

The Influence of HEXACO Personality Factors and Job Demands on Counterproductive Work Behaviour

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*Thesis submitted in partial fulfilment of the requirements for the degree of
Master of Commerce (Industrial Psychology) in the Faculty of Economic and
Management Sciences at
Stellenbosch University*

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April 2019

DECLARATION

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ABSTRACT

Job performance consists of three equally important broad performance domains: task performance, organisational citizenship behaviour and counterproductive work behaviour (CWB) (Viswesvaran & Ones, 2000). Thus, CWB is regarded as important for work effectiveness. Despite advances in clarifying what drives CWB, there is a lack of consensus in the literature on the extent to which specific personality traits are of potential use to predict CWB. Additionally, the role of certain job demands' moderating effects has also received little attention.

The objective of this study was, firstly, to determine which antecedents play a primary role in determining CWB. Through an investigation of the relevant literature it was determined that, although job characteristics play an important role, personality remains the main primary antecedent involved in explaining the occurrence of CWB. Consequently, the investigation revolved around finding evidence on whether certain personality traits have an impact on the likelihood of an individual resorting to CWB, which can be exacerbated by certain demands at work. More specifically, the honesty-humility personality factor was considered as the possible trait that can explain the tendency to display deviant behaviours more accurately than previously believed traits. Lastly, the roles of specific job demands, including work overload and job insecurity, were investigated in the proposed model.

Based on the review of the literature, hypotheses were formulated. A conceptual model depicting the relationships was also developed and tested with an *ex post facto* correlation design. The sample consisted of 180 professional individuals from various industries in South Africa to ensure that different occupations and levels of job demands were considered. Furthermore, this was done to ensure a wide spread investigation into the importance of certain personality factors that can be identified in relation to an important part of job performance such as CWB. A self-administered web-based survey was used for collecting the data. Participation was voluntary. The data collected was strictly confidential and anonymous. Several valid and reliable measurement instruments were used to measure the specific latent variables. A series of Partial Least Square (PLS) Analyses was performed to test the antecedent model of CWB.

Of the ten hypotheses formulated in the study, four were found to be significant. The reason for the non-significant hypotheses could be attributed to a multitude of reasons outside the scope of the present study. Of the direct relationships with CWB that were explored, honesty-humility, conscientiousness, and work relationship overload yielded significant results, in accordance with

previous research. Conscientiousness was furthermore shown to buffer the relationship between work relationship overload and CWB.

This study has contributed positively to the existing body of knowledge on CWB by having looked in-depth into and providing valuable understanding of the relationship between the identified personality traits, job demands, and CWB. In addition, this study focused on the implications for the human resources profession in dealing with CWB in the workplace and suggested various interventions that HR professionals, industrial psychologists, and leaders could apply to eliminate and minimise CWB. The limitations and recommendations for future research were discussed and suggestions were also made. This research study only commenced once ethical clearance was obtained from the Research Ethics Committee of Stellenbosch University (Appendix A).

OPSOMMING

Werkprestasie word gesien dat dit bestaan uit drie ewe belangrike breë prestasie domeine: taakprestasie, organisatoriese burgerskapgedrag en teenproduktiewe werkgedrag (CWB) (Viswesvaran & Ones, 2000). CWB word dus as belangrik beskou vir werk effektiwiteit. Ten spyte van vooruitgang in die verduideliking van wat CWB dryf, is daar 'n gebrek aan konsensus in die literatuur oor die mate waarin spesifieke persoonlikheidseienskappe van potensiële nut is om CWB te voorspel. Daarbenewens het die rol van sekere werkeise se modererende effekte ook min aandag gekry.

Die doel van hierdie studie was, eerstens om te bepaal watter antesedente 'n primêre rol speel in die bepaling van CWB. Deur middel van 'n ondersoek van die relevante literatuur is vasgestel dat, hoewel werkskenmerke 'n belangrike rol speel, persoonlikheid die belangrikste primêre veranderlike is vir die verduideliking van die voorkoms van CWB. Gevolglik gaan die ondersoek om getuienis oor die vraag of sekere persoonlikheidseienskappe 'n impak het op die waarskynlikheid van 'n individu wat tot CWB toevlug, aangesien dit deur sekere eise by die werk vererger kan word. Meer spesifiek is die persoonlikheidsfaktor van “honesty-humility” beskou as die moontlike eienskap wat die neiging om afwykende gedrag meer akkuraat te kan weergee in vergelyking met voorheen aanvaarde eienskappe. Laastens is die rol van spesifieke werkvereistes (werksoorlading en werksonsekerheid) in die voorgestelde model ondersoek.

Op grond van hierdie oorsig van die literatuur is hipoteses geformuleer. 'n Konseptuele model wat die verhoudings uitbeeld, is ontwikkel en getoets met behulp van 'n *ex post facto* korrelasie-ontwerp. Die steekproef het bestaan uit 180 professionele individue uit verskeie bedrywe in Suid-Afrika om te verseker dat verskillende beroepe en vlakke van beroepseise oorweeg kan word. Verder is dit gedoen om 'n wydverspreide ondersoek te verseker na die belangrikheid van sekere persoonlikheidsfaktore wat hoogs gesog is in werknemers, geïdentifiseer kan word met betrekking tot 'n belangrike deel van werksprestasie. 'n Self-toegediende web-gebaseerde opname is gebruik vir die versameling van die data en deelname aan die studie was vrywillig. Die data wat ingesamel is, was streng vertroulik en anoniem. Verskeie geldige en betroubare meetinstrumente is gebruik om die spesifieke latente veranderlikes te meet. 'n Reeks Gedeeltelike Kleinste Plein (PLS) -ontledings is uitgevoer om die voorgeskrewe model van CWB te toets.

Uit die tien hipoteses wat in die studie geformuleer is, is vier as betekenisvol bevind. Die nie-betekenisvolle paaie kan toegeskryf word aan 'n verskeidenheid redes buite die omvang van die

huidige studie. Van die direkte verhoudings met CWB wat deur die studie ondersoek is, het “honesty-humility”, “conscientiousness”, en “work relationship overload”, in lyn met vorige navorsing, beduidende resultate gelever. Verder buffer “Conscientiousness” die verhouding tussen “work relationship overload” en CWB.

Hierdie studie het positief bygedra tot die bestaande kennis van CWB, deur in diepte te kyk en waardevolle begrip te gee van die verhouding tussen die geïdentifiseerde persoonlikheidseienskappe, werkvereistes en CWB. Daarbenewens het hierdie studie gefokus op die praktiese implikasies vir menslike hulpbronbestuur ten opsigte van die hantering van CWB in die werkplek en het verskeie intervensies voorgestel wat menslike hulpbronpraktisyns, bedryfsielkundiges, en leiers kan instel om CWB uit te skakel en te verminder. Die beperkings van die huidige studie is uitgewys en aanbevelings vir toekomstige navorsing is ook bespreek. Hierdie navorsingsstudie is eers geloods nadat etiese klaring van die Navorsingsetiekkomitee van die Universiteit Stellenbosch verkry is (Bylaag A).

ACKNOWLEDGEMENTS

First and foremost, glory to my Heavenly Father who gave me the will, energy and perseverance to complete this study. Without His will, this study would not have been completed.

To the B-team, Michèle and Billy Boonzaier, I would like to thank you for your constant support, encouragement, and patience with me throughout this process. Your open-door policy was a saving grace. Your guidance throughout the years was invaluable and is much appreciated.

To Prof Martin Kidd, I would like to extend my utmost appreciation to you for your patience in assisting me with the statistical analyses and your willingness to make time to assist wherever possible and needed.

To all the research participants – thank you! Without your contribution this study would not have been possible.

To my parents, Corrie and Marié van der Westhuizen, I want to thank you for all the sacrifices and prayers, and your undying support and belief in my ability. You gave me the motivation and strength needed to complete this study. I also want to thank my sisters, Helena and Esmi – your support and encouragement is greatly appreciated.

To my friends, your cheerleading throughout this process is greatly appreciated and will always be remembered.

Finally, to my partner, Wouter Roux, your relentless support, encouragement and advice got me through this last stretch. You gave me the motivation to see this through. Thank you!

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CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

Organisations are created, managed, and maintained by people. No matter the type of organisation, the main goal remains to transform scarce resources into products or services that consumers will value. Every organisation has the responsibility towards the wider society to produce these products and services at the most efficient levels possible whilst using the minimum amount of resources in their production input. In addition, they are required to do this in an ethical manner (Theron, 2013). To achieve this, organisations need to be effective in their operations and the way they manage their financial and human capital. This level of effectiveness enables the organisation to adapt and survive in its operating environment. Moreover, the way in which they attempt to achieve effectiveness will determine the image and reputation of the organisation, thereby influencing the attractiveness of the organisation to customers.

In the South African context, organisations face several challenges when working towards goals and achieving sustainability in an ethically and efficient manner (Brink, Cant, & Ligthelm, 2003; Carrim & Senne, 2016; Rogerson, 2004; van Zyl, 2013). All of this is attempted in highly competitive local and global economies. Some of the challenges faced locally include unstable economic markets, lack of proper infrastructure, crime, corruption, labour and regulations (IRMSA, 2015). The unique history of South Africa only adds to this difficulty. Other environmental challenges include the increasing emphasis placed on the green movement, which involves the reduction of pollution, the use of more planet-friendly materials and procedures, recycling, and so on. This translates into higher resource costs, which directly affects an organisation's bottom-line (Mohamed & Lashine, 2003). The organisation will also be judged based on their compliance and conduct relating to these practices as this is becoming a more prevalent and public issue.

Consumers will form an opinion of the organisation based on their consideration towards the environment. Another major challenge is that of constant technological innovation and change that forces organisations to keep up. In addition, jobs that necessitate multi-skilled individuals are increasing, which forces companies to establish ways to ensure that their employees' skills stay current (Maritz, 2002; Mohamed & Lashine, 2003).

Other problems experienced in the South African context are the social challenges affecting a clear majority of the population, which is also regarded as highly relevant to all organisations in the country. These issues include HIV/Aids and widespread poverty (Maritz, 2002; IRMSA, 2015). Although these social problems do not influence the organisation's business side directly, it does have an impact on their human capital, thus, indirectly affecting them. As human capital is the most important asset of any organisation, it becomes an important problem to address.

Furthermore, the constant political instability that is experienced and the legal limitations placed on certain practices and sectors affect the attainment of goals and may cause additional problems regarding labour and production (Aseidu, 2006). These instabilities and limitations also have an adverse effect on the internal workings of organisations and can add additional stress and restrictions on the management of organisations' resources. The aforementioned legal limitations include the requisites placed on organisations to act in accordance with certain legislation, such as the Labour Relations Act, Employment Equity Act, Basic Conditions of Employment Act; tax requirements; BBBEE requirements; legislation in terms of waste disposal, etc.

One of the most critical challenges faced by organisations regarding their human capital is the severe shortage in basic education and training of the work force (Fatoki & Garwe, 2010). Because the level of necessary skills required has increased, the apparent lack of proper basic education and training currently prevalent in South Africa results in a poor workforce that cannot contribute effectively and efficiently to the attainment of organisational goals (Esler et al., 2016). Organisations aim to produce physical products and services that the consumer can use. Organisations need the right type of human resources to accomplish this.

Additional to the above-mentioned problems, there is a growing concern for the lack of ethical leadership and conduct in businesses across all industries in South Africa (Johnson, 2013). According to Transparency International's 2012 corruption perception index, South Africa is ranked 69th out of 176 countries. R26.4bn was spent on unauthorised, irregular, and fruitless projects by the South African government in the public sector (Naidoo, 2012). From this the ethicality of governmental actions is being questioned as the public's perception of their actions is very negative. It must be said that the incidence of corruption and all types of unethical conduct is not limited to the public sector but stretches across all sectors in South

Africa. Over the last couple of years, however, several incidents have come to light that suggest that the use of power and influence in the public sector is not beneficial to the country, but rather aimed at individual gain.

Based on the prevalence of unethical conduct, it has been proposed by some that due to the sanctions against South Africa in the late eighties, questionable conduct, such as these mentioned above, became a way of doing business. This led to the assumption that this type of unethical behaviour was seen as the acceptable way of doing things (Steere & Dowdall, 1990; Van Greunen, 2011; Weiss, 2014). This necessitated the establishment of the King committee, which provided guidelines on code of good practice and set out best business practices for all business enterprises. The need to establish such a committee serves as an indication that there is a need for scrutiny when it comes to corporate governance (Van Greunen, 2011).

Unethical conduct is not limited to corruption although this is the most widely published ethical issue. For example, businesses that are perceived as extremely profit-driven can be labelled as greedy, with a lack of concern for all the stakeholders of the organisation and aspects of business. Additionally, organisations that do business with other corporations that are publicly known to partake in unethical behaviour will be associated with that type of behaviour as well (Weiss, 2014). Some of the other issues relating to ethical conduct in organisations include: resorting to dishonesty, distortion of facts with the purpose to mislead, exploiting people's vulnerabilities with the sole purpose of manipulating them, greed, creating false documents to show increased profits, maintaining a lack of transparency and resistance to investigation, the invasion of privacy to be used as leverage, as well as any form of discrimination (Johnson, 2013; Van Greunen, 2011; Weiss, 2011). Moreover, the spread of this type of behaviour is said to be caused and fostered by the interrelationships among colleagues, opening the possibility that one bad apple can indeed spoil the whole batch (Zuber, 2015).

To overcome the above-mentioned problems, a vital element will be to establish efficient management and administrative systems. These systems are critical to the productivity and effectiveness of any organisation (Barney & Wright, 1997). Furthermore, a climate of ethical and moral conduct must be established through setting clear standards, which place great emphasis on the correct and acceptable conduct. To ensure the success of these systems, high

quality human capital is needed, as the quality of this resource determines the level of success that will be achieved. With businesses facing an ever-increasing competitive environment and more and more businesses fail due to fraud, employers would need to start implementing additional measures, such as employment testing, as a way to protect themselves further and to ensure the appointment of high quality human capital (Brody, Perri, & Van Buren, 2015).

The Human Resource Management function has a huge responsibility to ensure that the flow of employees in, through and out of the organisation are managed with the same goal. This goal must focus on the quality as well as maintenance of quality of employees in the organisation. Especially if one looks to the effect that selection and recruitment can have on the overall culture and standards of organisations.

The management of the human resource function can be approached from two perspectives, namely the hard and soft approach (Kazlauskaite & Buciuniene, 2008). The hard approach is where the organisation looks at employees as resources that can be managed in the same fashion as the other resources in the organisation. In line with this perspective, effectiveness is measured in terms of cost minimisation rather than the active investment in human capital and its development. The soft approach is one where employees are important stakeholders in the organisation that cannot be managed in nearly the same way as the other resources in the organisation. As with all stakeholders, their needs and interests must be considered when decisions are made that might affect them or that might influence their performance (Kazlauskaite & Buciuniene, 2008). The latter is seen to be the more beneficial and productive approach to human resource management, but the first is the most widely implemented perspective where industrial psychology principles are used to achieve this.

Any organisation needs the reassurance that a department is of value in terms of increasing the profitability and efficiency of the organisation (Noe, Hollenbeck, Gerhart, & Wright, 2010). This guarantee enables the organisation to determine where it has a competitive advantage over other firms. A competitive advantage depends on two things: firstly, the resources used to gain the competitive advantage must be diverse among competitors; secondly, these resources must not be easily attainable or cannot be replicated (Wright, McMahan, & McWilliams, 1994). It must be mentioned that there is a difference between a competitive advantage and a sustainable competitive advantage. The first is when a company implements a strategy that is not currently followed by competitors and the second is when

the organisation poses such a unique strategy that another company cannot duplicate it. To be able to establish a sustainable competitive advantage, resources must be valuable, rare, inimitable, and non-substitutable (Noe et al., 2010). The resources usually available to organisations include the human-, technology- and organisational resources (Kazlauskaite & Buciuniene, 2008). The human resources of the organisation can be considered as one source of sustained competitive advantage. The exact composition and management of this resource cannot be reproduced and by means of implementing organisational development and measurement principles, industrial psychologist help maintain this advantage (Grobler, Wörnich, Carrell, Elbert, & Hatfield, 2006; Wright, McMahan, & McWilliams, 1994).

Moreover, sustainability provides the opportunity for more principled actions by the organisation as ethical conduct is acknowledged as more and more desirable and necessary for the success of business ventures. This can be achieved by developing strategies that include the production of products and provision of services, which do not harm the environment. With this in mind, people and businesses will still benefit from new consumer markets, cost reductions, increases in employee satisfaction, and added value for society and shareholders, but with ethicality at the core of operations (de Souza Freitas, Jabbour, Mangili, & de Oliveira, 2012).

