators to measure it. For example, Performance has indicators such as 'completing tasks efficiently and correctly' as well as 'finishing work on time'. Additionally, Hair et al. (2017) also stated that the constructs can be either exogenous and endogenous. Exogenous variables explain other constructs within the model and variables that are endogenous are explained by the other constructs within the model. Exogenous variables are the independent variables, and the endogenous variables

can either be dependent and/or independent variables. Exogenous variables have no arrows entering it, only exiting it, whereas endogenous variables can have arrows going in and out of it, or arrows only going into it. Byrne (2006) stated that exogenous and independent variables are synonymous, they cause the values of the other variables to vary, and that the fluctuations that they experience are caused by external factors and not the model itself. Some external factors include background variables like age and gender. Additionally, endogenous and dependent variables are also synonymous but are influenced, either directly or indirectly, by the independent variables. The fluctuations that they experience are explained by the model. Wong (2013) stated that with exogenous variables, they have arrows exiting them, and with endogenous variables, they have at least one arrow entering them and are representative of the effects of other variable(s).

A structural equation model has two parts, the measurement component and the structural component (Maware and Adetunji, 2019). The measurement model describes the connection between a latent variable and its indicators and a structural model shows the causal connections among variables (Blunch, 2013). The structural model shows only the oval constructs and their relationships to one another (Hair et al., 2017). The measurement model shows the indicators with their construct and the relationship between the two. Additionally, it generally only refers to one construct. In this study, the measured variables were directly measured via the items in the questionnaire. Additionally, Henseler and Sarstedt (2013) stated that an inner model shows the relationships between latent variables and the outer model shows relationships between latent variables and their indicators.

Additionally, constructs can be measured two ways, either using reflective measurement or formative measurement. According to Hair et al. (2017), with reflective measurement, the arrows point from the latent variable to the indicator, showing that the construct causes the measurement of the indicator. With formative measurement, the arrows point from the indicator to the construct, showing a causal/predictive relationship. In this study, Flexible Working Arrangements is the exogenous construct as it affects the other constructs, Satisfaction and Motivation are endogenous variables, because, while they are affected by Flexible Working Arrangements, they also affect Performance, with Satisfaction also affecting Motivation. Performance is also an endogenous variable as it is affected by Satisfaction and Motivation.

Figure 2 depicts a path model and identifies each component discussed above. Certain structural equation models contain more concepts, such as mediating variables and moderating variables, but these have not been included in this background discussion of SEM. Formative measurement items have also not been included as all items in this research are reflective.

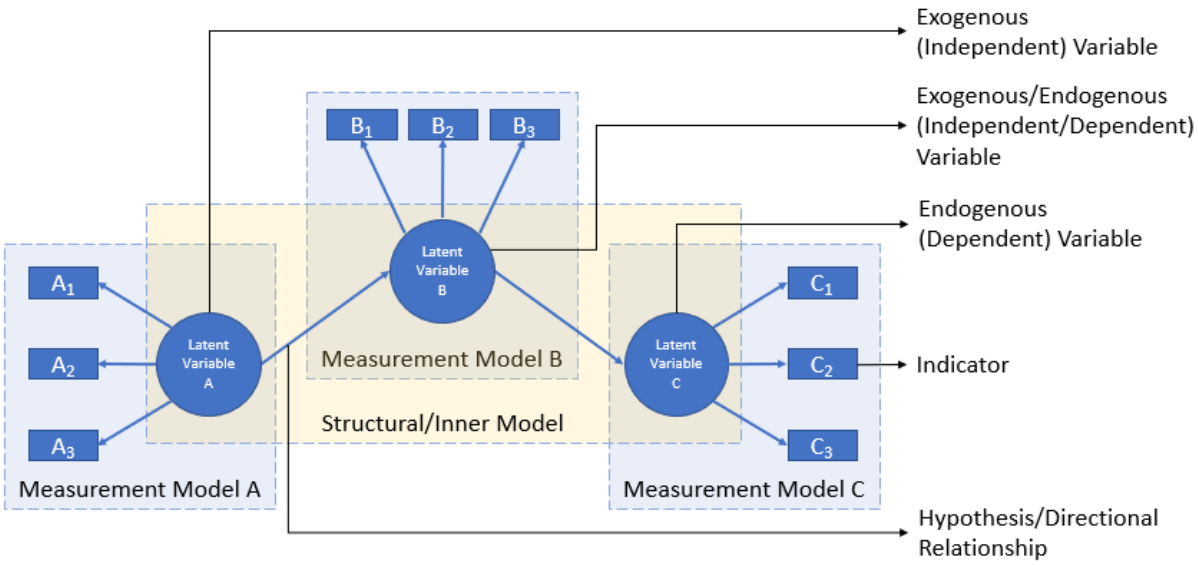

Figure 2: The basic concepts in a path model

3.4. PLS-SEM Methodology

Introduction

Section 3.4 outlines the methodology that was followed to conduct the PLS-SEM analysis. The steps were obtained from Hair et al. (2017)'s *Systematic Procedure for Applying PLS-SEM* and are presented in Figure 3. Each subsequent subsection presents a description of how each stage of a PLS-SEM analysis should be conducted.

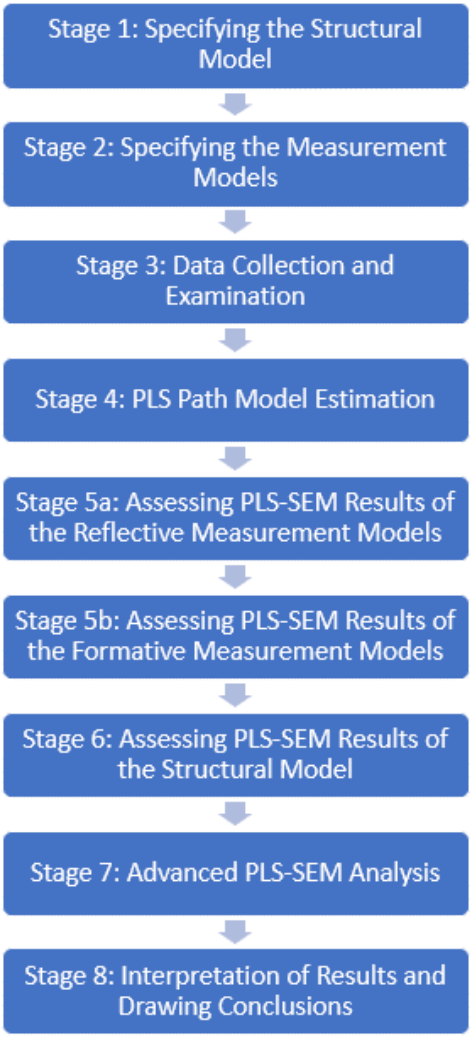

Figure 3: The stages of the PLS-SEM analysis (adapted from Hair et al. (2017))

Stage 1: Specify the Structural Model

The initial step is the development of the structural or inner model, which is a diagram which represents the hypotheses that are being researched. To create this diagram, the relevant constructs must be identified and defined. How these constructs relate to one another must then be identified, and the researcher must determine if the constructs are dependent (endogenous) or independent (exogenous). In certain cases, which is not applicable in this research, moderators should be determined. The nature of the relationships between the constructs should then be hypothesised to determine if it should be positive or negative as well as what the direction should be. In general, the arrows indicating the relationship should be pointed to the right-hand side. This step is completed according to theory, logic, previous research, and/or researcher judgement. Following this, evidence on why these relationships exist should be provided from theory, research, business practise, and/or sources that are credible. A conceptual model can then be created that illustrates the hypothesised relationships. A measurement discussion should then be undertaken to determine if the constructs should be conceptualised as either first or second order. The measurement perspective, which can be reflective or formative, should then be specified and reasons provided.

In this research Flexible Working Arrangements is the exogeneous latent variable and Satisfaction, Motivation, and Performance are the endogenous latent variables. All constructs were conceptualised as first-order constructs. The measurement perspective used was reflective. This was selected as all

indicators were presumed to be caused by the constructs and stemmed from the same domain. The indicators are also interchangeable and can be removed without altering the meaning of the construct. In summary, a reflective perspective was used because the researcher wanted to test theories, the indicators represented consequences of the construct, and the indicators were interchangeable (Hair et al., 2017).

Stage 2: Specifying the Measurement Models

For Stage 2 of the PLS-SEM analysis, the measurement models, which describe the relationships among latent variables and their indicator variables (Hair et al., 2017), must be specified. To do so, measures, or indicator variables, for each construct should be developed using theory, logic, and/or researcher judgement. A means to directly observe and measure these indicators should be identified, followed by how to combine the measurements of such indicators to form a single composite score for the construct. These measures, or indicators, need to be developed as the constructs cannot be directly observed. The constructs, therefore, require the indicators to describe them. These indicators can be directly measured, and their combined measurements act as an indirectly observed measurement for the construct. A manner in which to observe and measure these indicators is by using questions in measurement scales forming the questionnaires that will be completed by the respondents.

For the purpose of this research, each latent variable was appointed several indicator variables. Each of these indicators were linked to a question within the questionnaire that were sent out and completed by respondents. The questions were either taken directly from literature, adapted from literature, or developed using literature from authors such as Aziri (2011), França et al. (2014), Jalagat (2016), and Mak and Sockel (2001), Mbindyo et al. (2009), and Ramos-Villagrasa et al. (2019). The final questions/items used for the analysis can be seen in Appendix B, Tables 49 and 50. The results of these questionnaires were then input into SmartPLS 3 which combined the measurement of these indicators to form a single composite score for the various constructs. This procedure is described further in Stage 3. For example, in this research, Performance was not directly measured. Observable phenomenon was used, such as completing work efficiently and correctly, finishing work on time, producing work with minimal defects or errors, often having to redo work, the quality of the work produced, and work meeting employer expectations.

Stage 3: Data Collection and Examination

For Stage 3, the researcher must determine how data will be collected, collect the data, and examine the data. To do so, the researcher must determine what data must be collected and how it will be collected. As SEM methods require quantitative data, a questionnaire was used to collect primary data. This questionnaire was compiled using questions that were in accordance with the indicator variables that were developed in the measurement model and made use of a five-point scale to obtain the responses. As previously mentioned, these questions were developed using theory, logic, previous research and/or researcher judgement. The questionnaire was structured and asked the necessary questions to reduce data collection issues. For example, it was decided to use an electronic questionnaire to eliminate missing data by only allowing the respondent to move to the next section once the current one was completed in full. For validation, the questionnaire was also given to an academic to provide feedback so that any necessary changes could be made. The next action for this stage is to determine where the questionnaire should be sent and the required sample size. The sample size should be determined using the '10 times rule', which stipulates that the size of the sample should not be smaller than 10 times the number of paths entering the construct that has the largest number of indicator variables. When there is a minimum sample size, it acts as a precautionary measure safeguarding the results so that a statistical power of adequate proportions is present. It also

ensures that the results are robust and that the model is generalizable. The questionnaires should then be distributed to collect the primary/empirical data. For this research, the questionnaires were sent out on social media using a Google Forms link and the results were available to the researcher online. This link was shared on social media pages such as Facebook, Instagram, and LinkedIn. Respondents were also able to forward the link to others to complete it, but were reminded by the researcher to familiarise themselves with the POPIA before sharing it. From this, 153 responses were obtained. Following this, the received data was evaluated for any issues with regards to data collection such as data that is missing, suspicious, and inconsistent response patterns such as straight lining, or inconsistent answers, and outliners. In the data collected, there was no missing data as respondents could not continue to the subsequent section or submit an incomplete questionnaire without receiving an error and being asked to complete the questions. After the data was evaluated, it was also formatted to be consistent with the requirements of SmartPLS 3. As such, the questions were replaced with the indicator names, questionnaire responses of Strongly Disagree to Strongly agree were replaced with the numerical values 1 to 5, and questions asked in a negative format were recoded (flipped) to be in line with Strongly Disagree represented by a 1 to Strongly Agree represented by a 5.

During this stage of the research, the researcher also had to obtain ethical approval before sending out the questionnaire due to the nature of the work. The process followed what was outlined by the University of Pretoria and included actions such as completing the application form, the declaration by researcher form, the informed consent form, and the cover letter to be sent out with the questionnaire. Appendix B, Figure 25 displays the Ethics Application Approval Letter received from the University of Pretoria. Additionally, all responses were submitted anonymously and the researcher outlined that participation in the survey was voluntary.

Stage 4: PLS Path Model Estimation

In this stage of the PLS-SEM analysis, the PLS-SEM algorithm is applied. For this, the software SmartPLS 3 was used. To begin the analysis, the path model must be constructed and the data must be input into the software. The model must then be initialised and run as required, which includes choosing the stop criterion and selecting the maximum number of iterations. This is conducted to assess the parameters for the outer and inner models, which are seen in Stage 5 and Stage 6.

Stage 5a: Assessing PLS-SEM Results of the Reflective Measurement Model

In this stage the reflective measurement models must be assessed by completing several checks to determine convergent validity and reliability. Without meeting the requisite reliability and validity, further evaluation of the model cannot be done.

Initially, individual indicator reliability should be checked. For this, indicator Outer Loadings should be larger than 0.70. if they range from 0.40 to 0.70, they should be considered for deletion if this will increase the Composite Reliability and Average Variance Extracted (AVE) above the 0.70 threshold, provided content validity is maintained. Additionally, Bagozzi and Yi (1988) and Fornell and Larcker (1981) in Ng and Kee (2018), stated that Outer Loadings ranging from 0.40 to 0.70 can be retained or deleted if the 0.50 threshold for AVE is met. Hair, Ringle and Sarstedt (2011) and Hulland (1999) in Ab Hamid, Sami and Sidek (2017) stated that if an item's Outer Loading is <0.4, the item should be deleted.

Composite Reliability must then be checked to evaluate the internal consistency reliability. For this, as previously mentioned, Composite Reliability (upper bound) and Cronbach's Alpha (lower bound) should be greater than 0.70. Purwanto and Sudargini (2021) stated that limit values above 0.70 for

Composite Reliability and Cronbach's Alpha are acceptable and those greater than 0.80 are very satisfactory.

Following this, Convergent Validity should be checked to ensure that latent variables include more than 50% of the indicator's variance. This is done by ensuring that the AVE value is above 0.50. Wong (2013) also stated that the acceptable threshold is 0.5.

Lastly, Discriminant Validity should be checked using the heterotrait-monotrait (HTMT) criterion. The value should be less than the 0.85 threshold and its confidence interval when bootstrapped should not include 1 for all combinations of the constructs. Rasoolimanesh (2022) stated two manners to use HTMT. Henseler et al. (2015) in Rasoolimanesh (2022) stated that it is comparing the value with the threshold of 0.85 or 0.9 and Franke and Sarstedt (2019) in Rasoolimanesh (2022) stated that when using inference statistic to test the hypothesis, HTMT = 1. Rasoolimanesh (2022) summarised stating that HTMT values should be below that of 0.85 or 0.9 and with inference statistic, the hypothesis HTMT=1 should be rejected.

Additionally, as with conventional discriminant validity methods of assessment, indicators' Outer Loadings on a construct should be greater than its Cross Loadings with other constructs. Additionally, according to the Fornell-Larcker criterion, the $\sqrt{AVE}$ value for each construct should be greater than the greatest correlation with any other construct, or the diagonal values should be larger than the off-diagonals, to ensure that the constructs are valid measures of unique concepts. Adding to this, Fornell and Larcker (1981) in Rasoolimanesh (2022) stated that each constructs square root of the AVE values should be larger than the correlation with other constructs, and Chin (1998) in Rasoolimanesh (2022) stated that each items outer loadings on its associated construct should be larger than the loading of the item on other constructs.

Stage 5b: Assessing PLS-SEM Results of the Formative Measurement Models

In this stage, formative measurement models are assessed. This stage was not conducted in the research as no formative measurement models were present.

Stage 6: Assessing PLS-SEM Results of the Structural Model

This stage addresses assessing the structural model by means such as checking that the path estimates are statistically significant and meaningful and that the endogenous constructs have a high level of explained variance in the form of the R^2 values.

To start, the Variance Inflation Factor (VIF) values should be assessed for collinearity issues. The VIF value should be lower than 5. Additionally, Hair, Sarstedt, Hopkins and Kuppelwieser (2014) stated that ideally, VIF values should be near 3 or below.

Next, the model should be assessed for collinearity issues using the path coefficients. Values are typically from negative 1 to positive 1, but can also fall outside of these bounds. Values near +1 are considered strong positive relationships and those near -1 are considered strong negative values, with both typically being statistically significant. Values closer to 0 show weaker relationships and those very close to zero are usually considered not to be significantly different for zero. Rahman, Al-Emad and Nagapan (2016) also stated that when values are closer to 0, the weaker the relationship is and that those very low and near 0 are generally non-significant.

Bootstrapping can also be used here to assess if the relationships are significant. When analysing the results, at a 5% significance level, *p* values should be below 0.05 to be statistically significant. For further detail the researcher can also look at the bootstrap confidence intervals as they offer information on the coefficient's stability and provide the researcher with a range of population values

that are possible, depending on the data's variation as well as the size of the sample. When confidence intervals do not include 0, the hypothesis relating to the path being equivalent to 0 can be rejected, and from this, the researcher can infer that a significant effect is present (Hair et al., 2017). In simpler terms, only intervals that do not contain 0 are statistically significant. The same procedure can be followed for the total effects. Total effects are the summation of the direct and indirect effects. Looking at these values allowed the researcher to evaluate how strongly the driver/predecessor constructs influence target variables, then the relationships significance and relevance should be tested.

The level of R^2 should be assessed to evaluate the coefficients of determinants, and the interpretation of these values depends on the model's complexity as well as the discipline of the said research. Typically, 0.75, 0.50, and 0.25 are classified as substantial, moderate, and weak (Hair et al., 2017). On the other hand, Cohen (1977) in Moori et al. (2013) stated that when work is done in the field of behavioural studies, 0.26 can be considered a substantial effect. Additionally, Cohen (1988) in Maware and Adetunji (2019) also stated that values of 0.26 are substantial, 0.13 are moderate, and 0.02 are weak. These categories were used in this research.

The f^2 values should then be assessed to determine the effect size, allowing the determination of the exogeneous construct's contribution to the endogenous latent variable's R^2. f^2 values smaller than 0.02 indicate no effect, larger than 0.02 indicate an effect that is small, larger than 0.15 indicate an effect that is medium, and greater than 0.35 indicate an effect that is large. Wong (2013) stated that the effect size is used for assessing the relationship strength between constructs. Additionally, Hair, Sarstedt, Hopkins and Kuppelwieser (2014) also stated that the effect size can be categorised as 0.02, 0.15, and 0.35 which represent small, medium, and large effects.

Following this, the Q^2 values should be assessed to determine the predictive relevance by making use of the blindfolding procedure. Q^2 values above zero suggest predictive relevance and those below zero 0 suggest a lack of this predictive relevance. These same values were stated in Esposite Vinzi et al. (2010), who also stated that where Q^2 represents how well the values are reassembled with regards to the model and the associated parameter estimates.

Lastly, the q^2 effect size should be calculated to determine the q^2 effect size as a relative measure of predictive relevance. The values of 0.02, 0.15, and 0.35 are classified as small, medium, and large predictive relevance of the exogenous construct respectively. These same values were stated in Sheko and Braimllari (2018).

Stage 7: Advanced PLS-SEM Analysis

Stage 7 involves further advanced PLS-SEM techniques. This stage was not conducted in the research as analysis using more advanced techniques were not required.

Stage 8: Interpretation of Results and Drawing Conclusions

In this stage, the results of the model assessment must be interpreted and conclusions should be drawn. The stated hypotheses should be discussed with the research's aim, which was to determine if Flexible Working Arrangements have an impact on Satisfaction, Motivation, and Performance. In the research, the results of the research were determined by comparing the model outcomes to threshold and value ranges from Hair et al. (2017).

3.5. Chapter Conclusion

This study made use of a deductive approach to achieve the objectives set out in Chapter 1. The study began with theory that was used to develop hypotheses. This was followed by a data collection period, and was concluded by analysing the data to test the hypotheses. The data was obtained from a

questionnaire and was used to assess the proposed hypotheses that were derived from existing theory. By doing so, the validity of the hypotheses was examined. Chapter 4 will describe the development of the proposed Structural Equation Model.

Chapter 4: Development of the Structural Equation Model

4.1. Introduction

This chapter outlines how the structural equation model was developed to evaluate the impact of Flexible Working Arrangements on Satisfaction, Motivation, and Performance. This model may help employers assess whether implementing flexible working arrangements is beneficial. It will also aid in assessing the relationships between Satisfaction, Motivation, and Performance. The model was formalised using Structural Equation Modeling (SEM) to define the underlying latent structure. This chapter also presents studies that researched the hypothesised relationships. The findings of these studies act as supports for these hypothesised relationships between the latent variables.

4.2. Model Development

This section presents the latent variables of the model and the relationships that were hypothesised between them which were developed from existing theory. Figure 4 shows the structural model developed for evaluating the impact of Flexible Working Arrangements on Satisfaction, Motivation, and Performance. The model was created by combining hypotheses that were previously tested in literature. The foundation for looking into these hypotheses stemmed from the personal resource allocation framework by Grawitch, Barber and Justice (2010), which focuses on one's personal pursuits as well as the management of personal resources such as time, energy, and finance. In this framework, preferred ('want to') and required ('have to') demands of life are seen to force an individual to make choices regarding when, where, and how that person expends their personal resources.

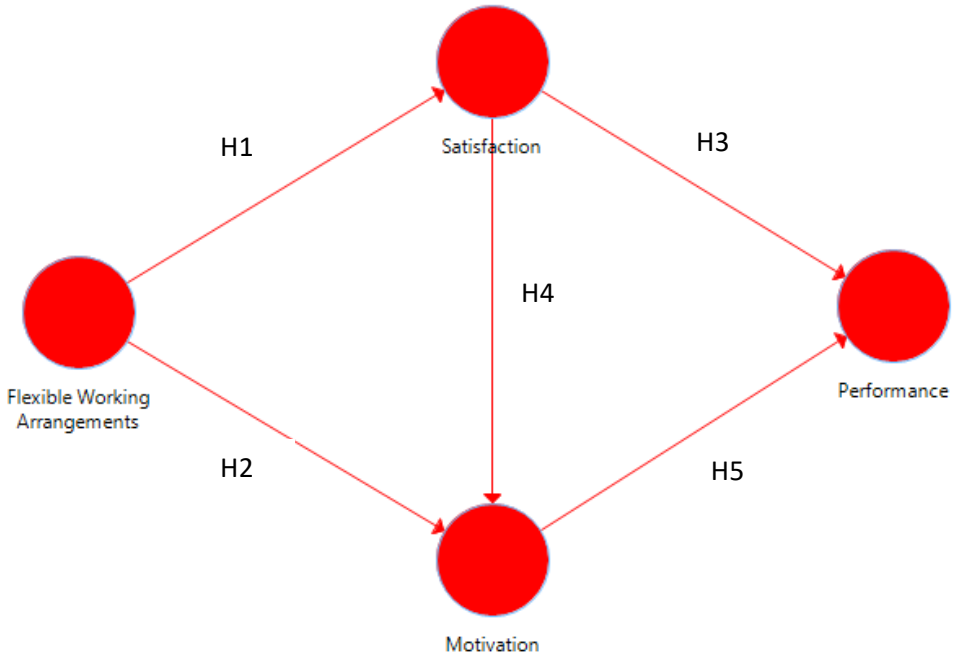

Figure 4: The proposed structural model

The Relationships between Flexible Working Locations and Flexible Working Hours to Satisfaction and Motivation

Considering the relationship between flexible working locations and satisfaction, Illegems and Verbeke (2004) studied some teleworkers and stated that telework mainly influences job satisfaction via the extrinsic satisfaction component. With regards to telework adopters, they found that working away from the office does not impact the possibility of promotion, cause equipment availability inadequacies, cause issues with the employee's supervisor or impact their social isolation. This shows

that with regards to telework, employees are satisfied. It was also found that these adopters believe that teleworking positively influences their satisfaction. Manochehri and Pinkerton (2003) and Tremblay (2002) in Mello (2007) found that teleworkers have increased job satisfaction. They stated that the workers experienced lower pressure with regards to performance as they kept trying to show that they were 'busy'. This enabled them to have greater enjoyment in their work in comparison to working in an office environment. Additionally, Crandall and Gao (2005) in Mello (2007), stated that there is higher job satisfaction because employees have additional control over their work-family life balance because satisfaction is a consequence of having control over this balance. Golden and Veiga (2002) looked at several studies and found that many researchers have concluded that job satisfaction is positively impacted by telecommuting. After completing a hierarchical regression analysis, Golden and Veiga found that there is a curvilinear link between telecommuting extent and job satisfaction, and that this satisfaction plateaus when the levels of telecommuting become higher.

Reviewing the relationship between flexible working hours and satisfaction, Mello (2007) stated that with employees having the flexibility to choose the times that they work, they can enhance their satisfaction as their way of life can be catered for in a better manner and they can work in line with their body's natural timings and cycles. Additionally, the reduced stress that is generally caused by the disruptions of family life also increases job satisfaction. Rocereto et al. (2011) conducted a study, part of which looked at the attitudes of employees towards flextime, and how it impacts work-life balance and job satisfaction. They found that: a) all employees want flextime, no matter what their current usage is; b) for those that actively use it, there is a positive correlation with work-family balance as well as satisfaction; and c) when there are no flexibility offerings, the appeal of flextime has a negative relation to work-family balance and job satisfaction, which likely come about because these programs aren't present and because those that want flextime, but are not afforded it, have inferior work-family balance and job satisfaction. McNall et al. (2010) stated that flexible working arrangements availability, e.g., flextime availability, appears to aid workers as it helps them experience greater enrichment from work to home. They stated that this can be linked to increased job satisfaction and decreased turnover intentions. Aziz-Ur-Rehman and Siddiqui (2019) found that arrangements that are flexible had a significant correlation with work-life balance and that between flexible working arrangements and jobs satisfaction, work-life balance is a strong mediator. Therefore, it is hypothesised that:

H1: There is a relationship between Flexible Working Arrangements and employee Job Satisfaction

Exploring the relationship between flexible working locations and motivation, Hill et al. (2003) stated that when an employee is in alternate work venue, such as a virtual or home office, they experience a positive influence on their job motivation. They stated that a reason for this may be the sense of autonomy that is engendered in the employee. By the employer allowing the employee to choose where to work, it grants them more autonomy over when the work is done, how it is done, and what work they do. They also stated that this is symbolic of the trust that the employer is giving the employee. It was also stated that the virtual office's influence on work aspects is mainly positive, but with regards to its aspects relating to personal/family life, it is somewhat negative. Looking at the home office, it seems to be mainly positive, and looking at the traditional office with regards to work and personal/life aspects, it is mainly negative. Schade et al. (2021) conducted a study that looked partly at working from home and showed that motivation painted a picture that is reasonably positive with regards to work-from-home well-being and motivation, saying that it appears that employees can adapt to the different work environments, be productive, and flourish. They also stated that employees need not worry about lack of control over their workers when they are working from home as long as they have instilled intrinsic motivation, which can be done by allowing the workers to feel

autonomous, competent, and connected while working, wherever it is that they are working. Bailey and Kurland (2002) stated that employees often work out of the office to avoid interruptions. They also stated that the past investigations into the reasoning behind telework were centred on factors related to transportation such as commute time, the length of the person's commute, and the stress associated with it. Additionally, being able to balance work and family duties was also a suspected reason for telecommuting and the authors stated several studies that support this, particularly with regards to women.

Considering the relationship between flexible working hours and motivation, Memon (2019) conducted a study which found that the motivational level of female workers can be bettered by introducing flextime and that this will allow them to choose their own 'in' and 'out' times at work. They also said that this aids employees in maintaining balance between their work as well as their family roles. Ten Brummelhuis and Van Der Lippe (2010) stated that it is thought that flextime and telecommuting affect job motivation as well as dedication. White and Maniam (2020) stated that a flexible working schedule can be viewed as a factor that positively motivates and can usher in more happiness and improve a person's well-being. Dalton and Mesch (1990) in White and Maniam (2020) also suggested that working conditions that are flexible directly impact intrinsic and extrinsic motivation, going further to state that with regards to extrinsic motivation, it would be bettered simply due to the nature of this flexibility and that one would be intrinsically satisfied because of the perceived freedom and personal time that is received. As such, these motivating factors would have a positive influence on the nature of the employees work by improving engagement and overall motivation. White and Maniam (2020) also went on to state that work-life balance and flexibility with regards to scheduling has a positive correspondence with company culture and improves employee motivation and retention. The authors White and Maniam stated that employees have varying outlooks on flexibility but that both can have benefits if they are implemented in a positive way. Looking at the employer, a company culture that is better and more profound can be maintained, staff turnover lowered, and productivity increased. Looking at the employee, there is improved psychological health and happiness and they have additional energy and motivation. It is important to note though that the benefits differ depending on the person and, as such, tailored flexibility is required to meet the requirements as a uniform incentive will not. Nijp et al. (2012) stated that it can be theorised that WTC (WorkTime Control – of which a subdimension is flextime) helps with recovery opportunities and can help to shield an employee from excessive fatigue and stress. They also said that it can help vitality, an employee's motivation, and their performance. Therefore, it is hypothesised that:

H2: There is a relationship between Flexible Working Arrangements and employee Motivation

The Relationships between Satisfaction, Motivation, and Performance

Looking at the relationship between satisfaction and performance, Judge, Thoresen, Bono and Patton (2001) stated that job satisfaction's relationship with performance is one that is highly respected in industrial-organisational psychology's research traditions and that the literature has a wide breadth and is complex. Latif et al. (2013) stated that there is a close relation between employee satisfaction and productivity and that satisfaction positively influences the performance of an organisation. As such, it is a factor to enhance an organisations profitability and performance and to improve the organisations quality of goods and services. Therefore, it was reasoned that satisfaction is key with regards to attaining quality and profitability within an organisation, and that it plays a role in organisational performance. Additionally, employers must know how to use satisfaction to retain their employees and know how to manage their employees to ensure good work results. Saari and Judge (2004) stated that in 2001 Judge, Thoresen, Bono and Patton reviewed 301 studies and found that

with proper sampling and measurement error correction of the correlations, the average correlation between satisfaction and performance was 0.30 and that this value is higher when jobs are more complex, for example, professional jobs. It was therefore, concluded that satisfaction predicts performance and that when professional jobs are considered, this becomes even stronger. Therefore, it is hypothesised that:

H3: There is a relationship between employee job Satisfaction and employee Performance

Examining the relationship between satisfaction and motivation, Murgianto et al. (2016) stated that an employee who is satisfied will be motivated to continue working well and to support the organisation's goals, and Rožman et al. (2020) stated that companies can be negatively affected by employees that are dissatisfied because they lack work motivation and that this can negatively impact productivity. Xiong et al. (2014) investigated the performance of project participants. In their work, they stated that enhancing participant satisfaction improves problem solving, motivation, and co-operation. It also improves the probability of the project's successful completion. van Scheers and Botha (2014) stated that both job satisfaction and motivation, as concepts, are broad, and that they are significant with regard to individuals, companies, and societies. Additionally, motivating employees can improve their productivity levels. This is of strategic importance when considering an organisation's competitive position. Additionally, within an organisation, improving motivation and involvement brings about a learning culture and one of service quality which can lead to increased customer service levels. From an individual's perspective, both satisfaction and motivation are important with regards to mastery and contentment being experienced. High job satisfaction can reduce people being absence due to illness because employees who are happy with their jobs are sick less frequently in comparison to those who are discontented. The authors also stated that productivity and profitability are good measures for satisfaction. They conducted a study in South Africa analysing how job satisfaction levels are perceived and determining if a relationship is present between satisfaction and motivation. Of this relationship, they found that it had a positive correlation and that if an employee perceives more satisfaction, they feel more motivated. This correlation was also found to get stronger with employees that are older, and have greater experience. No differences were found between genders. The authors suggested that satisfaction can be improved by allowing employees to air their opinions on certain administrative issues and that employers should listen to what is said. Therefore, it is hypothesised that:

H4: There is a relationship between employee Satisfaction and employee Motivation

Looking at the relationship between motivation and performance, Elvina and Chao (2019) identified that if there is a change in intrinsic and extrinsic motivation, there will be an impact on the employee's performance because there are positive relationships between intrinsic and extrinsic motivation to employee performance, although the extrinsic relationship is stronger. They also found that motivation and employee performance increase firm productivity and are important aspects for organisational success. Additionally, the authors stated that scholars have linked motivation and performance to improved profit and believe that a foremost issue for today's management is work motivation and employee performance. Chaudhary (2012) stated that efficient motivation practices help manage existing performance and also help motivate employees to perform better. Ganta (2014) stated that motivation is important to improve employee performance and the productivity of the organisation and explained that, initially, the link between motivation and performance appears obvious because when a task is important and valuable, there will be higher levels of dedication and enthusiasm until completion, but they stated that this relationship is actually more complex and that managers need to find creative ways to keep employees motivated. Olusadum and Anulika (2018) stated that a significant relationship exists between staff motivation and staff performance and that

in an organisation, staff motivation should be considered a key responsibility. They also stated that motivation and performance is rife in human organisation, and the reason for that is because it is probably consistent with human nature, and that due to the homoeconomicus nature of man, motivation has always determined performance. Therefore, it is hypothesised that:

H5: There is a relationship between employee Motivation and employee Performance

Regarding all three factors together, Jalagat (2016) stated that satisfaction, motivation, and performance interact with each other and function interdependently in a circular process. From the above research, it can be seen that there is theoretical evidence regarding the relationships between satisfaction, motivation, and performance. It also appears that they are all interconnected in some way, and that satisfaction and motivation can be used individually, or in conjuncture, to aid performance.

Therefore, when considering flexible working arrangements and work-life balance, testing to see how flexible working arrangements influence satisfaction and motivation will provide insight as to whether flexible working arrangements are beneficial to the employees. Expanding this further and testing if satisfaction and motivation impact performance will identify if flexible working arrangements benefit organisations indirectly via satisfaction and motivation, as employee performance impacts organisational success. Therefore, investigating flexible working arrangements, satisfaction, motivation, and performance together will aid in identifying if flexible working arrangements are beneficial to both employees and organisations.

4.3. Chapter Conclusion

A number of previous studies have been described in this chapter. From these it is perceived that Flexible Working Arrangements will have a positive impact on Satisfaction, Motivation, and Performance, and that Satisfaction can be used to aid Motivation and Performance, and that Motivation can be used to aid Performance. The model was developed to evaluate this and was based on the assessment of the models that were discussed in the literature above. The following chapter will explain how this model was used to evaluate the impact of Flexible Working Arrangements on Satisfaction, Motivation, and Performance.

Chapter 5: Evaluation of the Structural Equation Models

5.1. Introduction

This section presents the evaluation of the proposed structural (main) model and its measurement models from Chapter 4 using SmartPLS 3. It outlines how each stage was completed, what tests were conducted, and provides the results thereof. This chapter also presents what hypothesised relationships in the proposed model were supported. This is followed by the comparative analyses of the categories age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and breaking down/subdividing Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations so as to test their effects separately.

5.2. Evaluation

Introduction

This analysis consists of assessing the structural model and the measurement models. Assessing the structural model involved determining the correlation between the constructs by looking at the path coefficients as well as total effects. For the analysis of path coefficients and total effects, values less than 0.20 were considered as weak, less than 0.50 were as moderate, less than 0.80 were as strong, and the values equal to or larger than 0.80 were as very strong. The same classifications were used for negative values. Assessing the measurement models involved evaluating the relationship between the constructs Flexible Working Arrangements, Satisfaction, Motivation, and Performance and their respective measurement items. The measurement items were either taken directly from literature, adapted from literature, or developed using literature from authors such as Aziri (2011), França et al. (2014), Jalagat (2016), and Mak and Sockel (2001), Mbindyo et al. (2009), and Ramos-Villagrasa et al. (2019). These items were used as questions in a questionnaire which was divided into several sections: Biographics, Satisfaction, Motivation, Performance, and Flexible Working Arrangements. The final questions/items used for the analysis can be seen in Appendix B, Tables 49 and 50. Appendix B, Figure 25 also displays the Ethics Application Approval Letter received from the University of Pretoria. This questionnaire was developed to measure the impact of Flexible Working Arrangements on Satisfaction, Motivation, and Performance and made use of a 5-point Likert scale, with 1 = Strongly Disagree, 2 = Disagree, 3 = Neither, 4 = Agree, and 5 = Strongly Agree. It was posted on social media sites such as Facebook, Instagram, and LinkedIn and was shared by several people. One such social media post can be seen in Appendix B, Figure 26. It is important to note that the POPI Act, or POPIA (Protection of Personal Information Act), placed limitations on who the questionnaire link could be sent to. As such, the visibility of the questionnaire's link was conditional on the researchers own reach to the 'unknown' population. Additionally, the researcher only made use of responses that were gathered between the 8th September 2021 and the 31st December 2021, with the first useful response dating the 8th September 2021 and the last useful response dating the 6th December 2021. A total of 153 useful responses were collected. The 10 times rule in Hair et al. (2017) states that the size of the sample should be at least 10 times the highest number of paths or arrows entering a construct. This study's sample size of 153 therefore, satisfies this. Additionally, once the reliability and validity evaluations were completed, there were 25 items remaining, with Flexible Working Arrangements having 8 items, Satisfaction having 8, Motivation having 5, and Performance having 4 items.

Cleaning the data

Data was collected using Google Forms. Once the collection process was completed, the data was extracted. At this stage the data was still in the format of the questionnaire and therefore, had to be coded. The questions themselves were removed from the data and replaced with the indicator names. The data had no missing values as the Google Form was set to present an error if the respondent tried

to continue with the questionnaire without completing all the questions within that section. The data was also recoded to show 1-5 instead of the original Strongly Disagree, Disagree, Neither, Agree, and Strongly Agree. For the questions that were asked in the reverse/negative format, their answers were reversed/recoded so that all data was presented in the same progression, starting from the least desirable outcome coded as 1 to the most desirable outcome coded as 5. Subsequently, the data was input into SmartPLS 3 to conduct the necessary analysis of the model.

Data Summary Statistics

The analysis conducted in this research was done on a sample size of 153. Of these, approximately 77.12% of respondents, at the time of completing the questionnaire, had made use of flexible working arrangements at some point in time, and approximately 22.88% had not. The distribution between the age categories was nearly equal with approximately 49.67% of respondents falling into the 30 and Under group and approximately 49.67% falling in the 31 and Over group, with one respondent not wishing to disclose their age. The majority of the respondents were female, having approximately 54.90% of the distribution and males having approximately 45.10% of the distribution. Looking at the level of education of the respondents, approximately 42.48% of the respondents had a Postgraduate Degree and approximately 26.14% had an Undergraduate degree. The remaining respondents either classed themselves as having Artisan Training, a Matric Certificate, a Diploma, or 'Other' qualification. The respondents also came from a wide array of industries with Education having approximately 21.57% of the distribution and IT having approximately 10.46%. The remaining industries each had below 10% of the distribution and included the fields: Agriculture, hunting and related; Business; Construction; Finance; Food, beverage and tobacco production; Health; Hotels and restaurants; Law; Manufacturing (metallic); Manufacturing (non-metallic); Mining; Pharmaceutical; Real estate; Retail; Textiles, clothing and related; and 'Other'. The majority of the respondents, approximately 32.68%, worked significantly more than 40 hours per week, and approximately 27.45% of the respondents worked approximately 40 hours a week, approximately 26.14% worked slightly more than 40 hours a week, approximately 7.19% worked significantly less than 40 hours, and approximately 6.54% worked slightly under 40 hours a week. Additionally, approximately 38.56% of the respondents worked for a large company, 34.64% worked for a medium sized company, 25.49% worked for a small company and 2 of the respondents did not wish to disclose the size of their organisation. A summary of these results can be seen in Table 1 and the main categories analysed in this report (Prior Use of FWA, Gender, and Age) can be seen graphically in Figure 5.

Table 1: A summary of the data statistics/participants' profiles

Category	Groups/Profile	Frequency	Approximate % of sample
Has the respondent made use of flexible working arrangements at some point in time? (Prior use)	Yes Has Made Use of Flexible Working Arrangements	118	77.12%
	No Has Not Made Use of Flexible Working Arrangements	35	22.88%
Age	30 and Under	76	49.67%
	31 and Over	76	49.67%
	Do not wish to disclose	1	0.65%
Gender	Male	69	45.10%
	Female	84	54.90%
Level of education	Artisan Training	5	2.27%
	Matric Certificate	20	13.07%
	Diploma	18	11.76%
	Undergraduate Degree	40	26.14%
	Postgraduate Degree	65	42.48%
	Other	5	3.27%
Industry	Agriculture, hunting and related	1	0.65%
	Business	12	7.84%
	Construction	2	1.31%
	Education	33	21.57%
	Finance	13	8.50%
	Food, beverage and tobacco production	4	2.61%
	Health	6	3.92%
	Hotels and restaurants	1	0.65%
	IT	16	10.46%
	Law	7	4.58%
	Manufacturing (metallic)	4	2.61%
	Manufacturing (non-metallic)	4	2.61%
	Mining	3	1.96%
	Pharmaceutical	2	1.31%
	Real estate	2	1.31%
	Retail	14	9.15%
	Textiles, clothing and related	1	0.65%
	Other	28	18.30%
Average amount of weekly working hours	Significantly under 40 hours	11	7.19%
	Slightly under 40 hours	10	6.54%
	Approximately 40 hours	42	27.45%
	Slightly over 40 hours	40	26.14%
	Significantly over 40 hours	50	32.68%
Size of the organisation that the respondent is currently working for	Small	39	25.49%
	Medium	53	34.64%
	Large	59	38.56%
	Do not wish to disclose	2	1.31%

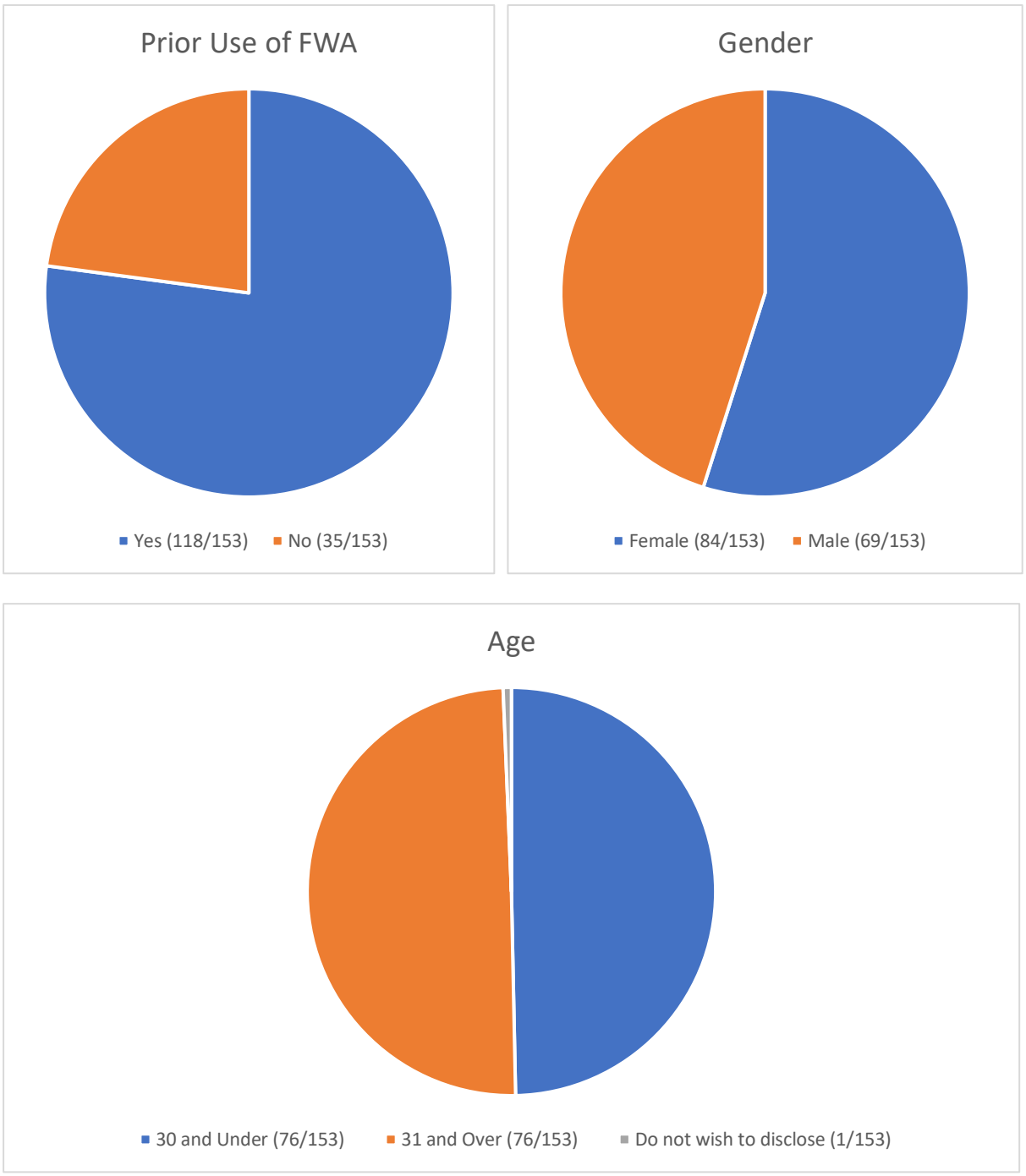

Figure 5: A visual summary of the data statistics/participants' profiles for the Prior Use of FWA, Gender, and Age categories

Creating the Path Model (Inner/Structural Model)

Once the data was input into SmartPLS 3, the path model was created in the programme as shown in Figure 6. This diagram is a representation of the inner model and presents the latent variables with the arrows representing the relationships between the latent variables and the direction of the relationships. Flexible Working Arrangements is the exogeneous latent variable and Satisfaction, Motivation, and Performance are the endogenous latent variables. The indicators from the data were then linked to their corresponding latent variables in the path model.

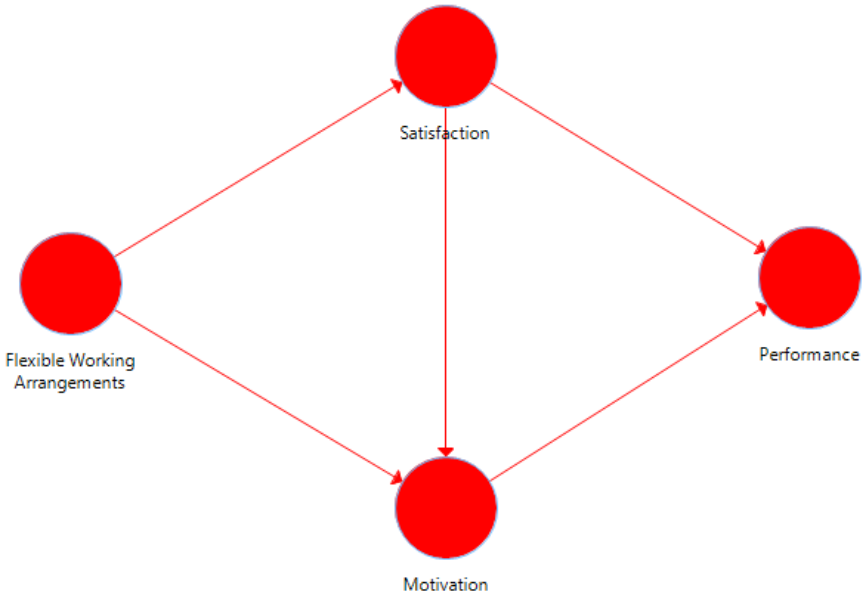

Figure 6: The inner model/path model

Evaluating the Measurement Model

This stage in the evaluation followed Stage 5a, *Assessing the PLS-SEM Results of the Reflective Measurement Models* of Hair et al (2017)'s Systematic Procedure for Applying PLS-SEM. As all the constructs in the model are reflectively measured, only Stage 5a was completed as Stage 5b *Assessing the PLS-SEM Results of the Formative Measurement Models*, is used for formative models, of which there are none.

At this stage of the analysis, there were several indicators for each latent variable. When the questionnaire was designed, there were several questions that addressed similar areas of each construct/latent variable as well as semantically similar questions to act as a check to determine if the respondent was completing the questionnaire correctly with focus and care. The number of questions used was also to ensure that questions could easily be removed in the analysis without removing important areas that address the construct. As a result, several of the indicators were able to be removed due to the semantics and similarities of the questions, to ensure that the model had the correct reliability and validity.

The model was initialised with a weighting scheme of *Path*, 300 set as the maximum number of iterations, and a stop criterion of 10^{-7}, which is in accordance with Hair et al. (2017). The number of iterations actually executed until model convergence was 8 (0 to 7 iterations), which was lower than the stop criterion. From this point, the true quality of the reflective measurement model was analysed for reliability and the convergent and discriminant validity.

Reflective Measurement Model Evaluation

Outer Loadings

To begin the analysis, the researcher started by checking the model's indicator reliability – the relationships between the latent variables and their reflective indicators. This was assessed by checking the indicators' Outer Loadings. Outer Loadings should be positive and above the threshold of 0.7, as this indicates that there are sufficient levels of indicator reliability (Hair et al., 2017). The Average Variance Extracted should also be above the threshold value of 0.5. After the first run of the model, there were indicators with small Outer Loadings. Those with loadings less than 0.4, were

removed, which is in line with Hair, Ringle and Sarstedt (2011) and Hulland (1999) in Ab Hamid, Sami and Sidek (2017) who stated that if an item's Outer Loading is <0.4, the item should be deleted. After this deletion, indicators with loadings above 7 were kept, while those greater than 4 but less than 0.7 were evaluated for their contribution to the overall convergence validity of each factor, and decisions were made about which ones to keep or further eliminate, without sacrificing content validity. In terms of content validity, for instance, FWA_9 was the only indicator below 0.70 that was retained to ensure that there were enough indicators for both Flexible Working Locations and Flexible Working Hours. These actions were in line with Bagozzi and Yi (1988) and Fornell and Larcker (1981) in Ng and Kee (2018), who stated that Outer Loadings should be greater than 0.7, and if it is between 0.4 and 0.7, the items can be retained or deleted as long as the threshold of 0.5 for the Average Variance Extracted is met. The Outer Loadings at this point, suggested sufficient levels of indicator reliability. These values had to be re-evaluated after examining the Cross Loadings and additional indicators had to be deleted. These re-evaluated values are presented in Table 6. In the re-evaluated values, all Outer Loadings were above 0.70 apart from FWA_9 (0.680) and Motivation_11 (0.698). Although these did not meet the threshold value of 0.7, they were quite close, and they were retained, because the researcher judged them to improve the content validity of the constructs.

Construct Reliability and Validity

The internal consistency reliability was evaluated by ensuring that the Composite Reliability values (upper bound) were positive and greater than the 0.70 threshold and that the Cronbach's Alpha values (lower bound) were also positive and greater than 0.7 (Hair et al., 2017). Convergent validity was checked to ensure that the constructs/latent variables included more than 50% of the indicator's variance. The convergent validity was evaluated by looking at the Average Variance Extracted (AVE), which should be positive and larger than 0.50 according to Hair et al. (2017).

At this point, these values were assessed and met the required thresholds, indicating that the reflective measurement model had construct reliability and convergent validity. These values are presented in Table 2 and in the summary Table 6. The Composite Reliability and Cronbach's Alpha values were positive and larger than 0.70, indicating good reliability, and the AVE values were positive and greater than 0.50, indicating good convergent validity. This, once again, indicated that the model had convergent validity and had construct reliability and validity.

Table 2: The Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE) values

	Cronbach's Alpha	**Composite Reliability**	**AVE**
Flexible Working Arrangements	0.915	0.930	0.627
Motivation	0.833	0.882	0.601
Performance	0.823	0.882	0.654
Satisfaction	0.943	0.953	0.716

Discriminant Validity

After ensuring convergent validity, the discriminant validity of the model was evaluated. This was conducted to ensure that every construct shares more variance with its own indicators than with the other constructs' indicators. For this analysis, the following were evaluated.

Discriminant Validity – Cross Loadings

The Cross Loadings were evaluated where the indicator loadings on an assigned construct had to be greater than the Cross Loadings with the other constructs. For example, in the rows that contain the

construct's indicators, the indicator loadings in that construct's column had to be larger than the cross loadings/values in the other constructs' columns. This indicates, with regards to a specific construct, that constructs own indicators have higher loadings than the other constructs indicators have to it (cross loadings).

Upon evaluation, it was found that all constructs' indicator loadings were greater than their cross loadings. Although all were larger, some values were close with regards to Motivation and Satisfaction. As such, indicators with very small differences were removed from the model. As these were removed, the Fornell-Larcker values were also viewed to see if they had improved. The final cross loadings can be seen in Appendix C, Table 51.

Discriminant Validity – Fornell-Larcker

Following this, the Fornell-Larcker values were evaluated. For this the square root of the Average Variance Extracted ($\sqrt{AVE}$) for each latent variable must be greater than that construct's largest correlation to the other constructs (Hair et al., 2017). SmartPLS 3 provides a matrix of these values with the $\sqrt{AVE}$ on the diagonal and the correlations with other constructs in the remainder of the matrix (off-diagonals). The diagonal value for each construct must be larger than the correlations (off-diagonals) of the other indicators. Upon evaluation of each construct's $\sqrt{AVE}$ value and the associated correlations, it was found that all $\sqrt{AVE}$ values were larger than the correlation values of the other latent variables, as seen in Table 3 below, indicating that the constructs are valid measures of unique concepts (Hair et al., 2017).

Table 3: The Fornell-Larcker values

	Flexible Working Arrangements	**Motivation**	**Performance**	**Satisfaction**
FWA	0.792			
Motivation	-0.204	0.775		
Performance	-0.084	0.588	0.809	
Satisfaction	-0.096	0.601	0.288	0.846

HTMT

In addition to the Fornell-Larcker and the Cross Loadings criteria, the Heterotrait-Monotrait Ratio (HTMT) test was also applied for the evaluation of the discriminant validity (Hair et al., 2017). The HTMT values should be positive and below the 0.85 threshold (Hair et al, 2017). Upon evaluation, it was found that all the HTMT values were positive and less than 0.85 as seen in Table 4.

Table 4: The HTMT values

	Flexible Working Arrangements	**Motivation**	**Performance**	**Satisfaction**
FWA				
Motivation	0.240			
Performance	0.115	0.694		
Satisfaction	0.110	0.654	0.295	

Additionally, the HTMT values were also tested to ensure that they were significantly different from 1. This was done by looking into the bootstrap confidence intervals. The procedure was initialised with

5000 subsamples, Complete Bootstrapping, a confidence interval method of Bias-Corrected and Accelerated (BCa) Bootstrap, a two-tailed test type, and a significance level of 0.05 (95% bias-corrected and accelerated confidence intervals). Upon evaluation it was found that none of the intervals included 1, as seen in Table 5. With the HTMT values being below 0.85 and the confidence intervals not including 1, this supports the constructs' discriminant validity.

Table 5: The HTMT values, the corresponding Confidence Interval Bias Corrected values, and the associated decisions

	HTMT values	**Confidence Interval Bias Corrected (2.5% and 97.5%)**	**Decision (confidence interval does not contain 1)**
Motivation to FWA	0.240	0.145 – 0.335	Supported
Performance to FWA	0.115	0.075 – 0.133	Supported
Performance to Motivation	0.694	0.568 – 0.793	Supported
Satisfaction to FWA	0.110	0.063 – 0.135	Supported
Satisfaction to Motivation	0.654	0.516 – 0.767	Supported
Satisfaction to Performance	0.295	0.153 – 0.439	Supported

As the Cross Loadings, Fornell-Larcker, and HTMT criterions were met, it was concluded that the reflective measurement model has discriminant validity.

Conclusion

From the analysis above and the summary below in Table 6, it is seen that all model evaluation criterion for both convergent validity and discriminant validity have been met, supporting reliability and validity. It was therefore, concluded that the reflective measurement model possesses both reliability and validity and that further analysis on the structural model can be conducted.

Table 6: A summary of the results of the reflective measurement model assessment (adapted from Hair et al. (2017))

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant Validity
		Outer Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT Confidence Interval Bias Corrected
		>0.70	>0.5	>0.7	>0.7	HTMT confidence interval does not include 1
Flexible Working Arrangements	FWA_11	0.745	0.627	0.930	0.915	Yes
	FWA_13	0.779				
	FWA_14	0.839				
	FWA_2	0.801				
	FWA_3	0.751				
	FWA_4	0.846				
	FWA_5	0.875				
	FWA_9	0.680				
Motivation	Motivation_11	0.698	0.601	0.882	0.833	Yes
	Motivation_13	0.818				
	Motivation_15	0.766				
	Motivation_18	0.778				
	Motivation_19	0.810				
Performance	Performance_12	0.733	0.654	0.882	0.823	Yes
	Performance_14	0.857				
	Performance_15	0.762				
	Performance_18	0.873				
Satisfaction	Satisfaction_1	0.869	0.716	0.953	0.943	Yes
	Satisfaction_11	0.747				
	Satisfaction_12	0.898				
	Satisfaction_13	0.783				
	Satisfaction_2	0.777				
	Satisfaction_20	0.936				
	Satisfaction_6	0.880				
	Satisfaction_7	0.863				

Evaluation of the Structural Model

Evaluating the structural model forms part of Stage 6 *Assessing PLS-SEM Results of the Structural Model* of Hair et al (2017)'s Systematic Procedure for Applying PLS. This stage of the analysis was conducted as all model evaluation criterion for the reliability and validity of the measurement model were met. To analyse the structural model, the researcher undertook the six steps in Hair et al (2017)'s *Structural Model Assessment Procedure*.

Step 1: Assess the structural model for collinearity issues

To begin, the model was assessed for collinearity issues by evaluating the Variance Inflation Factor (VIF) values of the constructs and ensuring that they were lower than the threshold of 5 (Hair et al.,

2017). Upon evaluation, all inner VIF values were below 5, as seen in Table 7. The values in the columns represent all combinations of endogenous constructs and the row values represent the corresponding predictor constructs. From this, there was no critical issue with regards to the collinearity among the predictor values and the evaluation could continue.