In terms of using the Industrial psychology function to establish a sustainable competitive advantage, it must be understood that primarily organisational and human resources are affected. Consequently, for the people management function to be valuable, it must be able to explain how the people in the organisation can help with creating a sustained competitive advantage through the distinctive elements of the human capital in the organisation. These elements, which are perceived as a strategic asset to the organisation include; the attitudes, skills, knowledge and experiences of the people in the organisation (Grobler et al., 2006; Kazlauskaite & Buciuniene, 2008). Thus, the fundamental goal of an Industrial Psychologist is to create value through the human capital function and to prove that this part of the organisation is the resource that one cannot go without, no matter the size and type of company (Barney & Wright, 1997).

The industrial psychology function provides the competitive advantage and proves its worth through the nature of the function. Availability of highly skilled individuals as well as individuals of high cognitive ability is sparse. These individuals usually create their value.

Consequently, their presence in the organisation provides the organisation with an edge over their competition. As mentioned earlier, the inherent differences between organisations and the complexity of social interactions make the replication of this function nearly impossible. Furthermore, the human capital is a non-substitutable source of competitiveness due to their ability to withstand the test of time and by being adaptable and possessing the potential to develop. It is possible to imitate certain elements of the human resource function, but only to a certain extent. The duplication of the exact composition of the labour force is impossible (Carrim & Senne, 2016; Wright et al., 1994).

This creates the need for organisations to only attract and retain the best possible candidates. Additionally, it will be necessary to ensure that candidates' full potential is achieved to guarantee that this competitive advantage, by means of a high-quality human resource function, will lead to the best possible outcomes for the organisation. The function of the Human Resource practitioner and Industrial/Organisational psychologist is to ensure that this becomes a reality in the organisation and that these suitable employees are retained. A further goal that links to the retention of suitable candidates is to ensure that productivity is kept at an optimal level (Grobler et al., 2006). This can be done by improving the work environment through the creation of a high work performance environment contributing to the attainment of organisational goals. From the above-mentioned statement it can be gathered that HRM plays a vital role in the performance of any company by influencing the type of skills, knowledge and competencies that are brought into the organisation. In addition, the HR practitioner could influence the ethical as well as moral climate of the organisation through various interventions, such as selection and training (MacLane & Walmsley, 2010; Skarlicki & Latham, 1997).

Another way industrial psychologists influences performance is by managing and influencing the behaviour and attitudes of employees. The aim is to keep employees satisfied and motivated as well as ensure that the workforce is skilled and utilised to their full potential (Jackson & Schuler, 1995). Their purpose is subsequently to investigate these behaviours and attitudes of people in the organisational setting and appropriately designing systems to achieve this. These designing and managing systems attract, develop, motivate, and retain employees to ensure the effective functioning and prosperous existence of the organisation (Barney & Wright, 1997). This is clearly in line with the core purpose of also appointing industrial

psychologists into an organisation to address the softer people elements influencing organisational performance.

In 2011, the Republic of South Africa published the scope of practice for industrial psychologists, as defined by the Department of Health in accordance with the Health Professions Act 1974 (Act No. 56 of 1974), which specifies the following:

- a) planning, developing, and applying paradigms, theories, models, constructs, and principles of psychology in the workplace in order to understand, modify, and enhance individual, group, and organisational behaviour effectively
- b) performing psychometric, and other assessments in order to determine the potential and/or suitability for training, development and employment and to determine individual, group and organisational effectiveness; referring clients to appropriate professionals for assessment or intervention; designing, developing, standardising, and implementing assessment tools, and procedures related to the work environment
- c) facilitating individual, and group processes for effective organisational functioning; designing, and implementing training programmes for effective organisational functioning; designing, and developing strategies in consumer behaviour; developing interventions to ameliorate poor performance in work settings; designing, and implementing programmes based on understanding ergonomics
- d) advising on the development of policies, based on psychological theory and research; designing, managing, and evaluating industrial psychology intervention programmes
- e) training and supervising other registered psychology practitioners in industrial psychology
- f) conducting psychological practice, and research in accordance with the Ethical Rules of Conduct for Practitioners registered under the Health Professions Act, 1974; adhering to the scope of practice of industrial psychologists
- g) designing, managing, conducting, reporting on, and supervising the industrial psychology research

- h) providing expert evidence and/or opinions

(Republic of South Africa, 2011, p.9)

From this, the core function of an industrial psychologist is to serve the company on a strategic and specialist level in managing and nurturing the workforce – incorporating the softer side of human capital management. Because of the prominent impact that an employee's attitude and behaviour can have on the performance of the organisation, it is important to understand all the variables involved when doing so. This includes determining the desired and undesirable attitudes and behaviour when attempting to manage human capital in a productive way to benefit the organisation and its employees. Attitudes and behaviour, such as satisfaction, organisational commitment, job involvement, perceived organisational support, employee engagement, have a big influence on how the person reacts in an organisational setting and, as a result, it determines the performance of the individual.

Other noteworthy workplace behaviour includes organisational citizenship behaviour, withdrawal, anti-social behaviour, counterproductive work behaviour (CWB), etc. This behaviour can add or retract value from the employees' performance regarding their attitude and conduct in the workplace. The downside of this behaviour can have a detrimental effect on the performance of not only the individual, but also their co-workers and the organisation. This is where the importance of adequate human resource interventions come into play. industrial psychologists need to add value to the organisation through the human capital by understanding this behaviour and attitudes, especially the negative ones, to ensure that the adverse effects can be managed and even avoided through the development and implementation of suitable remedies.

The goal is to influence these factors using human resource interventions focused on enhancing the positive effects and limiting the negatives of these attitudes and behaviour on work performance and interpersonal functioning. This is all done with the objective to serve organisational strategic goals, achieve effective performance and aiding the success of the organisation (Jackson & Schuler, 1995). One of these categories of behaviour that Industrial psychologists want to minimise the impact of is that of counterproductive workplace behaviour (CWB). CWB can be defined in many ways, but it comes down to behaviour that is deviant through deliberately not performing to your full potential and engaging in

interpersonally harmful behaviour, thereby, subtracting from your own, as well as the performance of others.

The formal definition that will be referenced throughout this study is that CWB is “voluntary behaviour that violates significant organisational norms and in doing so threatens the well-being of an organisation, its members, or both” (Robinson & Bennett, 1995). Thus, it entails behaviour that has a negative effect on the performance of the individual, their co-workers, and/or the organisation. It is done purposefully and consciously to achieve a predetermined means by the perpetrator with disregard of the consequences of these actions, and it goes against set organisational norms. These norms are aimed at increasing the efficiency of the organisation and a violation of them will be detrimental to both the organisation and the individual (Robinson & Bennett, 1995).

Counterproductive workplace behaviour is the outcome of complicated interaction between individuals and their environment where the person’s causal reasoning on the environment and expected outcomes drive the behaviour of an individual (Martinko, Gundlach, & Douglas, 2002). This behaviour includes vandalism, alcohol abuse, drug use, interpersonal rudeness, leaving early, arriving late, withholding effort, theft, etc. (Nair & Bhatnagar, 2011). In other words, any form of behaviour that subtracts from performance and overall functioning at work. This behaviour can create a negative workplace environment that has an adverse effect on the performance of the entire organisation by decreasing the morale of the group and increasing stress experienced at work (Robinson & Bennett, 1995). As can be expected, CWB is diverse in nature and can have many effects on the organisational environment and co-workers involved. According to Hoel, Einarsen and Cooper (as cited in Chang & Smithikrai, 2010) it is challenging to evaluate the adverse psychological effects of CWB. Despite this it still negatively affects employee motivation, lead to higher rates of staff turnover and absence, decrease the overall efficiency and effectiveness of employees, which in the end can lead to business failure.

In terms of work environments that can fall victim to this behaviour, every sector can become vulnerable. However, the most prominent events usually relate to professionally qualified and well-educated occupations (e.g. psychologists, doctors, engineers, accountants, etc.). Although corruption and unethical conduct is perceived to be pervasively problematic in the public sector, it remains a problem worth considering in the private sector as well (Aseidu,

2006). Most professionals are continually faced with many situations presenting conflict of interest between what they need and want, and what their organisation requires of them (Lamb, 1999). While pursuing their individual wealth, these individuals must constantly navigate within a network of conflicting interests, related to their duties and loyalties to their firms, bosses, customers, various regulations, as well as their family and friends (Chao, Cheung, & Wu, 2011). Keeping this in mind, unethical conduct or behaviour that subtracts from organisational performance is inevitable under these circumstances (Dunlop & Lee, 2004). Inherent in all professional occupations is the immense pressure on the employees to perform beyond expectations. This leads to stress that these individuals need to deal with. These preconditions and requirements can lead to perceived inequities and mistreatment.

Organisations are also expecting employees to go the extra mile in terms of the amount of time, effort and skill that they invest in their jobs. These expectations are met with an unwillingness to provide incentives in the form of more flexible working hours, sufficient growth opportunities or the assurance of stable employment. Any professional's field is characterised by a fear of lost jobs and income, unused employable skills, lost customers, closing firms, and lost markets (Lamb, 1999; Cooper, Dewe, & O'Driscoll, 2001). Added to this, the continuous technological change and innovation experienced across all industries have a twofold effect: first, it eliminates thousands of jobs each year increasing job uncertainty, and second, it simultaneously empowers individuals to perform to the best of their ability by providing additional resources through which goals can be achieved (Autor, 2015). Sometimes this is done by any means necessary. These organisational changes affect individuals' jobs and could influence workers' overall experience of occupational safety and well-being. Consequently, the once predictable, stable, and controlled work environment has become more complex and unpredictable, affecting employees' energy and motivation to perform well. CWB has been identified as one such a way in which individuals aim to adjust and cope with inequities and mistreatment by initiating and reacting to these factors. Therefore, it remains imperative to investigate the extent of this behaviour in professional South African institutions.

For this reason, as substantiated by the theoretical findings and arguments of the detrimental impact of CWB, Industrial Psychologists have the obligation to influence and negate these effects on the work force. An avenue worth consideration would be to gain insight into the most important resources that could work against the exhibition of CWB. Furthermore, it

would also be valuable to ask who engages in this behaviour, why they engage in this behaviour and whether there are mitigating factors that can heavily influence its occurrence. Do certain work environments encourage this type of behaviour? Are certain people generally more prone to CWB due to inherent characteristics? Can personality be considered a resource? How big is the influence of certain job demands on CWB?

The current study thus raises the question of why there is variance in the prevalence and exhibition of damaging CWB between different employees and working environments. The effects of certain personality factors and job demands on CWB will be tested subsequently on a nuanced level to determine the fundamental underlying interactions and effects.

1.2 PURPOSE OF THIS STUDY

For this study, CWB is defined as behaviour that is voluntary in nature that violate significant organisational norms and in doing so, threatens the well-being of the organisation and its members. The behaviour considered a part of this classification includes theft, abuse, withdrawal, sabotage, and production deviance, as defined by Spector et al., (2006).

There seems to be lack of consensus behind the causes of CWB and why some individuals are more prone to exhibit CWB than others. As mentioned earlier the different causes need to be investigated to determine ways to improve and limit the exhibition of these types of behaviour.

1.3 RESEARCH-INITIATING QUESTION

Based on the research done it becomes clear that there is no single clear understanding behind the causes of CWB and why some individuals are more prone to exhibit CWB than others. This lead to the following research-initiating question, which encompasses the core of this study: Why is there variance in the prevalence of CWB among professional workers?

1.4 OBJECTIVES OF THE STUDY

The specific objectives of the study are the following:

- a) To identify the most salient antecedents of CWB,

- b) To develop and test an explanatory structural model that will explain variance in CWB and why some people are more inclined than others to exhibit this type of behaviour,
- c) To investigate the meaning and importance of the hypothesised relationships in the model,
- d) To propose recommendations for future research based on limitations experienced in the current study, and
- e) To provide guidelines, based on literature, on how to manage CWB with the purpose to limit its negative effects.

The study will build on previous research done internationally and it will be applied to a local population sample.

1.5 DELIMITATIONS

The researcher aimed to determine and examine the prominent antecedents of CWB based on a literature review. After that, data was collected from professionals appointed in various industries.

As antecedents of CWB, job demands and certain personality characteristics were examined within the parameters of the Job Demands-Resources model (JD-R) (Bakker & Demerouti, 2014). This is based on the premise that personality could serve as a primary personal resource, buffering the negative impact of CWB by causing some individuals to be predisposed against this form of behaviour. Thus, the JD-R model serves as a basic conceptual framework for testing the antecedents affecting CWB. It is, however, only meant as a reference point to understand the possible impact of certain job demands as moderating effects on the relationship between certain salient personality characteristics and CWB.

1.6 OVERVIEW OF THE STUDY

Chapter 1 provides insight into the various challenges faced within the South African economic environment and how despite this, high performance from all employees is expected. This is followed by a discussion of the threat that Counterproductive Workplace Behaviour can have on the attainment and maintenance of excellence. A clarification of the purpose of the study and the research questions are then provided, the objectives outlined, and the delimitations discussed.

In Chapter 2 an in-depth literature review is provided with the focus on previous methods that were used to define and measure CWB specifically, and in general, as well as the factors that theoretically might influence this behaviour. Each of the identified antecedents are defined, explained and discussed in terms of existing academic literature. The relationships between these variables are also explored, and a proposed conceptual model is developed to portray these interactions graphically.

In Chapter 3 the research methodology used for this study is outlined. This entails a comprehensive description of the research design, the hypotheses, the sample and the data collection procedure. The choice of measuring instrument for each of the variables considered in the study is described. Furthermore, the statistical analyses used to analyse the data are discussed.

In Chapter 4 the research results are presented. The main findings of the study are presented in this chapter. The data analysis is discussed in detail, as are the results of the analyses and testing of the research hypotheses.

Lastly, in Chapter 5, the managerial implications are highlighted, and interventions are discussed. In addition, the limitations of the present research study are listed and recommendations for future research are outlined.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The aim of this section is, firstly, to provide defining information on the relevant constructs present in the research model and, secondly, to explain the relationships between the relevant constructs.

The start of this review will focus on providing an overview of previous job stress models that contributed to the development of the Job Demands-Resources Model (JD-R). This will be followed by an overview of the JD-R model itself and various constructs relevant to the current study underpinned by this theoretical framework. The JD-R model is seen as a useful mechanism to explore and understand the interaction between various job demands/stressors and job resources and the consequent impact that it has on the well-being of employees. This will then serve as the theoretical framework for the study. From this point of view, relationships between certain constructs will be explored and hypotheses will be formulated relevant to the current study. The focus will remain on the behaviour associated with CWB, which, as previously stated includes theft, abuse, withdrawal, sabotage, and production deviance.

Throughout this chapter, as well as the entire research study, the emphasis will be on determining what causes variance in the tendency to display CWB. It will be concluded with a diagram depicting the conceptual model for the present study.

2.2 OVERVIEW OF PREVIOUS JOB-STRESS MODELS

Various models have been used to explore the interaction between the inherent demands and resources of a job. The focus of most, if not all, centre around what causes job stress and what motivates people to perform on the job. All of this translates to the impact it has on employees' health and well-being. Some of the main models explored are: the Job Characteristics model (Hackman & Oldham, 1980), the Job Demands Control model (Karasek, 1979), the Conservation of Resources theory (Hobfoll, 1989), the Effort-Reward Imbalance model (Siegrist, 1996), and the Job Demands-Resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). A common assumption of these models is that job strain develops when job

demands exceed coping resources needed to deal with job demands (Bakker & Demerouti, 2007). A brief exploration into each model will be provided below.

2.2.1 Job Characteristics Model

One of the most widely used job stress models is Hackman and Oldham's Job Characteristics model (Hackman & Oldham, 1976). The model explores the responses of individuals to jobs, for example, absenteeism and job satisfaction, as a function of job components that is said to be moderated by individual characteristics. The model contains five core job characteristics, namely: skill variety (the use of a variety of skills in the role); task identity (the opportunity to complete a task from beginning to end; taking full ownership for completion); task significance (the meaningfulness associated with doing the work); autonomy (the degree of independence); and job feedback (the availability of information regarding the effectiveness of performance). Combined, these characteristics represent the overall motivational potential of any job. In the model it is theorised that more enriched and complex jobs are constructively linked with employees' positive disposition related to the work itself and the work environment (Hackman & Oldham, 1976,1980).

The model suggests that these core job characteristics (in other words, skill variety, task significance, task identity, feedback, and autonomy) influence certain important job outcomes (in other words, job satisfaction and intrinsic motivation) through the attainment of three psychological states. These psychological states are: experienced meaningfulness, experienced responsibility, and knowledge of results of activities.

2.2.2 Demands-Control Model

The Demands-Control model (DCM) was one of the first models developed to explore the effects of job stress on the individual. Employees who experience high job demands are more likely to perceive that they have low job control (Karasek, 1979). The main assumption underlying the model is that an employee's total control over all the aspects of their job, specifically decision-making, will moderate the negative effect of job stress (Bakker & Demerouti, 2007; Karasek, 1979). The amount of control that a person has is said to act as a balancing mechanism to counteract the negative effects of excessive job demands. In this instance, control refers to the extent to which individuals can independently determine how they want to meet job demands.