Table 7: The Inner VIF values for each predictor construct

	FWA	Motivation	Performance	Satisfaction
FWA		1.009		1.000
Motivation			1.564	
Performance				
Satisfaction		1.009	1.564	

Step 2: Assess the significance and relevance of the structural model relationships

Path Coefficients

Following this, the path coefficients were evaluated. These act as estimates for the inner model relationships and are representative of the relationships that have been hypothesised. Values typically range from -1 to +1, but can also fall outside of these bounds (under certain conditions). Values close to +1 are considered strong and positive and those to -1 are considered strong and negative, with both typically being statistically significant. Values closer to 0 show weaker relationships and those very close to 0 are typically not significantly different from 0 (Hair et al., 2017).

Upon evaluation, the following was found: a) Flexible Working Arrangements had weak negative relationships with both Motivation (-0.148) and Satisfaction (-0.096), b) Satisfaction had a strong positive relationship on Motivation (0.586) and a weak negative relationship with Performance (-0.102), and c) Motivation had strong positive relationship on Performance (0.649). This shows that a) Flexible Working Arrangements may not improve Motivation or Satisfaction, b) Satisfaction improves Motivation but may not directly improve Performance, and c) Motivation improves Performance. Therefore, from the model, the best way to improve employee performance is to improve their motivation. Additionally, improving an employee's satisfaction will improve their motivation, which should indirectly improve their performance (mediatory influence), as motivation improves performance. The path coefficient values can be seen in Table 8 as well as Table 10.

Table 8: The path coefficient values

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA		-0.148		-0.096
Motivation			0.649	
Performance				
Satisfaction		0.586	-0.102	

Total Effects

Next the total effects were evaluated. These are the sum of the direct and indirect effects. These values allow the evaluation of how strongly the driver/predecessor constructs influence target variables. Upon evaluation, it was found that a) Flexible Working Arrangements had weak negative total effects on Satisfaction (-0.096), and Performance (-0.123), and a moderate negative total effect on Motivation (-0.204), b) Satisfaction had a strong positive total effect on Motivation (0.586) and a

moderate positive total effect on Performance (0.278), and c) Motivation had a strong total effect on Performance (0.649) This shows us that a) flexible working arrangements do not really improve satisfaction, performance or motivation, b) satisfaction improves motivation and also indirectly improves performance, and c) motivation improves performance. Therefore, from the model looking at indirect effects, once again the best way to improve employee performance is to improve their motivation. Additionally, improving an employee's satisfaction will improve their motivation and indirectly also improve their performance. The total effect values can be seen in Table 9 as well as Table 12. The columns represent the target constructs and the rows represent the predecessor constructs.

Table 9: The total effect values

	Flexible Working Arrangements	**Motivation**	**Performance**	**Satisfaction**
FWA		-0.204	-0.123	-0.096
Motivation			0.649	
Performance				
Satisfaction		0.586	0.278	

Bootstrapping – Path Coefficients

When the structural model relationships were analysed, several path coefficients had low, negative values – Flexible Working Arrangements to Motivation (-0.148), Flexible Working Arrangements to Satisfaction (-0.096), and Satisfaction to Performance (-0.102). Bootstrapping allowed the researcher to assess if these relationships were statistically significant. The procedure was initialised as before, with 5000 subsamples, a two-tailed test type, and a 0.05 significance level. At a 5% significance level, *p* values should be less than 0.05 to show a statistically significant relationship (Hair et al., 2017).

Upon evaluation, as seen in Table 10, it was seen that the relationships: Motivation to Performance (p=0.000), Satisfaction to Motivation (p=0.000), and Flexible Working Arrangements (p=0.048) were statistically significant, howbeit, FWA was only marginal from p=0.05. These results suggest that focus should be placed on increasing both employee satisfaction and employee motivation to directly and indirectly increase employee performance. Additionally, from the results, it can be seen that there is a 0% chance that the relationships Motivation to Performance and Satisfaction to Motivation can have a path coefficient value of 0, and there is a 4.8% chance that relationship Flexible Working Arrangements can have a path coefficient of 0. The remainder of the relationships have the following percentage chance that their path coefficients could be 0: a) Flexible Working Arrangement to Satisfaction (29.4%), and b) Satisfaction to Performance (23.6%).

For further detail, the bootstrap confidence intervals were also evaluated. Hair et al. (2017) stated that confidence intervals offer information on the coefficient's stability and provide the researcher a range of population values that are possible depending on the data's variation as well as the size of the sample. When confidence intervals do not include 0, the hypothesis relating to the path being equivalent to 0 can be rejected, and from this, the researcher can infer that a significant effect is present (Hair et al., 2017). In simpler terms, only intervals that do not contain 0 are statistically significant. Upon evaluation, as seen in Table 10, it was found that only the confidence intervals relating to the relationships Motivation to Performance and Satisfaction to Motivation did not contain a 0 in their confidence intervals and are, therefore, statistically significant. When looking at the relationship Flexible Working Arrangements to Motivation, the *p* value of 0.048 states that the relationship is borderline significant, but because the confidence interval contains 0, in this study, it is

considered as not statistically significant, although further investigation with other populations should be conducted.

For clarity, Table 10 provides a summary of the path coefficients, the *p* values, and the Confidence Intervals Bias Corrected with their associated decision. Additionally, Table 11 provides a summary of the relationships between the latent variables and Figure 7 provides a visual summary of the path coefficients on the inner arrows, the Outer Loadings on the outer arrows, and the R^2 values (discussed later in the analysis) in the circles.

Table 10: The path coefficients, the p-values, the Confidence Intervals Bias Corrected, and their respective decisions

	Path Coefficients	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5% and 97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.148	0.048	Supported	-0.270 – 0.042	Not supported
FWA to Satisfaction	-0.096	0.294	Not supported	-0.212 – 0.273	Not supported
Motivation to Performance	0.649	0.000	Supported	0.510 – 0.760	Supported
Satisfaction to Motivation	0.586	0.000	Supported	0.466 – 0.685	Supported
Satisfaction to Performance	-0.102	0.236	Not supported	-0.261 – 0.075	Not supported

Table 11: A summary of the relationships between the variables (path coefficients)

Relationship	**Result**
FWA to Motivation	There was a weak negative path coefficient, but after bootstrapping, the relationship is not statistically significant
FWA to Satisfaction	There was a weak negative path coefficient, but after bootstrapping, the relationship proved not statistically significant
Motivation to Performance	There was a strong positive path coefficient, and after bootstrapping, the relationship proved statistically significant
Satisfaction to Motivation	There was a strong positive path coefficient, and after bootstrapping, the relationship proved statistically significant
Satisfaction to Performance	There was a weak negative path coefficient, but after bootstrapping, the relationship proved not statistically significant

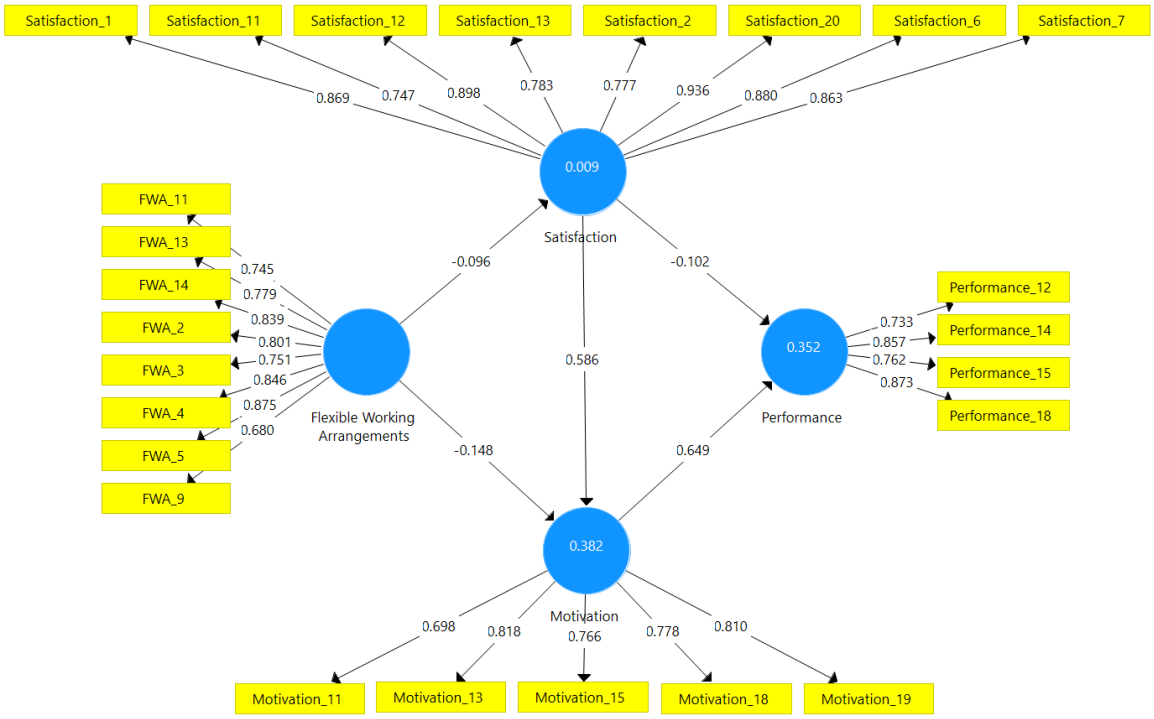

Figure 7: The model with its path coefficients, Outer Loadings, and R^2 values

Bootstrapping – Total Effects

The bootstrap results for the total effects of the exogenous constructs on the target constructs were then evaluated. Like with the bootstrap results from the path coefficients, they were analysed at a 5% significance level where *p* values should be less than 0.05 for statistical significance. Upon evaluation, as seen in Table 12, it was found that the relationships Motivation to Performance (p = 0.000), Satisfaction to Motivation (p = 0.000), Satisfaction to Performance (p = 0.001), Flexible Working Arrangements to Performance (p=0.019), and Flexible Working Arrangements to Motivation (p = 0.013) were statistically significant as their *p* values were less than 0.05. From this, it can be seen that: there would be a 0% chance that the relationships, Motivation to Performance and Satisfaction to Motivation could have a total effect value of 0; a 0.1% chance that the relationship Satisfaction to Performance could have a total effect value of 0; a 1.9% chance that the relationship, Flexible Working Arrangements to Performance could have a total effect value of 0; and a 1.3% chance that the relationship, Flexible Working Arrangements to Motivation could have a total effect value of 0. The relationship Flexible Working Arrangement to Satisfaction had a 29.4% chance that its total effect could be 0.

For further detail, the bootstrap confidence intervals were also evaluated. If the confidence interval does not include 0, the relationship can be considered statistically significant. Upon evaluation, as seen in Table 12, it was found that only the confidence intervals relating to the relationships Motivation to Performance, Satisfaction to Motivation, and Satisfaction to Performance do not contain a 0 and were, therefore, statistically significant. When looking at the relationships Flexible Working Arrangements to Motivation and Flexible Working Arrangements to Performance, the *p* values were 0.013 and 0.019 respectively, indicating significance, but because the confidence intervals contain 0, in this study, they are considered as not statistically significant, but further investigation with other populations should be conducted.

For simplicity, Table 12 below provides a summary of the total effects, the *p* values, and the Confidence Intervals Bias Corrected with their associated decision. Additionally, Table 13 provides a summary of the relationships between the latent variables and Figure 8 provides a visual summary of the total effects on the inner arrows, the Outer Loadings on the outer arrows and the R^2 values (discussed next) in the circles.

Table 12: The total effects, the p values, the Confidence Intervals Bias Corrected, and their respective decisions

	Total Effects	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5% and 97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.204	0.013	Supported	-0.320 – 0.155	Not supported
FWA to Performance	-0.123	0.019	Supported	-0.201 – 0.077	Not supported
FWA to Satisfaction	-0.096	0.294	Not supported	-0.212 – 0.273	Not supported
Motivation to Performance	0.649	0.000	Supported	0.510 – 0.760	Supported
Satisfaction to Motivation	0.586	0.000	Supported	0.466 – 0.685	Supported
Satisfaction to Performance	0.278	0.001	Supported	0.107 – 0.425	Supported

Table 13: A summary of the relationships between the variables (total effects)

Relationship	**Result**
FWA to Motivation	There was a moderate negative total effect, but after bootstrapping, the relationship proved not statistically significant
FWA to Performance	There was a weak negative total effect, but after bootstrapping, the relationship proved not statistically significant
FWA to Satisfaction	There was a weak negative total effect, but after bootstrapping, the relationship proved not statistically significant
Motivation to Performance	There was a strong positive total effect, and after bootstrapping, the relationship proved statistically significant
Satisfaction to Motivation	There was a strong positive total effect, and after bootstrapping, the relationship proved statistically significant
Satisfaction to Performance	There was a moderate positive total effect, and after bootstrapping, the relationship proved statistically significant

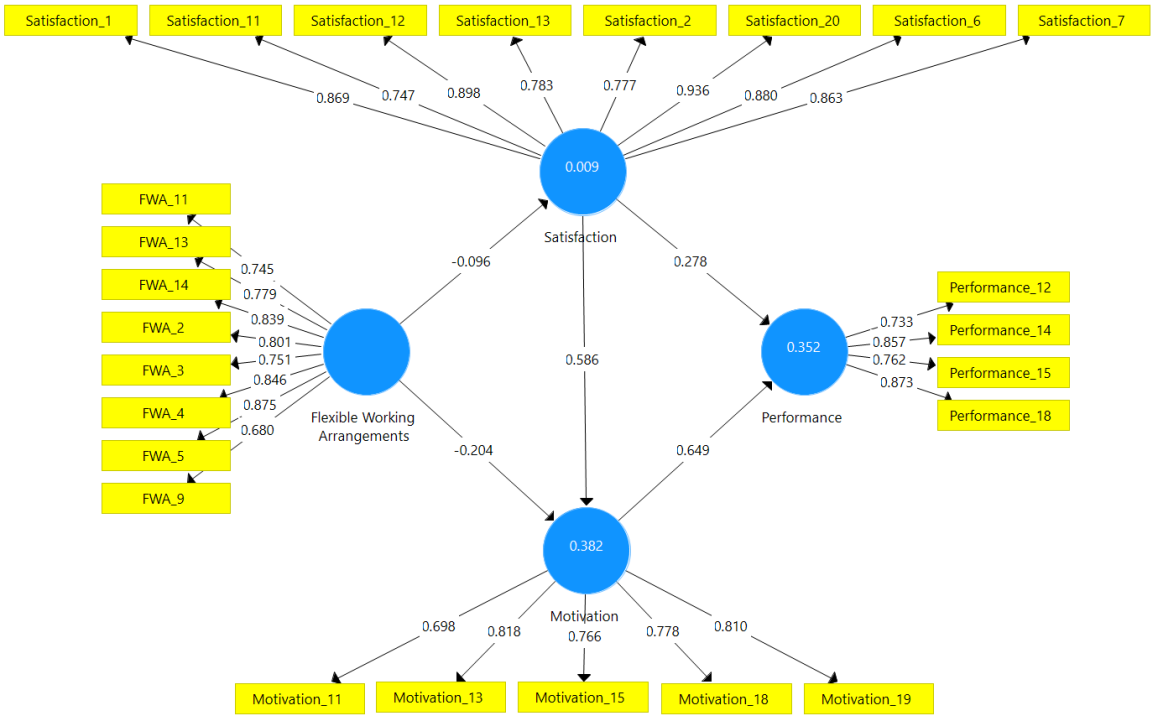

Figure 8: The model with its total effects, Outer Loadings, and R^2 values

Step 3: Assess the level of R^2

Next, the R^2 values (coefficient of determination) of the endogenous latent variables were evaluated. Their interpretation is dependent on the complexity of the model and the discipline that the research falls under. Typically, 0.75, 0.50, and 0.25 are classified as substantial, moderate, and weak (Hair et al., 2017). On the other hand, Cohen (1977) in Moori et al. (2013) stated that when work is done in the field of behavioural studies, 0.26 can be considered a substantial effect. Additionally, Cohen (1988) in Maware and Adetunji (2019) also stated that values of 0.26 may be considered substantial, 0.13 moderate, and 0.02 weak in this field. These categories were used in this research. Upon evaluation, as seen in Table 14, it was found that Motivation had an R^2 value of 0.382, Performance had an R^2 value of 0.352 and Satisfaction had an R^2 value of 0.009. It was concluded that Motivation and Performance are large/substantial, but Satisfaction is fairly weak or of no effect.

Table 14: A table showing the R^2 values and the associated decision

Latent Variable	**R^2**	**Decision**
Motivation	0.382	Large/substantial effect
Performance	0.352	Large/substantial effect
Satisfaction	0.009	Weak or no effect

Step 4: Assess the f^2 effect size

The f^2 effect sizes were then evaluated. Assessing the f^2 values allowed the researcher to determine the predictor construct's contribution to the endogenous latent variable's R^2. F^2 values smaller than 0.02 indicate no effect, larger than 0.02 indicate an effect that is small, larger than 0.15 indicate an effect that is medium, and greater than 0.35 indicate an effect that is large. Upon evaluation, as seen in Table 15, it was found that the relationship from Satisfaction to Motivation (f^2=0.551) and the

relationship from Motivation to Performance (f^2=0.415) had a large effect. The relationship between Flexible Working Arrangements to Motivation (f^2=0.035) had a small effect and the relationships Satisfaction to Performance (f^2=0.010) and Flexible Working Arrangements to Satisfaction (f^2=0.009) had no effect.

Table 15: The f^2 effect sizes

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA		0.035		0.009
Motivation			0.415	
Performance				
Satisfaction		0.551	0.010	

Step 5: Assess the predictive relevance of Q^2

Predictive relevance was assessed using the Q^2 values. These values were obtained using the blindfolding procedure, initialised with 300 set as the maximum number of iterations and the stop criterion of 10^{-7}. An Omission Distance of D=7 was used as it is required that the sample size divided by D does not produce an integer value. Therefore, 153/7=21.85714286 is admissible. Q^2 values larger than 0 suggest predictive capability and those smaller than 0 suggest a lack of this predictive capability. Upon evaluation, as seen in Table 16, Motivation had a Q^2 value of 0.217, Performance had a Q^2 value of 0.203, and Satisfaction had a Q^2 value of 0.004. From this it was seen that Motivation and Performance had Q^2 values above 0, and that Satisfaction, although small, also had a Q^2 value above 0. Therefore, it can be deduced that the results provide support that the model has predictive capability for its out-of-range values.

Table 16: The Q^2 values

Latent Variable	Q^2	Decision
FWA		
Motivation	0.217	Supports predictive capability
Performance	0.203	Supports predictive capability
Satisfaction	0.004	Supports predictive capability

Step 6: Assess the q^2 effect size

Following on from Step 5, the q^2 effect sizes, a relative measure of predictive relevance, were evaluated. SmartPLS 3 does not compute this value, and therefore, it was computed manually. To compute this, the researcher used the formula

$$q^2_{exogeneous \rightarrow endogeneous} = \frac{Q^2_{Included} - Q^2_{Excluded}}{1 - Q^2_{Included}}$$

where the $Q^2_{Included}$ comes from the Q^2 values in Step 5. The $Q^2_{Excluded}$ was obtained by conducting a model re-estimation in which a specific predecessor of an endogenous latent variable is deleted. To do so, the researcher made three copies of the path model in which one construct, either Flexible Working Arrangements, Motivation, or Satisfaction, was deleted. An example of this is seen in Figure 9 where Flexible Working Arrangements was deleted. The blindfold procedure was then run for each of the path models and the Q^2 values were obtained as in Step 5, and allocated to $Q^2_{Excluded}$ values. These Q^2 values are displayed in Table 17.

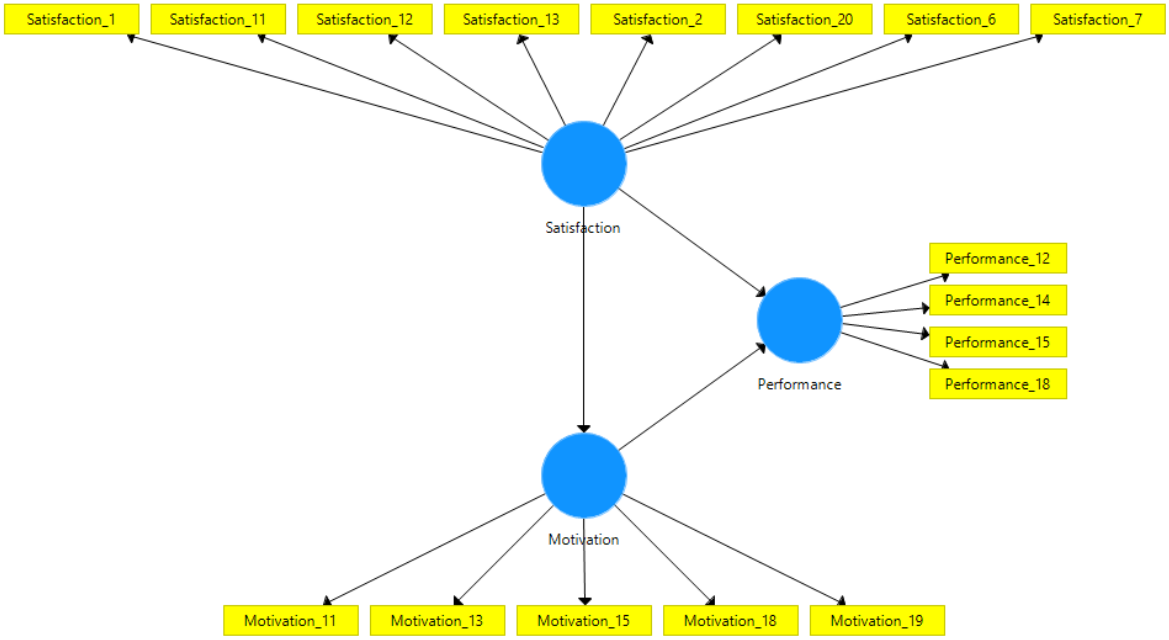

Figure 9: The model with the construct Flexible Working Arrangements deleted, used to derive the $Q^2_{Excluded}$ value

Table 17: The $Q^2_{Included}$ values obtained from Step 5 and $Q^2_{Excluded}$ values obtained by deleting a predecessor variable

Endogenous Variable	**Q^2 values obtained in Step 5 ($Q^2_{Included}$)**	**Q^2 values obtained when Flexible Working Arrangements was deleted ($Q^2_{Excluded}$ of endogenous variable)**	**Q^2 values obtained when Motivation was deleted ($Q^2_{Excluded}$ of endogenous variable)**	**Q^2 values obtained when Satisfaction was deleted ($Q^2_{Excluded}$ of endogenous variable)**
FWA	-	N/A	-	-
Motivation	0.238	0.224	N/A	0.024
Performance	0.216	0.218	0.084	0.223
Satisfaction	0.004	-	0.011	N/A

The q^2 values were then computed using the above formula as seen in Appendix D. According to the guidelines provided in Hair et al (2017), q^2 values of 0.02, 0.15, and 0.35 indicate a small, medium, and large predictive relevance of the exogenous construct respectively. Upon evaluation of computed answers, it was found that:

- The predictive relevance of Flexible Working Arrangements on Motivation was small (0.018)
- The predictive relevance of Flexible Working Arrangements on Performance was small and negative (-0.003)
- The predictive relevance of Motivation of Performance was medium (0.168)
- The predictive relevance of Motivation on Satisfaction was small and negative (-0.007)
- The predictive relevance of Satisfaction on Motivation was medium (0.281)
- The predictive relevance of Satisfaction on Performance was small and negative (-0.009)

5.3. Summary of Main Model Results and the Hypotheses Decisions

The Cronbach's Alpha values ranged from 0.823 – 0.943 and the Composite Reliability values ranged from 0.882 – 0.953, with both measures surpassing the threshold values of 0.7. The AVE values ranged from 0.601 to 0.716, surpassing the 0.5 threshold. From this it was concluded that the reflective measurement model had reliability and convergent validity.

The Fornell-Larcker criterion values were greater than the correlation values of the other latent variables, indicating that the constructs were valid measures of unique concepts. The Cross Loadings were also evaluated and it was found that each construct's indicator loadings were greater than their Cross Loadings. The Heterotrait-Monotrait Ratio (HTMT) values were lower than the threshold value of 0.85. The bootstrap confidence intervals were also calculated and it was found that none of the intervals included 1, thereby, also speaking favourably in terms of the discriminant validity of the constructs. From this it was concluded that the reflective measurement model had discriminant validity.

The R^2 coefficient of determination values ranged from 0.009 to 0.382. The R^2 values for Motivation, Performance, and Satisfaction were 38.2%, 35.2%, and 0.9% respectively, showing that Motivation and Performance have large/substantial effects, but Satisfaction has a weak or no effect.

Looking at the f^2 effect size, it was found that the relationship from Satisfaction to Motivation (f^2=0.551) and the relationship from Motivation to Performance (f^2=0.415) had a large effect. The relationship between Flexible Working Arrangements to Motivation (f^2=0.035) had a small effect and the relationships Satisfaction to Performance (f^2=0.010) and Flexible Working Arrangements to Satisfaction (f^2=0.009) had no effect.

Looking at the Q^2 predictive relevance, it was found Motivation had a Q^2 value of 0.217, Performance had a Q^2 value of 0.203, and Satisfaction had a Q^2 value of 0.004. From this it was seen that Motivation and Performance have Q^2 values above 0, and that Satisfaction, although small, also has a Q^2 value above 0. Therefore, it can be deduced that the results provide support that the model has predictive relevance with regards to its endogenous latent variable.

Looking at the *direct effects*, as seen in Table 18, Flexible Working Arrangements had weak negative relationships with both Motivation (-0.148) and Satisfaction (-0.096), Satisfaction had a strong positive relationship on Motivation (0.586) and a weak negative relationship with Performance (-0.102), and Motivation had strong positive relationship on Performance (0.649).

The *p* values, as seen in the summary Table 18, reject the hypotheses between Flexible Working Arrangements to Satisfaction, as well as between Satisfaction and Performance, and fail to reject the remainder of the hypotheses, showing that initially, hypotheses H2, H5, and H4 were supported. For further detail, the researcher looked at the bootstrap Confidence Intervals Bias Corrected, also seen in Table 18, and found that only the confidence intervals relating to the relationships Motivation to Performance and Satisfaction to Motivation did not contain 0 in their confidence intervals and are, therefore, statistically significant. Therefore, looking at the *p* values, certain relationships initially seem weak but statistically significant, but further investigation suggests that they are not significant as the confidence interval includes 0. For the purpose of this study, they have been stated as 'not supported' but further investigation through data sub-setting should be conducted. For example, for hypothesis H2 (FWA to Motivation), as the *p* value is 0.048, which is borderline significant, and the confidence interval includes 0, there is a good chance that the relationship is not statistically significant, but further investigation is recommended.

Therefore, based on the *p* values and Confidence Intervals Bias Corrected in Table 18, the researcher fails to reject hypothesis H5 and hypothesis H4. This shows that the model can be used for evaluating the impact of implementing Motivational initiatives to improve Performance and Satisfaction oriented initiatives to improve Motivation.

Table 18: A summary of the path coefficients, the p values, the Confidence Intervals Bias Corrected, and the decisions for the hypotheses

	Path Coefficient	**Standard deviation**	***p* Values**	**Hypothesis**	**Confidence Intervals Bias Corrected (2.5% and 97.5%)**	**Decision**
FWA to Motivation	-0.148	0.075	0.048	H2	-0.270 – 0.042	Not supported
FWA to Satisfaction	-0.096	0.092	0.294	H1	-0.212 – 0.273	Not supported
Motivation to Performance	0.649	0.063	0.000	H5	0.510 – 0.760	Supported
Satisfaction to Motivation	0.586	0.055	0.000	H4	0.466 – 0.685	Supported
Satisfaction to Performance	-0.102	0.086	0.236	H3	-0.261 – 0.075	Not supported

Considering the *total effects*, Flexible Working Arrangements had weak negative total effects on Satisfaction (-0.096) and Performance (-0.123) and a moderate negative total effect on Motivation (-0.204). Satisfaction had a strong positive total effect on Motivation (0.586) and a moderate positive total effect on Performance (0.278), and Motivation had a strong total effect on Performance (0.649).

The *p* values, as seen in the summary Table 19, reject the hypothesis between Flexible Working Arrangements and Satisfaction, and fail to reject the remainder of the hypotheses, showing that initially, hypotheses H2, H5, H4, and H3 were supported. For further detail the researcher looked at the bootstrap Confidence Intervals Bias Corrected, also seen in Table 19, and found that only the confidence intervals relating to the relationships between: Motivation and Performance; Satisfaction and Motivation; and Satisfaction and Performance, did not contain 0 in their confidence intervals and are, therefore, statistically significant. Therefore, looking at the *p* values, certain relationships may seem statistically significant, but it is possible that they are not significant as the confidence interval includes 0. For the purpose of this study, they have been stated as 'not supported' but further investigation with other populations sub-groups should be conducted. For example, for a) hypothesis H2 (FWA to Motivation), has the *p* value is 0.013, which is significant, and the confidence interval includes 0, as well as for b) the indirect relationship FWA to Performance, as the *p* value is 0.019 which is significant, and the confidence interval includes 0, there is a good chance that the relationships are not statistically significant, but further investigation is recommended.

Therefore, based on the *p* values and Confidence Intervals Bias Corrected in Table 19, the researcher fails to reject hypotheses H5, H4, and H3. This shows that the model can be used for evaluating the impact of implementing Motivation to improve Performance, Satisfaction to improve Motivation, and indirectly for Satisfaction to improve Performance via Motivation.

Table 19: A summary of the total effects, the p values, the Confidence Intervals Bias Corrected, and the decisions for the hypotheses

	Total Effect	**Standard deviation**	***p* Values**	**Hypothesis**	**Confidence Intervals Bias Corrected (2.5% and 97.5%)**	**Decision**
FWA to Motivation	-0.204	0.083	0.013	H2	-0.320 – 0.155	Not supported
FWA to Performance	-0.123	0.052	0.019	N/A	-0.201 – 0.077	Not supported
FWA to Satisfaction	-0.096	0.092	0.294	H1	-0.212 – 0.273	Not supported
Motivation to Performance	0.649	0.063	0.000	H5	0.510 – 0.760	Supported
Satisfaction to Motivation	0.586	0.055	0.000	H4	0.466 – 0.685	Supported
Satisfaction to Performance	0.278	0.080	0.001	H3	0.107 – 0.425	Supported

5.4. Assessing the Comparative Models

Following the analysis of the main model, comparative analyses were undertaken looking at different age groups, different genders, those that have and have not made use of flexible working arrangements at some point in time (prior use), and also the subdivision/breakdown of Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations so as to test their effects separately. This was done to see how the results differ when the data is subset into different categories. For consistency between the main model and for comparative purposes, the same indicators were used on all subsets. With regards to the subdivision of Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations, the latent variable Flexible Working Arrangements was broken into two latent variables, Flexible Working Hours and Flexible Working Locations. The final indicators in the main model that were associated with flexible working hours were linked to the latent variable Flexible Working Hours and those associated with flexible working locations were then linked to the latent variable Flexible Working Locations.

Age

Looking at existing literature, Smola and Sutton (2002) conducted work on generational differences in worker values and found that generational work values differ, or in other words, there are generational differences in work values, when employees grow older, these work values change, although this is to a lesser degree. Their results also showed that American workers desire to balance their work and personal goals. Dose (1997) in Smola and Sutton (2002,) defined work values as the apprising standards which relate to an individual's work or their work environment, which said individual uses to discern what is correct or to determine how important preferences are. Smola and Sutton (2002) went on to state that the work values of those in Generation X differ substantially from the ones of Baby Boomers. Newer employees were seen as having less loyalty to the company, were more 'me' orientated, wanted quicker promotions, were less prone to feel that work should be considered as an integral part of a person's life, and that there would be a higher chance of them leaving their employment if they won a large amount of money. Those in Generation X also felt more strongly that one's worth is indicated by them working hard and they were more likely to feel that,

even if the supervisor is not present, they should work hard. With regards to defining the age rangers for Baby Boomers as well as Generation X, the author stated that there is not much agreement with regards to the years that encompass them, but that the two generational groups are prevalent in today's work force.

Gursoy, Chi and Karadag (2013) conducted a study on the differences that different generations have with regards to work values as well as attitudes. They stated that their study suggested that there are generational differences in work values and attitudes with regards to older and younger generations. They stated that Generation X and Millennials are more technology savvy and that this affects communication strategies. It was also stated that past strategies used to manage and motivate Baby Boomers as well as Generation X might prove less effective on Millennials. Millennials also value strong leadership and want flexible working environments for the purpose of having time for what they find important when they need it (Mikitka (2009) in Gursoy, Chi and Karadag (2013)) and therefore, flexible policies and practices can help retain them. Gursoy, Chi and Karadag (2013) also stated that Boomers live to work but Millennials work to live, and that Baby Boomers are very loyal and will wait for their promotion opportunities, but that the younger generations want to be recognised immediately with titles, pay, promotion, and praise, for example. The younger generations also desire a life outside of their work and are therefore, unlikely to give theirs up for the company.

Subramaniam, Overton and Maniam (2015) conducted a study on flexible working arrangements and work-life balance on Malaysian females. The authors found that flexible working arrangements had no statistically significant effect with regards to work-life balance, but that females with caring responsibilities aged thirty to thirty-nine preferred flexible working arrangements.

As such, it was decided to test two age groups, those 30 and Under and those 31 and Over. This was done to evaluate if a difference in age will affect how Flexible Working Arrangements impacts Satisfaction, Motivation, and Performance. 30 was chosen as the split point to test how younger and older generations are affected because at 30, in the researcher's opinion, people are still relatively new to the working world, but, are generally maturing and becoming settled in their home lives. Additionally at this age, those that are 30 and younger have generally grown up around technology, so the technology requirements of FWA should be easy for them to grasp.

For the evaluation, each group had 76 responses from the questionnaire. One response could not be used as the respondent selected the 'Do not wish to disclose' category. During the analysis, the Reflective Measurement Models were tested as in Section 5.2 for both groups and all requirements were met for construct/composite reliability and validity, and discriminant validity. With regards to the Outer Loadings, some values were below 0.7 but above 0.60. but these were retained to ensure that the same indicators were used as in the original model. All associated values and seen in Appendix E in the sections 30 and Under and 31 and Over in the various tables.

Next, the Structural Model was analysed. The same measures as in Section 5.2 were completed. In this chapter only the path coefficients and total effects will be discussed in detail. An overview of the results of the other measures are presented in Appendix E in the sections 30 and Under and 31 and Over in the various tables. Additionally, all VIF values were below the threshold of 5.

Looking at both the path coefficients and the total effects of the two groups and their summaries, found in Tables 20 to 27, Motivation to Performance and Satisfaction to Motivation had strong positive relationships/total effects that proved statistically significant. Interestingly, when comparing the two groups' path coefficients and total effects, Motivation had a stronger influence on Performance in the 30 and Under group than the 31 and Over group (0.759 vs 0.596) and Satisfaction had a stronger

influence on Motivation in the 31 and Over group than the 30 and Under group (0.655 vs 0.568). With regards to the group 30 and Under, it was also found that Satisfaction to Performance had a moderately negative path coefficient relationship (-0.242) that was statistically significant. With regards to the 31 and Over group, it was found that Satisfaction to Performance had a moderate positive total effect (0.369) that was statistically significant. The structural models with the path coefficients and total effects are presented in Figures 10 and 11 and Figures 12 and 13, respectively.

This implies that a) regardless of age, Motivation can be used to improve Performance and that Satisfaction can be used to improve Motivation with Satisfaction having more of an impact on Motivation than Motivation on Performance in the 31 and Over group and Motivation having more of an impact on Performance than Satisfaction has on Motivation in the 30 and Under group. Additionally, when only looking at Motivation to Performance, a larger impact will be made if it is targeted at those 30 and under, and when looking at Satisfaction to Motivation, a larger impact will be made if it is targeted at those 31 and over. Next, b) for those 30 and under, Satisfaction negatively impacts Performance, and c) for those 31 and over, Satisfaction indirectly positively impacts Performance via Motivation.

Therefore, looking at both positive and negative effects, it is best to target the younger generations with Motivation and not Satisfaction to improve Performance, as Satisfaction may not impact Performance positively in this group. With regards to the older generation, Motivation can be used to improve Performance directly and Satisfaction can be used to improve Motivation directly and Performance indirectly, but when solely looking to improve Performance, using/targeting Motivation will have the largest impact.

Table 20: The path coefficients, the p-values, the Confidence Intervals Bias Corrected, and their respective decisions for the group 30 and Under

	Path Coefficients	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.136	0.297	Not supported	-0.329	0.223	Not supported
FWA to Satisfaction	-0.113	0.470	Not supported	-0.270	0.479	Not supported
Motivation to Performance	0.759	0.000	Supported	0.570	0.902	Supported
Satisfaction to Motivation	0.568	0.000	Supported	0.358	0.712	Supported
Satisfaction to Performance	-0.242	0.029	Supported	-0.440	-0.002	Supported

Table 21: A summary of the relationships (path coefficients) between the variables for the group 30 and Under

Relationship	Result
FWA to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was also found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative path coefficient that was not significant. After bootstrapping, it was also found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive path coefficient that was significant. After bootstrapping, it was also found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive path coefficient that was significant. After bootstrapping, it was also found that the relationship was statistically significant.
Satisfaction to Performance	There was a moderate negative path coefficient that was significant. After bootstrapping, it was also found that the relationship was statistically significant.

Table 22: The total effects, the p values, the Confidence Intervals Bias Corrected, and their respective decisions for the group 30 and Under

	Total Effects	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.201	0.179	Not supported	-0.365	0.312	Not supported
FWA to Performance	-0.125	0.233	Not supported	-0.257	0.207	Not supported
FWA to Satisfaction	-0.113	0.470	Not supported	-0.270	0.479	Not supported
Motivation to Performance	0.759	0.000	Supported	0.570	0.902	Supported
Satisfaction to Motivation	0.568	0.000	Supported	0.358	0.712	Supported
Satisfaction to Performance	0.190	0.140	Not supported	-0.096	0.410	Not supported

Table 23: A summary of the relationships (total effects) between the variables for the group 30 and Under

Relationship	Result
FWA to Motivation	There was a moderate negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Performance	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a weak positive total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.

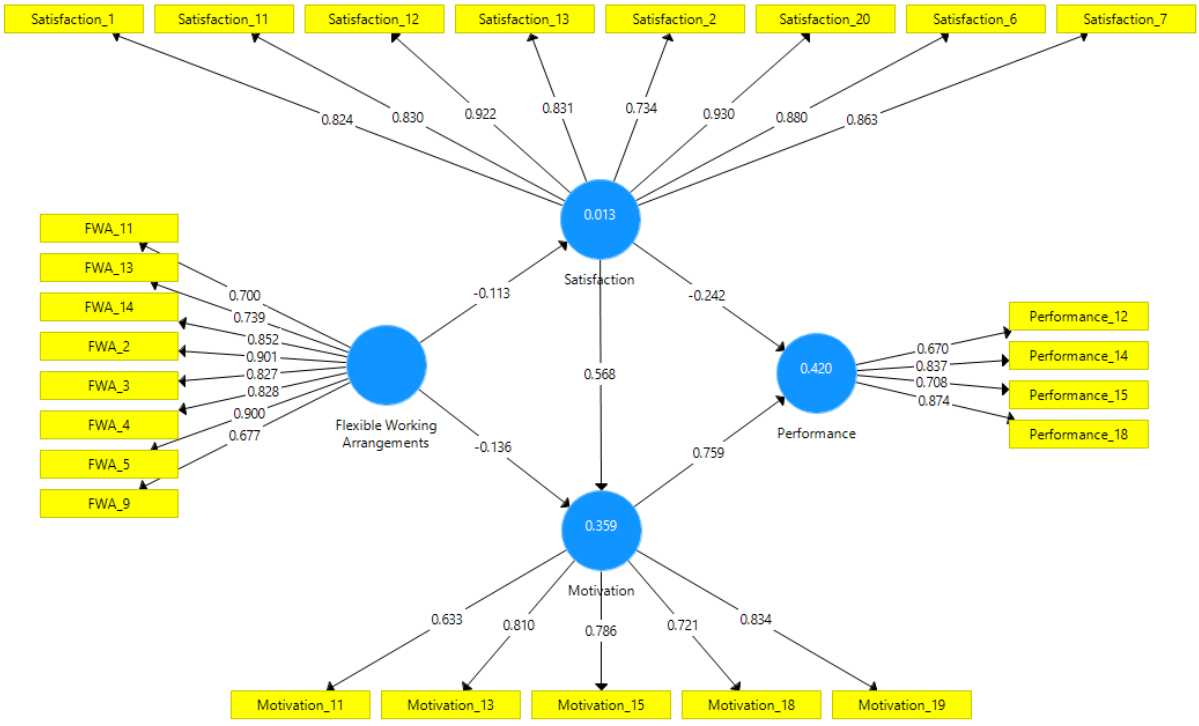

Figure 10: The model for the 30 and Under group with its path weights (direct effects), Outer Loadings, and R^2 values

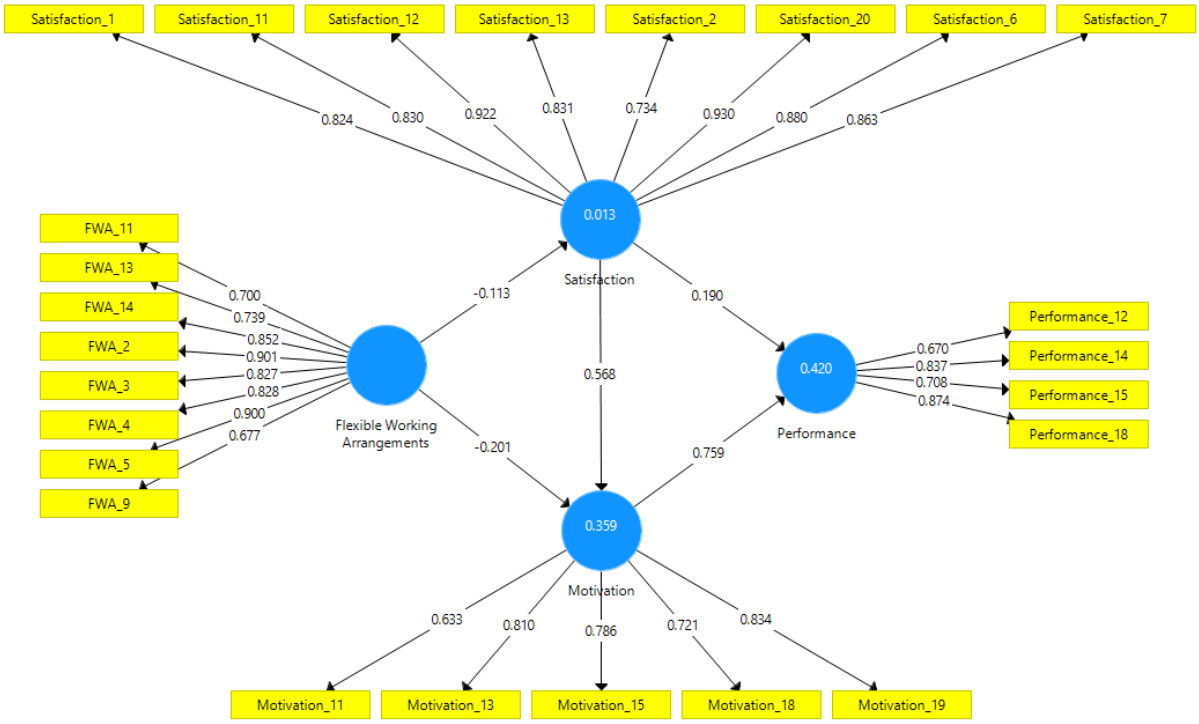

Figure 11: The model for the 30 and Under group with its total effects, Outer Loadings, and R^2 values

Table 24: The path coefficients, the p-values, the Confidence Intervals Bias Corrected, and their respective decisions for the group 31 and Over

	Path Coefficients	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.160	0.082	Not supported	-0.306	0.083	Not supported
FWA to Satisfaction	-0.114	0.452	Not supported	-0.270	0.441	Not supported
Motivation to Performance	0.596	0.000	Supported	0.384	0.752	Supported
Satisfaction to Motivation	0.655	0.000	Supported	0.509	0.769	Supported
Satisfaction to Performance	-0.021	0.868	Not supported	-0.275	0.226	Not supported

Table 25: A summary of the relationships (path coefficients) between the variables for the group 31 and Over

Relationship	Result
FWA to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.

Table 26: The total effects, the p values, the Confidence Intervals Bias Corrected, and their respective decisions for the group 31 and Over

	Total Effects	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.235	0.072	Not supported	-0.355	0.419	Not supported
FWA to Performance	-0.138	0.092	Not supported	-0.220	0.252	Not supported
FWA to Satisfaction	-0.114	0.452	Not supported	-0.270	0.441	Not supported
Motivation to Performance	0.596	0.000	Supported	0.384	0.752	Supported
Satisfaction to Motivation	0.655	0.000	Supported	0.509	0.769	Supported
Satisfaction to Performance	0.369	0.000	Supported	0.136	0.531	Supported

Table 27: A summary of the relationships (total effects) between the variables according to the group 31 and Over

Relationship	Result
FWA to Motivation	There was a moderate negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Performance	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a moderate positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.

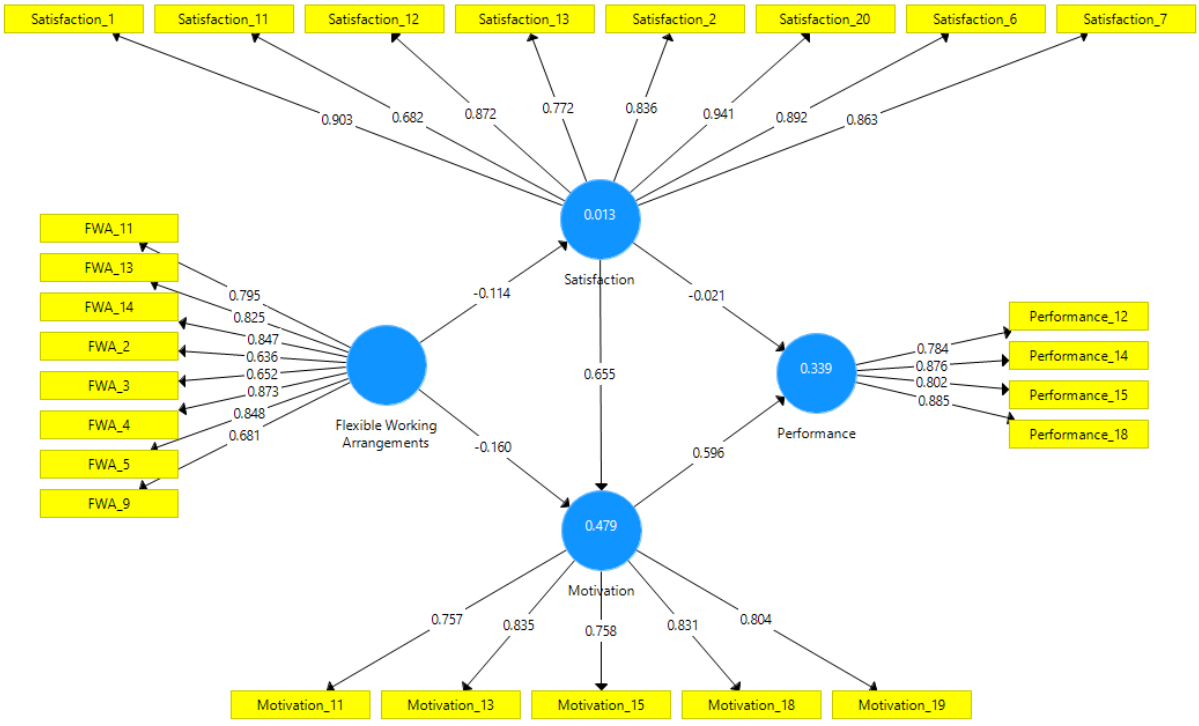

Figure 12: The model for the 31 and Over group with its path weights (direct effects), Outer Loadings, and R^2 values

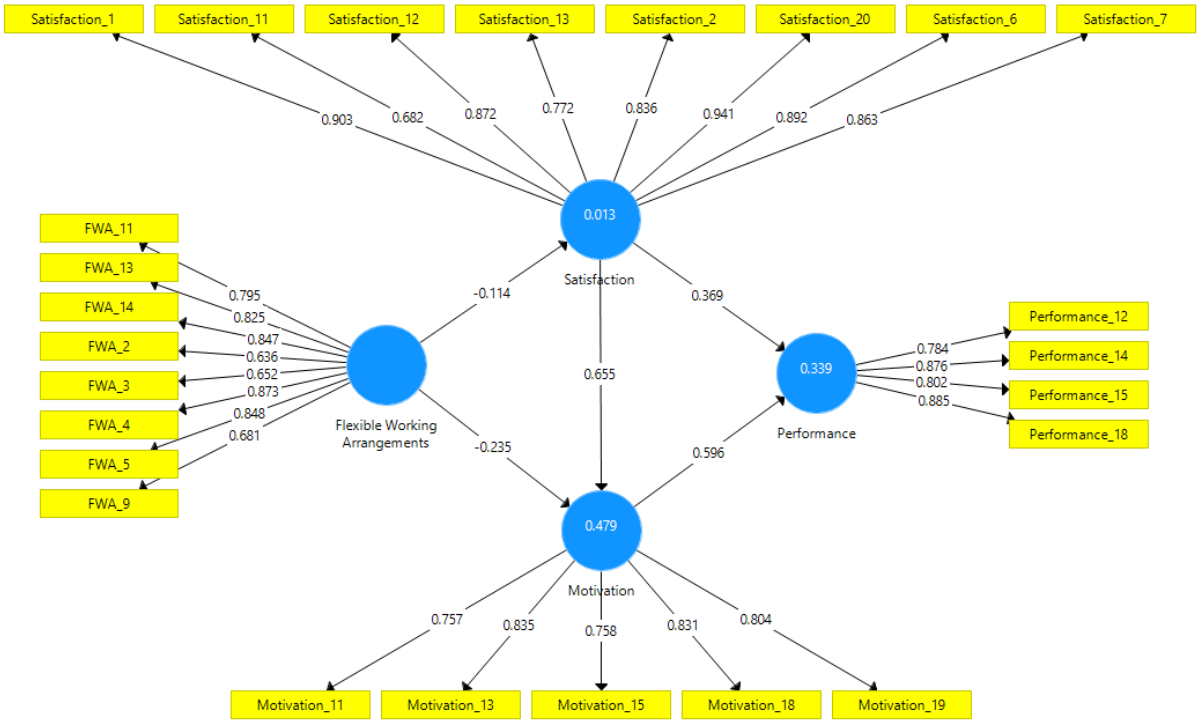

Figure 13: The model for the 31 and Over group with its total effects, Outer Loadings, and R^2 values

Gender

When looking at the literature associated with gender, Cohen (1997) in Almer, Cohen and Single (2003) stated that an overwhelming proportion of those who use flexible working arrangements are women, even though it is available to all professionals. Hooks (1996) in Almer, Cohen and Single (2003) stated that it is less socially acceptable for men to use flexible working arrangements and Hooks et al. (1997) in Almer, Cohen and Single (2003) stated that it is more likely that women take primary responsibility for childcare. Looking deeper, Davis, Greenstein and Marks (2007) in Allen et al. (2013) stated that flexible working arrangements may be a greater resource for women as they are generally more responsible for domestic tasks than men. Additionally, Kersley et al. (2005) in Radcliffe and Cassell (2014) stated that women are more aware when it comes to what flexible working options are available and that they feel more able to access these policies.

Almer, Cohen and Single (2003) conducted work on the factors that affect one's choice to partake in flexible working arrangements. They tested if there are differences according to the two genders with regards to salient beliefs that impact the intention to adopt a flexible working arrangement. The authors stated that females are more likely to intend to adopt a flexible working arrangement and that women are more likely to adopt flexible working arrangements. It was also stated that companies should not automatically assume that, for all women who face overwhelming demands at work and with their families, regard flexible working arrangements as an effective retention tool.

Kim and Gong (2017) stated that females are seen as homemakers whereas men are seen as the breadwinners. The roles of different genders shape what is expected of that gender in the areas of the person's behaviours, values, and responsibilities. The different genders also require different outcomes with regards to flexible working arrangements when they have to deal with conflict on the work-family front, which is explained by gender role theory. Their work was conducted in Korea using married managers, and they looked into how the demand for flexible working arrangements changes

in accordance with family-work and work-family. It was found that when there is conflict with regards to the area of work-family, there is a higher demand for flexible working arrangements, particularly with the females, and that this demand was also increased, among females, when an absence of supervision with regards to family support was present. They also found that there was no such effect with regards to conflict on the family-work front and that demand from managers increased when the supervisor is female. Additionally, females have a closer link with family and their personal image is taken from the family domain. As such, it is more likely that women will protect this domain when work is imposing upon it. Females are also more willing to take career risks, such as using flexible working arrangements, which sometimes have negative connotations with regards to career motivation and an effect of this can be that the prospects of their career may be hindered. They also stated that the increased demand for flexible working arrangements among females stemmed from the conflict between work and family as flexible working arrangements aid in protecting their families from the negative experiences that may come because of their work.

Das, Mishra and Narendra (2014) undertook a study within Indian IT and ITES organisations to explore whether a relationship exists between telecommuting to extrinsic job satisfaction. They tested if males and females have different perceptions towards telecommuting. It was found that there was no difference between the perception of male and female employees toward telecommuting.

As such, it was decided to subset the data into male and female groups. This was done to evaluate if different genders affect how Flexible Working Arrangements impacts Satisfaction, Motivation, and Performance. For the evaluation, the Male group had 69 responses and the Female group had 84 responses.

During the analysis, the Reflective Measurement Models were tested as in Section 5.2 for both groups and all requirements were met for construct/composite reliability and validity, and discriminant validity. With regards to the Outer Loadings, in the Female group there was one Outer Loading that was below 0.70 but it was 0.697, which is acceptable. In the Male group, two Outer Loadings were in the 0.60 – 0.70 range and three were in the 0.50 – 0.60 range, which is also acceptable as explored in earlier sections. Therefore, all indicators were still acceptable and were retained to ensure that the same indicators were used as in the original model. All associated values can be seen in Appendix E in the sections Male and Female in the various tables.

Next, the Structural Model was analysed. The same measures as in Section 5.2 were completed. In this chapter only the path coefficients and total effects will be discussed in detail. An overview of the results of the other measures are presented in Appendix E in the sections Male and Female in the various tables. Additionally, all VIF values were below the threshold of 5, and in the Female group, due to the sample size, an omission distance of D=7 was not allowed as 84 divided by 7 does not yield an integer. Therefore, the omission distance was changed to 9, as Hair et al. (2017) states that D values can be between 5 and 10.

Looking at both path coefficients and the total effects of the two groups and their summaries, found in Tables 28 to 35, Motivation to Performance and Satisfaction to Motivation had strong positive relationships/total effects that proved statistically significant. Interestingly, when comparing the two groups path coefficients and total effects, Motivation had a marginally stronger influence on Performance in the Male group than the Female group (0.686 vs 0.649) and Satisfaction had a stronger influence on Motivation in the Female group (0.638 vs 0.528). With regards to the Female group, it was also found that Satisfaction to Performance had a moderate positive path coefficient (0.405) that was statistically significant. Additionally in the Female group, it was found that Flexible Working Arrangements to Motivation had a moderate negative total effect (-0.254) and Flexible Working

Arrangements to Performance had a weak negative total effect (-0.164). These two relationships both had significant *p* values, but after bootstrapping, they did not prove statistically significant. As such, further studies should be conducted to determine if these relationships are statistically significant with different populations. The structural models with the path coefficients and total effects are presented in Figures 14 and 15 and Figures 16 and 17, respectively.

In total, these results imply that a) regardless of gender, Motivation can be used to improve Performance and that Satisfaction can be used to improve Motivation, with Motivation having more of an impact on Performance than Satisfaction has on Motivation, although these values are very close in the Female group. Additionally, when only looking at Motivation to Performance, a marginally larger impact will be made if it is targeted at the Male group, and when looking at Satisfaction to Motivation, a larger impact will be made if it is targeted at the Female group. Next, b) for the Female group, Satisfaction indirectly positively impacts Performance via Motivation.

Therefore, with regards to the Male group, it is best to target Motivation to directly improve Performance. With regards to the Female group, Motivation can be used to directly improve Performance, and Satisfaction can be used to directly improve Motivation and indirectly to improve Performance, but when solely looking to improve Performance, using/targeting Motivation will have the largest impact. Additionally, with regards to the Female group, Flexible Working Arrangements had negative indirect impacts on Motivation and Performance, but these relationships were not statistically significant.

Table 28: The path coefficients, the p-values, the Confidence Intervals Bias Corrected, and their respective decisions for the Male group

	Path Coefficients	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.105	0.489	Not supported	-0.321	0.303	Not supported
FWA to Satisfaction	-0.129	0.555	Not supported	-0.337	0.511	Not supported
Motivation to Performance	0.686	0.000	Supported	0.449	0.814	Supported
Satisfaction to Motivation	0.528	0.000	Supported	0.243	0.675	Supported
Satisfaction to Performance	-0.221	0.079	Not supported	-0.443	0.035	Not supported

Table 29: A summary of the relationships (path coefficients) between the variables for the Male group

Relationship	Result
FWA to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive path coefficient that was significant After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a moderate negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.