According to the model, employees experience control when they can participate in decision-making, influence their work conditions, and make an impact the amount of work they must do. From this it can be inferred that control, in this model, acts as a moderating variable influencing the relationship between job demands and job strains (Bakker & Demerouti, 2007).

2.2.3 Effort-Reward Imbalance Model

The Effort-Reward Imbalance (ERI) model developed by Siegrist (1996) and assumes that job stress is the result of an imbalance between effort and reward. The model takes the stance that the lack of reward plays a more important role in inducing stress than the lack of control. The basic assumption is that an imbalance between effort exerted to meet demands and reward received in return, in other words, high effort with low reward, will lead to job stress. This in turn, may lead to certain negative physiological and psychological outcomes for the individual.

2.2.4 Conservation of Resources Model

Another model, the Conservation of Resources (COR) theory was developed by Hobfoll (1989). According to this model people want to gain, retain, and protect things they perceive as valuable. These valued aspects are resources and can be physical objects, personal characteristics, environmental conditions, or other energy resources. The model holds the main assumption that employees use these resources to deal with threatening circumstances and protect themselves from negative outcomes (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007).

According to COR, stress will occur when: individuals' resources are threatened with potential loss, when there is actual resource loss, or when there is insufficient gain of resources following an attempt to increase it (Hobfoll, 1989). Therefore, stress needs to be understood from the perspective of resource loss, albeit potential or actual, with four conditions underlying this phenomenon (Eschelman, Bowling, & LaHuis, 2015). Firstly, individuals must have actual resources to prevent the loss of resources. Secondly, individuals with a strong pool of resources are less susceptible to the negative effects of resource loss. Thirdly, individuals with lesser resource pools are likely to experience more loss in relation to gain as they started with less of a buffer. Lastly, strong resource pools lead to a greater likelihood that

individuals will seek opportunities to risk resources for increased resource gains and build their pools' strength (Hobfoll, 1989; Hobfoll & Shirom, 2000). Therefore, the focus is on not only maintaining a pool of resources, but also expanding and building coping capacity. One way of increasing this capacity is by gaining more personal and job resources to lessen the effect that strain has on psychological well-being.

2.2.5 Critique of the Models

Each of the above-mentioned models have contributed somewhat to the development of the JD-R model. According to Bakker and Demerouti (2014), these models are useful in explaining the foundation of the impact of work strain and motivation. Although these models have contributed to understanding the nature of motivation and strain, they fail to address certain issues.

Firstly, the models are one-sided as they focus on either the work motivation or the job stress tradition. Therefore, they do not open the possibility of probable interactions between these variables. Secondly, Bakker and Demerouti (2014) argued that the model is too simplistic as they fail to recognise the complex nature of occupational health and well-being experiences by only focussing on a few variables. Moreover, these models cannot be generalised across different occupations and job levels (Bakker & Demerouti, 2014). Thirdly, they found the previous models to be too static in character. These models provide no clarity as to why certain job characteristics are considered crucial. For example, autonomy is considered the most important resource for employees in the model, but no clarification is provided as to why this is. Lastly, these models fail to recognise the shifting nature and adaptation of jobs to external environmental factors. They neglect to consider the impact of changing work environments, for example, expanding use of information technology. Therefore, they can only be applied in traditional or typical jobs that have well defined characteristics.

Although these earlier models provide valuable insight into factors that impact on employee health and well-being, their restricted and oversimplified nature limits their practical usefulness. Furthermore, there is limited application to various work contexts and occupation types making it near impossible to generalise findings of varying work environments. The above-mentioned limitations provided a platform for the development of the Job Demands

Resources Model (JD-R). The model was developed to incorporate varying working conditions with a focus on the positive as well as the negative side of employee well-being.

2.2.6 Job Demands-Resources Model

The Job Demands-Resources (JD-R) model of burnout was developed by Demerouti et al., (2001). The aim was to explain the interaction of multiple variables affecting the occurrence of burnout and how this plays a significant role in the well-being of employees. The model is said to elaborate on the previous models investigating these factors, as mentioned above. Other avenues to the use of the model outside the sphere of burnout and well-being has also been explored, namely its relation to more performance-based variables; such as CWB (Balducci, Schaufeli, & Fraccaroli, 2011). The JD-R model also considered a useful mechanism to understand how job characteristics and personal characteristics interact and ultimately affect job performance.

The main assumption of the model is that although every job is associated with its own unique characteristics, there is still a general model underlying these characteristics. The JD-R model assumes that burnout develops irrespective of the type of occupation. It remains dependent on the balance between job demands and job resources. The model suggests that when job demands are high and job resources are limited the negative conditions resulting from this will eventually lead to energy depletion and undermine employees' motivation regardless of extenuating circumstances (Bakker & Demerouti, 2007, 2014; Bakker, Demerouti, Taris, Schaufeli, & Scheurs, 2003; Demerouti, et al, 2001).

The JD-R model (as presented in Figure 2.1) proposes that characteristics of work can fall into two categories, namely: job demands and job resources. Job demands represent aspects of the job that could potentially cause strain in instances where they exceed the employee's ability to adapt and react adequately (Rothman, Mostert, & Strydom, 2006). More specifically, it refers to those physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort and are for that reason associated with certain physical and psychological costs (Demerouti et al., 2001). Job demands are not considered to always be negative, but it may lead to job stress when employees are continuously confronted by demands that require sustained effort before they have had time to sufficiently recover from stress caused by previous demands (Meijman &

Mulder, 1998). In other words, when employees experience excessive demands without a proper opportunity to recuperate to maximise their coping capacity this may lead them to resort to various coping strategies. Job demands have been found to have a detrimental impact on the well-being of the employee due to stress reactions; such as job-related depression, anxiety, and burnout, particularly when employees lack autonomy or job control (Bakker et al., 2003).

The other aspect included in the JD-R model is job resources. This involves the extent to which a job offers employees with the opportunity for personal development as well as ways to increase satisfaction. These characteristics are said to be located at the distributive level of the organisation (such as; salary, career advancement), the interpersonal and social level (team climate, career support), the organisation of work (role clarity, decision-making latitude), and the level of the task (skill variety, feedback) (Bakker et al., 2003; Demerouti et al., 2001; Jackson & Rothman, 2005).

Additionally, these resources can also take the form of more personal resources, which refers to the intrinsic resources brought to the working environment by the employee. These resources, which are considered aspects of the self are linked to resiliency and refer to the individuals' sense of competence when it comes to the amount of control and impact they have on their environment. Personal resources can refer to factors that determine the person's ability to respond successfully to changes in the working environment and links directly to the job resources provided in the work environment (Hobfoll, 1989; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009).

This relationship between job demands and resources is said to be interchangeably affected by the way individuals handle demands inherent in their working environment as well as negate the detrimental effects on their performance. As stated by Bandura (as cited in Xanthopoulou et al., 2007), depending on a person's level of personal resources, their perception of and adaptation to any environment will be variable and is greatly influenced by environmental factors. In other words, personal resources may moderate or even mediate the relationship between environmental factors and certain important job-related outcomes (e.g. performance). These personal resources may even determine the way people interpret environmental signals affecting the way they view the environment, formulate it, and react to it.

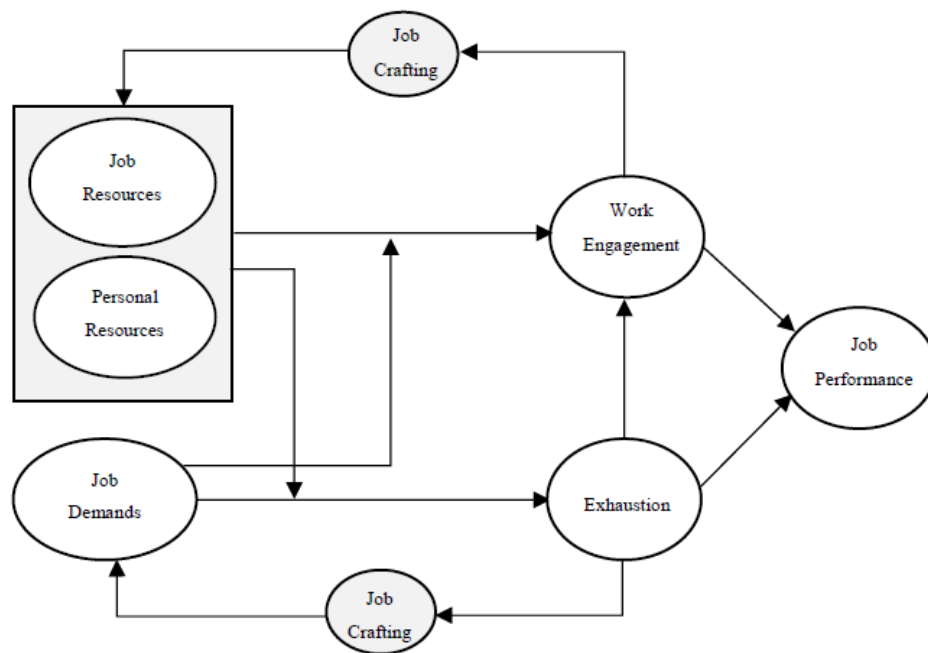


Figure 2.1. The Job Demands-Resources Model

(Bakker & Demerouti, 2014)

In general, job demands and resources are negatively related since high job demands may impede the full utilisation of job resources. On the other hand, high job resources may serve to reduce job demands and consequently decrease the effects thereof. This substantiates another noteworthy assumption of the JD-R model, namely that job characteristics may induce either an energetic process or a motivational process. This constitutes the two psychological processes inherent in the model (Bakker, Demerouti, & Schaufeli, 2003; Demerouti et al., 2001; Schaufeli & Bakker, 2004).

The energetic process or health impairment process, also referred to as emotional exhaustion, is the process of “wearing out” or depletion in which high job demands exhaust the employee’s energy by exceeding their emotional, physical, and mental coping resources (Demerouti et al., 2001; Miao, Humphrey & Qian, 2017; Rothman, et al., 2006; Schaufeli & Bakker, 2004). In line with the Conservation of Resources (COR) Theory, individuals invest their resources to deal with threatening conditions and to prevent themselves from suffering the negative outcomes associated with job stress (Xanthopoulou et al., 2007; Penny, Hunter & Perry, 2011).

Where there are chronic job demands (e.g. work overload or consistent job insecurity) it may lead to exhaustion over time. Emotional exhaustion serves as a warning sign of the increasing

risk of performance failure due to the individual not being able to cope with job demands successfully. Normally, people do become tired of their work activities, but their energy resources are sufficient to help them cope with these demands. However, when a person is working under high levels of pressure, be it due to work overload or constant job insecurity, and they are already tired, the extra energy needed to compensate for this lack of emotional resources must be maintained by extra mental effort to keep up their performance. This additional activation of mental energy may result in extreme fatigue, mentally and physically (Demerouti et al., 2001). Subsequently returning to normal psychological and emotional levels is essential to prevent total emotional exhaustion and a decrease in performance. When insufficient recuperation takes place, high work demands can accumulate gradually and lead to burnout (Jackson & Rothman, 2005).

Similarly, Hockney's (as cited in Bakker et al., 2003) control model of demand management posits that individuals use performance-protection strategies when dealing with demands to attempt to retain a balance with their adaptive resources. These performance-protection strategies are achieved through, either the mobilisation of sympathetic activation (e.g. emotional stress and anxiety) or increased subjective effort (e.g. gaining as much control over the situation as possible). As a result, the greater the effort required to attain a balance, the greater the associated physical, emotional, and mental costs for the individual. In the control model of demand management certain performance related costs will be associated with these strategies, namely compensatory costs (increased activation or subjective effort), work approach adjustments (narrowing of attention, increased selectivity, redefinition of task requirements), and fatigue related coping (risky choices, high levels of subjective fatigue). The long-term effect of these strategies may be demanding and eventually result in a breakdown or exhaustion (Bakker et al., 2003).

The second psychological process, namely the motivational process, initiates when a lack of job resources prohibits effectively dealing with job demands and could result in withdrawal (Schaufeli & Bakker, 2004). The motivational process involves that resources, when perceived as present and sufficient to deal effectively with demands, will cause the individual to experience certain demands as less taxing and even as positive challenges, not leading to disengagement. However, when there is a lack of these factors the employee's motivation and performance will be detrimentally affected (Bakker et al., 2003, Bakker & Demerouti, 2007, 2014). For example, when organisations do not reward or provide employees with job

resources, the long-term consequences are withdrawal from work, reduced motivation and commitment (Siegrist, 1996). Therefore, a reduction of motivation or withdrawal from the stress situation can serve as a very important self-protection mechanism that may prevent frustration in the future due to employees not being able to attain work goals. In line with this perspective, employees will try to minimise losses associated with the discomfort of job stress by striving to achieve equity to avoid further negative, personal consequences. To achieve this equity, they will most likely reduce their discretionary inputs and might even resort to actions that might restore the balance e.g. reducing efforts to the bare minimum or even less (Jackson & Rothman, 2005). In line with this motivational process, JD-R research has found that employees will initially try to withstand the distressing effects of strenuous job demands, for example by putting in more effort and energy in their jobs to compensate for their performance to remain effective. However, extended exposure and having to cope with job demands over a period wears out the employee's adaptive capability, leading to exhaustion (Schaufeli & Bakker, 2004).

The model proposes that burnout could stem from two causes: firstly, challenging aspects of work may lead to exhaustion in the long-term due to continuous strain. Secondly, a lack of important job resources will prevent goal accomplishment, which causes feelings of failure and frustration (Bakker A. B., Demerouti, de Boer, & Schaufeli, 2003). When this frustration is experienced for an extended period, it will lead the employee to become disengaged and experience a reduced sense of professional efficacy. From these various aspects included in the model it can be taken that in situations where there is a lack of resource (personal or job related), the individuals themselves cannot reduce the negative influence of high job demands, subsequently leading to them not being able to achieve their work goals (Schaufeli & Bakker, 2004). The employee may decrease their discretionary efforts as a way of withdrawal and personal preservation. This is to reduce the distress associated with overtaxing demands as an attempt to limit personal losses and to retain equity. As mentioned earlier, employees will initially try to withstand distress associated with taxing demands, but prolonged exposure will eventually wear out their personal energy (Schaufeli & Bakker, 2004).

The category of job demands consists of a variety of job characteristics, including workload overload, role uncertainty, job insecurity and work-family conflict (Gilboa, Shirom, Fried, & Cooper, 2008; Van den Broeck, De Cuyper, De Witte, & Vansteenkiste, 2010). Similarly, a meta-analysis conducted by Gilboa et al., (2008) found that there are seven job

demands/stressors associated with various aspects of job performance. They include; role ambiguity, role conflict, work overload, job insecurity, work-family conflict, environmental uncertainty, and situational restrictions. All these facets share an important conceptual underpinning; they are all perceived as placing demands upon the employee, and can be characterised as chronic stressors, be it emotional, physical, or mental.

According to Podsakoff, LePine and LePine (2007) job demands or stressors can be classified as either a challenge or a hindrance. In line with the challenge-hindrance stressor model, a hindrance stressor is something that prevents or inhibits optimal functioning in some way and can include for example; role ambiguity, organisational politics, and job insecurity (Sonnetag & Strazyk, 2015). These are work demands or tasks that require effort and energy from the individual, but do not necessarily offer any growth potential or reward in return (Tadic, Bakker, & Oerlemans, 2015). A challenge stressor, on the other hand, is a job demand or task that requires some energy, but is still experienced as stimulating e.g. workload, time pressures, large job scope and responsibility. Even though they require exerting some effort and energy, efficiently dealing with them can result in the individual experiencing growth, learning, and goal attainment. For example, a highly complex task may require high levels of energy investment but can also promote a sense of competence and self-mastery when the goal is achieved (Tadic, et al., 2015). Stated differently, Cavanaugh, Boswell, Roehling, and Bourdreau define challenge stressors as “work-related demands or circumstances that, although potentially stressful, have associated potential gains for individuals”; by contrast, hindrance stressors do not involve gains but “tend to constrain or interfere with an individual's work achievement” (2000, p. 68).

The basic premise of this dual process model is that stress can be associated with different aspects of the job and could motivate the activation of different stress related coping-mechanisms that can protect the individual from the negative outcome (i.e. exhaustion) and can lead the individual to respond with either emotional or physical withdrawal (Van den Broeck et al., 2010). Some of these coping mechanisms can and mostly do form part of CWB. Both types of demands/stressors require an amount of effort and is considered energy depleting. Challenge demands is said to trigger positive emotions and cognitions that increase work engagement and performance. From this perspective, the likelihood of CWB is less when demands are considered challenging. Hindrance stressors, on the other hand, trigger negative emotions and cognitions that undermine performance and engagement, and result in CWB

associated behaviour (Sonnetag & Strazyk, 2015; Tadic et al., 2015). In this line of inquiry, it is said that challenge stressors correlate positively with job satisfaction, performance, and engagement. This effect, however, only lasts until the challenge interferes negatively with goal attainment and then becomes a hindrance (Bakker & Demerouti, 2014; Chen & Spector, 1992; Tucker, et al., 2009). Hindrance stressors correlate negatively with satisfaction, performance, and engagement (Podsakoff, LePine & LePine, 2007; Rodell & Judge, 2009; Sonnetag & Strazyk, 2015; Tucker et al., 2009; Van den Broeck et al., 2010). As a result, even though certain job demands/stressors do correlate positively with important job-related variables, an excess of any demand will become taxing on the individual and cause a decline in work related performance. Typical challenge stressors are demands such as high workload, job scope, and responsibility. Examples of hindrance stressors include organisational politics, red tape, or job and task insecurity, which can be considered as more psychologically taxing (Widmer, Semmer, Kalin, Jacobshagen, & Meier, 2012).

In line with this, when conceptualising CWB in terms of the JD-R model it is seen as a more emotional response to stressors (Fox, Spector, & Miles, 2001). This stressor-strain relationship can thus be compared to the JD-R model in that every job contains certain demands that can become stressors, depending on the individual's perception of them. When experienced as a stressor over a duration of time, it could become a strain that negatively affects the employee's well-being. Strain can, therefore, manifest as an emotional, physical, or behavioural form and CWB can be considered as a coping mechanism used to deal with the negative consequences resulting from the strain.

In conclusion, when considering the variant nature of job demands and how it can be perceived as different types of stressors, the examination of this facet needs to consider the individual as well as the context within which CWB operates. Throughout the literature, it remains constant that a broad perspective is required to fully explore and understand these interactions. Thus, for this study, the focus will remain on work overload and job insecurity to incorporate both a challenge and a hindrance stressor in the investigation of the relationship between some antecedents with CWB. The assumption underlying the choice of these two specific demands is, firstly, work overload can initially be considered a challenge, but over a long period of time and after sustained resource loss without sufficient or satisfactory resource gain it will become a strain. Secondly, with job insecurity, it will function through a psychologically threatening process that constitutes a hindrance stressor, causing strain from the onset. This is supported

in a study conducted by Rothman, et al., (2006) in which they found construct (factorial) validity for the two dimensions of job demands of interest, with work overload featuring as a more prevalent and significant factor across all investigations (Bakker & Demerouti, 2014; Bakker et al., 2003; Podsakoff et al., 2007).

2.3 VARIABLES IN THE MODEL

In this section, the focus will be on the most prominent person-centred as well as job-related antecedents of CWB reported in the literature. Therefore, CWB factors, as well as factors accounting for the variance in CWB, are explored. Each factor is defined and its relationship with CWB will be discussed and substantiated.

2.3.1 The framing of Counterproductive work behaviour

As previously mentioned in the introduction of this paper, CWB is becoming a more prevalent and public problem across all business sectors. The cause and effect of this problem can radiate through the performance of the entire organisation. In defining this concept of CWB, some attention must be given to possible moderating and contributing factors. This consideration is made after a review of the relevant literature on CWB.

CWB has been conceptualised in several ways, but common themes underlie each of the widely-used definitions and it centres around three identifying factors of CWB. Firstly, all CWB share the common feature of violating the norms of the organisation by being potentially harmful to its members and/or to the organisation. Norms, in this sense, include the basic moral and traditional societal standards, but also the standards set by formal or informal policies, rules, and procedures in an organisational context (Feldman, as cited in Bennett & Robinson, 2000). Secondly, these incidents or actions must be volitional acts – executed on purpose and not due to extenuating circumstances – regardless of the outcome of the behaviour. This does not mean that doing harm is the ultimate motive behind the behaviour. The motive can be determined by either intrinsic or extrinsic factors to the individual. The behaviour is seen to be “voluntary” in the sense that individuals either lack the motivation to conform to the set norms or for some reason they become motivated to violate them. Therefore, CWB can include several actions that all lead to negative outcomes to one party and positive to the initiator, be it interpersonal or organisational. This behaviour can also be discretionary (Mount, Ilies, & Johnson, 2006). Lastly, the behaviour must be potentially and

predictably harmful, but not necessarily result in an undesirable outcome, meaning the ultimate goal may not only be to achieve equilibrium, but to gain something beneficial from the act (Fox et al., 2001; Marcus & Schuler, 2004).

Hereby CWB refers to an umbrella term used to define employee behaviour that is “harmful to the organisation by directly affecting its functioning or property, or by hurting employees in a way that will reduce their effectiveness” (Fox et al., 2001, p.292). Robinson and Bennett define it as “voluntary behaviour that violates significant organisational norms and in doing so threatens the well-being of an organisation, its members, or both” (1995, p.556), incorporating all three criteria in defining what CWB constitutes. Another definition provided by Sackett and DeVore present is as “any volitional act by employees that potentially violate the legitimate interests of, or do harm to, an organization or its stakeholders” (2001, p.145), thus also encompassing the three aspects identifying this type of behaviour.

In an aim to capture the dimensionality of CWB in its entirety, Robinson and Bennett (1995) developed a typology whereby CWB can be classified in terms of its target as well as its severity (Figure 2.2). This typology consists of two dimensions: minor versus serious, and organisational deviance (CWB-O) versus interpersonal deviance (CWB-I) (Robinson & Bennett, 1995). This distinction is important, as people prone to deviant acts directed at the organisation alone can be very different from people prone to display interpersonal deviance (Bennett & Robinson, 2000; Klotz & Buckley, 2013).

In terms of the first dimension (minor versus serious), CWB is classified in terms of the severity in which it violates not only the organisational norms, but also the general societal norms that are accepted by the wider social community. Additionally, the situation limits the severity or extent of this behaviour. This limit comes from the appropriateness of the behaviour in relation to what the individual wants to achieve by exhibiting it and the context in which it will be exhibited. In consequence, the suitability of the behaviour depends on what the situation allows the individual to do. The person has the option of several CWB within a certain family that are functionally equivalent. The aptness of the behaviour in the context that the individual wants to use it depends on whether the behaviour has the least constraints, is the most feasible, or is the least costly, given the context that the individual finds themselves in. The second dimension involves the target of the deviant acts. This is to say whether CWB

is directed at the organisation itself or directed at individual members of the organisation (Appelbaum, Iaconi, & Matousek, 2007).

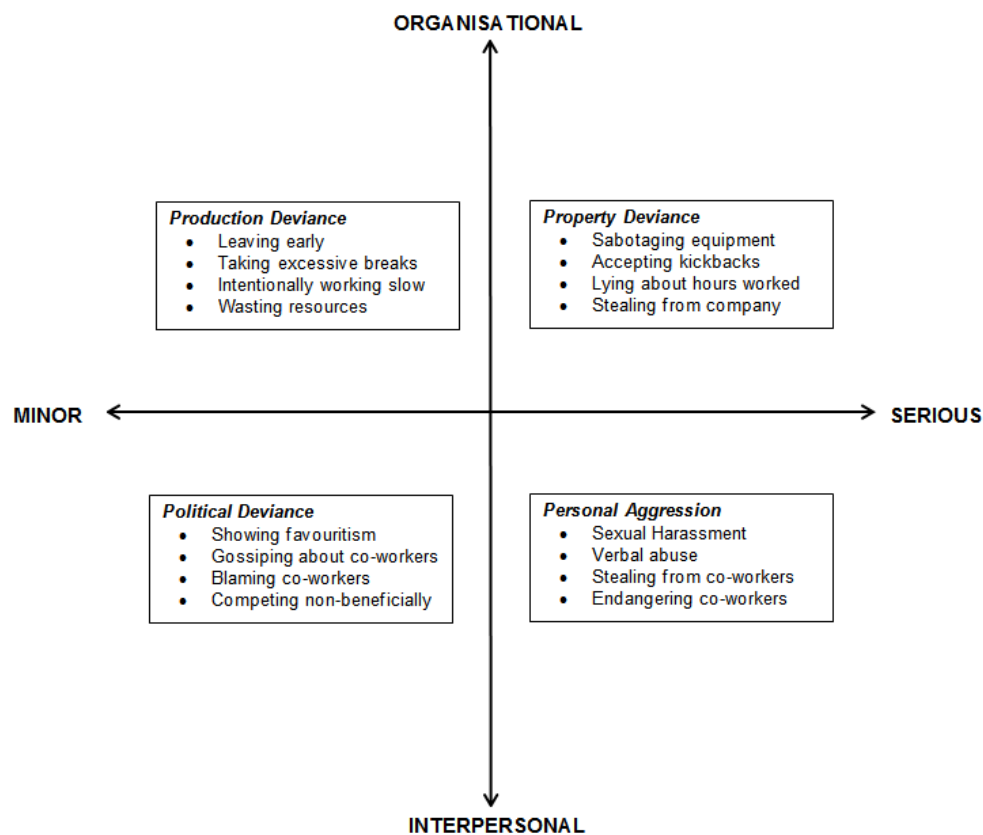


Figure 2.2. Typology of Counterproductive Workplace Behaviour

(Robinson & Bennett, 1995)

According to Bennett and Robinson (2000), the distinction between the Organisational deviance (CWB-O) and Interpersonal deviance (CWB-I) dimensions is more qualitative. What this means is that although the description of these two dimensions are quite similar, when you look at examples of the behaviour (i.e. steal the phone of a co-worker or take cash from the register) the target of the act becomes clear. In terms of the severity of the acts, both categories (CWB-O and CWB-I) contain both minor and serious forms of deviance (Bennett & Robinson, 2000). Furthermore, the organisational/interpersonal dimension provides some insight as to the intent of the deviant actions of the person. If the organisation is the target then it suggests that the individual's actions can be explained based on a perceived unfairness or imbalance in the practices and policies within the organisation (Colbert, Mount, Harter, Witt, & Barrick, 2004; O'Neill, Lewis, & Carswell, 2011). If CWB is interpersonal in nature, then it can be due to inequities perceived in terms of social or political standing in the workplace or simply because of individual differences or exploitation of the weak. For example,

when an employee perceives that his/her superior misuses their position in the organisation in assigning blame when something goes wrong, then they might retaliate by only doing what is required of them (Peterson, 2002; Berry, Ones, & Sackett, 2007).

Based on these two dimensions established by Robinson and Bennett (1995) CWB can fall into one of four categories, namely: production deviance, property deviance, political deviance, and personal deviance. Production and property deviance are sub-dimensions of organisational deviance that directly affect the well-being of the organisation. Political and personal deviance falls under the interpersonal deviance category, as it is concerned with exchanges and incidents between people in the organisation. Production deviance can be described as minor organisationally harmful behaviour that violates organisational norms regarding the production and delivery of products and services delivered by the organisation. Property deviance, on the other hand, is a serious norm violation and involves intentionally damaging or stealing organisational property. Political deviance is a minor form of interpersonal deviance in that it involves issues, such as favouritism, gossiping and blaming co-workers (Aube, Rosseau, Mama, & Morin, 2009; Berry et al., 2007; Klotz & Buckley, 2013). The final category, as portrayed by Robinson and Bennett (1995), is personal deviance, which consists of serious violations, such as sexual harassment, verbal abuse, theft, and endangering co-workers. Personal deviance consists of both physical and verbal behaviours (Bennett & Robinson, 2000).

Considering that the scope of these behavioural categories belongs to the different dimensions of CWB it can also be classified as either active or passive acts toward the intended target (Spector & Fox, 2002). In keeping with Buss' (1962) distinction between active and passive behaviours, active forms of CWB require some type of action whereas inaction defines passive forms to perform tasks, but not due to any lack of intention. For example, theft is an active act against the organisation in that it includes removing something belonging to the organisation without permission or lying about the number of hours worked to receive compensation for overtime (Spector & Fox, 2002). On the other hand, production deviance can be considered a passive act against the organisation as it involves intentionally completing tasks incorrectly for the sole purpose of re-establishing a balance in relation to a perceived injustice (Bauer & Spector, 2015).

Per Peterson (2002) factors that contribute to CWB being enacted can be either individual, interpersonal, or organisational. Sims (as cited in Appelbaum et al., 2007) found that at the organisational level some organisations might encourage these types of behaviour. Some of this behaviour promotes a bottom-line focus in employees that encourage them to do anything that benefits the organisation's overall performance. This is described as "counter norms" by Sims (as cited in Appelbaum et al., 2007). Another notion, taken from the social exchange theory perspective and linking with the interpersonal factors proposed by Peterson (2002), states that role models play a vital role in influencing subordinates in participating in and exhibiting this behaviour. If they perceive that this behaviour is not reprimanded, but in fact encouraged based on their observations of co-workers, employees will willingly participate in this behaviour to benefit the organisation and/or themselves (Lin, Ma, Wang, & Wang, 2015).

Furthermore, it was also suggested by Scott and Judge (2013) that individuals prone to exhibit CWB in the CWB-I spectrum, usually choose their victims based on certain person and demographic characteristics. In this study, they found that it is both aspects inside and outside of the individual that determine if they will become victims of interpersonal deviance. They found that the engagement in CWB is driven by negative emotion that is elicited by certain characteristics of the environment as well as traits of the individual committing the CWB. The traits identified as triggers include low-agreeableness (disagreeable) and low-emotionality (neurotic). Neurotic individuals are easily upset, emotionally unstable, irritable, and prone to depression; agreeable individuals have communal, prosocial orientation that motivates them to serve the needs of the group. Both traits possess a negative emotional component, and this may elicit negative behaviour from others in reaction to their unpleasantness (Bauer & Spector, 2015; Scott & Judge, 2013).

Other person characteristics that can be used in determining CWB in certain individuals are the demographic profile of the person. Ashton, Lee, Pozzebom, Visser, and Worth (2010) posit that age, gender, education, and tenure add to the tendency of an individual to participate in these types of behaviour. Men are said to be statistically more likely to engage in aggressive behaviour, and more educated people are less likely to be involved in unethical behaviour (Bowling & Burns, 2015; Ng, Lam, & Feldman, 2016; Spector & Zhou, 2014). Appelbaum et al., (2007) mentioned that employees with more tenure in an organisation are less likely to show deviance than employees who are new to the organisation. This is said to be due to loyalty to the organisation as well as financial security. Another notion made in this study is

that people might lose their perception of what is ethical out of fear to conform and belong. After participating in this behaviour over some extended period individuals will forgo their own perceptions of what is ethically correct to fit in with the majority. This can be labelled as peer pressure experienced by the person to act in a certain way to be accepted (Appelbaum et al., 2007).

In a study done by Liu, Lyksyte, Zhou, Shi, and Wang (2015) they found that over qualification of the individual can also lead to CWB due to a lack of person-job fit that function through the stress-emotion model. Consistent with their study, over qualification leads to CWB through two separate pathways: firstly, people cognitively evaluate the lack of person-job fit, leading to feelings of reduced self-worth; and secondly, they experience negative emotions, such as anger toward employment situations, in which they have not been offered jobs that match their qualifications (Ashton et al., 2010; Liu et al., 2015; Lyksyte, Spitzmueller & Maynard, 2011). Furthermore, in a study conducted by Iliescu, Ispas, Sulea, and Ilie (2015) they found that a lack of person-job fit in terms of vocational interest also induced CWB. Vocational interests subconsciously guide our behaviour, and it is impossible to disregard and suppress the need for a certain type of work environment to reach full efficiency. A lack of interest creates frustration within individuals, leading them to respond with CWB (Iliescu et al., 2015).

This selection or victim criteria as well as demographic and other characteristics of the perpetrator links with the stress-emotion model of CWB, presented by Spector and Fox (2002, 2005). The model represents a comprehensive explanation as to why workers may enact CWB in stressful situations aimed at either the individual (CWB-I) or the organisation (CWB-O). Spector and Fox (2005) hypothesised that CWB is a coping response to perceived stressors with the aim to improve the work environment or situation. Stated differently, it can be considered that CWB is an adaptive response to stressors to overcome frustrating working conditions that interfere with their personal and professional goal achievement (Iliescu et al., 2015). Similarly, the COR model postulates that whenever employees perceive a stressor, they could experience negative feelings that, in turn, may lead them to enact CWB as a strategy to reduce the associated affective discomfort (Bauer & Spector, 2015; Bolton, Harvey, & Gratwiche, 2012; Fox et al., 2001; Spector & Fox, 2005). This approach sees CWB as a response to strain to manage a stressful situation and reduce the unpleasant negative emotions,

even if it means that the effectiveness and well-being of the organisation and its employees is threatened (Fida et al., 2015; Meier & Spector, 2013; Miao et al., 2017).

Henle (as cited in Appelbaum et al., 2007) also noted that certain organisational environments cause stress and then lead individuals to respond by participating in CWB. This postulates that the environment alone causes the individual to respond with deviance by inducing CWB as a reaction to it. The individual experiences situational constraints as problematic and acts as a motivating factor for individuals to try and improve their situation (Sonnetag & Strazyk, 2015). In view of this, CWB is a coping strategy that employees implement to reduce the negative impact of stressors and strain caused by their environment.