Table 30: The total effects, the p values, the Confidence Intervals Bias Corrected, and their respective decisions for the Male group

	Total Effects	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.173	0.348	Not supported	-0.360	0.380	Not supported
FWA to Performance	-0.090	0.432	Not supported	-0.245	0.224	Not supported
FWA to Satisfaction	-0.129	0.555	Not supported	-0.337	0.511	Not supported
Motivation to Performance	0.686	0.000	Supported	0.449	0.814	Supported
Satisfaction to Motivation	0.528	0.000	Supported	0.243	0.675	Supported
Satisfaction to Performance	0.141	0.351	Not supported	-0.194	0.400	Not supported

Table 31: A summary of the relationships (total effects) between the variables for the Male group

Relationship	Result
FWA to Motivation	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Performance	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a weak positive total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.

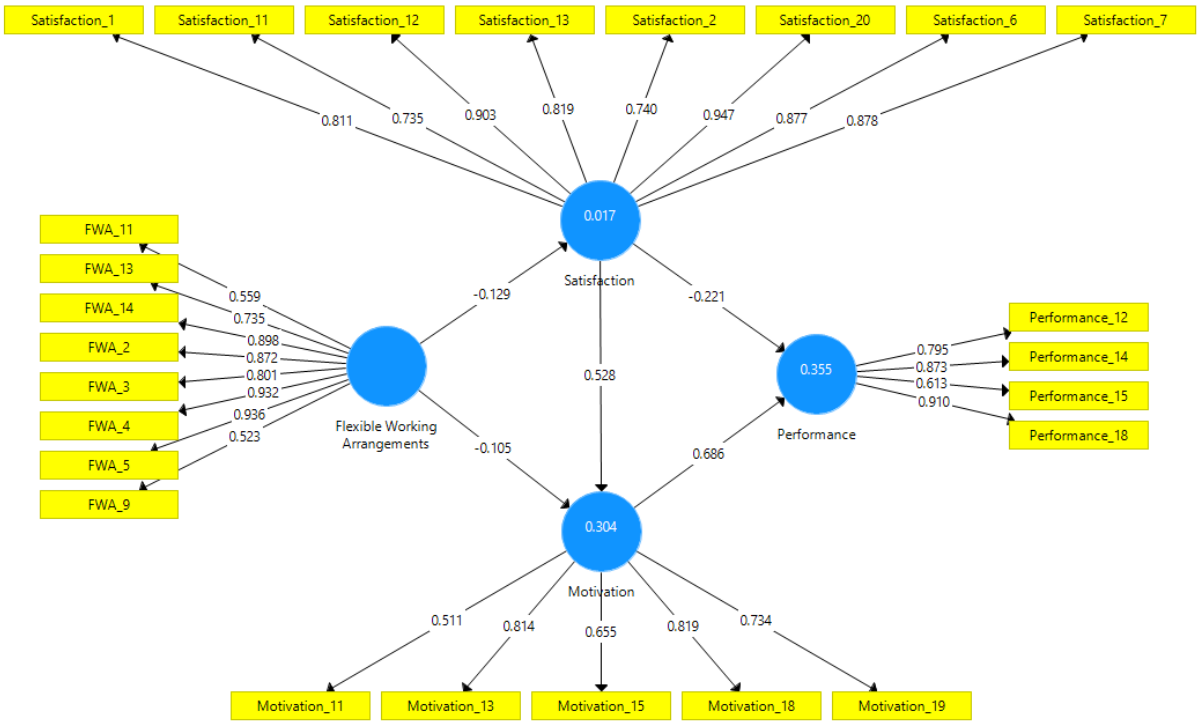

Figure 14: The model for the Male group with its direct effects, Outer Loadings, and R^2 values

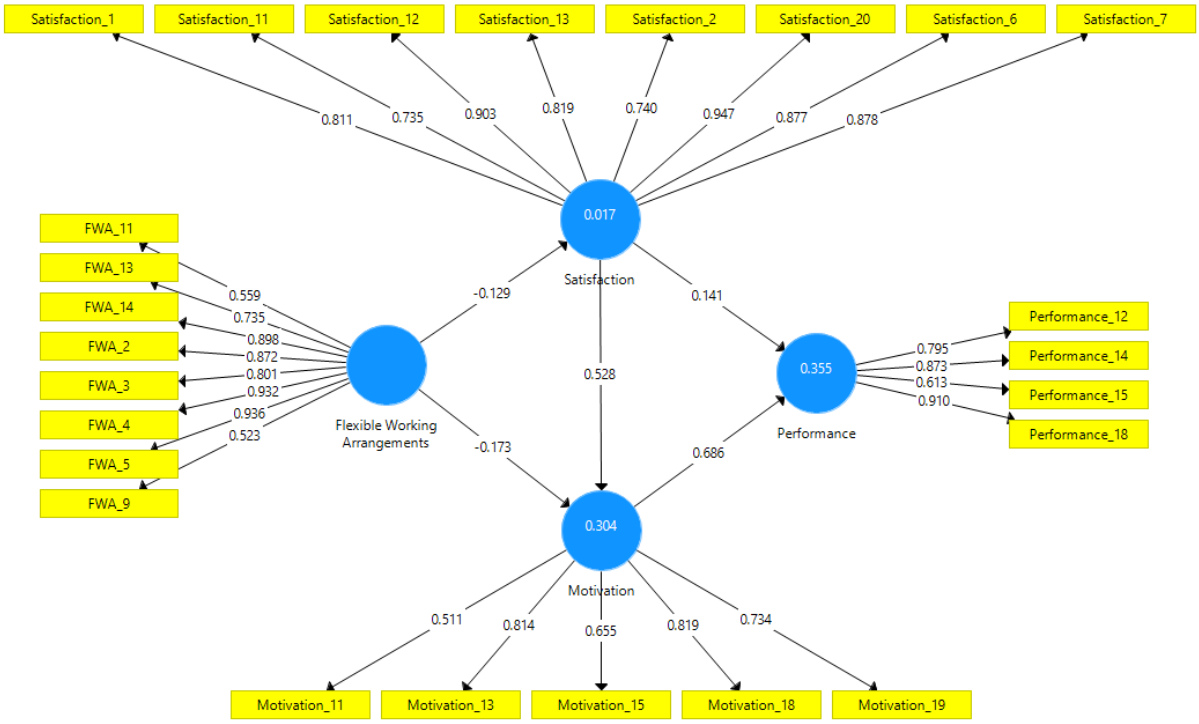

Figure 15: The model for the Male group with its total effects, Outer Loadings, and R^2 values

Table 32: The path coefficients, the p-values, the Confidence Intervals Bias Corrected, and their respective decisions for the Female group

	Path Coefficients	***p* values**	**Decision (*p* < 0.05)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.168	0.075	Not supported	-0.313	0.105	Not supported
FWA to Satisfaction	-0.134	0.318	Not supported	-0.292	0.359	Not supported
Motivation to Performance	0.649	0.000	Supported	0.436	0.806	Supported
Satisfaction to Motivation	0.638	0.000	Supported	0.492	0.752	Supported
Satisfaction to Performance	-0.009	0.939	Not supported	-0.240	0.212	Not supported

Table 33: A summary of the relationships (path coefficients) between the variables for the Female group

Relationship	Result
FWA to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.

Table 34: The total effects, the p values, the Confidence Intervals Bias Corrected, and their respective decisions for the Female group

	Total Effects	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.254	0.031	Supported	-0.372	0.375	Not supported
FWA to Performance	-0.164	0.039	Supported	-0.246	0.259	Not supported
FWA to Satisfaction	-0.134	0.318	Not supported	-0.292	0.359	Not supported
Motivation to Performance	0.649	0.000	Supported	0.436	0.806	Supported
Satisfaction to Motivation	0.638	0.000	Supported	0.492	0.752	Supported
Satisfaction to Performance	0.405	0.000	Supported	0.206	0.557	Supported

Table 35: A summary of the relationships (total effects) between the variables for the Female group

Relationship	Result
FWA to Motivation	There was a moderate negative total effect that was significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Performance	There was a weak negative total effect that was significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a moderate positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.

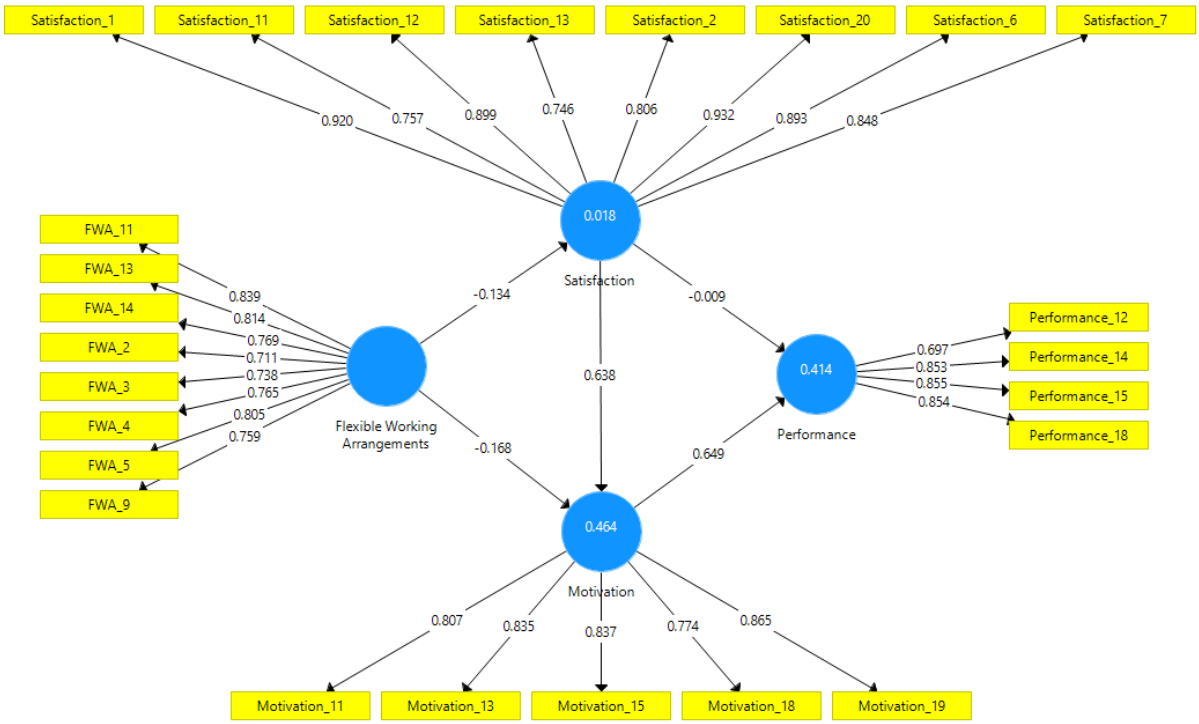

Figure 16: The model for the Female group with its direct effects, Outer Loadings, and R^2 values

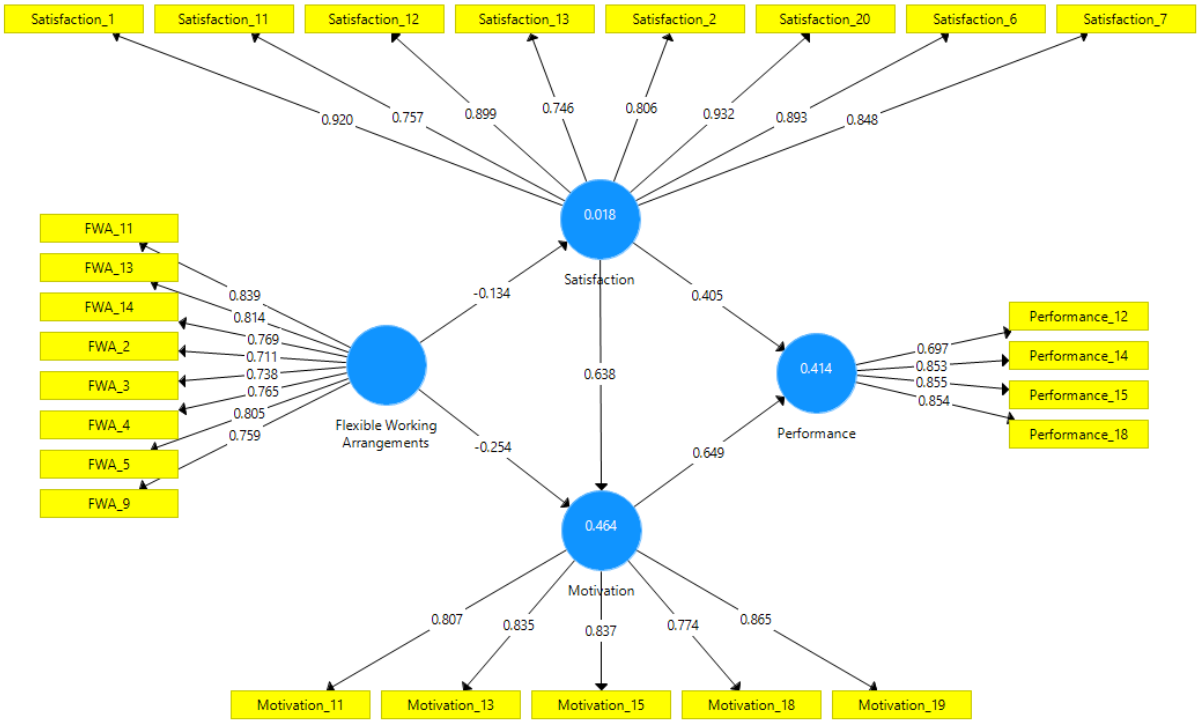

Figure 17: The model for the Female group with its total effects, Outer Loadings, and R^2 values

Prior Use of Flexible Working Arrangements

Looking at the literature associated with the use of flexible working arrangements, it was found that flexible working arrangements can be distinguished into availability as well as use, and in different research papers, those that participated reported on availability but in others they were reporting on actual use (Allen et al, 2013). As such, all flexible working arrangement users seemingly have availability, but not all people that have availability are users. Flexible working arrangement use, when compared to availability alone, should offer a person increased defence against work-family conflict. Additionally, in their study, the authors were trying to refine what is known with regards to the relationship between flexible working arrangements and work-family conflict. They did this by breaking down the constructs relating to flexibility and discovered that the flexibility form, either flextime or flexplace and use or availability, had different effects and that there were small significant effects.

As such, it was decided to test those that have made use of flexible working arrangements and those that have not made use of flexible working arrangements at some point in time, separately. This was done to evaluate if prior use of flexible working arrangements or not, affects how Flexible Working Arrangements impacts Satisfaction, Motivation, and Performance.

For the evaluation, the group Yes Has Made Use of Flexible Working Arrangements, hereafter referred to as the Yes group, and had 118 responses and the group No Has Not Made Use of Flexible Working Arrangements, hereafter referred to as the No group, which had 35 responses. 35 responses were acceptable as it meets the requirements of the 10 times rule previously discussed.

During the analysis, the Reflective Measurement Models were tested as in Section 5.2 for both groups and all requirements were met for construct/composite reliability and validity, and discriminant

validity. With regards to the Outer Loadings, in the Yes group one value fell in the 0.6. – 0.70 range and in the No group one value fell in the 0.50 – 0.60 range. Both values were deemed acceptable as previously discussed, and they were also retained to ensure that the same indicators were used as in the original model. All associated values can be seen in Appendix E in the sections Yes Has Made Use of Flexible Working Arrangements and No Has Not Made Use of Flexible Working Arrangements in the various tables.

Next, the Structural Model was analysed. The same measures as in Section 5.2 were completed. In this chapter, only the path coefficients and total effects will be discussed in detail. An overview of the results of the other measures are presented in Appendix E in the sections Yes Has Made Use of Flexible Working Arrangements and No Has Not Made Use of Flexible Working Arrangements in the various tables. Additionally, all VIF values were below the threshold of 5, and in the No group, due to the sample size an omission distance of D=7 was not allowed as 35 divided by 7 does not yield an integer, therefore, the omission distance was changed to 9, as Hair et al. (2017) states that D values can be between 5 and 10.

Looking at both path coefficients and the total effects of the two groups and their summaries, found in Tables 36 to 43, Satisfaction to Motivation had a strong positive relationship/total effect. Looking at the Yes group, Motivation to Performance had a strong positive relationship/total effect, and looking at the No group, Motivation to Performance had a very strong positive relationship/total effect. All four relationships proved statistically significant. Interesting, when comparing the two groups path coefficients and total effects, Motivation had a much stronger impact on Performance in the No group compared to the Yes group (0.860 vs 0.580) and Satisfaction had a somewhat stronger impact on Motivation in the Yes group compared to the No (0.591 vs 0.571). With regards to the Yes group, it also was found that Satisfaction to Performance (0.285) had a moderate positive total effect that was statistically significant. Additionally, in the No group, it was found that Flexible Working Arrangements to Motivation had a moderate negative path coefficient (-0.322), and Flexible Working Arrangements to Motivation (-0.390) and Flexible Working Arrangements to Performance (-0.308) had moderate negative total effects. These three relationships had significant *p* values, but after bootstrapping, they did not prove statistically significant. As such, further studies should be conducted to determine if these relationships are statistically significant with different populations. The structural model with the path coefficients and total effects are presented in Figures 18 and 19 and Figures 20 and 21, respectively.

In total, these results imply that a) regardless of flexible working arrangement use, Motivation can be used to improve Performance and that Satisfaction can be used to improve Motivation, with Satisfaction having more of an impact on Motivation than Motivation on Performance in the Yes group, although these values are very close, and Motivation having more of an impact on Performance than Satisfaction has on Motivation in the No group. Additionally, when only looking at Motivation to Performance, a significantly larger impact will be made if it is targeted at the No group, and when looking solely at Satisfaction to Motivation, a somewhat larger impact will be made if it is targeted at the Yes group, and b) for the Yes group, Satisfaction indirectly, positively impacts Performance via Motivation.

Therefore, with regards to the Yes group, Motivation can be used to directly improve Performance and Satisfaction can be used to directly improve Motivation and indirectly to improve Performance, but when solely looking to improve Performance, using/targeting Motivation will have the largest impact. With regards to the No group, Motivation can be used to directly improve Performance and Satisfaction can be used to directly improve Motivation. Additionally, with regards to the No group,

Flexible Working Arrangements had negative direct and indirect impacts on Motivation and a negative indirect impact on Performance, but these relationships were not statistically significant.

Table 36: The path coefficients, the p-values, the Confidence Intervals Bias Corrected, and their respective decisions for the group Yes Has Made Use of Flexible Working Arrangements

	Path Coefficients	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.065	0.473	Not supported	-0.203	0.190	Not supported
FWA to Satisfaction	-0.165	0.186	Not supported	-0.265	0.411	Not supported
Motivation to Performance	0.580	0.000	Supported	0.415	0.714	Supported
Satisfaction to Motivation	0.591	0.000	Supported	0.452	0.701	Supported
Satisfaction to Performance	-0.058	0.572	Not supported	-0.263	0.138	Not supported

Table 37: A summary of the relationships (path coefficients) between the variables for the group Yes Has Made Use of Flexible Working Arrangements

Relationship	**Result**
FWA to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.

Table 38: The total effects, the p values, the Confidence Intervals Bias Corrected, and their respective decisions for the group Yes Has Made Use of Flexible Working Arrangements

	Total Effects	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.162	0.176	Not supported	-0.270	0.353	Not supported
FWA to Performance	-0.084	0.225	Not supported	-0.153	0.217	Not supported
FWA to Satisfaction	-0.165	0.186	Not supported	-0.265	0.411	Not supported
Motivation to Performance	0.580	0.000	Supported	0.415	0.714	Supported
Satisfaction to Motivation	0.591	0.000	Supported	0.452	0.701	Supported
Satisfaction to Performance	0.285	0.002	Supported	0.088	0.451	Supported

Table 39: A summary of the relationships (total effects) between the variables for the group Yes Has Made Use of Flexible Working Arrangements

Relationship	**Result**
FWA to Motivation	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Performance	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a moderate strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.

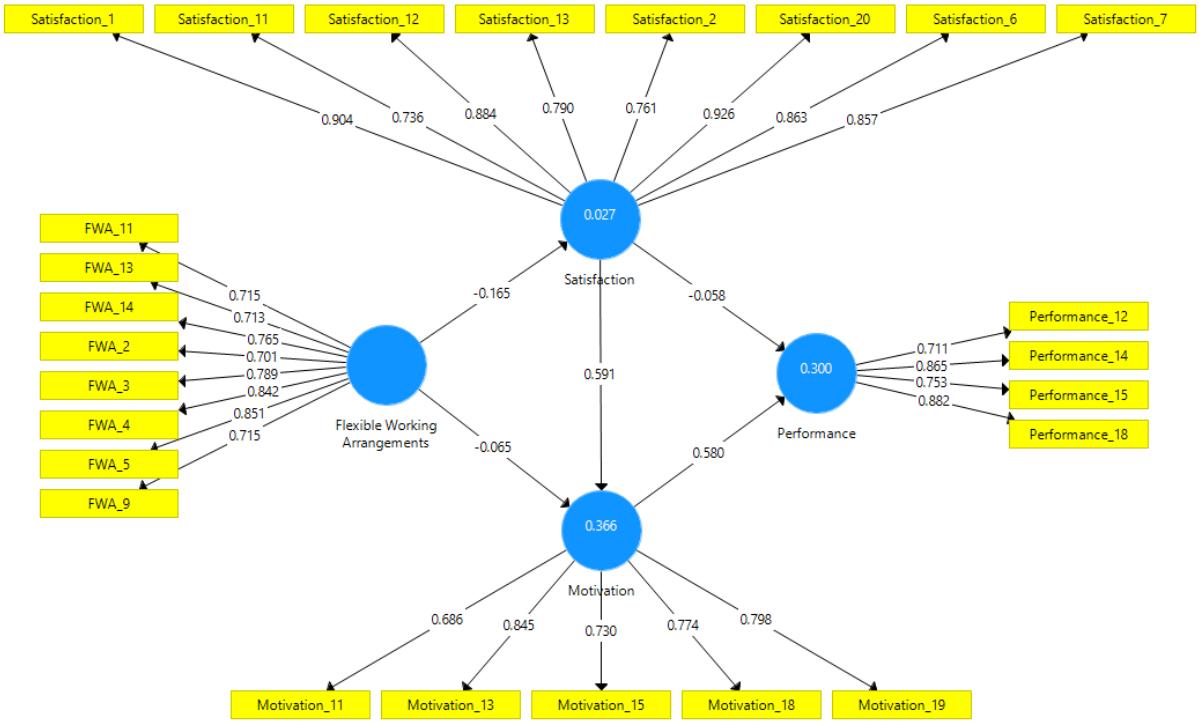

Figure 18: The model for the group Yes Has Made Use of Flexible Working Arrangements with its path coefficients, Outer Loadings, and R^2 values

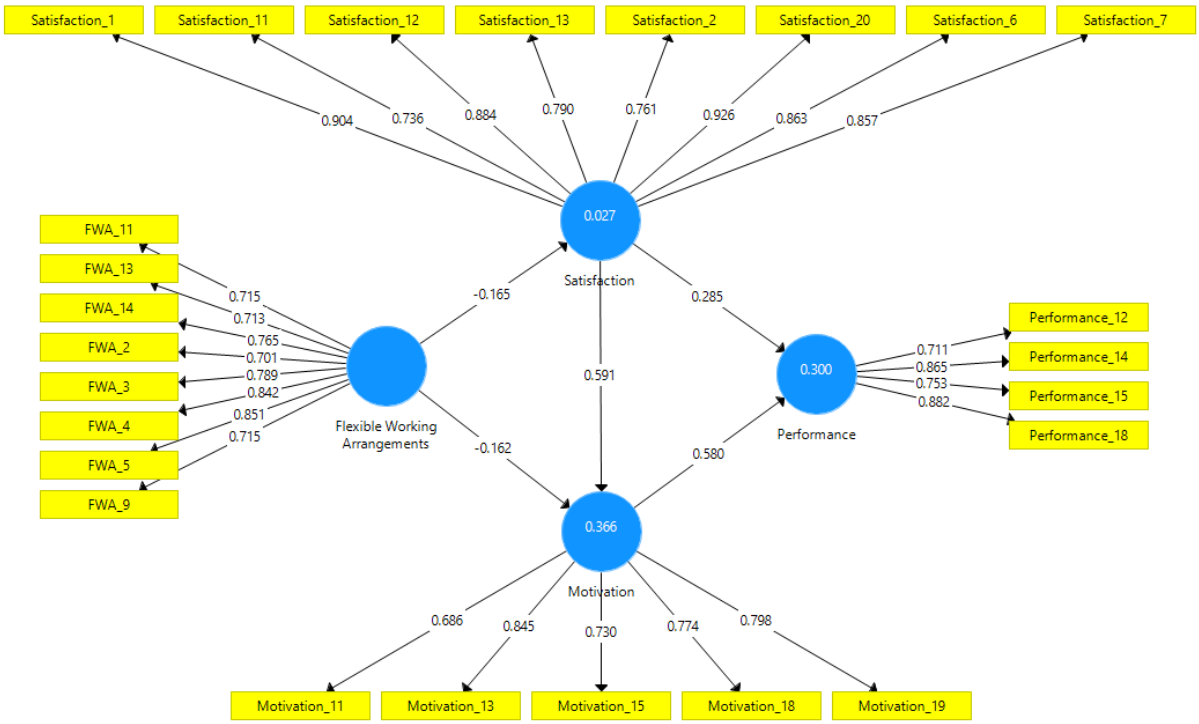

Figure 19: The model for the group Yes Has Made Use of Flexible Working Arrangements with its total effects, Outer Loadings, and R^2 values

Table 40: The path coefficients, the p-values, the Confidence Intervals Bias Corrected, and their respective decisions for the group No Has Not Made Use of Flexible Working Arrangements

	Path Coefficients	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.322	0.023	Supported	-0.514	0.080	Not supported
FWA to Satisfaction	-0.118	0.577	Not supported	-0.375	0.643	Not supported
Motivation to Performance	0.860	0.000	Supported	0.636	1.010	Supported
Satisfaction to Motivation	0.571	0.000	Supported	0.242	0.770	Supported
Satisfaction to Performance	-0.229	0.139	Not supported	-0.528	0.081	Not supported

Table 41: A summary of the relationships (path coefficients) between the variables for the group No Has Not Made Use of Flexible Working Arrangements

Relationship	**Result**
FWA to Motivation	There was a moderate negative path coefficient that was significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a moderate negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.

Table 42: The total effects, the p values, the Confidence Intervals Bias Corrected, and their respective decisions for the group No Has Not Made Use of Flexible Working Arrangements

	Total Effects	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWA to Motivation	-0.390	0.009	Supported	-0.561	0.362	Not supported
FWA to Performance	-0.308	0.008	Supported	-0.458	0.221	Not supported
FWA to Satisfaction	-0.118	0.577	Not supported	-0.375	0.643	Not supported
Motivation to Performance	0.860	0.000	Supported	0.636	1.010	Supported
Satisfaction to Motivation	0.571	0.000	Supported	0.242	0.770	Supported
Satisfaction to Performance	0.263	0.142	Not supported	-0.185	0.554	Not supported

Table 43: A summary of the relationships (total effects) between the variables for the group No Has Not Made Use of Flexible Working Arrangements

Relationship	**Result**
FWA to Motivation	There was a moderate negative total effect that was significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Performance	There was a moderate negative total effect that was significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWA to Satisfaction	There was a weak negative total effect that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive total effect that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a moderate positive total effect that was not significant. After bootstrapping, it was found that the relationship was statistically significant.