Referring to Robinson & Bennetts' (1995) typology, production deviance and withdrawal was found to serve as successful coping strategies employed by employees in the case of low perceived distributive justice. Therefore, from this perspective, CWB can be viewed as a symptom of certain weaknesses in the organisation, in other words, organisational justice. This perspective, related to organisational stressors, posits that the perceived stressors can be induced either by interpersonal factors of target individuals in the organisation or by factors of the organisation or work situation itself. As a result, it can lead the individual to revert to a method of coping (Aube et al., 2009; Fox et al., 2001; Welbourne & Sariol, 2017).

Additionally, Henle (as cited in Appelbaum et al., 2007) suggested that the personality of the individual and not the environment determines the person's propensity to participate in these acts. These perspectives proposed by Henle were termed situational and dispositional perspectives respectively. Similarly, Lee, Ashton, and Shin (2005) also described CWB in terms of these perspectives. At the individual level Lee et al., (2004) termed the dispositional perspective to have the dominant assumption that an individual's personality is a predictor of CWB, whereas the situational perspective suggests that CWB is a result of circumstantial/situational factors. For example, when any form of injustice and mistreatment is experienced it is usually accompanied by the exhibition of CWB, thus the situation caused the behaviour to occur (Semmer, Tschann, Meier, Facchin, & Jacobshagen, 2010). In the same way CWB is considered to be an adaptive mechanism, which suggests that this behaviour represents an emotional means of coping with, adjusting to, or gaining control over, a frustrating or dissatisfying job or work situation (Bennet & Robinson, 2003; Miao et al., 2017; Yang & Diefendorff, 2009).

Another perspective is that of the theory of crime, as proposed by Gottfredson and Hirschi (1990). This supports a more dispositional approach when investigating the nature of CWB. The main assumption of this theory is that virtually all deviant acts are related to each other over an extended period. This, in terms of the theory, interprets the adaptability and stability of crime and it is reasoned that a single personality trait underlies the recurring patterns of deviant behaviour. The construct they identified was termed self-control. The most important defining feature of this trait is that all deviant acts involve and promise immediate and easy gratification of some desire with only the potential risk to the offender of long-term negative consequences. It is defined as “a tendency to avoid acts whose long-term costs exceed momentary advantages” (Hirschi & Gottfredson, 1994, p.4). They suggested that if self-control is the tendency to consider the long-term risks of one’s behaviour, and if CWB is essentially behaviour with short-term and long-term consequences, lack of the self-control trait serves as a predicting factor in the occurrence of CWB. This supports the more dispositional nature of CWB (Marcus, Taylor, Hastings, Sturm, & Weigelt, 2016; Oh, Charlier, Mount, & Berry, 2014).

Most researches, however, suggest that both situational and dispositional aspects should be included to investigate the causes of CWB, although the bulk of the research still focuses on either one or the other. Sackett and DeVore (2001) mentioned that one practical explanation for this research tendency is that an intervention-centred focus may lead to varying research interests, which can be aimed either at organisation wide controls or personnel selection (MacLane & Walmsley, 2010). In other words, if a problem is identified, the cause-and-effect relationships of the identified variables can be examined, and a suitable solution chosen or developed to address that issue directly.

In considering a combined approach, it is necessary to acknowledge that numerous situational and individual difference variables are mediated by certain cognitive and emotional processes, which are used in turn to explain the two general types of self-destructive and retaliatory CWB (Fox et al., 2001; Marcus & Schuler, 2004; Martinko et al., 2002). Specifically, the perceptions of the individual’s work situation and experiences, as well as the constraints provided by their inherent traits to act on these perceptions, will determine the tendency to perform CWB. This links with motivation theorist supposition that an external pressure (work overload) or internal propensity (conscientiousness) forces or drives people to perform CWB. The common theme is that some forceful power, be it situational or dispositional, pushes people toward CWB. It

is either not present or less prevailing for individuals who do not revert to such behaviour, leading us to the assumption that an interplay of person and situation characteristics affect CWB, and needs to be considered.

Similarly, Appelbaum et al., (2007) also argued that CWB is not engaged in purely the inherent nature of the person's environment (situational characteristics of the working environment and the specific job characteristics) or the dispositional characteristics of the individual, but rather a combination of these two aspects. For example, if the person is predisposed to act in a certain manner in a stressful situation, and the behaviour associated with this reaction is classified as counterproductive, and assuming that the person's working environment is stressful in nature, the person's deviant behaviour is caused by integral characteristics of the individual's personality as well as the working environment (Fox et al., 2001; Yang & Diefendorff, 2009).

As per Robinson and Bennett (as cited in Bennett & Robinson, 2000) CWB is often the result of a perceived specific event that triggers the individual into action. They propose that personality variables act as constraints to how we react to unfavourable situational perceptions linking to CWB as a form of emotional coping (Miao et al., 2017; Spector & Fox, 2005). This depends, however, on the relevance of personality traits to the situation. When they are highly relevant, personality traits can moderate or constrain the relationship between an individual's perception of the situation and the work criteria (Colbert et al., 2004). In line with this reasoning, individuals will more likely respond to negative perceptions of their work situation when their personality does not constrain this response. By constrain it is meant that the characteristics do not help the individual cope effectively with the stress of the given situation.

In addition, Trait Activation Theory (TAT) (Tett & Guterman, 2000) provides a way to examine which personality traits predict CWB. The underlying assumption of TAT is that "individuals are more likely to express their traits when presented with trait-relevant situational cues" (Tett & Burnett, 2003, p. 502). A situation is considered relevant to a specific trait if it triggers the expression and reinforcement of that specific trait's behaviour (Tett & Guterman, 2000). For example, when interpersonal situations at work; such as getting along with others and assisting others are classified as desirable, the situation activates agreeableness as a relevant trait. In turn, task-based situations, where efficient and effective task accomplishment and complying with organisational rules, policies, and/or regulations are

required, it activates conscientiousness as a relevant characteristic (Tett & Guterman, 2000; Tett & Burnett, 2003).

In consequence, the situation is needed to elicit the reaction or coping mechanism, but without the inherent traits the reaction will never take place. The perceptions of the individual's work situation and experiences, as well as the constraints provided by their inherent traits to act on these perceptions, will determine the tendency to perform CWB as an adaptive mechanism. CWB would then constitute a risk the individual will be willing to take to receive a reward due to their inherent traits reacting in line with what the situation requires.

A framework developed by Cullen and Sackett (as cited in Diefendorff and Metha, 2007), classifies CWB as initiated or reactive behaviour. Initiated behaviour is exhibited to satisfy some need or motive of the individual, such as greed, pleasure, risk-taking, and thrill-seeking. In other words, it is a conscious choice made by the individual to obtain something they want. Reactive deviance on the other hand, occurs as a response to some actual or perceived organisational event that negatively affects the individual. The underlying motive for this type of deviance usually involves retaliation, revenge, release, or escape (Diefendorff & Metha, 2007; Martinko et al., 2007). Thus, CWB is an active choice to obtain something or just as a reaction against negative emotions caused by perception of inequity including personal and situational factor. This also ties in with the perspective that CWB can be either instrumental or hostile. As stated by Berkowitz (as cited in Spector et al., 2006) hostile CWB is associated with negative effect, usually impulsive in nature, and is of harmful intent. Instrumental CWB is not necessarily associated with emotion and is believed to have another goal as the primary motive. Similarly, Penney et al. (2011) analysed the conservation of resources (COR) theory to elucidate the possible benefits of CWB. CWB can be motivated by hostile intentions, for example, responding to a provoking situation where inflicting injury is the key objective. CWB can also be motivated by instrumental intentions, for example, harm is exerted or imposed to acquire some other desired outcome. Thus, the distinguishing feature between hostile and instrumental action is that the former is reactive and heated, whereas the latter is proactive and cold.

Hence, it becomes clear that not all forms of CWB assume motives that are initiated to cause harm to others but can be to enrich oneself in some way or another. For that reason, as

mentioned earlier, it can either be a discretionary choice made by the individual due to a reaction to negative emotions or simply an action initiated to acquire something they want.

From a theoretical standpoint, the occurrence of CWB has been explained by applying social exchange theory, as well as equity theory principles to it (Chernyak-Hai & Tziner, 2014; Rustebog, Bordia, & Tang, 2007). This perspective helps clarify why certain employees reciprocate with deviance when they perceive unfairness, and satisfaction in cases when they perceive good treatment by the organisation.

Social Exchange Theory (SET) posits that human relationships are formed using a subjective cost-benefit analysis. This analysis involves measuring the cost of acting out certain behaviour and what potential benefits or risks this involves. The basic assumptions of SET are that people are inclined to repeat actions that were met with reward in the past and the more a behaviour resulted in a desired reward the more likely it is that a person will act in that way again. An important aspect of the theory is that it considers social relationships to be based on trust and that gestures of goodwill will be reciprocated (Colquit et al., 2013; Emerson, 1976). In other words, SET takes the stance that when people feel that they are treated well, they respond with organisational citizenship behaviour that benefits the organisation (Chernyak-Hai & Tziner, 2014; Miles, Borman, Spector, & Fox, 2002; Rustebog et al., 2007). As this organisational citizenship behaviour is known to be an antecedent of satisfaction, it can be said that SET is based on the satisfactoriness of the interaction between the organisation and the employee. When employees perceive that they are not being treated well and are dissatisfied with their treatment, they reciprocate by doing only what is required of them and they do not participate in activities that go beyond their normal day-to-day activities. Subsequently, if the individual perceives the situation to be a negative exchange between the organisation and the individual, they will react by decreasing input.

In terms of the equity theory perspective, CWB emanates from unfair treatment (Spector, Bauer, & Fox, 2010). This can be further explained as the failure of the organisation to stand by its promised commitments, which may result in the employees being engaged in CWB to correct the perceived imbalance (Rustebog et al., 2007). Therefore, they will retaliate with deviant acts to restore the equity balance.

These perspectives add to the notion of CWB being a voluntary/conscious action. In brief, the person either lacks the motivation to act in accordance with organisational norms, for instance, when employees are not treated well and cannot find a reason to act in an appropriate manner when CWB benefits them. Or the individual is directly motivated to violate normative expectations, for example when an employee perceives unfairness and exhibits CWB to correct this perceived imbalance (Robinson & Bennett, 1995).

Based on these theories and perspectives given on what causes CWB it becomes clear that there is a wide range of explanations for its existence, but the central theme remains: both situational and individual factors influence the likelihood of such behaviour.

2.3.1.1 Dimensionality of counterproductive work behaviour

Before examining the relevant antecedents that are investigated specifically for this research it is necessary to explore the specific CWB that are experienced as common issues prevalent in organisations. Some of these types of behaviour include the following: absenteeism, withholding effort, theft, sexual harassment, unethical decision-making behaviour, substance abuse and abuse of employment privileges (Robinson & Bennett, 1995). For this paper the focus will be on dimensions related to both CWB-O and CWB-I. Specifically, abuse, theft, sabotage, withdrawal, and production deviance as delineated in the measure developed by Spector et al., (2006). Figure 2.2. represents the classification of the mentioned CWB into either the interpersonal or the organisational dimension of CWB. This is also in line with the delineations of Spector et al., (2006).

2.3.1.1.1. Theft

According to Klotz and Buckley (2013) theft involves the intended removal and subsequent transfer into personal possession of company property. This also relates to theft of co-worker property. Theft can take many forms, including producing misleading records, dishonesty, and stealing money. Similarly, Spector *et al.* (2006) define theft as wrongfully removing goods or property from another. As theft occurs in terms of organisational as well as co-worker's property this type of CWB forms part of both the interpersonal and occupational categories of CWB. Three major reasons could explain theft: economic need, job dissatisfaction, and injustice (Fox et al., 2001).

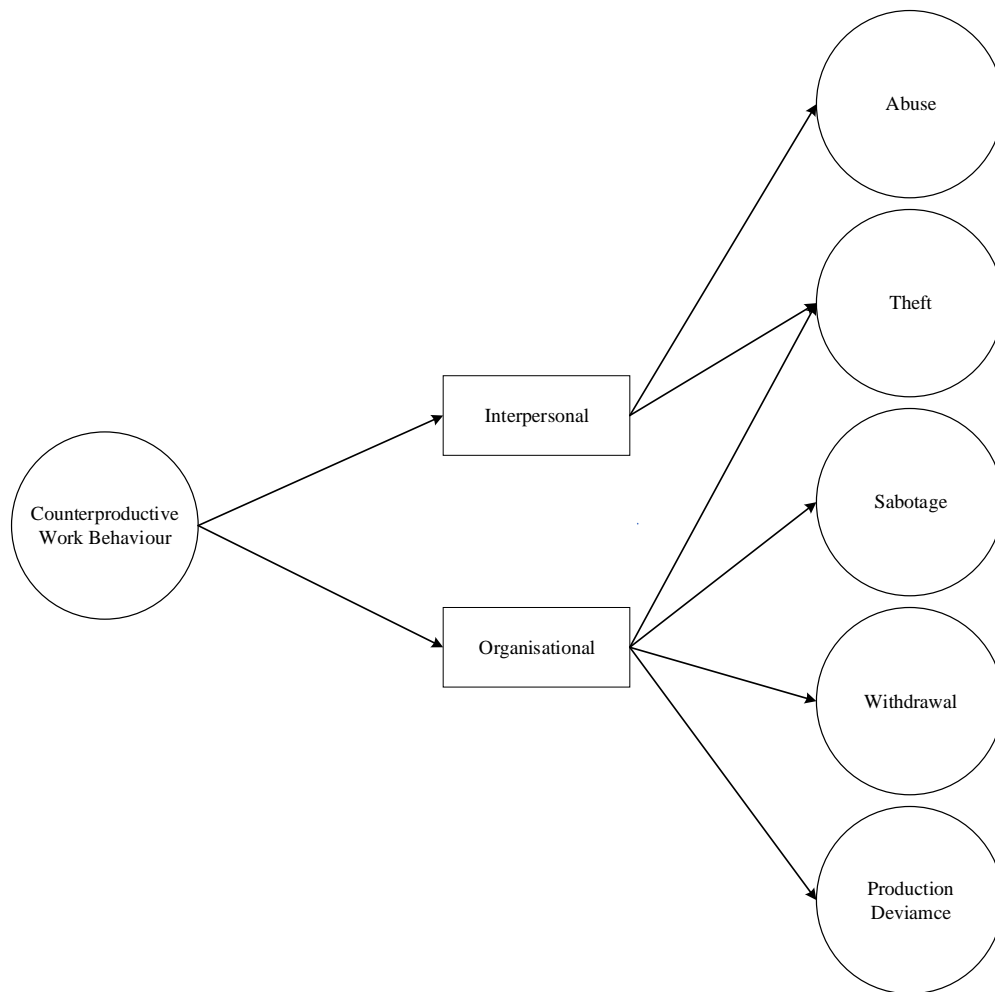


Figure 2.3. Interpersonal and Organisational CWB

(Spector et al., 2006)

2.3.1.1.2. Sabotage

Also known as property deviance, this involves purposefully damaging production equipment or any other property of the organisation with the intention to cause harm and/or stop operations (Spector et al., 2006; Spector & Fox, 2010). Additionally, it also involves causing loss for one's organisation by damaging its reputation. It is exhibited with the intention to inflict production or profit loss for the organisation (Giacalone & Rosenfeld, 1987). This can include the misuse of information, for example, when an employee uses confidential information in a destructive way with the intent to harm the organisation (Crino, 1994).

2.3.1.1.3. Abuse

This section includes sexual harassment, aggression, verbal abuse, bullying, and workplace incivility. As per Spector et al., (2006) abuse is defined as “harmful and nasty behaviour that

affect other people” (p. 448). This harm can be either physical or psychological, thus including mental, verbal, and physical abuse. Abuse directed at others can be physical or psychological (Spector & Fox, 2005). Bullying, workplace incivility, and sexual harassment can be considered as some of the behaviour that classify as workplace abuse. Similarly, bitterness in behaviour, attacking, confrontational or assertive conduct, sharing malicious information, teasing and humiliating co-workers, spreading rumours and unfair criticism or even physical assault are classified as other facets of abuse (Sackett, 2002). Although these facets are not all explicitly measured with the CWB-Checklist (CWB – C) as per Rothman et al., (2006)’s definition of the abuse construct, upon closer inspection of the included items it is still representative of them all.

2.3.1.1.4. Production Deviance

When an employee does not perform a task up to the standard to which they are able to, it is considered production deviance. This is the purposeful action to perform tasks ineffectively, for example, by working slowly or by wasting resources. This will cost the organisation in terms of lost productivity as well as ineffectual use of resources, which could lead to higher production costs (Spector et al., 2006). Production deviance occurs in response to a multitude of situational and environmental aspects, including inadequate technology, inappropriate environment, and heavy workload (Robinson & Bennett, 1995). This could also include behaviour such as social and cyber loafing, reducing efforts, and restricting quotas.

2.3.1.1.5. Withdrawal

Withdrawal is behaviour that limits the amount of time that employees provide to the organisation to less than required to successfully complete tasks (Spector et al., 2006). This consists of behaviour such as unpunctuality, absence, and taking longer breaks than permitted. It is considered avoiding work through being late or absent. Withdrawal is behaviour where an employee attempts to avoid a situation rather than harming the organisation and its members thus, this type of behaviour is used as a passive way to influence the organisation by withholding effort usually used to produce for the organisation. This, once again, affects the productivity of the organisation and incurs costs in the form of, for example, salaries paid for time worked that was in fact not productively done. Looking at the description of production deviance there is a noticeable similarity between the categories, but as previously stated, withdrawal is more passive in that it involves withdrawing effort systematically.

2.3.1.2 Conclusion

Based on this exploration of the construct CWB, it can be concluded that it is a conscious and deliberate action dictated by a choice an individual makes to violate important organisational norms due to two reasons: them becoming motivated to violate these norms or lacking the motivation to conform to these norms based on either interpersonal experiences or perceived situational constraints. This necessitates exploring the interaction of the individual with the situation determining the prevalence. As alluded to during the review of the relevant literature, CWB serves as a coping strategy initiated by the individual and can be initiated purely to gain something of value or as retaliation against perceived inequities. Therefore, some deviances are reactive actions and others are initiated actions. To better understand its occurrence requires examination of the antecedent factors that constitute these situational and individual factors.

The most prevalent causes explored within the literature include; justice perceptions, work and job characteristics, and personality traits. These are the most widely used factors that have been identified to assist in explaining the prevalence of these types of behaviour, as well as why some individuals are more prone to resort to this behaviour. As per Marcus and Schuler (2004) most antecedents linked to CWB can be distinguished as being either person vs. situational or motivational vs. control-driven. Within this framework, dualistic quadrants can be used to classify CWB, namely; Triggers (Situation-motivation factors), Opportunity (Situation-control factors), Internal control (Person-control variables), and lastly, Propensity (Person-motivation variables). Based on these distinctions, triggers are described as external events or internal perceptions of these events that motivate CWB as a response. For instance, distributive injustice perceptions pertaining to pay cuts that leads to individuals responding with withholding their effort to retain a sort of balance (Lui et al., 2015). In line with this, justice perceptions mainly work through the perceptions of workplace fairness and equity. It is believed that when the individual perceives inequities in their treatment or the execution of policies and procedure, they will reciprocate. This is also assumed to be in retaliation, by using CWB as a method of coping and to restore a sense of balance. Therefore, this links to the triggers quadrant, as the situation triggers an equalising response from the individual (Colquitt et al., 2013; Martinko et al., 2002).

As per the model, opportunities involve any situation or perception of the situation that motivates or hinders the exhibition of CWB by increasing or limiting the access to associated rewards or decreasing the likelihood of negative consequences. Examples of this range from job autonomy to organisational climate or other measures taken by the organisation to counteract CWB by promoting engagement over exhaustion. This can also include organisational policies against acts of retaliation.

Internal control is considered to describe the stable individual differences acting as a buffer against CWB, providing internal resources to deal with negative scenarios. Conscientiousness and emotional stability are considered buffering factors. For example, people low in conscientiousness revert to CWB as an immediate response after experiencing job stressors due to their perceived lack of control in that situation.

Propensity, although it is also considered as stable individual differences, relates to what drives, and/or motivates people toward CWB. This functions through increasing the attractiveness of the desired outcomes or the course of action (Marcus & Schuler, 2004). An example of this can be linked to a propensity towards risk-taking where individuals with a low conscientiousness score have been found to be more reckless due to their lack of task engagement (Weller & Tikir, 2011). In line with this, honesty-humility and emotionality can be associated with risk-avoiding behaviours.

These classifications can therefore be used in such a way to explain and classify all antecedent factors of CWB. Considering the model, work- and job characteristics, as triggers and opportunities, play a role in shaping perceptions and can serve as a stressor or a behavioural cue for individuals. If the job and work environment place immense pressure to perform to a certain standard, this stress can lead individuals to resort to CWB as a coping mechanism (Fox et al., 2001; Spector & Fox, 2002; Welbourne & Sariol, 2017). Similarly, employees' reactions to their work experiences and work environments are influenced by their internal control or propensity, which in turn will influence the probability of them using CWB as a coping mechanism.

Therefore, personality-CWB linkages must be explored and explained. This will be done in part, by looking at affective/attitudinal constructs that reflect on individuals' reactions to their work environment, experiences, and their situational circumstances at work. It is recognised

that both situational and dispositional aspects of the individual's life determine the occurrence of CWB.

In conclusion, although the big influence of job characteristics on the exhibition of CWB is recognised, to limit the complexity of the model the focus of this paper is limited to certain person characteristics and their interaction with certain job demands and how this influences the exhibition of general CWB (Appelbaum et al., 2007; Bennett & Robinson, 2003; Colbert et al., 2004).

Hypothesis 1: The conceptual model is a valid portrayal of CWB and its antecedents.

2.3.2 HEXACO Personality Dimensions

The HEXACO personality structure is a six-dimensional model that comprises the following factors: Honesty-Humility (H), Emotionality (E), eXtraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O). These traits are said to portray certain enduring emotional, interpersonal, and motivational styles that explain behaviour in different situations.

The model is similar to the Big Five and Five Factor Models (FFM), but provides an extension of this model's application, as the new sixth H-H dimension has shown the capability to account for anti-social/deviant/counterproductive behaviour over and above what previous models have done (Ashton & Lee, 2008; Lee, Ashton, & De Vries, 2005; Daljeet, Bremner, Giammarco, Meyer, & Paunonen, 2017). This has been attributed to the fact that this new H-H dimension only has a moderate association with the agreeableness dimension included in the Big Five and FFM models, which has been associated with aspects, such as integrity (Ashton & Lee, 2008; Marcus, Lee, & Ashton, 2007).

As per its definition, the honesty-humility factor assesses the inclination of the individual to not exploit others even when the situational constraints, in other words the risk of negative consequences, are none (Ashton & Lee, 2007). This factor is associated with behaviours such as: sincerity (the tendency to be genuine in interpersonal relations), fairness (the tendency to avoid fraud and corruption), greed-avoidance (the tendency to be uninterested in possessing wealth, luxury goods, and signs of high social status), and modesty (the tendency to be modest and unassuming) (Lee & Ashton, 2004). In general, individuals high in honesty-humility are

said to describe themselves as sincere, loyal, generous, altruistic, honest, faithful, helpful, un-deceptive, etc. (Ashton et al., 2006). On the other hand, individuals low on this dimension are described as egotistic, hypocritical, insincere, lying, presumptuous, haughty, deceitful, devious, greedy, crafty, cunning, pretentious, etc. (Ashton et al., 2006). This factor can then be associated with the trait of “self-control” as described by the theory of crime (Gottfredson & Hirschi, 1990). A high honesty-humility factor describes the individual’s innate propensity to avoid acts where the long-term costs exceed immediate benefits obtained from participating in the behaviour even in situations where the situational constraints are absent.

As previously stated, the model resembles the Big Five and FFM, but there are slight distinctions, because even though five out of the six HEXACO factors are similar, they are distinguishable based on subtle differences in the description of each dimension (Ashton, Lee, & de Vries, 2014; de Vries & van Kampen, 2010).

Emotionality is similar to the FFM construct of neuroticism but is concerned with emotional attachment and empathetic concern for others, as well as harm-avoidant and help-seeking behaviour (Ashton et al., 2010). Therefore, scoring on the lower spectrum of emotionality an individual could be described as less emotionally reactive, whereas persons scoring high on emotionality experience more fear and anxiety. According to Ashton and Lee (2008) this is also seen as the dimension that includes components of both physical and psychological harm avoidance. Moreover, the HEXACO emotionality dimension does not include the angry hostility component as with the Big Five’s low emotional stability or FFM’s high neuroticism. Instead, angry hostility, characterised by anger and irritability, is contained in the agreeableness dimension, specifically associated with low agreeableness in the HEXACO factor structure. Additionally, anything associated with sentimentality, instead of being associated with the agreeableness factor as in the Big Five and FFM, is now associated with HEXACO emotionality instead (Ashton & Lee, 2007; de Vries, Tybur, Pollet, & van Vugt, 2016). The sub-behavioural dimensions explored within emotionality include: fearfulness, anxiety, dependence, and sentimentality, versus toughness, un-emotionality, and fearlessness. It is distinguished from the FFM’s neuroticism by excluding ill-temper-related terms (Ashton et al., 2006; Ashton & Lee, 2009).

Agreeableness represents a person's tendency to be forgiving and being tolerant to the point that others might exploit that person. The sub-dimensions associated with agreeableness in

this model include; forgiveness, gentleness, flexibility, and patience, versus ill-tempered, quarrelsomeness, and stubbornness. The distinguishing element of the HEXACO's agreeableness factor is the inclusion of content related to anger and hostility at the low poles of the dimension, whereas with the FFM's low agreeableness pole these traits are not included (Ashton et al., 2006).

The remaining three factors represent the tendencies to be involved in certain activities (Weller & Tikir, 2011). These factors are extraversion, conscientiousness, and openness to experience. Extraversion entails being involved in social activities, such as socialising, leading, or entertaining. The associated behaviours at the high poles of this factor include, social self-esteem, social boldness, sociability, and liveliness.

Conscientiousness is the involvement in task-related activities, such as planning and organising, as well as persevering with tasks and chasing goal completion. Its high poles associated behaviours include: organisation, diligence, perfectionism, and prudence or practicality.

Lastly, Openness to Experience entails the involvement in idea-related behaviour, such as learning and imagining, and is associated with individuals who are usually seen to be more intellectual and unconventional (Ashton & Lee, 2007). The sub-behavioural dimensions associated with high poles of openness include, aesthetic appreciation, inquisitiveness, creativity, and unconventionality. These dimensions are further described at their low and high poles in Table 2.1.

Table 2.1
HEXACO personality structure (Ashton & Lee, 2007)

Factor name	Generic defining adjectives	
	High Pole	Low Pole
Honesty-Humility	Sincere, Honest, Loyal/Faithful, Modest, Fair-minded	Sly, Greedy, Pretentious, Hypocritical
Emotionality	Emotional, Oversensitive, Sentimental, Fearful, Anxious, Dependent	Brave, Tough, Independent, Self-assured, Stable

Extraversion	Outgoing, Lively, Sociable, Talkative, Cheerful, Active	Shy, Passive, Withdrawn, Quiet, Reserved
Agreeableness	Patient, Tolerant, Peaceful, Mild, Agreeable, Lenient, Gentle	Ill-tempered, Quarrelsome, Stubborn, Choleric
Conscientiousness	Organised, Disciplined, Diligent, Careful, Thorough, Precise	Sloppy, Negligent, Reckless, Lazy, Irresponsible, Absent- minded
Openness to Experience	Intellectual, Creative, Unconventional, Innovative, Ironic	Shallow, Unimaginative, Conventional

The honesty-humility factor entails that persons with very high scores avoid manipulating others for personal gain, feel little to no temptation to break rules to achieve goals or otherwise, are not focused on material luxuries, and feel no entitlement when it comes to social status. Conversely, persons with very low scores on this scale will use flattery for personal gain, are more inclined to break rules voluntarily, consider material gain as a very important motivator, and feel a strong sense of self-importance. From this the H-H dimension encompasses behaviour associated with deviance, manipulation and a disregard for others without due consideration for the overall consequences (Ashton & Lee, 2007; Johnson, Rowatt, & Petrini, 2011).

In terms of the Big Five model, CWB is mostly accounted for by the agreeableness, conscientiousness, and emotional stability factors, whereas in the HEXACO model the honesty-humility factor significantly determines the tendency to exhibit CWB. This is since the counter pole of the H-H-factor was found to be associated with the Dark Triad.

This Dark Triad consists of the following personality characteristics: subclinical psychopathy, Machiavellianism, as well as subclinical narcissism, which are traits that have been found to link with the display of CWB (Ashton, Lee, & Son, 2000; Lee & Ashton, 2005; Palmer, Komarraju, Carter, & Karau, 2017; Spain, Harms, & Lebreton, 2014). The personality characteristics comprising the Dark Triad share similarities in that all of them

entail a sense of self-promotion, emotional coldness, duplicity, and aggressiveness (Paulhaus & Williams, 2002). These are usually distinguished from personality disorders of the same name based on their subclinical nature as defined in the Diagnostic and Statistical Manual of Mental Disorders (DSM). Looking at the contrast, high honesty-humility factor represents the tendency to be fair and genuine in dealing with others. As mentioned, this factor is characterised by behavioural traits; such as sincerity, fairness, greed avoidance and modesty, whereas, the Dark Triad is characterised by domains such as manipulation, exploitation, dominance, and insincerity; thus, the misuse of one's personal power in any given situation (Ashton & Lee, 2007; Lee & Ashton, 2004; Spain et al., 2014). These factors include traits that add to the person's tendency to act in ways that either disadvantages others for personal gain or that is purely destructive in nature.

Furthermore, some of the personality dimensions have also been associated with risk-taking behaviour (de Vries, de Vries, & Feij, 2009). In this sense risk-taking is seen to be domain-specific behaviour dependant on the perceived risks and benefits associated with taking these risks, as well as the individual's willingness to trade off risk for reward (Ashton, Lee, Visser, & Pozzebom, 2008; Weller & Tikir, 2011). The specific domains mentioned are social, ethical, health/safety and recreational risk-taking.

As per Weller and Tikir (2011) the association between risk-taking and personality was largely dependent on the associated risk domain, which leads us to believe that certain personality traits are only related to certain types of risky behaviour based on perceived rewards associated with the behaviour. In their study they found that the honesty-humility as well as the agreeableness factor correlated highest with the ethical and health/safety risk-taking domains, whereas the emotionality factor correlated consistently negative with all the domains. Additionally, it has been found that the honesty-humility factor was strongly mediated by the perceived risks and benefits associated with taking health/safety risks, which might be since low honesty-humility leads individuals to feel less bound by societal rules and restrictions (Louw, Dunlop, Yeo, & Griffin, 2016).

Health/safety risks, as defined by Weller and Tikir (2011), include behaviour such as substance abuse and risky sexual behaviour. Additionally, Weller and Thulin (2012) confirmed that individuals with low honesty-humility are less sensitive to potential losses

associated with taking a risk. Furthermore, the emotionality factor was found to correlate negatively with all the risk-taking dimensions as categorised in most CWB taxonomies. This might be since individuals who show a high emotionality factor are considered overly anxious, which leads them to over-estimate risk in any given situation. Likewise, it was found that highly conscientious people also perceive higher risk and lower benefits associated with risk-taking. Conversely, it was found the low conscientious people are more prone to exhibit health/safety as well as recreational domains of risk-taking behaviour as these individuals have been found to be more reckless due to their lack of task engagement (Weller & Tikir, 2011).

The HEXACO personality factors are also strongly related to the concept of sensation-seeking. This construct is seen to be associated with extraverted and impulsive individuals who have the need for new and complex sensations and who are not afraid to take social or physical risks to have these experiences (Aluja, García, & García, 2003). This is also seen to be closely associated with the social risk-taking domain mentioned earlier. According to (de Vries, de Vries, & Feij, 2009) openness to experience is the most influential HEXACO personality component when looking at sensation-seeking individuals. Additionally, extraversion was also found to be highly correlated with sensation-seeking in that these individuals have been found to be more willing to take social risks to fulfil their need for social interaction.

These findings make a valuable contribution to determining whether it is possible to predict if an individual is more prone to exhibit these domain-specific and sensation-seeking behaviours. It can be concluded that exploration into the influence of some personality factors, if not all, will provide a useful insight into why certain individuals will inherently be more prone to exhibit risk-taking behaviour, such as CWB.

2.3.3 Job Demands

Throughout literature, the situational versus dispositional argument has been presented comprehensively. When specifically considering the variant nature of job demands it is important to consider that it can be perceived as different types of stressors by different people, leading us to believe the presence of both situational and dispositional aspects. Thus, for this study, the focus will remain on work overload as a challenge stressor and job insecurity a

hindrance stressor to investigate the relationship between these antecedents with CWB. Both elements will be briefly discussed.

2.3.3.1 Work Overload

Work/role/job overload is generally considered to be the most mentioned and cited job demand impacting performance and is caused by an external factor not under the control of the employee. Work overload includes working under pressure, having too many things to do at one time, having too much overall work to do, and having to confront emotionally upsetting situations (Jackson & Rothman, 2005). Work overload in general concerns the amount of work, mental load, and emotional load that the individual is confronted with at work (Rothman et al., 2006).