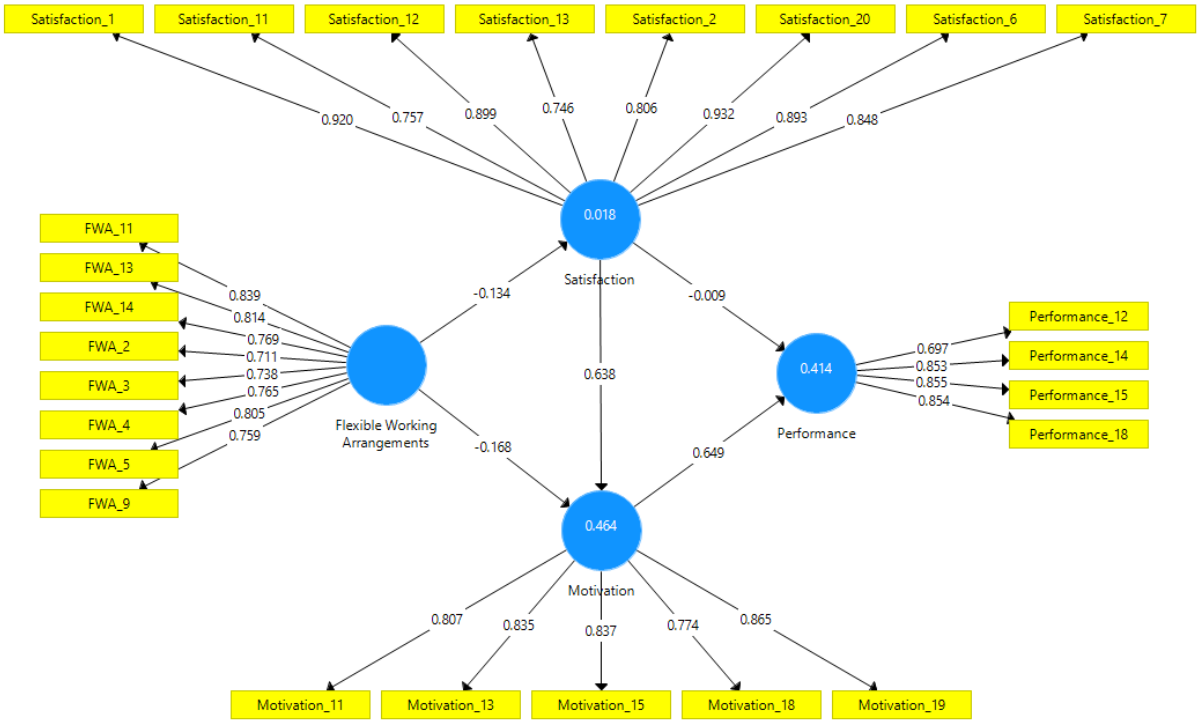

Figure 20: The model for the group No Has Not Made Use of Flexible Working Arrangements with its path coefficients, Outer Loadings, and R^2 values

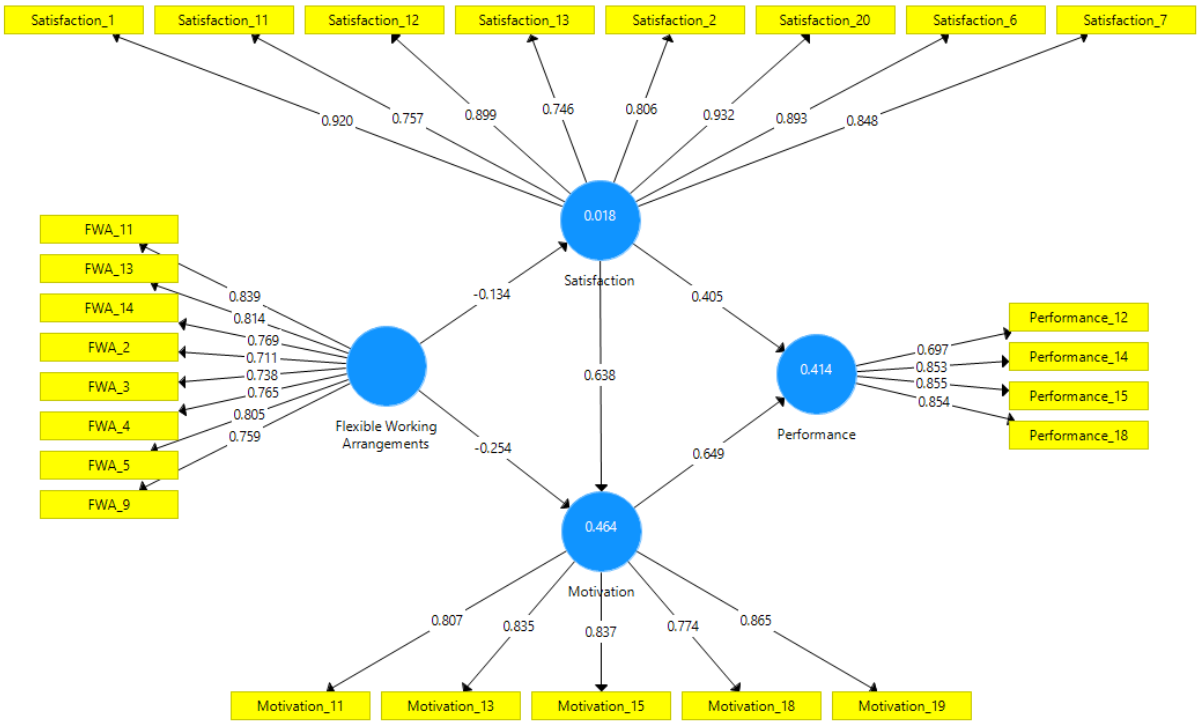

Figure 21: The model for the group No Has Not Made Use of Flexible Working Arrangements with its total effects, Outer Loadings, and R^2 values

Subdividing Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations

Looking at the literature associated with the subdivision of flexible working arrangements, Allen et al. (2013) stated that flexplace and flextime cannot be used in place of the other and that grouping them into one form might disguise the differential effects and that the extent of the distinction of the two has not been completely clear in previous meta-analyses. It has been suggested that flexplace, in comparison to flextime, may be less beneficial when it comes to lessening conflict between work and family as not working in the office but rather from home may distort psychological and physical boundaries in work roles and family roles (Allen and Shockley, 2009) and Kossek and Michel (2011) in Allen et al. (2013)). Blurred boundaries may cause people to perceive reduced control or possibly make one require more self-control (Allen et al., 2013). Additionally, it was stated that working from home may cause employees to have to stop the temptation to watch television when trying to postpone tasks that they find unattractive (Schmidt and Neubach (2007) in Allen et al. (2013)). Additionally, as previously stated, in the study by Allen et al. (2013), the authors were trying to refine what is known with regards to the relationship between flexible working arrangements and work-family conflict. They did this by breaking down the constructs relating to flexibility and discovered that the flexibility form, either flextime or flexplace and use or availability, had different effects and that there were small significant effects.

As such, it was decided to subdivide Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations to test Flexible Working Hours and Flexible Working Locations as separate, individual latent variables, as seen in Figure 22. This was done to evaluate if different types of flexible working arrangements, namely flexible working hours and flexible working locations, have different impacts on Satisfaction, Motivation, and Performance.

For the evaluation, 153 responses from the questionnaire were used as in the main model. During the analysis, the Reflective Measurement Model was tested as in Section 5.2 and all requirements were met for construct/composite reliability and validity, and discriminant validity. With regards to the Outer Loadings, one value was below 0.7 but above 0.60. This value was acceptable and retained to ensure that the same indicators were used as in the original model. All associated values and can be seen in Appendix E in the section Subdividing Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations in the various tables.

Next, the Structural Model was analysed. The same measures as in Section 5.2 were completed. In this chapter only the path coefficients and total effects will be discussed in detail. An overview of the results of the other measures are presented in Appendix E in the section Subdividing Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations in the various tables. Additionally, all VIF values were below the threshold of 5.

Looking at both path coefficients and the total effects of the two groups and their summaries, found in Tables 44 to 47, Motivation to Performance (0.648) and Satisfaction to Motivation (0.589) had strong positive relationships/total effects that proved statistically significant. Additionally, Satisfaction to Performance (0.280) had a moderately strong total effect that was also statistically significant. The structural model with the path coefficients are presented in Figures 23 and 24 respectively.

These results imply that a) Motivation can be used to improve Performance and that Satisfaction can be used to improve Motivation when FWA is subdivided into FWH and FWL, b) Satisfaction indirectly positively impacts Performance via Motivation when FWA is subdivided into FWH and FWL, and c) as no relationships with Flexible Working Hours and Flexible Working Locations were statistically significant, no inferences can be made. Therefore, Motivation can be used to directly improve

Performance, and Satisfaction can be used to directly improve Motivation and to indirectly improve Performance, but when solely looking to improve Performance, using/targeting Motivation will have the largest impact.

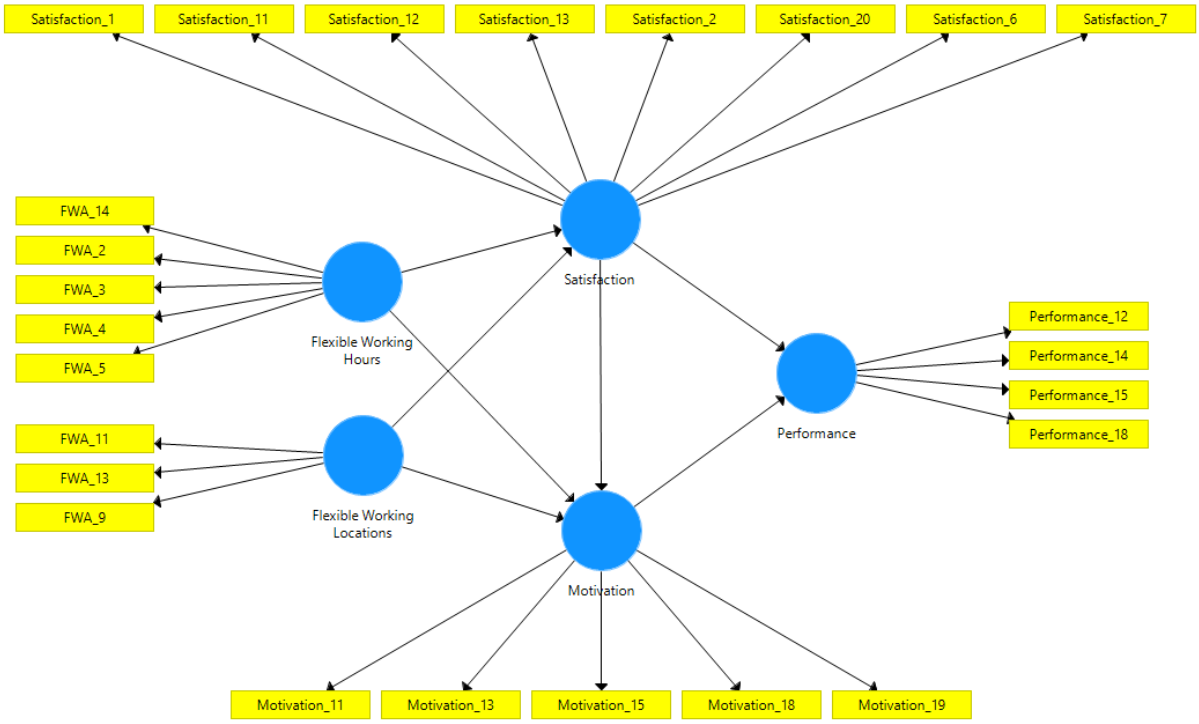

Figure 22: The model used for the subdivided Flexible Working Hours and Flexible Working Locations group

Table 44: The path coefficients, the p-values, the Confidence Intervals Bias Corrected, and their respective decisions for the subdivided Flexible Working Hours and Flexible Working Locations group

	Path Coefficients	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWH to Motivation	-0.008	0.927	Not supported	-0.171	0.184	Not supported
FWH to Satisfaction	-0.102	0.402	Not supported	-0.297	0.225	Not supported
FWL to Motivation	-0.161	0.071	Not supported	-0.328	0.023	Not supported
FWL to Satisfaction	0.001	0.992	Not supported	-0.235	0.318	Not supported
Motivation to Performance	0.648	0.000	Supported	0.506	0.756	Supported
Satisfaction to Motivation	0.589	0.000	Supported	0.461	0.680	Supported
Satisfaction to Performance	-0.101	0.236	Not supported	-0.265	0.070	Not supported

Table 45: A summary of the relationships (path coefficients) between the variables for the subdivided Flexible Working Hours and Flexible Working Locations group

Relationship	Result
FWH to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWH to Satisfaction	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWL to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWL to Satisfaction	There was a weak positive path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.

Table 46: The total effects, the p values, the Confidence Intervals Bias Corrected, and their respective decisions for the subdivided Flexible Working Hours and Flexible Working Locations group

	Total Effects	***p* values**	**Decision ($p < 0.05$)**	**Confidence Intervals Bias Corrected (2.5%)**	**Confidence Intervals Bias Corrected (97.5%)**	**Decision (confidence interval does not include 0)**
FWH to Motivation	-0.068	0.536	Not supported	-0.265	0.186	Not supported
FWH to Performance	-0.034	0.615	Not supported	-0.157	0.118	Not supported
FWH to Satisfaction	-0.102	0.402	Not supported	-0.297	0.225	Not supported
FWL to Motivation	-0.161	0.158	Not supported	-0.362	0.110	Not supported
FWL to Performance	-0.104	0.116	Not supported	-0.221	0.051	Not supported
FWL to Satisfaction	0.001	0.992	Not supported	-0.235	0.318	Not supported
Motivation to Performance	0.648	0.000	Supported	0.506	0.756	Supported
Satisfaction to Motivation	0.589	0.000	Supported	0.461	0.680	Supported
Satisfaction to Performance	0.280	0.000	Supported	0.108	0.425	Supported

Table 47: A summary of the relationships (total effects) between the variables for the subdivided Flexible Working Hours and Flexible Working Locations group

Relationship	Result
FWH to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWH to Performance	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWH to Satisfaction	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWL to Motivation	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWL to Performance	There was a weak negative path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
FWL to Satisfaction	There was a weak positive path coefficient that was not significant. After bootstrapping, it was found that the relationship was not statistically significant.
Motivation to Performance	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Motivation	There was a strong positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.
Satisfaction to Performance	There was a moderate positive path coefficient that was significant. After bootstrapping, it was found that the relationship was statistically significant.

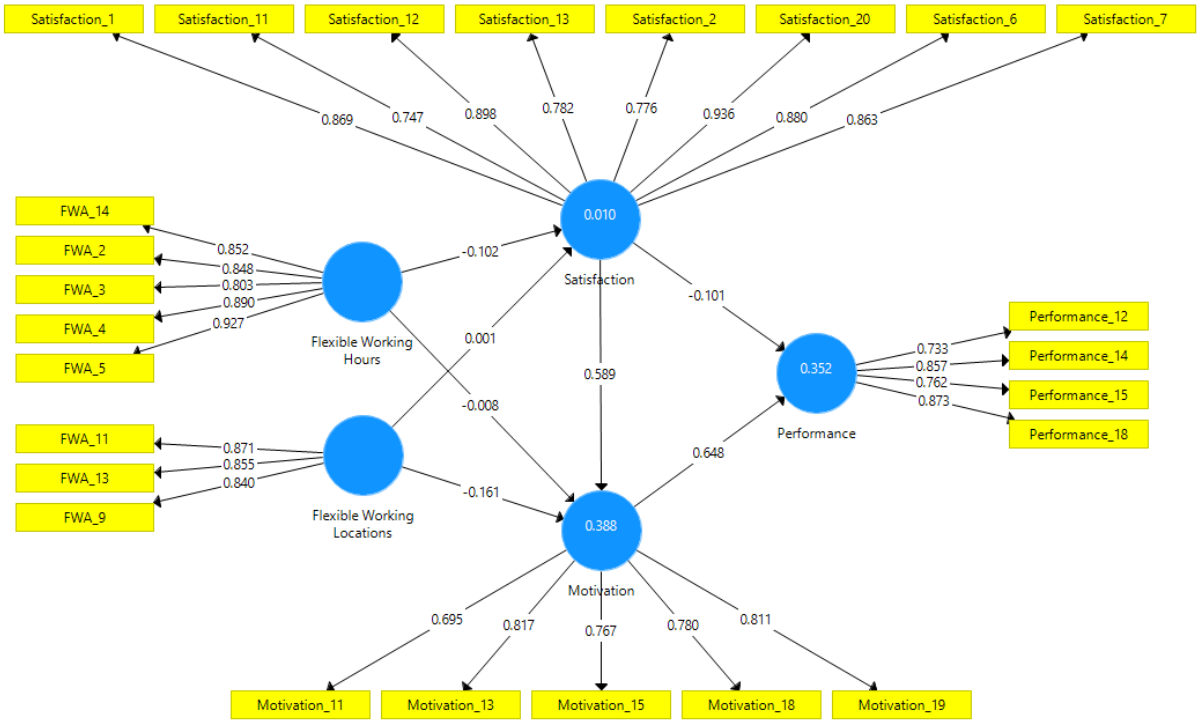

Figure 23: The model for the subdivided Flexible Working Hours and Flexible Working Locations group with its path coefficients, Outer Loadings, and R^2 values

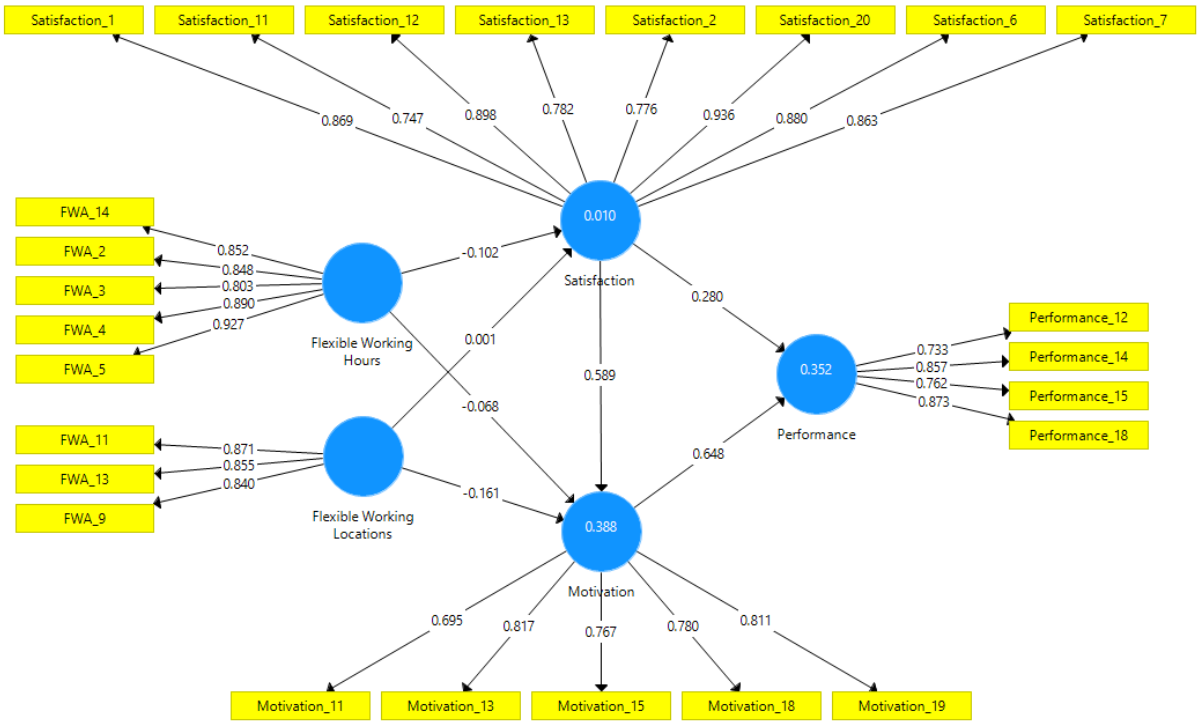

Figure 24: The model for the subdivided Flexible Working Hours and Flexible Working Locations group with its total effects, Outer Loadings, and R^2 values

5.4. Discussion of Results

The main objective of this study was to evaluate the impact of Flexible Working Arrangements on employee Satisfaction, Motivation, and Performance. Of the proposed hypotheses in the main model, when looking at path coefficients, only two were supported – Motivation to Performance and Satisfaction to Motivation. When looking at the total effects, three of the proposed hypotheses were supported – Motivation to Performance, Satisfaction to Motivation, and Satisfaction to Performance. When looking at the comparative analyses, with regards to the path coefficients and total effects, in all categories, Motivation to Performance and Satisfaction to Motivation were supported. Additionally, with regards to path coefficients in the 30 and Under group, the relationship Satisfaction to Performance was significant, although negative, and with regards to total effects, the relationship Satisfaction to Performance was significant in the categories 31 and Over, Female, Yes Has Made Use of Flexible Working Arrangements, and in the subdivision of Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations.

Looking at all the results collectively, there appear to be trends: a) the strength of the relationships follows the following trend: Motivation to Performance > Satisfaction to Motivation > Satisfaction to Performance, apart from the group 31 and Over and the Yes group, where Satisfaction to Motivation was the strongest. For the 31 and Over group, this effect may be because the employees may have better job experiences as they are more established and because they may have had more years to find a job they like and enjoy, and are therefore, more satisfied in it. Additionally, with the older generations, the general statement is that they live to work, whereas the younger generations work to live. As such, this satisfaction may then motivate them as they 'live to work'. For the Yes group, this effect may be because having made use of flexible working arrangements at some point has given the employee more reason to be satisfied in their job, which has therefore, improved their motivation. Next, b) the relationship Satisfaction to Performance is generally much weaker than Motivation to Performance and Satisfaction to Performance, and with regards to total effects, positive and sometimes statistically significant, and with regards to path coefficients, negative and generally not statistically significant. This trend somewhat deviates in the group 30 and Under where the path coefficient was negative but statistically significant, and in the 31 and Over group and the Female group where the value was stronger than usual (0.369 and 0.405 respectively). For the 30 and Under group, this value may be negative because, although this younger group may be satisfied in their job, they generally work to live, and therefore, a satisfying job will not give them the drive to work, if in general, they are only working to live and would rather have the time to do things that they find important. For the 31 and Over group, this may be because older generations, as previously mentioned, may have had more years to find the job they like and enjoy and are therefore, more satisfied in it and, additionally, with the older generations, the general sentiment is that they live to work. The older generations, like Baby Boomers, are also said to be loyal to their companies, and therefore, because they are satisfied and loyal, it may impact their performance. For the Female group, this value may be higher because, in general, men are considered the breadwinners, so they have to work and have the associated stress of bringing an income home, whereas females are perceived as homemakers, and therefore, may be working for the joy of it, and are therefore, more satisfied to be working and thereby perform better. Next, c) the relationships with Flexible Working Arrangements were negative, apart from one instance discussed later, and although no relationships were statistically significant, some had significant *p* values. This was visible in the main model, the Female group and, the No group. In the Female group, this may be because females are more closely associated with their family, and by having this flexibility, they focus more on family, or have to juggle more activities, which may create stress and take more time away from their work, thereby creating this negative relationship. For the No group, this may be because these employees have not made use

of flexible working arrangements, and as such, cannot speak from experience and possibly have a negative pre-existing opinion of flexible working arrangements. Additionally, the trend also deviated in the FWH and FWL subdivided group where the relationship FWL to Satisfaction was positive, although not significant with its *p* value or statistically significant. This may mean that FWL can slightly positively impact Satisfaction, but statistically, this was not supported. Lastly, d) the Motivation to Performance values generally ranged from approximate 0.60 to 0.70, but, in the group 30 and Under and the No group, Motivation to Performance had much stronger values than general (0.759 and 0.860 respectively). In the 30 and Under group, this may be because the younger generations feel that their worth is indicated by them working hard, and therefore, they are more motivated to perform. In the No group, this may be because the employees feel forced to perform by supervisors because they are working in-office during the traditional hours. As such, the comparative analyses have provided further insight into how to treat different groups of employees with regards to flexible working arrangements, satisfaction, motivation, and performance.

When considering these results, it shows that Motivation can be used to directly improve Performance, Satisfaction can be used to directly improve Motivation, and that generally, Satisfaction can be used to indirectly improve Performance via Motivation, depending on the category (Satisfaction directly negatively impacts Performance in the 30 and Under group). These findings are in-line with Singh and Tiwari (2011), Elvina and Chao (2019), Murgianto et al. (2016), Xiong et al. (2014), van Scheers and Botha (2014), Rožman et al. (2020), Chaudhary (2012), Ganta (2014), and Olusadum and Anulika (2018), and align with some of the findings in Sidabutar et al. (2020), Theresia et al. (2018), Saari and Judge (2004), and Pancasila et al. (2020), who stated that there is a positive relationship between Satisfaction and Performance, but in this study, it was generally indirect, and in one instance, negative. Additionally, there were no other statistically significant relationships. This requires further investigation though, as there were *p* values in the main model and models in the comparative analyses that indicated significance, but, the respective confidence intervals contained 0, indicating that they are not statistically significant. This generally occurred with the relationships containing flexible working arrangements. If the Flexible Working Arrangements relationships in these future studies are found to be unclear, inconsistent, or not supported, it would be in-line with Bailey and Kurland (2002), Golden and Veiga (2002), and Campione (2015), and align with some of the work presented by Kröll et al. (2017), who stated the flextime had a positive relationship with satisfaction but that telecommuting did not. Looking at the results from the comparative analyses, a) the age categories somewhat align with Smola and Sutton (2002) and Gursoy, Chi, and Karadag (2013) who stated that there were differences in the age groups, but the results of this study only show slight differences, apart from the negative relationship between Satisfaction to Performance in the 30 and Under group. This may be because this study looked at two wide age ranges, thereby combining traits from different generations, where the other studies focused more specifically on particular generations which will have specific traits for each generation, and therefore, the distinctions might be more distinct than in this study, b) the gender categories somewhat align with Almer, Cohen and Single (2003), who stated that females are more likely to adopt flexible working arrangements, as this study found that the total effect values relating to flexible working arrangements were stronger with females than males, but, they were negative and not statistically significant. The negative values may be because females, when making use of flexible working arrangements, may focus more on the family aspect, or have more activities to juggle, which may create more stress or take time away from their work, thereby, causing the negative relationship, c) with regards to the prior use and no prior use categories, (Allen et al, 2013) tested use against availability, which had significant but small results. This study somewhat aligns with regards to small results but, there were differences as use and non-use was compared in this study, and not use and availability, and d) with regards to the subdivided

group where FWA was separated into the constructs FWH and FWL, Allen et al. (2013) found significant but small differences between flextime and flexplace, but in this study, the results were not significant.

These results address the objectives 1, 2, 3, and 4 from Chapter 1, addressing 1) what relationships exist between Flexible Working Arrangements and Satisfaction, Motivation, and Performance, 2) what relationships exist between Satisfaction and Motivation, 3) what relationships exist between both Satisfaction and Motivation with Performance, and 4) how the different categories age, gender, if the individual has or has not made use of flexible working arrangements at some point in time (prior use), and breaking down/subdividing Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations so as to test their effects separately, impact the results.

Using these findings, employers should pay close attention to employee motivation and satisfaction as these are two ways in which to increase performance. The findings suggest that employers should invest in measures to improve an employee's motivation and satisfaction. By doing so, the possible performance improvements will aid the company in remaining competitive and productive in their industry. The measures put in place may also be used as draw and/or retention cards for the employees and provide other employee benefits like pleasurable emotional states and employer benefits like higher yield and quality of work, and improved revenue and growth. Additionally, as the remainder of the relationships including flexible working arrangements were not statistically significant, further investigation should be conducted to determine if these relationships are statistically significant with other populations. Once such research has been conducted it can then be determined if it will be beneficial to implement flexible working arrangements to improve an employee's satisfaction, motivation, and performance, as well as their work-life balance.

This study, therefore, adds to the current discussions of the impact of flexible working arrangements on employee satisfaction, motivation, and performance. It also drilled down into various categories to provide a more detailed analysis in the areas of age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and the different effects when flexible Working Arrangements has been broken down/subdivided into Flexible Working Hours and Flexible Working Locations. Additionally, this research also adds to the body of knowledge on the relationships between satisfaction, motivation, and performance, and the use of satisfaction and motivation to improve employee performance, as well as the use of satisfaction to improve motivation.

Chapter 6: Conclusion and Recommendations

6.1. Introduction

This chapter starts by presenting a summary of the research objectives and the significance of the study. It also presents a conclusion section which provides a summary of the research findings, additional significance of the research for employers, the contribution to the current body of knowledge, and the limitations of the study. This chapter ends with recommendations of areas/topics for further research.

6.2. Summary of the Research Objectives

This study aimed to evaluate the impact of flexible working arrangements on satisfaction, motivation, and performance, and also looked into how the categories age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and the different effects when Flexible Working Arrangements has been broken down/subdivided into Flexible Working Hours and Flexible Working Locations. The objectives of the study were to a) evaluate if implementing flexible working arrangements, namely flexible working hours and flexible working location, have an impact on employee satisfaction, motivation, and performance, b) determine if satisfaction and motivation impact on performance, c) determine if satisfaction impacts on motivation, and d) evaluate how the different categories impact the results. This was fulfilled by addressing the four questions: 1) what relationships exist between Flexible Working Arrangements and Satisfaction, Motivation and Performance, 2) what relationships exist between Satisfaction and Motivation, 3) what relationships exist between both Satisfaction and Motivation with Performance, and 4) how do the various categories age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and the breaking down/subdivision of Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations so as to test them separately, impact the results.

6.3. Significance of the Study

With employers wanting optimal performance from their employees, and employees wanting to be able to balance both their work and home roles, work-life balance has become a hot topic. This allows employees the freedom to choose when, and where, they work, in the form of flexible working arrangements, is said to improve their satisfaction and motivation, which in turn can improve their performance, and the overall organisational performance. Positive relationships between these variables would show that flexible working arrangements are beneficial and that employers should look into their implementation. The study is significant in this regard as it adds to the current discussion of the impact of flexible working arrangements on employee satisfaction, motivation, and performance. This study is also significant as it looked at the relationships around satisfaction, motivation, and performance. Understanding these relationships helps aid the employer in determining how satisfaction and motivation can be used to boost performance. It also looked at using satisfaction as a means of improving motivation. Additionally, the study also drilled down into the categories age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and the different effects when Flexible Working Arrangements has been broken down/subdivided into Flexible Working Hours and Flexible Working Locations, providing further insight into which constructs had the greatest impact for each group.

From the perspective of the employer, they can use the findings from this study in their talent acquisition, talent retention, and improving their employee and organisational performance. From the perspective of the employee, and what said employee wants from the organisation for which they work, work-life balance is a popular draw-card that they may look for and, theoretically, it can be important for their wellbeing. By addressing these areas, not only was the study significant with

regards to addressing current research gaps and adding to the current body of knowledge that exists, the problem statement of the research was also addressed as the results outlined how flexible working arrangements impact satisfaction, motivation, and performance.