As said by Gilboa et al., (2008) work overload, which refers to a situation in which work demands exceed resources available, can be both negatively and positively related to job performance; leading to it being either a hindrance or a challenge stressor. It is a hindrance stressor when the demands are too great for the individual to handle with their personal resources and prohibits achieving work-related goals (Gulzar, Moon, Attiq, & Azam, 2014). On the other hand, work overload can also be considered a challenge stressor when high performers voluntarily take on more tasks and responsibilities, due to them being motivated by the challenge to perform well under these circumstances (Gilboa et al., 2008; Huy et al., 2011; LePine, LePine & Jackson, 2004; Podsakoff et al., 2007; Rodell & Judge, 2009). Therefore, the differential or curvilinear relationship between CWB and job demands will be explored by including work overload.

2.3.3.2 Job Insecurity

Long-term permanent employment has become rare due to the changing nature of the job market and employees' personal needs when it comes to their occupations and employment (Van der Elst, Baillien, De Cuyper, & De Witte, 2010). A bigger focus is being placed on maintaining a good balance between personal and occupational well-being. As a result, job insecurity is another consideration that needs to be explored when investigating how job demands affect the employee's performance.

Job insecurity refers to uncertainty about the future with relation to the probability of an individual retaining their position, level of responsibility, and employment (Cheng & Chan, 2008; Chirumbolo, 2015; Rothman et al., 2006). Job insecurity is a job hindrance stressor, which brings about negative psychological health, as well as negative job-related reactions, such as CWB (Yi & Wang, 2015). Job insecurity is said to have this effect due the individual experiencing a psychological threat to the security/surety in them keeping jobs caused by uncertainty in their work environment, be it the company restructuring or the nature of their employment (for instance a contract position) (Cheng & Chan, 2008). This stressor or demand is considered to interfere with goal attainment and serves as a hindrance to effective performance. In line with this, job insecurity will be investigated as a hindrance stressor in how it interacts with personal resources.

2.4 RELATIONSHIPS BETWEEN THE CONSTRUCTS

The main variable present in this research study is the display of CWB. Throughout this study CWB and some of its main antecedents are explored. As mentioned earlier, the purpose of this study is to determine the effect of dispositional as well as situational variables in determining the exhibition of CWB. This purpose can be achieved by means of exploring various relationships between the latent variables of interest. Firstly, the aim is to determine if personality plays a significant role in the identification and display of CWB independently. Secondly, whether the Job Demands identified also play an important role in predicting CWB independently. Thirdly, whether personality may moderate the effect of Job Demands on the probable display of CWB by means of dispositional reactions to the Job Demands investigated. Lastly, if the Job Demands identified significantly moderate the relationships between the personality characteristics and CWB.

2.4.1 Relationship between CWB and the HEXACO personality factors

It is acknowledged that our personality predisposes us to react in certain ways toward certain stimuli. The exhibition of CWB has been found on numerous occasions to be related to personality, but more specifically the Big Five and FFM factors (Penney, David, & Witt, 2011; Sackett & Devore, 2001).

As the HEXACO structure of personality is like that of the Big Five and FF models, this study aims to explore the factors of the HEXACO model that have been most prominently linked

with CWB – in other words, the honesty-humility factor. The aspects of CWB that this study focuses on include; abuse, withdrawal, sabotage, production deviance, and theft, which have all been proven to be influenced by certain factors associated with personality characteristics (Chirumbolo, 2015; Spector, et al., 2006). These factors include social conformity and sensation-seeking behaviour, which have mostly been linked with agreeableness, conscientiousness, and emotionality (Berry et al., 2007; O’Neil et al, 2011; Sackett & Devore, 2001; Sackett & Judge, 2013; Yi & Wang, 2015). Additionally, research suggests that the honesty-humility factor of the HEXACO structure will be a more accurate predictor of CWB than the Big Five and FFM (Ashton & Lee, 2008; Chirumbolo, 2015; Oh, Lee, Ashton, & de Vries, 2011).

Hypothesis 1: Honesty-Humility (ξ_1) has a significant negative effect on CWB (η_1).

Furthermore, the negative relationship between CWB-O and the agreeableness factor will be weaker than with the CWB-I dimension. Agreeableness and emotionality are said to be linked with CWB through its influence on the emotional processes of the individual (Berry et al., 2007). Individuals who can control their emotions better and who have a more agreeable nature are less likely to engage in CWB than people who see things from a negative perspective, or who have a lot of anger and hostility towards others (Spector, 2011). More agreeable individuals are also characterised by being more co-operative and trustful, decreasing the possibility of them engaging in activities that can harm co-workers (Bolton, Becker, & Barber, 2010; O’Boyle, Forsyth, & O’Boyle, 2011).

Hypothesis 2: Emotionality (ξ_2) has a significant positive effect on CWB (η_1).

Hypothesis 3: Agreeableness (ξ_3) has a significant negative effect on CWB (η_1).

In addition, conscientiousness will have a stronger negative correlation with the CWB-O dimension than with the CWB-I dimension. This is based on findings presented by Moun et al. (2006) illustrating that conscientiousness provides a better prediction of task-related performance (CWB-O) than other dimensions, and conversely, agreeableness out-predicted the other factors on the interpersonal aspects of CWB (Berry et al., 2007; Spector, 2011). More specifically, the facets of need for achievement and dependability serve as a constraint

against the exhibition of CWB and makes an individual more likely to rather adhere to than violate organisational norms.

Hypothesis 4: Conscientiousness (ξ_4) has a significant negative effect on CWB (η_1).

It is therefore hypothesised that some of the personality factors included in the HEXACO personality structure will relate in one way or another to the exhibition of the general factor of CWB, which includes both the interpersonal and the organisational dimensions. As previously stated, only the factors that feature most prominently throughout the literature will be investigated regarding their relationship with the general exhibition of CWB. These factors include honesty-humility, emotionality, agreeableness, and conscientiousness.

Consequently, the proposed model is one that uses the HEXACO personality structure to identify CWB. In this study CWB will be identified by considering only the most prevalent factors linked with the exhibition of CWB throughout the literature. These include honesty-humility, conscientiousness, agreeableness, and emotionality. The honesty-humility factor is assumed to be the strongest predictor of CWB. As previously stated, the honesty-humility factor has a negative relationship with CWB as it is the opposite pole of the so-called Dark Triad, which has been found to link with deviance (DeShong, Grant, & Mullins-Sweatt, 2015; Lee & Ashton, 2005; Lee et al., 2005; Spain et al., 2014). These factors, as previously mentioned are; narcissism, Machiavellianism, and psychopathy.

2.4.2 Relationship between Job Demands and CWB

Every job has its own challenges and hindrances inherent in achieving work-related goals. In keeping with the CWB model, as developed by Spector and Fox (2005), it is suggested that CWB is a reaction to frustration experienced at work due to factors that hinder the attainment of goals and effective performance. Linking this to the JD-R theory, excessive job demands may lead to emotional exhaustion over time through the interference of goal attainment; eventually causing frustration (Balducci et al., 2011). Furthermore, it has also been shown that emotional exhaustion – caused by job demands exceeding job resources – may result in stress reactions considered to retract from job performance by employing mechanisms to try and deal with these reactions effectively.

Additionally, according to Lazarus's (2006) Transactional Model of psychological stress, it involves two processes. First, the person experiences affective or emotional stimulation. Second, for the person to cope with this arousal, regulative processes are activated to manage their affective reactions. Moreover, these situations are a threat/hindrance or a challenge, based on the perception of the person experiencing them, and consequently, can vary greatly. Some of these situations place too much of a demand on the individual's resources to be perceived as a challenge, and they are likely to be threatening to the effective performance of the person (Lazarus, 2006; Lazarus & Folkman, 1984). In other words, when employees perceive a demand as potentially threatening or even harmful, they will overexert themselves to cope with the stressor as well as manage their immediate reaction to it in a way that restores balance. Therefore, work-related stressors are thought to reduce an employee's ability to perform by diverting effort away from performing job functions and toward coping with stressors in a way that restores equilibrium (Gilboa et al., 2008; Welbourne & Sariol, 2017). These stress reactions or coping mechanisms include attitudinal and behavioural responses; such as abuse, effort withdrawal, turnover intentions and absenteeism constituting employee withdrawal from the job, and subsequently constituting CWB-related behaviours, which subtract from overall performance (Bakker, Demerouti, de Boer & Schaufeli, 2003; Demerouti et al., 2001).

Hypothesis 5: Work overload (ξ_5) has a significant positive effect on CWB (η_1).

Hypothesis 6: Job insecurity (ξ_6) has a significant positive effect on CWB (η_1).

2.4.3 The moderating effect of the HEXACO personality factors

The basic premise underlying this moderating effect is that the more personal resources a person has to serve as a buffer to the impact of job demands, the smaller the probability that they will exhibit CWB when their personality predisposition counteracts the negative effects of these demands (Balducci et al., 2011; Eschelman et al., 2015; Zhou, Meier, & Spector, 2014). The discourse on CWB usually revolves around what the employee does and why he or she does it. However, it also includes the consideration of personal resources, which brings the focus back to who the person is in the workplace and how this might influence their exhibition of CWB (Colbert et al., 2004; Penney et al., 2011; Xanthopoulou et al., 2007; Zhou et al., 2014).

As reported by Affective Events Theory (AET), a relationship exists between CWB and personality due to a concept coined “differential reactivity”, which refers to the probability that a person will show an emotional or physical reaction in response to a stressful event (Colbert et al., 2004; Rodell & Judge, 2009; Sprung & Jex, 2012).

When faced with certain job demand or stressors people lower on certain personality traits should react more severely (for instance, with stronger emotions) than people higher on that personality trait. This links to the strategies people employ when faced with different job stressors due to their personality differences. According to Zhou et al. “engaging in CWB could be an immediate response strategy for people at low levels of certain traits when facing job stressors, while people of high levels of these traits tend to engage in other more effective coping responses and will engage in CWB only after the constructive coping responses do not work” (2014, p. 287). An example of this could be people low on conscientiousness engage in CWB as an immediate response to job stressors, while people high in this trait try initially to withstand the stress and cope more effectively and only after this has failed will they engage in CWB. This is because they are more affectively sensitive to the arousal caused by a threatening event or stressor due to their disposition (Eschelman et al., 2015; Palmer et al., 2017; Spector & Fox, 2002). Therefore, there exists the possibility that individual predispositions might influence the impact that work events have on affective reactions.

Reverting to emotional-problem solving styles when faced with a hindrance stressor, such as job insecurity, will lead the individual to make certain assessments related to the value associated with the demand (Chirumbolo, 2015; Spector & Fox, 2002; Van den Broeck et al., 2010). According to this avenue of reasoning, every individual will initially try to withstand job demands by, for instance, putting more effort into achieving their work goals. However, extended periods of confrontation with job demands wears out the individual’s adaptive capability, or rather, personal energy. This is based on the premise that some job demands are considered hindrances and drain the employee’s personal resources, as mentioned earlier.

In instances where the employee is confronted with these hindrance stressors, they tend to feel a lack of control, and may experience negative emotions, and as a result, they may be more prone to adopt an emotion-focused coping style (Krischner, Penney, & Hunter, 2010). This is especially likely when the person’s predisposition for emotionality is high (Folkman & Lazarus, 1985). As these demands do prompt negative emotions they would interfere with

employees' performance and well-being in the short- and long-term. In a study done by Balucci et al. (2011) they found that abuse/hostility may serve as a self-regulated process on the part of the individual to manage negative effects derived from taxing job demands. For this reason, emotionality might serve as a moderating factor that determines the probability of an individual reverting to CWB as a coping mechanism. This is in line with the buffering hypothesis mentioned in the beginning of this section.

Characteristics of the work situation (physical resources at work, for instance properly functioning internet), coupled with properties of the individual (for example personal resources in the form of certain personality traits, such as conscientiousness) can buffer the effects of the stressor – i.e. job demands (Bakker & Demerouti, 2006; Bakker, Demerouti, & Euwema, 2005; Bakker et al., 2003; Fox et al., 2001). The buffering or interaction hypothesis occurs between various variables in a stress-strain sequence (Eschelman et al., 2015).

According to this hypothesis, the buffering variable, or trait, in this instance, can lessen the impact of organisational properties to elicit specific stressors, affect and change the perceptions and cognitions brought on by these stressors, and moderate and influence the responses that follow the consequent appraisal process (Penny et al., 2011). When facing demanding circumstances, individuals who only have limited personal resources are more likely to experience job demands as job hindrances and so they may be more prone to revert to emotional-coping in terms of CWB-related behaviour (Chirumbolo, 2015; Yang & Diefendorff, 2009).

Furthermore, in a study done by Hu, Schaufeli and Taris (2011) they examined the synergistic effects of job demands and resources. Their findings suggest that on their own, high demands and low resources are associated with an increased risk to the well-being of the employee. In addition, they found that a combination of the two would incrementally increase the risk of the individual suffering the negative effects associated with it. This suggests that the additive effect of high demands and low resources are more detrimental than in situations where only one of these factors were high or low. Their results indicated that high job demands and lacking personal resources exhaust employees' adaptive capability, and this may lead to exhaustion, which in turn may cause negative outcomes; such as turnover intentions and poor commitment (Chirumbolo, 2015; Hu et al., 2011; Yi & Wang, 2015).

Hence, the premise underlying this moderating effect is that the more work-related situational cues – in other words pressures related to job insecurity – are present in the job, the more likely it is that a person higher on emotionality – i.e. more emotionally reactive or neurotic, will be to revert to CWB as a rectifying action or coping strategy.

Hypothesis 7: Emotionality (ξ_2) has a significant positive moderating effect on the relationship between Job insecurity (ξ_6) and CWB (η_1)

As stated previously, a lack of resources can cause an individual to experience a challenge when working towards goals, which causes feelings of failure and frustration (Bakker et al., 2003). In a study done by Spector and Fox (2005) they found that negative affect fully mediated the relationship between job stressors and the occurrence of CWB. This may point to the implication that behaviour considered as dysfunctional, from an organisational perspective, might be functional from an individual perspective, in that individuals could try to counteract the negative health-impairing affective experiences at work by means of certain CWB (Balducci et al., 2011; Colbert et al., 2004; Penney et al., 2011). This has the implication that job demands/stressors may point to employees reverting to CWB. This behaviour is done as a defensive act, and to cope with stress associated with threats to job security and productivity.

Furthermore, the long-term effect of this frustration is cynicism or disengagement and/or a reduced sense of professional efficacy. In line with Cognitive Resources Theory (CRT) CWB is seen as a self-regulatory process and during this process employees allocate resources to on- and off-task behaviour (Tucker et al., 2009). This approach posits that when individuals experience stress they lose control of their ability to regulate their reactions and due to this will find it difficult or even impossible to persist in the completion of their tasks. Hence, when work demands increase, the individual will have fewer resources at their disposal to dedicate to maintain effective performance and refrain from deviant behaviour as a way of coping. (Tucker et al., 2009).

In situations where there is a lack of resources (personal or job-related), the individuals themselves cannot reduce the negative influence of high job demands, thus leading them to not achieve their work goals and revert to coping mechanisms to retain equity (Gilboa *et al.*; 2008; Penny et al., 2011). With this intention of achieving equity to avoid further negative

consequences for themselves, they may reduce their discretionary efforts or revert to indiscipline that might bring them back towards an equilibrium. In line with this and as mentioned earlier, JD-R research has found that initially employees will try to withstand the negative impact of job demands (Podsakoff et al., 2007). However, sustained exposure to job demands increasingly wears out the employee's adaptive capability, leading to exhaustion (Schaufeli & Bakker, 2004).

Researchers generally deem conscientiousness as a type of personal resource to help individuals cope with the affective arousing effects of job stressors (Eschelman et al., 2015; Lin et al., 2015). The conscientiousness factor is described as one where the individuals high in this trait are said to work harder towards challenging goals and are likely to be motivated by challengers and deliver higher performance than individuals who are not quite as goal-directed and dutiful. (Eschelman et al., 2015; Penney et al., 2011).

Furthermore, according to Penney et al. (2011), individual differences in conscientiousness are predictive of performance expectancy, performance valence, and goal choice, which then lead to differences in task performance. In line with this, individuals high on conscientiousness are considered more likely to persevere, try harder, exercise self-discipline, and be more proactive when faced with challenges. They are also more likely to perceive a challenge stressor as a motivator, at least initially (Yang & Diefendorff, 2009). Lin et al. (2015) posited that individuals with high levels of conscientiousness, who naturally have the inclination to set more demanding personal goals and strive for achievement, would more willingly direct their personal resources to meet performance requirements as a priority and deliver outcomes in the face of challenges.

In line with this reasoning, it can be postulated that the individuals' innate disposition to persist and persevere could influence their perception of a stressor and the extent to which the person persists when facing a challenge stressor (Widmer, Semmer, Kalin, Jacobshagen, & Meier, 2012). Employees high with conscientiousness are more likely to focus on their duties even when they are confronted with organisational constraints (Bowling & Eschelman, 2010).