This study is also significant in the current world of work. Emerging from the COVID-19 pandemic, where a large majority of workers were working from home, there have been debates on what the 'new normal' world of work will be. As a result of the pandemic, many companies have been experimenting with flexible working arrangements (Vyas, 2022). Vyas (2022) argued that hybrid and remote working would be more popular for white-collar workers, but that it will not be a one-size-fits-all solution and that there will still be traditional work practices and offices. Vyas also stated that employers will target employees' motivation and achieving improved work-life balance. In the UK, there was a four-day work week trial which resulted in the majority of participating companies continuing with this work pattern as the employees reported improved work-life balance (The Guardian, 2023). According to the World Economic Forum (2022), there has also been an increase in the demand for remote and hybrid work, as seen in LinkedIn's data. The site also stated that the pandemic has caused a rethinking of how work is done and that companies have been taking a deep look into their working models, cultures, and values. This study, therefore, ties in with the current rethinking of the world of work and how work is done. It provides insight into two forms of flexible working arrangements (flexible working locations and flexible working hours), and comes at a time when many companies are open to change and where we can see the implementation of changes in their way of work. This study may, therefore, assist organisations in their decisions regarding the changes to their working models.

6.3. Study Conclusion

This study demonstrated that Satisfaction can directly improve Motivation and that Motivation can directly improve Performance in the main model and in all the categories. Satisfaction can indirectly improve Performance via Motivation in the groups 31 and Over, Female, Yes Has Made Use of Flexible Working Arrangements, and the subdivision of Flexible Working Arrangements into Flexible Working Hours and Flexible Working Locations. Additionally, Satisfaction had a direct negative impact on Performance in the 30 and Under group. This study was unable to provide evidence that Flexible Working Arrangements impact Satisfaction, Motivation, and Performance as the relationships' hypotheses were not supported as they were not statistically significant. Empirical validation of the main structural model was done using 153 respondents. Additional comparative analyses were completed on either subsets of the data or on a varied structural model. It is recommended that employers look into measures to increase employee satisfaction and motivation as these may aid in employee performance and thereby, aid overall company performance, as well as employee attraction and/or retention and other employee and employer benefits. This study has added to the body of information with regards to using satisfaction and motivation to improve employee performance, as well as the current discussions of the impact of flexible working arrangements on employee satisfaction, motivation, and performance. It also drilled down into various categories to provide a more detailed analysis in the areas of age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and the different effects when Flexible Working Arrangements has been broken down/subdivided into Flexible Working Hours and Flexible Working Locations.

Before recommendations can be given with regards to flexible working arrangements, further research should be conducted to determine if the relationships are statistically significant with different populations. While this study was confined to how flexible working arrangements can be beneficial to the employees in the form of work-life balance, satisfaction, and motivation, and to

employers in the form of improving performance, other tools for improving work-life balance can be explored to see if they will aid both the employees and the employers in a similar manner, such as compressed work weeks, job sharing, and childcare support. Flexible working may also impact on other factors apart from satisfaction, motivation, and performance, and further investigation can be conducted in those areas as well. Limitations of the study were that more factors that address work-life balance other than flexible working arrangements could have been used, and that more factors impacting performance other than satisfaction and motivation could also have been used.

6.4. Implications for Theory and Practice

Theoretical Implications

Currently in literature, there are studies that involve the topics work-life balance, flexible working arrangements, satisfaction, motivation, and performance such as Delecta (2011), de Menezes and Kelliher (2011), Aziri (2011), Ramlall (2004), and Mensah (2014), as well as studies where these same topics have been analysed in conjunction, such as Hill et al. (2003), Kröll et al. (2017), Pancasila et al. (2020), and Singh and Tiwari (2011). A number of studies have been favourable with regards to the hypothesised relationships between these topics, but there has also been research where the findings are not favourable, or where the relationships are either unclear or inconsistent, such as Golden and Veiga (2005), Bailey and Kurland (2002), Spieler et al. (2017), Al-Kasasbeh (2016), and Sidabutar et al. (2020). Additionally, the author of this research found a lesser number of studies on how age, gender, and previous use of FWA impact these relationships, and to the best of this author's knowledge, no research has been conducted showing flexible working arrangements, satisfaction, motivation, and performance together in one structural model.

As such, the theoretical implications of this study are that it has further contributed to the current discussions of the impact of flexible working arrangements on employee satisfaction, motivation, and performance. It also drilled down into various categories to provide a more detailed analysis in the areas of age, gender, if the individual has or has not made use of flexible working arrangements at some point in time, and the different effects when Flexible Working Arrangements has been broken down/subdivided into Flexible Working Hours and Flexible Working Locations. Additionally, this research also adds to the body of knowledge on the relationships between satisfaction, motivation, and performance, and the use of satisfaction and motivation to improve employee performance, as well as the use of satisfaction to improve motivation.

Practical Implications

Looking at the practical implications from the findings of this study, employers can use employee motivation and satisfaction to increase employee performance. This study has also shown that this is effective for both genders, for the younger and older generations, as well as for those that have, or have not, made prior use of flexible working arrangements. As such, these findings suggest that employers should invest in measures to improve an employee's motivation and satisfaction as these may aid in employee performance, and thereby, aid overall company performance, as well as employee attraction and/or retention and other employee and employer benefits. The possible performance improvements will aid the company in remaining competitive and productive in their industry. The measures put in place may also be used as draw and/or retention cards for the employees and provide other employee benefits like pleasurable emotional states and employer benefits like higher yield and quality of work, and improved revenue and growth. It is important for employers to note though, that individual employees are satisfied and motivated differently, and as such, a one-size-fits-all plan to improve satisfaction and motivation may not yield the desired results. Rather, plans should be more tailored to suit individual employees and not all employees as a whole.

6.5. Recommendations

In further studies, it is recommended that the relationships involving Flexible Working Arrangements be tested on different populations to determine if the relationships are statistically significant. Additionally, further investigation can be done into a) other work-life balance factors, such as work-life balance supports, childcare, job sharing, and employee assistance programs (Hobson et al., 2001), b) different types of flexible working arrangements, such as part-time work, job sharing, time-off-in-lieu, and compressed hours (Maxwell, Rankine, Bell and MacVicar, 2007), c) additional factors that can improve performance, such as performance appraisals, compensation, training and development, job security, organisational structure (Abbah, 2014), anxiety, insecurity, and stress (Sandhya and Kumar (2011), d) additional biographic categories, such as parental status, marital status, and weekly work hours, and e) taking a sample of people and having them use flexible working arrangements for a period of time and conducting a questionnaire, and with that same group having them work traditionally for the same period of time and conducting the same questionnaire, and completing a comparison of the two results.

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Appendix A: PLS-SEM and CB-SEM Advantages and Disadvantages Summary Table

Table 48: A summary of the advantages and disadvantages of PLS-SEM and CB-SEM

	PLS-SEM	CB-SEM
Advantages	Suitable when the goal is predicting key target constructs	Suitable when the goal is testing, confirming, or comparing theories
	Suitable when the structural model contains formatively measured constructs	Suitable when error terms need more specification
	Suitable when the structural model is complex	Suitable when there are circular relationships
	Suitable when the sample size is small or the data is distributed non-normally	Suitable when the criterion global goodness-of-fit is required
	Suitable when there is a plan for subsequent analyses using latent variable scores	Permits the comparison of observed and proposed covariance matrices to evaluate the overall proposed causal model 'fit'
	Suitable for exploratory or confirmatory research (can be used in various research situations)	Suitable for confirmatory research
	Advantageous in preliminary theory building	Advantageous in model validation
	Includes a number of statistical techniques that CB-SEM does not	Can deal with imperfect measures more so than PLS-SEM
	Allows higher parameter estimation efficiency and statistical power than CB-SEM, thereby showing that a relationship is significant when it is significant within the population	Well-known and widely used in social science research
	Superior to CB-SEM in situations with little prior knowledge of the relationships within the model or the measurement characteristics of the constructs, or when the focus is more on exploration rather than confirmation	Preferred for confirming or rejecting theories via hypothesis testing
	Avoids factor indeterminacy and deals with errors in measurement quite well	
	Assumptions regarding the underlying data are less stringent	
	Handles formative models, reflective models, and single-item constructs well with no problems linked to identification	
	Can be used in the suggestion of where relationships may or may not exist and in providing provisions that can be tested at a later date	
	Focused on the analysis of variance	

Disadvantages	Cannot be used when causal loops or circular relationships are present	Not suitable for small sample sizes
	Does not have a global goodness-of-fit measure that is well recognised, and therefore, has limited use in theory testing and confirmations	Does not include a number of statistical techniques which PLS-SEM does
	Less widespread compared to CB-SEM	Should only be used when testing theories that are well-established and empirically validated
		Requires data that has a normal distribution and regression using sum scores
		Requires that the model be specified correctly
		Industrial practitioners and researchers have noted the difficulty in obtaining data sets that meet the requirements

Appendix B: Questionnaire

Questionnaire Details

The questions used in the questionnaire were either taken directly from literature, adapted from literature, or developed using literature from authors such as Aziri (2011), França et al. (2014), Jalagat (2016), and Mak and Sockel (2001), Mbindyo et al. (2009), and Ramos-Villagrasa et al. (2019). The questionnaire was posted on social media sites such as Facebook, Instagram, and LinkedIn and was shared by several people. It is important to note that the POPI Act, or POPIA (Protection of Personal Information Act), placed limitations on who the questionnaire link could be sent to. As such, the visibility of the questionnaire's link was conditional on the researchers own reach to the 'unknown' population. Additionally, the researcher only made use of responses that were gathered between the 8th September 2021 and the 31st December 2021, with the first useful response dating the 8th September 2021 and the last useful response dating the 6th December 2021. A total of 153 useful responses were collected. The final number of questions (measurement items) used in the analysis after the reliability and validity evaluations were completed was 25, with Flexible Working Arrangements having 8 items, Satisfaction having 8, Motivation having 5, and Performance having 4 items.

Table 49: The questionnaire items used for the comparative analyses and/or the data statistics/participants' profiles

Indicator	Question	Possible Response
Bio_1	I make use of flexible working arrangements/I have made use of flexible working arrangements in the past e.g. flexible working location and/or flexible working hours	Yes; No
Bio_2	Age	18-25; 26-30; 31-35; 36-40; 41-45; 46-50; 51-55; 56-60; 61-65; 66-above; Do not wish to disclose
Bio_3	Gender	Male; Female; Do not wish to disclose
Bio_5	Level of education	Below Matric; Matric Certificate; Undergraduate Degree; Postgraduate Degree; Diploma; Artisan training; Other; Do not wish to disclose
Bio_6	What industry do you work in?	Agriculture, hunting and related; Forestry, logging and related; Fishing and related; Mining; Food, beverage and tobacco production; Textiles, clothing and related; Manufacturing (metallic); Manufacturing (non-metallic); Construction; Retail; Hotels and restaurants; IT; Finance; Business; Real estate; Education; Health; Law; Pharmaceutical; Other; Do not wish to disclose
Bio_7	What is your average amount of weekly working hours?	Significantly under 40 hours; Slightly under 40 hours; Approximately 40 hours; Slightly over 40 hours;

		Significantly over 40 hours; Do not wish to disclose
Bio_8	What is the size of the organisation you are currently working for?	Small; Medium; Large; Do not wish to disclose

Table 50: The questionnaire items used in the analysis

Indicator	**Question**
FWA_2	I like being able to choose when I work during the day
FWA_3	I prefer when my working hours are outlined by my manager/employer rather than me choosing the hours that I work
FWA_4	I prefer traditional working hours over flexible working hours
FWA_5	I prefer working flexible working hours as I can work during my most efficient times/times that suit me
FWA_9	I prefer traditional work places (e.g. the office) over flexible working locations (e.g. my home/out-of-office locations)
FWA_11	I prefer working away from the traditional workplace (e.g. the office)
FWA_13	I prefer being able to choose the location that I work
FWA_14	I prefer being able to choose the hours that I work
Motivation_11	I don't feel like doing my work
Motivation_13	I take pride in doing my work
Motivation_15	I am in a good mood when I work
Motivation_18	I am proactive and involved in my job
Motivation_19	I like to be engaged in my work
Performance_12	My work is generally up to standard
Performance_14	My superiors are happy with my work performance
Performance_15	I am happy with my work performance
Performance_18	My work meets the expectations of my employer
Satisfaction_1	I am satisfied with my job
Satisfaction_2	I am looking for employment in a different organisation
Satisfaction_6	I have positive feelings and a positive outlook regarding my job
Satisfaction_7	My job expectations/needs/desires are met
Satisfaction_11	I am rewarded for my efforts at work
Satisfaction_12	I am enthusiastic and happy within my job
Satisfaction_13	I am content with the rewards I get out of my job
Satisfaction_20	I am content/happy with my job

Faculty of Engineering, Built Environment and Information Technology

Fakulteit Ingenieurswese, Bou-omgewing en Inligtingtegnologie / Lefapha la Boetšenere, Tikologo ya Kago le Theknolotši ya Tshedimošo

26 July 2021

Reference number: EBIT/164/2021

Miss GA Sebastiao
Department: Industrial and Systems Eng
University of Pretoria
Pretoria
0083

Dear Miss GA Sebastiao

FACULTY COMMITTEE FOR RESEARCH ETHICS AND INTEGRITY

Your recent application to the EBIT Research Ethics Committee refers.

Conditional approval is granted.

This means that the research project entitled "Evaluating the Impact of Flexible Working Arrangements on Employee Work Satisfaction, Motivation and Performance" is approved under the strict conditions indicated below. If these conditions are not met, approval is withdrawn automatically.

Conditions for approval
Email addresses obtained by the researcher for the questionnaire distribution should be in compliance with POPIA.

This approval does not imply that the researcher, student or lecturer is relieved of any accountability in terms of the Code of Ethics for Scholarly Activities of the University of Pretoria, or the Policy and Procedures for Responsible Research of the University of Pretoria. These documents are available on the website of the EBIT Ethics Committee.

If action is taken beyond the approved application, approval is withdrawn automatically.

According to the regulations, any relevant problem arising from the study or research methodology as well as any amendments or changes, must be brought to the attention of the EBIT Research Ethics Office.

The Committee must be notified on completion of the project.

The Committee wishes you every success with the research project.

Prof K.-Y. Chan
Chair: Faculty Committee for Research Ethics and Integrity
FACULTY OF ENGINEERING, BUILT ENVIRONMENT AND INFORMATION TECHNOLOGY

Figure 25: The Ethics Application Approval Letter received for this research project

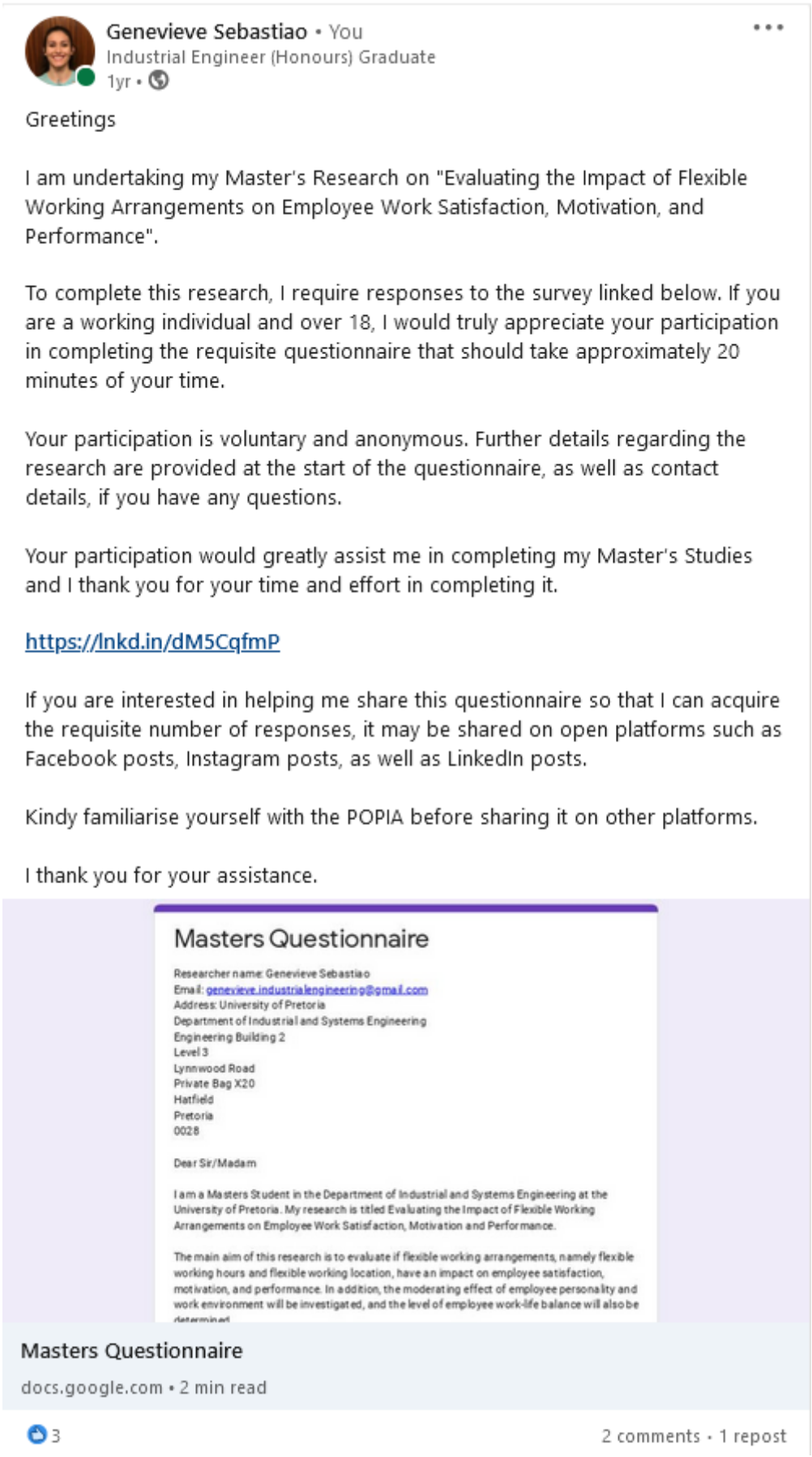

Figure 26: An example of the social media posts (screenshot from LinkedIn)

Appendix C: Cross Loadings

Table 51: The Cross Loading values

Indicator	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA_11	0.745	-0.144	-0.077	-0.077
FWA_13	0.779	-0.203	-0.003	-0.114
FWA_14	0.839	-0.157	-0.087	-0.082
FWA_2	0.801	-0.131	-0.036	-0.030
FWA_3	0.751	-0.116	-0.076	-0.084
FWA_4	0.846	-0.189	-0.128	-0.110
FWA_5	0.875	-0.154	-0.077	-0.110
FWA_9	0.680	-0.166	-0.114	-0.021
Motivation_11	-0.279	0.698	0.326	0.549
Motivation_13	-0.008	0.818	0.593	0.432
Motivation_15	-0.261	0.766	0.402	0.498
Motivation_18	-0.182	0.778	0.465	0.406
Motivation_19	-0.071	0.810	0.479	0.441
Performance_12	0.015	0.353	0.733	0.110
Performance_14	-0.038	0.447	0.857	0.238
Performance_15	-0.142	0.534	0.762	0.303
Performance_18	-0.078	0.528	0.873	0.244
Satisfaction_1	-0.082	0.529	0.328	0.869
Satisfaction_11	0.015	0.332	0.100	0.747
Satisfaction_12	-0.107	0.615	0.261	0.898
Satisfaction_13	-0.031	0.379	0.124	0.783
Satisfaction_2	-0.000	0.379	0.168	0.777
Satisfaction_20	-0.140	0.535	0.230	0.936
Satisfaction_6	-0.113	0.624	0.334	0.880
Satisfaction_7	-0.111	0.514	0.277	0.863

Appendix D: The Computation of the q^2 Values

Formula

The q^2 values were calculated using the following formula:

$$q^2_{exogeneous \rightarrow endogeneous} = \frac{Q^2_{Included} - Q^2_{Excluded}}{1 - Q^2_{Included}}$$

Calculations

When removing FWA:

$$q^2_{FWA \rightarrow Motivation} = \frac{0.238 - 0.224}{1 - 0.238} = 0.01837270341 = 0.018$$

$$q^2_{FWA \rightarrow Performance} = \frac{0.216 - 0.218}{1 - 0.216} = -0.002551020408 = -0.003$$

When removing Motivation:

$$q^2_{Motivation \rightarrow Performance} = \frac{0.216 - 0.084}{1 - 0.216} = 0.1683673469 = 0.168$$

$$q^2_{Motivation \rightarrow Satisfaction} = \frac{0.004 - 0.011}{1 - 0.004} = -0.00702811245 = -0.007$$

When removing Satisfaction:

$$q^2_{Satisfaction \rightarrow Motivation} = \frac{0.238 - 0.024}{1 - 0.238} = 0.280839895 = 0.281$$

$$q^2_{Satisfaction \rightarrow Performance} = \frac{0.216 - 0.223}{1 - 0.216} = -0.008928571429 = -0.009$$

Appendix E: Comparative Analysis

30 and Under

Reflective Measurement Model

Table 52: A summary of the results of the reflective measurement model assessment for the age group 30 and Under (adapted from Hair et al. (2017))

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant Validity
		Outer Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT Confidence Interval Bias Corrected
		>0.70	>0.5	>0.7	>0.7	HTMT confidence interval does not include 1
Flexible Working Arrangements	**FWA_11**	0.700	0.652	0.937	0.922	Yes
	FWA_13	0.739				
	FWA_14	0.852				
	FWA_2	0.901				
	FWA_3	0.827				
	FWA_4	0.828				
	FWA_5	0.900				
	FWA_9	0.677				
Motivation	**Motivation_11**	0.633	0.578	0.872	0.814	Yes
	Motivation_13	0.810				
	Motivation_15	0.786				
	Motivation_18	0.721				
	Motivation_19	0.834				
Performance	**Performance_12**	0.670	0.604	0.858	0.777	Yes
	Performance_14	0.837				
	Performance_15	0.708				
	Performance_18	0.874				
Satisfaction	**Satisfaction_1**	0.824	0.729	0.955	0.947	Yes
	Satisfaction_11	0.830				
	Satisfaction_12	0.922				
	Satisfaction_13	0.831				
	Satisfaction_2	0.734				
	Satisfaction_20	0.930				
	Satisfaction_6	0.880				
	Satisfaction_7	0.863				

Table 53: The Cross Loading values for the age group 30 and Under

Indicator	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA_11	0.700	-0.111	0.073	0.039
FWA_13	0.739	-0.163	0.042	-0.083
FWA_14	0.852	-0.144	-0.006	-0.076
FWA_2	0.901	-0.153	-0.065	-0.080
FWA_3	0.827	-0.157	-0.177	-0.142
FWA_4	0.828	-0.179	-0.177	-0.116
FWA_5	0.900	-0.131	-0.011	-0.134
FWA_9	0.677	-0.213	-0.145	-0.058
Motivation_11	-0.261	0.633	0.269	0.549
Motivation_13	-0.030	0.810	0.646	0.330
Motivation_15	-0.233	0.786	0.434	0.609
Motivation_18	-0.156	0.721	0.470	0.302
Motivation_19	-0.088	0.834	0.512	0.402
Performance_12	0.085	0.344	0.670	0.035
Performance_14	-0.071	0.509	0.837	0.251
Performance_15	-0.161	0.482	0.708	0.200
Performance_18	-0.076	0.555	0.874	0.126
Satisfaction_1	-0.094	0.489	0.211	0.824
Satisfaction_11	0.011	0.427	0.138	0.830
Satisfaction_12	-0.101	0.573	0.163	0.922
Satisfaction_13	-0.075	0.424	0.158	0.831
Satisfaction_2	0.004	0.287	-0.001	0.734
Satisfaction_20	-0.142	0.482	0.115	0.930
Satisfaction_6	-0.114	0.606	0.219	0.880
Satisfaction_7	-0.179	0.562	0.261	0.863

Table 54: The Fornell-Larcker values for the age group 30 and Under

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA	0.807			
Motivation	-0.201	0.760		
Performance	-0.082	0.618	0.777	
Satisfaction	-0.113	0.584	0.201	0.854

Table 55: The HTMT values, the corresponding Confidence Interval Bias Corrected values, and their associated decisions for the age group 30 and Under

	HTMT values	Confidence Interval Bias Corrected (2.5% and 97.5%)
Motivation to FWA	0.231 (below threshold)	0.120 – 0.341 (does not contain 1)
Performance to FWA	0.165 (below threshold)	0.095 – 0.180 (does not contain 1)
Performance to Motivation	0.766 (below threshold)	0.553 – 0.909 (does not contain 1)
Satisfaction to FWA	0.124 (below threshold)	0.071 – 0.138 (does not contain 1)
Satisfaction to Motivation	0.636 (below threshold)	0.449 – 0.793 (does not contain 1)
Satisfaction to Performance	0.234 (below threshold)	0.113 – 0.391 (does not contain 1)

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Table 56: The Inner VIF values for the age group 30 and Under

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA		1.013 (below threshold)		1.000 (below threshold)
Motivation			1.517 (below threshold)	
Performance				
Satisfaction		1.013 (below threshold)	1.517 (below threshold)	

Table 57: The R^2 values and the associated decision for the age group 30 and Under

Latent Variable	R^2	Decision
Motivation	0.359	Large/substantial effect
Performance	0.420	Large/substantial effect
Satisfaction	0.013	Weak or no effect

Table 58: The f^2 effect sizes for the age group 30 and Under

	FWA	Motivation	Performance	Satisfaction
FWA		0.029 (small effect)		0.013 (no effect)
Motivation			0.654 (large effect)	
Performance				
Satisfaction		0.498 (large effect)	0.066 (small effect)	

Table 59: The Q^2 values for the age group 30 and Under

Latent Variable	Q^2	Decision
FWA		
Motivation	0.189	Supports predictive relevance
Performance	0.225	Supports predictive relevance
Satisfaction	0.006	Supports predictive relevance

31 and Over

Reflective Measurement Model

Table 60: A summary of the results of the reflective measurement model assessment for the age group 31 and Over (adapted from Hair et al. (2017))

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant Validity
		Outer Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT Confidence Interval Bias Corrected
		>0.70	>0.5	>0.7	>0.7	HTMT confidence interval does not include 1
Flexible Working Arrangements	**FWA_11**	0.795	0.601	0.922	0.906	Yes
	FWA_13	0.825				
	FWA_14	0.847				
	FWA_2	0.636				
	FWA_3	0.652				
	FWA_4	0.873				
	FWA_5	0.848				
	FWA_9	0.681				
Motivation	**Motivation_11**	0.757	0.637	0.897	0.857	Yes
	Motivation_13	0.835				
	Motivation_15	0.758				
	Motivation_18	0.831				
	Motivation_19	0.804				
Performance	**Performance_12**	0.784	0.702	0.904	0.860	Yes
	Performance_14	0.876				
	Performance_15	0.802				
	Performance_18	0.885				
Satisfaction	**Satisfaction_1**	0.903	0.720	0.953	0.944	Yes
	Satisfaction_11	0.682				
	Satisfaction_12	0.872				
	Satisfaction_13	0.772				
	Satisfaction_2	0.836				
	Satisfaction_20	0.941				
	Satisfaction_6	0.892				
	Satisfaction_7	0.863				

Table 61: The Cross Loading values for the age group 31 and Over

Indicator	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA_11	0.795	-0.177	-0.085	-0.081
FWA_13	0.825	-0.261	-0.049	-0.156
FWA_14	0.847	-0.206	-0.175	-0.075
FWA_2	0.636	-0.090	-0.004	0.019
FWA_3	0.652	-0.081	0.002	-0.046
FWA_4	0.873	-0.191	-0.157	-0.130
FWA_5	0.848	-0.200	-0.149	-0.081
FWA_9	0.681	-0.100	-0.086	-0.008
Motivation_11	-0.321	0.757	0.410	0.610
Motivation_13	-0.015	0.835	0.558	0.557
Motivation_15	-0.316	0.758	0.410	0.460
Motivation_18	-0.221	0.831	0.479	0.555
Motivation_19	-0.069	0.804	0.455	0.488
Performance_12	-0.091	0.368	0.784	0.182
Performance_14	-0.034	0.394	0.876	0.246
Performance_15	-0.158	0.583	0.802	0.424
Performance_18	-0.116	0.534	0.885	0.351
Satisfaction_1	-0.093	0.590	0.426	0.903
Satisfaction_11	-0.018	0.329	0.065	0.682
Satisfaction_12	-0.158	0.706	0.353	0.872
Satisfaction_13	-0.001	0.393	0.113	0.772
Satisfaction_2	-0.047	0.547	0.0339	0.836
Satisfaction_20	-0.175	0.634	0.330	0.941
Satisfaction_6	-0.123	0.680	0.442	0.892
Satisfaction_7	-0.058	0.500	0.290	0.863

Table 62: The Fornell-Larcker values for the age group 31 and Over

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
Flexible Working Arrangements	0.775			
Motivation	-0.235	0.798		
Performance	-0.127	0.582	0.838	
Satisfaction	-0.114	0.673	0.380	0.848

Table 63: The HTMT values, the corresponding Confidence Interval Bias Corrected values, and their associated decisions for the age group 31 and Over

	HTMT values	Confidence Interval Bias Corrected (2.5% and 97.5%)
Motivation to FWA	0.266 (below threshold)	0.139 - 0.355 (does not contain 1)
Performance to FWA	0.153 (below threshold)	0.078 – 0.202 (does not contain 1)
Performance to Motivation	0.650 (below threshold)	0.491 – 0.773 (does not contain 1)
Satisfaction to FWA	0.131 (below threshold)	0.091 – 0.142 (does not contain 1)
Satisfaction to Motivation	0.713 (below threshold)	0.531 – 0.839(does not contain 1)
Satisfaction to Performance	0.367 (below threshold)	0.197 – 0.523 (does not contain 1)

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Table 64: The Inner VIF values for the age group 31 and Over

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA		1.013 (below threshold)		1.000 (below threshold)
Motivation			1.829 (below threshold)	
Performance				
Satisfaction		1.013 (below threshold)	1.829 (below threshold)	

Table 65: The R^2 values and the associated decision for the age group 31 and Over

Latent Variable	R^2	Decision
Motivation	0.479	Large/substantial effect
Performance	0.339	Large/substantial effect
Satisfaction	0.013	Weak or no effect

Table 66: The f^2 effect sizes for the age group 31 and Over

	FWA	Motivation	Performance	Satisfaction
FWA		0.049 (small effect)		0.013 (no effect)
Motivation			0.294 (medium effect)	
Performance				
Satisfaction		0.812 (large effect)	0.000 (no effect)	

Table 67: The Q^2 values for the age group 31 and Over

Latent Variable	Q^2	Decision
FWA		
Motivation	0.285	Supports predictive relevance
Performance	0.206	Supports predictive relevance
Satisfaction	0.006	Supports predictive relevance

Male

Reflective Measurement Model

Table 68: A summary of the results of the reflective measurement model assessment for Male group (adapted from Hair et al. (2017))

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant Validity
		Outer Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT Confidence Interval Bias Corrected
		>0.70	>0.5	>0.7	>0.7	HTMT confidence interval does not include 1
Flexible Working Arrangements	**FWA_11**	0.559	0.635	0.931	0.922	Yes
	FWA_13	0.735				
	FWA_14	0.898				
	FWA_2	0.872				
	FWA_3	0.801				
	FWA_4	0.932				
	FWA_5	0.936				
	FWA_9	0.523				
Motivation	**Motivation_11**	0.511	0.513	0.837	0.755	Yes
	Motivation_13	0.814				
	Motivation_15	0.655				
	Motivation_18	0.819				
	Motivation_19	0.734				
Performance	**Performance_12**	0.795	0.650	0.879	0.811	Yes
	Performance_14	0.873				
	Performance_15	0.613				
	Performance_18	0.910				
Satisfaction	**Satisfaction_1**	0.811	0.708	0.951	0.942	Yes
	Satisfaction_11	0.735				
	Satisfaction_12	0.903				
	Satisfaction_13	0.819				
	Satisfaction_2	0.740				
	Satisfaction_20	0.947				
	Satisfaction_6	0.877				
	Satisfaction_7	0.878				

Table 69: The Cross Loading values for the Male group

Indicator	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA_11	0.559	-0.027	0.059	0.103
FWA_13	0.735	-0.175	0.059	-0.083
FWA_14	0.898	-0.187	-0.016	-0.102
FWA_2	0.872	-0.120	-0.070	-0.067
FWA_3	0.801	-0.109	-0.088	-0.135
FWA_4	0.932	-0.098	-0.054	-0.093
FWA_5	0.936	-0.155	-0.087	-0.159
FWA_9	0.523	-0.104	-0.160	0.061
Motivation_11	-0.279	0.511	0.052	0.424
Motivation_13	-0.041	0.814	0.550	0.338
Motivation_15	-0.185	0.655	0.328	0.424
Motivation_18	-0.088	0.819	0.512	0.420
Motivation_19	-0.111	0.734	0.449	0.380
Performance_12	0.005	0.414	0.795	0.092
Performance_14	-0.027	0.403	0.873	0.110
Performance_15	-0.152	0.421	0.613	0.176
Performance_18	-0.024	0.554	0.910	0.114
Satisfaction_1	-0.066	0.437	0.225	0.811
Satisfaction_11	0.084	0.231	-0.023	0.735
Satisfaction_12	-0.121	0.532	0.086	0.903
Satisfaction_13	-0.066	0.286	0.020	0.819
Satisfaction_2	0.095	0.301	-0.010	0.740
Satisfaction_20	-0.139	0.485	0.095	0.947
Satisfaction_6	-0.185	0.634	0.199	0.877
Satisfaction_7	-0.212	0.448	0.213	0.878

Table 70: The Fornell-Larcker values for the Male group

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
Flexible Working Arrangements	0.797			
Motivation	-0.173	0.716		
Performance	-0.058	0.566	0.806	
Satisfaction	-0.129	0.542	0.150	0.842

Table 71: The HTMT values, the corresponding Confidence Interval Bias Corrected values, and their associated decisions for Male group

	HTMT values	Confidence Interval Bias Corrected (2.5% and 97.5%)
Motivation to FWA	0.222 (below threshold)	0.118 – 0.276 (does not contain 1)
Performance to FWA	0.129 (below threshold)	0.083 – 0.139 (does not contain 1)
Performance to Motivation	0.694 (below threshold)	0.455 – 0.853 (does not contain 1)
Satisfaction to FWA	0.162 (below threshold)	0.093 – 0.189 (does not contain 1)
Satisfaction to Motivation	0.609 (below threshold)	0.404 – 0.783 (does not contain 1)
Satisfaction to Performance	0.158 (below threshold)	0.097 – 0.189 (does not contain 1)

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Table 72: The Inner VIF values for the Male group

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA		1.017 (below threshold)		1.000 (below threshold)
Motivation			1.415 (below threshold)	
Performance				
Satisfaction		1.017 (below threshold)	1.415 (below threshold)	

Table 73: The R^2 values and the associated decision for the Male group

Latent Variable	R^2	Decision
Motivation	0.304	Large/substantial effect
Performance	0.355	Large/substantial effect
Satisfaction	0.017	Weak or no effect

Table 74: The f^2 effect sizes for the Male group

	FWA	Motivation	Performance	Satisfaction
FWA		0.016 (no effect)		0.017 (no effect)
Motivation			0.515 (large effect)	
Performance				
Satisfaction		0.394 (large effect)	0.053 (small effect)	

Table 75: The Q^2 values for the Male group

Latent Variable	Q^2	Decision
FWA		
Motivation	0.131	Supports predictive relevance
Performance	0.198	Supports predictive relevance
Satisfaction	0.002	Supports predictive relevance

Female

Reflective Measurement Model

Table 76: A summary of the results of the reflective measurement model assessment for the Female group (adapted from Hair et al. (2017))

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant Validity
		Outer Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT Confidence Interval Bias Corrected
		>0.70	>0.5	>0.7	>0.7	HTMT confidence interval does not include 1
Flexible Working Arrangements	FWA_11	0.839	0.602	0.924	0.908	Yes
	FWA_13	0.814				
	FWA_14	0.769				
	FWA_2	0.711				
	FWA_3	0.738				
	FWA_4	0.765				
	FWA_5	0.805				
	FWA_9	0.759				
Motivation	Motivation_11	0.807	0.679	0.914	0.882	Yes
	Motivation_13	0.835				
	Motivation_15	0.837				
	Motivation_18	0.774				
	Motivation_19	0.865				
Performance	Performance_12	0.697	0.668	0.889	0.836	Yes
	Performance_14	0.853				
	Performance_15	0.855				
	Performance_18	0.854				
Satisfaction	Satisfaction_1	0.920	0.727	0.955	0.946	Yes
	Satisfaction_11	0.757				
	Satisfaction_12	0.899				
	Satisfaction_13	0.746				
	Satisfaction_2	0.806				
	Satisfaction_20	0.932				
	Satisfaction_6	0.893				
	Satisfaction_7	0.848				

Table 77: The Cross Loading values for the Female group

Indicator	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA_11	0.839	-0.242	-0.090	-0.127
FWA_13	0.814	-0.225	-0.058	-0.156
FWA_14	0.769	-0.116	-0.153	-0.078
FWA_2	0.711	-0.125	0.019	-0.005
FWA_3	0.738	-0.132	-0.056	-0.052
FWA_4	0.765	-0.247	-0.193	-0.136
FWA_5	0.805	-0.148	-0.062	-0.075
FWA_9	0.759	-0.220	-0.099	-0.101
Motivation_11	-0.324	0.807	0.570	0.670
Motivation_13	-0.015	0.835	0.637	0.534
Motivation_15	-0.353	0.837	0.459	0.566
Motivation_18	-0.269	0.774	0.437	0.402
Motivation_19	-0.075	0.865	0.516	0.499
Performance_12	0.060	0.335	0.697	0.128
Performance_14	-0.079	0.516	0.853	0.358
Performance_15	-0.186	0.642	0.855	0.438
Performance_18	-0.123	0.542	0.854	0.368
Satisfaction_1	-0.106	0.618	0.422	0.920
Satisfaction_11	-0.107	0.416	0.208	0.757
Satisfaction_12	-0.135	0.676	0.415	0.899
Satisfaction_13	-0.055	0.456	0.232	0.746
Satisfaction_2	-0.144	0.479	0.348	0.806
Satisfaction_20	-0.192	0.586	0.370	0.932
Satisfaction_6	-0.084	0.630	0.451	0.893
Satisfaction_7	-0.084	0.572	0.338	0.848

Table 78: The Fornell-Larcker values for each latent variable for the Female group

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
Flexible Working Arrangements	0.776			
Motivation	-0.254	0.824		
Performance	-0.122	0.643	0.818	
Satisfaction	-0.134	0.661	0.420	0.853

Table 79: The HTMT values, the corresponding Confidence Interval Bias Corrected values, and their associated decisions for the Female group

	HTMT values	Confidence Interval Bias Corrected (2.5% and 97.5%)
Motivation to FWA	0.281 (below threshold)	0.163 – 0.390 (does not contain 1)
Performance to FWA	0.167 (below threshold)	0.089 – 0.209 (does not contain 1)
Performance to Motivation	0.715 (below threshold)	0.591 – 0.821 (does not contain 1)
Satisfaction to FWA	0.137 (below threshold)	0.076 – 0.180 (does not contain 1)
Satisfaction to Motivation	0.698 (below threshold)	0.526 – 0.824 (does not contain 1)
Satisfaction to Performance	0.436 (below threshold)	0.253 – 0.594 (does not contain 1)

Structural Model

Table 80: The Inner VIF values for the Female group

	FWA	Motivation	Performance	Satisfaction
FWA		1.018 (below threshold)		1.000 (below threshold)
Motivation			1.775 (below threshold)	
Performance				
Satisfaction		1.018 (below threshold)	1.775 (below threshold)	

Table 81: The R^2 values and the associated decision for the Female group

Latent Variable	R^2	Decision
Motivation	0.464	Large/substantial effect
Performance	0.414	Large/substantial effect
Satisfaction	0.018	Weak or no effect

Table 82: The f^2 effect sizes for the Female group

	FWA	Motivation	Performance	Satisfaction
FWA		0.052 (small effect)		0.018 (no effect)
Motivation			0.405 (large effect)	
Performance				
Satisfaction		0.746 (large effect)	0.000 (no effect)	

Table 83: The Q^2 values for the Female group (Note: the omission distance used was D=9, and not D=7 as in the other categories)

Latent Variable	Q^2	Decision
FWA		
Motivation	0.290	Supports predictive relevance
Performance	0.253	Supports predictive relevance
Satisfaction	0.010	Supports predictive relevance

Yes Has Made Use of Flexible Working Arrangements

Reflective Measurement Model

Table 84: A summary of the results of the reflective measurement model assessment for the group Yes Has Made Use of Flexible Working Arrangements (adapted from Hair et al. (2017))

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant Validity
		Outer Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT Confidence Interval Bias Corrected
		>0.70	>0.5	>0.7	>0.7	HTMT confidence interval does not include 1
Flexible Working Arrangements	**FWA_11**	0.715	0.583	0.918	0.900	Yes
	FWA_13	0.713				
	FWA_14	0.765				
	FWA_2	0.701				
	FWA_3	0.789				
	FWA_4	0.842				
	FWA_5	0.851				
	FWA_9	0.715				
Motivation	**Motivation_11**	0.686	0.590	0.878	0.825	Yes
	Motivation_13	0.845				
	Motivation_15	0.730				
	Motivation_18	0.774				
	Motivation_19	0.798				
Performance	**Performance_12**	0.711	0.649	0.880	0.818	Yes
	Performance_14	0.865				
	Performance_15	0.753				
	Performance_18	0.882				
Satisfaction	**Satisfaction_1**	0.904	0.710	0.951	0.942	Yes
	Satisfaction_11	0.736				
	Satisfaction_12	0.884				
	Satisfaction_13	0.790				
	Satisfaction_2	0.761				
	Satisfaction_20	0.926				
	Satisfaction_6	0.863				
	Satisfaction_7	0.857				

Table 85: The Cross Loading values for the group Yes Has Made Use of Flexible Working Arrangements

Indicator	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA_11	0.715	-0.070	0.132	-0.064
FWA_13	0.713	-0.133	0.074	-0.092
FWA_14	0.765	-0.100	-0.005	-0.075
FWA_2	0.701	-0.051	0.087	-0.007
FWA_3	0.789	-0.102	-0.021	-0.160
FWA_4	0.842	-0.188	-0.093	-0.169
FWA_5	0.851	-0.122	0.003	-0.189
FWA_9	0.715	-0.141	-0.028	-0.094
Motivation_11	-0.241	0.686	0.277	0.525
Motivation_13	0.013	0.845	0.607	0.472
Motivation_15	-0.271	0.730	0.340	0.474
Motivation_18	-0.158	0.774	0.411	0.408
Motivation_19	-0.006	0.798	0.415	0.436
Performance_12	0.105	0.327	0.711	0.165
Performance_14	-0.019	0.391	0.865	0.204
Performance_15	-0.070	0.481	0.753	0.283
Performance_18	0.001	0.515	0.882	0.260
Satisfaction_1	-0.147	0.559	0.354	0.904
Satisfaction_11	-0.119	0.330	0.119	0.736
Satisfaction_12	-0.137	0.586	0.232	0.884
Satisfaction_13	-0.190	0.380	0.173	0.790
Satisfaction_2	-0.053	0.375	0.163	0.761
Satisfaction_20	-0.181	0.534	0.222	0.926
Satisfaction_6	-0.129	0.651	0.338	0.863
Satisfaction_7	-0.145	0.497	0.258	0.857

Table 86: The Fornell-Larcker values for the group Yes Has Made Use of Flexible Working Arrangements

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
Flexible Working Arrangements	0.764			
Motivation	-0.162	0.768		
Performance	-0.004	0.546	0.806	
Satisfaction	-0.165	0.602	0.291	0.843

Table 87: The HTMT values, the corresponding Confidence Interval Bias Corrected values, and their associated decisions for the group Yes Has Made Use of Flexible Working Arrangements

	HTMT values	Confidence Interval Bias Corrected (2.5% and 97.5%)
Motivation to FWA	0.228 (below threshold)	0.127 – 0.291 (does not contain 1)
Performance to FWA	0.144 (below threshold)	0.083 – 0.164 (does not contain 1)
Performance to Motivation	0.636 (below threshold)	0.473 – 0.755 (does not contain 1)
Satisfaction to FWA	0.159 (below threshold)	0.082 – 0.258 (does not contain 1)
Satisfaction to Motivation	0.662 (below threshold)	0.505 – 0.781 (does not contain 1)
Satisfaction to Performance	0.306 (below threshold)	0.151 – 0.485 (does not contain 1)

Structural Model

Table 88: The Inner VIF values for the group Yes Has Made Use of Flexible Working Arrangements

	FWA	Motivation	Performance	Satisfaction
FWA		1.028 (below threshold)		1.000 (below threshold)
Motivation			1.567 (below threshold)	
Performance				
Satisfaction		1.028 (below threshold)	1.567 (below threshold)	

Table 89: The R^2 values and the associated decision for the group Yes Has Made Use of Flexible Working Arrangements

Latent Variable	R^2	Decision
Motivation	0.366	Large/substantial effect
Performance	0.300	Large/substantial effect
Satisfaction	0.027	Weak effect

Table 90: The f^2 effect sizes for the group Yes Has Made Use of Flexible Working Arrangements

	FWA	Motivation	Performance	Satisfaction
FWA		0.006 (no effect)		0.028 (small effect)
Motivation			0.307 (medium effect)	
Performance				
Satisfaction		0.536 (large effect)	0.003 (no effect)	

Table 91: The Q^2 values for the group Yes Has Made Use of Flexible Working Arrangements

Latent Variable	Q^2	Decision
FWA		
Motivation	0.205	Supports predictive relevance
Performance	0.167	Supports predictive relevance
Satisfaction	0.016	Supports predictive relevance

No Has Not Made Use of Flexible Working Arrangements

Reflective Measurement Model

Table 92: A summary of the results of the reflective measurement model assessment for the group No Has Not Made Use of Flexible Working Arrangements (adapted from Hair et al. (2017))

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant Validity
		Outer Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT Confidence Interval Bias Corrected
		>0.70	>0.5	>0.7	>0.7	HTMT confidence interval does not include 1
Flexible Working Arrangements	FWA_11	0.749	0.660	0.938	0.926	Yes
	FWA_13	0.802				
	FWA_14	0.902				
	FWA_2	0.901				
	FWA_3	0.710				
	FWA_4	0.899				
	FWA_5	0.917				
	FWA_9	0.544				
Motivation	Motivation_11	0.715	0.627	0.893	0.851	Yes
	Motivation_13	0.760				
	Motivation_15	0.845				
	Motivation_18	0.790				
	Motivation_19	0.842				
Performance	Performance_12	0.808	0.682	0.896	0.845	Yes
	Performance_14	0.850				
	Performance_15	0.789				
	Performance_18	0.855				
Satisfaction	Satisfaction_1	0.769	0.739	0.957	0.950	Yes
	Satisfaction_11	0.785				
	Satisfaction_12	0.932				
	Satisfaction_13	0.763				
	Satisfaction_2	0.812				
	Satisfaction_20	0.975				
	Satisfaction_6	0.926				
	Satisfaction_7	0.888				

Table 93: The Cross Loading values for the group No Has Not Made Use of Flexible Working Arrangements

Indicator	Flexible Working Arrangements	Motivation	Performance	Satisfaction
FWA_11	0.749	-0.382	-0.345	0.028
FWA_13	0.802	-0.384	-0.163	-0.237
FWA_14	0.902	-0.305	-0.252	-0.178
FWA_2	0.901	-0.348	-0.305	-0.181
FWA_3	0.710	-0.166	-0.211	0.036
FWA_4	0.899	-0.230	-0.217	-0.046
FWA_5	0.917	-0.306	-0.246	-0.075
FWA_9	0.544	-0.271	-0.333	0.065
Motivation_11	-0.452	0.715	0.459	0.618
Motivation_13	-0.125	0.760	0.565	0.304
Motivation_15	-0.325	0.845	0.563	0.570
Motivation_18	-0.272	0.790	0.606	0.411
Motivation_19	-0.320	0.842	0.633	0.461
Performance_12	-0.215	0.449	0.808	-0.044
Performance_14	-0.184	0.594	0.850	0.322
Performance_15	-0.327	0.717	0.789	0.419
Performance_18	-0.304	0.581	0.855	0.218
Satisfaction_1	-0.028	0.457	0.253	0.769
Satisfaction_11	0.095	0.331	0.059	0.785
Satisfaction_12	-0.184	0.689	0.347	0.932
Satisfaction_13	0.122	0.369	0.006	0.763
Satisfaction_2	0.019	0.456	0.195	0.812
Satisfaction_20	-0.162	0.548	0.249	0.975
Satisfaction_6	-0.258	0.576	0.338	0.926
Satisfaction_7	-0.132	0.577	0.338	0.888

Table 94: The Fornell-Larcker values for the group No Has Not Made Use of Flexible Working Arrangements

	Flexible Working Arrangements	Motivation	Performance	Satisfaction
Flexible Working Arrangements	0.813			
Motivation	-0.390	0.792		
Performance	-0.318	0.721	0.826	
Satisfaction	-0.118	0.610	0.296	0.860

Table 95: The HTMT values, the corresponding Confidence Interval Bias Corrected values, and their associated decisions for the group No Has Not Made Use of Flexible Working Arrangements

	HTMT values	Confidence Interval Bias Corrected (2.5% and 97.5%)
Motivation to FWA	0.407 (below threshold)	0.222 – 0.590 (does not contain 1)
Performance to FWA	0.358 (below threshold)	0.181 – 0.578 (does not contain 1)
Performance to Motivation	0.836 (below threshold)	0.685 – 0.948 (does not contain 1)
Satisfaction to FWA	0.197 (below threshold)	0.139 – 0.213 (does not contain 1)
Satisfaction to Motivation	0.636 (below threshold)	0.395 – 0.851 (does not contain 1)
Satisfaction to Performance	0.340 (below threshold)	0.165 – 0.492 (does not contain 1)

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Table 96: The Inner VIF values for the group No Has Not Made Use of Flexible Working Arrangements

	FWA	Motivation	Performance	Satisfaction
FWA		1.014 (below threshold)		1.000 (below threshold)
Motivation			1.591 (below threshold)	
Performance				
Satisfaction		1.014 (below threshold)	1.591 (below threshold)	

Table 97: The R^2 values and the associated decision for the group No Has Not Made Use of Flexible Working Arrangements

Latent Variable	R^2	Decision
Motivation	0.474	Large/substantial effect
Performance	0.552	Large/substantial effect
Satisfaction	0.014	Weak or no effect

Table 98: The f^2 effect sizes for the group No Has Not Made Use of Flexible Working Arrangements

	FWA	Motivation	Performance	Satisfaction
FWA		0.194 (medium effect)		0.014 (no effect)
Motivation			1.039 (large effect)	
Performance				
Satisfaction		0.612 (large effect)	0.073 (small effect)	

Table 99: The Q^2 values for the group No Has Not Made Use of Flexible Working Arrangements (Note: the omission distance used was D=9, and not D=7 as in the other categories)

Latent Variable	Q^2	Decision
FWA		
Motivation	0.256	Supports predictive relevance
Performance	0.338	Supports predictive relevance
Satisfaction	0.004	Supports predictive relevance

Subdividing Flexible Working Arrangements into Flexible Working Locations and Flexible Working Hours

Reflective Measurement Model

Table 100: A summary of the results of the reflective measurement model assessment for the subdivided Flexible Working Hours and Flexible Working Locations group (adapted from Hair et al. (2017))

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability		Discriminant Validity
		Outer Loadings	AVE	Composite Reliability	Cronbach's Alpha	HTMT Confidence Interval Bias Corrected
		>0.70	>0.5	>0.7	>0.7	HTMT confidence interval does not include 1
Flexible Working Hours	**FWA_14**	0.852	0.748	0.937	0.916	Yes
	FWA_2	0.848				
	FWA_3	0.803				
	FWA_4	0.890				
	FWA_5	0.927				
Flexible Working Locations	**FWA_11**	0.871	0.732	0.891	0.824	Yes
	FWA_13	0.855				
	FWA_9	0.840				
Motivation	**Motivation_11**	0.695	0.601	0.882	0.833	Yes
	Motivation_13	0.817				
	Motivation_15	0.767				
	Motivation_18	0.780				
	Motivation_19	0.811				
Performance	**Performance_12**	0.733	0.664	0.882	0.823	Yes
	Performance_14	0.857				
	Performance_15	0.762				
	Performance_18	0.873				
Satisfaction	**Satisfaction_1**	0.869	0.716	0.953	0.943	Yes
	Satisfaction_11	0.747				
	Satisfaction_12	0.898				
	Satisfaction_13	0.782				
	Satisfaction_2	0.776				
	Satisfaction_20	0.936				
	Satisfaction_6	0.880				
	Satisfaction_7	0.863				

Table 101: The Cross Loading values for the subdivided Flexible Working Hours and Flexible Working Locations group

Indicators	Flexible Working Hours	Flexible Working Locations	Motivation	Performance	Satisfaction
FWA_14	0.852	0.638	-0.156	-0.087	-0.082
FWA_2	0.848	0.550	-0.131	-0.036	-0.030
FWA_3	0.803	0.508	-0.116	-0.076	-0.084
FWA_4	0.890	0.596	-0.188	-0.127	-0.110
FWA_5	0.927	0.605	-0.154	-0.077	-0.110
FWA_11	0.577	0.871	-0.144	-0.007	-0.007
FWA_13	0.628	0.855	-0.204	-0.003	-0.114
FWA_9	0.500	0.840	-0.166	-0.144	-0.021
Motivation_11	-0.280	-0.218	0.695	0.326	0.549
Motivation_13	-0.012	0.001	0.817	0.593	0.432
Motivation_15	-0.226	-0.263	0.767	0.402	0.498
Motivation_18	-0.127	-0.235	0.780	0.465	0.406
Motivation_19	-0.047	-0.097	0.811	0.479	0.441
Performance_12	0.000	0.035	0.354	0.733	0.110
Performance_14	-0.029	-0.045	0.447	0.857	0.238
Performance_15	-0.175	-0.058	0.534	0.762	0.304
Performance_18	-0.082	-0.056	0.528	0.873	0.244
Satisfaction_1	-0.079	-0.069	0.529	0.328	0.869
Satisfaction_11	0.036	-0.021	0.331	0.100	0.747
Satisfaction_12	-0.109	-0.082	0.614	0.261	0.898
Satisfaction_13	-0.037	-0.012	0.378	0.124	0.782
Satisfaction_2	0.008	-0.012	0.396	0.168	0.776
Satisfaction_20	-0.145	-0.101	0.534	0.230	0.936
Satisfaction_6	-0.124	-0.069	0.624	0.334	0.880
Satisfaction_7	-0.136	-0.045	0.513	0.277	0.863

Table 102: The Fornell-Larcker values for the subdivided Flexible Working Hours and Flexible Working Locations group

	FWH	FWL	Motivation	Performance	Satisfaction
FWH	0.865				
FWL	0.673	0.856			
Motivation	-0.176	-0.207	0.775		
Performance	-0.098	-0.045	0.588	0.809	
Satisfaction	-0.101	-0.067	0.600	0.288	0.846

Table 103: The HTMT values, the corresponding Confidence Interval Bias Corrected values, and their associated decisions for the subdivided Flexible Working Hours and Flexible Working Locations group

	HTMT values	Confidence Interval Bias Corrected (2.5% and 97.5%)
FWL to FWH	0.757 (below threshold)	0.639 – 0.857 (does not contain 1)
Motivation to FWH	0.205 (below threshold)	0.110 – 0.306 (does not contain 1)
Motivation to FWL	0.256 (below threshold)	0.143 – 0.382 (does not contain 1)
Performance to FWH	0.121 (below threshold)	0.056 – 0.168 (does not contain 1)
Performance to FWL	0.083 (below threshold)	0.040 – 0.092 (does not contain 1)
Performance to Motivation	0.694 (below threshold)	0.570 – 0.790 (does not contain 1)
Satisfaction to FWH	0.112 (below threshold)	0.056 – 0.170 (does not contain 1)
Satisfaction to FWL	0.088 (below threshold)	0.043 – 0.106 (does not contain 1)
Satisfaction to Motivation	0.654 (below threshold)	0.515 -0.759 (does not contain 1)
Satisfaction to Performance	0.295 (below threshold)	0.155 – 0.443 (does not contain 1)

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Table 104: The Inner VIF values for the subdivided Flexible Working Hours and Flexible Working Locations group

	FWH	FWL	Motivation	Performance	Satisfaction
FWH			1.839 (below threshold)		1.828 (below threshold)
FWL			1.828 (below threshold)		1.828 (below threshold)
Motivation				1.563 (below threshold)	
Performance					
Satisfaction			1.010 (below threshold)	1.563 (below threshold)	

Table 105: The R^2 values and the associated decision for the subdivided Flexible Working Hours and Flexible Working Locations group

Latent Variable	R^2	Decision
Motivation	0.388	Large/substantial effect
Performance	0.352	Large/substantial effect
Satisfaction	0.010	Weak or no effect

Table 106: The f^2 effect sizes for the subdivided Flexible Working Hours and Flexible Working Locations group

	FWH	FWL	Motivation	Performance	Satisfaction
FWH			0.000 (no effect)		0.006 (no effect)
FWL			0.023 (small effect)		0.000 (no effect)
Motivation				0.415 (large effect)	
Performance					
Satisfaction			0.560 (large effect)	0.010 (no effect)	

Table 107: The Q^2 values for the subdivided Flexible Working Hours and Flexible Working Locations group

Latent Variable	Q^2	Decision
FWH		
FWL		
Motivation	0.219	Supports predictive relevance
Performance	0.203	Supports predictive relevance
Satisfaction	0.004	Supports predictive relevance