Therefore, the conscientiousness factor could be considered as a possible moderator in the relationship between work overload and the exhibition of CWB (Weller & Thulin, 2012; Colbert, Mount, Harter, Witt, & Barrick, 2004). Therefore, the extra effort invested by the

individual high on conscientiousness may lead to a depletion in resources that causes them to revert to conservatory tactics to preserve and restore their adaptive capability (Lin et al., 2015). Thus, from this perspective, if a person responds to a situational cue, for example work overload with behaviour such as production deviance, they will more likely be lower in conscientiousness as they perceive the risk associated with these behaviours as less damning and more beneficial to their own needs.

Hence, the premise underlying this moderating effect is that the more work-related situational cues – in other words, the more pressures that are related to work overload – are present in the job, the more likely it is that persons lower in conscientiousness will revert to CWB as a rectifying action/strategy. Conversely, in a situation where the individual experiences job strain in the form of work overload, those with a high conscientiousness trait may be predisposed to resist reverting to CWB as a coping mechanism. Therefore, high conscientiousness is seen to act as a buffer for the individual against responding with CWB when faced with high work overload.

Hypothesis 8: Conscientiousness (ξ_4) has a significant negative moderating effect on the relationship between work overload (ξ_5) and CWB (η_1)

2.5 CONCEPTUAL MODEL

The conceptual model, depicted in Figure 2.4, represents the latent variables of interest in the current study and the proposed relationship between them. The research-initiating question accumulates in this model and is illustrated by means of 11 hypotheses.

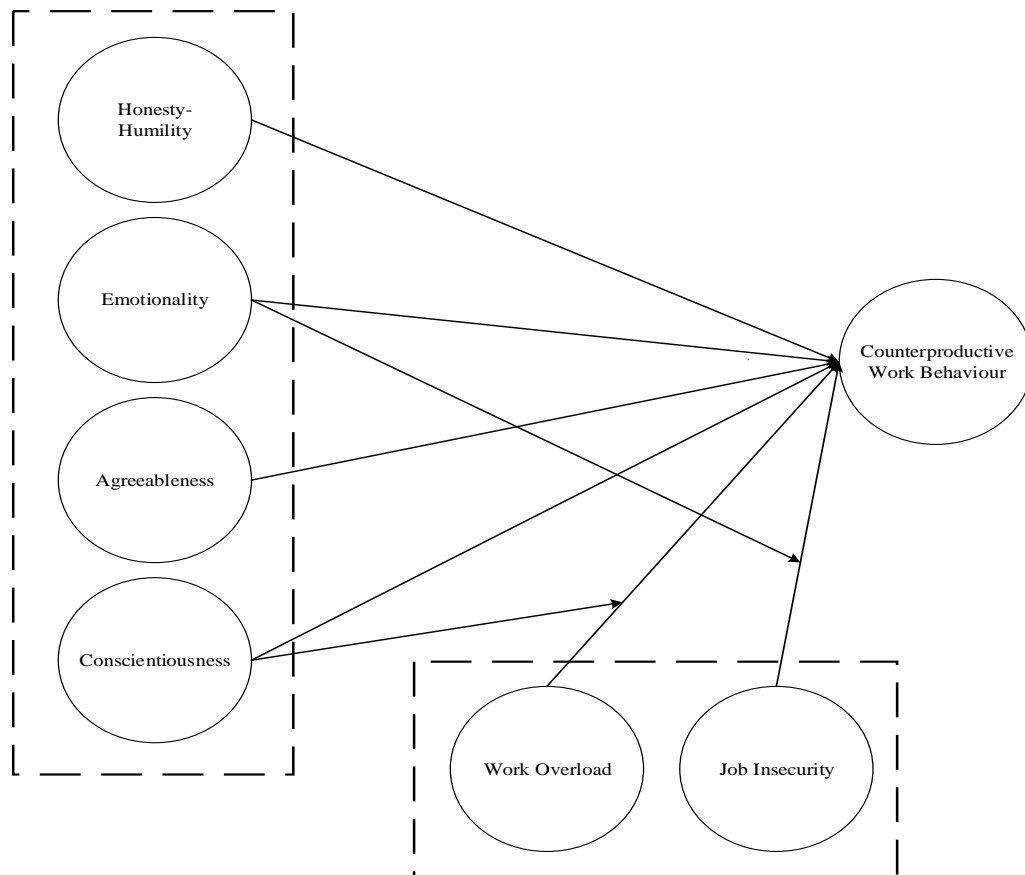


Figure 2.4. The conceptual model of CWB, HEXACO Factors, and Job Demands

2.6 CHAPTER SUMMARY

This chapter focused on CWB, the various taxonomies and definitions, the relationships with various constructs, and the evidence that supports the relevance of examining this aspect of performance. The literature reviewed elaborated on the associated sub-facets and the various antecedents related to the person-centred explanation of CWB occurrence in organisations and how situational-aspects also serve an important role.

Hypotheses were formulated from the extensive literature review substantiating the relationships between the variables present in the model. With all the hypotheses taken into consideration, the theoretical model was constructed to act as a summary of the full literature review and as the starting point for Chapter 3.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 INTRODUCTION

As stated in Chapter 1, the objective of this study is to develop and test a structural model that depicts the nuanced relationships between the most prevalent antecedents of CWB. The literature review was concluded with the conceptual model (Figure 2.4) that represents CWB with its hypothesised antecedents in line with the JD-R model. Following the conclusions of this conceptualisation, the next step is to test the model needs and the hypotheses that comprise the model. The purpose of this chapter is to describe the research methodology that was applied to answer the following research-initiating question: *Why is there variance in the prevalence of CWB among professional workers?*

Thus, the current study aims to:

- a) Identify the most salient antecedents of CWB
- b) Develop and test an explanatory structural model that will explain variance in CWB and why some people are more prone to exhibit this type of behaviour than others
- c) Investigate the meaning and importance of the hypothesised relationships in the model
- d) Propose recommendations for future research based on limitations experienced in the current study
- e) Provide guidelines, based on literature, on how to manage CWB with the purpose to limit its negative effects

Chapter 3 outlines the process whereby the structural model will be empirically tested. This includes the research hypothesis, the structural model, the statistical hypotheses, the research design, the research method (including procedure and data collection), measurements, and finally, the statistical analysis techniques that will be employed to test the substantive and statistical hypotheses.

3.2 SUBSTANTIVE RESEARCH HYPOTHESES

The objective of this study was to test the relationship and interaction between various job demands, personality variables and CWB. In Chapter 2, the latent variables were introduced

and hypothesised relationships between these variables were formulated based on a broad review of the applicable literature. The following section will serve to state the relevant hypotheses that will be tested to validate the structural model (Figure 3.1). These substantive hypotheses are listed below.

Hypothesis 1: Honesty-Humility (ξ_1) has a significant negative effect on the exhibition of CWB (η_1)

Hypothesis 2: Emotionality (ξ_2) has a significant positive effect on the exhibition of CWB (η_1)

Hypothesis 3: Agreeableness (ξ_3) has a significant negative effect on the exhibition of CWB (η_1)

Hypothesis 4: Conscientiousness (ξ_4) has a significant negative effect on the exhibition of CWB (η_1)

Hypothesis 5: Work overload (ξ_5) has a significant positive effect on the exhibition of CWB (η_1)

Hypothesis 6: Job insecurity (ξ_6) has a significant positive effect on the exhibition of CWB (η_1)

Hypothesis 7: Emotionality (ξ_2) has a significant positive moderating effect on the relationship between job insecurity (ξ_6) and CWB (η_1)

Hypothesis 8: Conscientiousness (ξ_4) has a significant negative moderating effect on the relationship between work overload (ξ_5) and CWB (η_1)

3.3 STRUCTURAL MODEL

From the literature study and the hypotheses formulated above, a schematic representation of these proposed relationships is depicted in Figure 3.1 as the structural model. This representation assists in answering the research-initiating question by allowing for the formulation and empirical testing of specific hypotheses after the operationalisation of the

latent variables. In the current model $\xi_1 - \xi_6$ represent the relevant personality factors and job demands. Additionally, $\xi_7 - \xi_8$ represent the dummy variables created to represent the moderating effects in the structural model. As the only endogenous latent variable, CWB, is represented by η_1 .

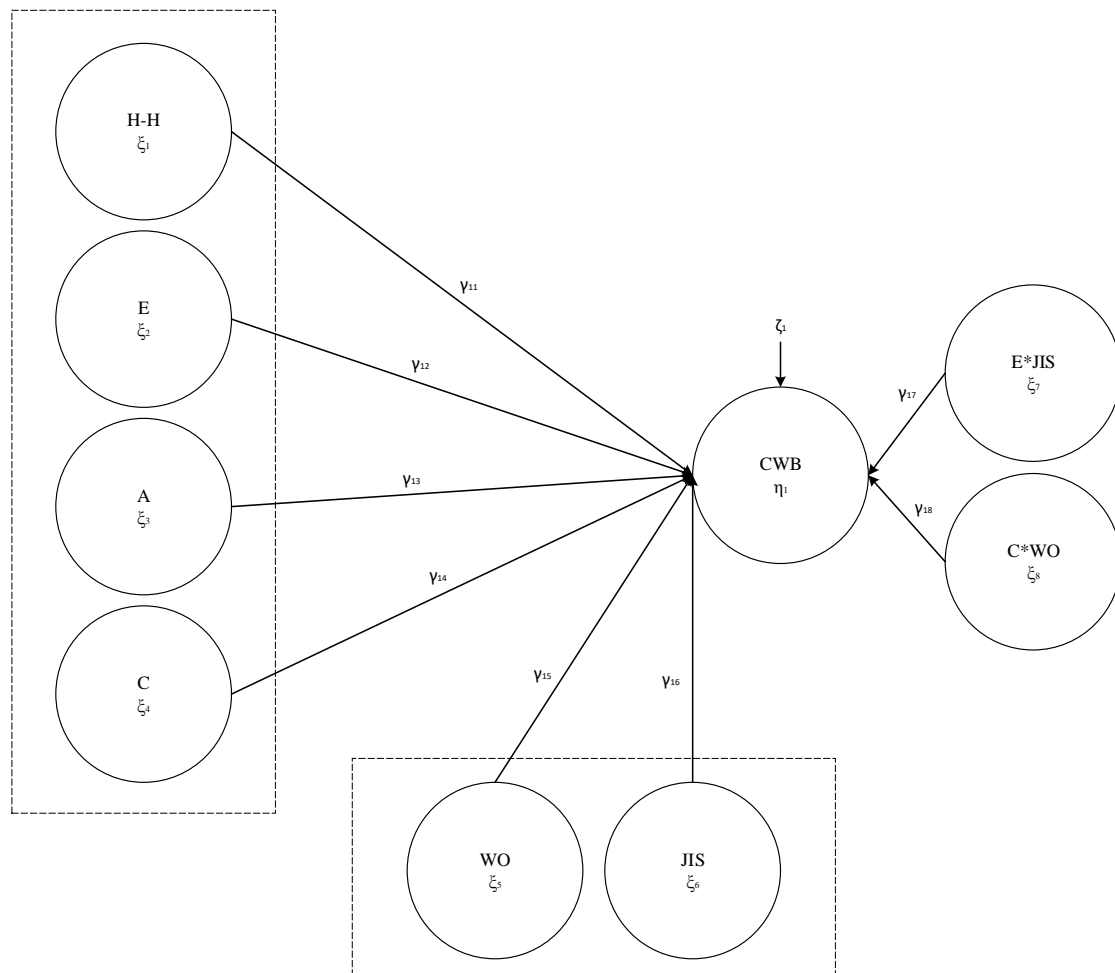


Figure 3.1. *Structural Model*

3.4 STATISTICAL HYPOTHESES

The formulation of the relevant statistical hypotheses depends on the specific logic underlying the relevant research design as well as the statistical analysis techniques that will be utilised (Babbie & Mouton, 2006). Structural equation modelling was the planned method of evaluation for all the performance hypotheses. The structural equation modelling would have followed the LISREL convention, as this was the only method that will test the structural model as an integrated, multifaceted hypothesis. Partial Least Square analysis was ultimately conducted due to a limited sample size.

The notational system used in the formulation of the statistical hypotheses follows the structural equation modelling convention associated with LISREL (Du Toit & Du Toit, 2001; Jöreskog & Sörbom, 1996b). It should be mentioned that the moderating effects hypothesised according to the theoretical relationships are included as additional exogenous variables in the model (ξ_7 & ξ_8). To test for these moderating effects, using Structural Equation Modelling (SEM), these effects should be isolated and subsequently a separate model should be created. If this is done, it affects the validity of the inferences drawn about the model and the effects. Consequently, dummy variables were created to prevent this infringement of validity and represent each of the moderating effects. The dummy variables were formed by multiplying the indicator variables of each moderating variables with each other and is represented by the two variables being multiplied with each other.

The statistical hypotheses presented here are derived from the substantive hypotheses that indicated the logic underlying the formulation of the structural model, the chosen research design, and the statistical analysis method used. These statistical hypotheses are listed below.

Hypothesis 1

$$H_{01}: \gamma_{11} = 0$$

$$H_{a1}: \gamma_{11} < 0$$

Hypothesis 2

$$H_{02}: \gamma_{12} = 0$$

$$H_{a2}: \gamma_{12} > 0$$

Hypothesis 3

$$H_{03}: \gamma_{13} = 0$$

$$H_{a3}: \gamma_{13} < 0$$

Hypothesis 4

$$H_{04}: \gamma_{14} = 0$$

$$H_{a4}: \gamma_{14} < 0$$

Hypothesis 5

$$H_{05}: \gamma_{15} = 0$$

$$H_{a5}: \gamma_{15} > 0$$

Hypothesis 6

$$H_{06}: \gamma_{16} = 0$$

$$H_{a6}: \gamma_{16} > 0$$

Hypothesis 7

$$H_{07}: \gamma_{17} = 0$$

$$H_{a7}: \gamma_{17} > 0$$

Hypothesis 8

$$H_{08}: \gamma_{18} = 0$$

$$H_{a8}: \gamma_{18} < 0$$

3.5 RESEARCH DESIGN

A research design can be described as a plan specifying how research goals will be fulfilled and acts as a guide throughout the various stages of research; from data collection to hypotheses testing and answer formulation. Research designs serve a very important purpose as suitable and complete designs produce more significant and accurate inferences. They contribute to the systematic observation of the research question or problem. A research design cannot be selected randomly and the format it takes depends on the nature of the research-initiating question and careful preparation (Babbie & Mouton, 2006; Kerlinger, 1973; Theron, 2013).

An *ex post facto* correlational design will be followed in this study. In this type of explanatory study, the aim is to explain the causal linkages between one or more latent variables to be able to explain the variance caused by the relevant exogenous latent variables (*xi's*) in the relevant endogenous latent variables (*etas*) (Babbie & Mouton, 2006). This is tested by developing an exploratory structural model explaining the psychological processes involved in creating these variances. The constructs present in the explanatory study is then defined and explored through the relevant use of theorising to try to understand the nature of these constructs (Theron, 2013).

This type of design allows the researcher to observe these latent variables in their natural state as well as determine the natural origins for these causal relations between the relevant constructs. In this type of study, the researcher has no direct control over the independent variables as they cannot be manipulated, or their manifestation has already occurred. Thus, experimental manipulation and random assignment is not possible in *ex post facto* research (Kothari, 2005; Theron, 2013). The researcher measures these observed variables in their current state and then attempts to calculate the observed covariance between the latent variables. The aim is thus to uncover what happens to the relevant independent latent variables when other variables are changed. In summary, trying to explain what is observed through statistical analysis of the observed data. If the model obtained from this analysis fits, the model can be described as plausible/permissible and is thus above suspicion as there is some evidence supporting these proposed causal linkages. This fit, however, does not mean that the psychological constructs that are depicted in the model are in fact present; the model fit only provides evidence that there is a permissible explanation for the observed covariance. The *ex post facto* nature of the research design prevents the researcher to draw causal inferences from statistically significant path coefficients, due to the fact that correlations do not indicate causation; it's merely indicative of a statistical relation (Diamantopoulos & Sigauw, 2000).

When selecting a research design, it is vital to consider the limitations thereof. According to Kerlinger (1973), *ex post facto* correlation design produces three major limitations. First, its incapacity to exert influence over independent variables. Second, the lack of power available in the design to assign variables randomly. Finally, the risk of incorrect interpretation. However, despite these limitations the value of an *ex post facto* correlation design lies in the fact that most, if not all, variables in the fields of psychology cannot be controlled or manipulated. Therefore, an *ex post facto* design, even with its limitations, is still better suited than an experimental design (Kerlinger & Lee, 2000).

3.6 RESEARCH METHOD

This next section includes the description of the planned versus realised methods used in approaching research participants and distributing the measurement instruments employed to gather the data concerning the latent variables of interest.

3.6.1 Research participants and sampling

To be able to successfully complete this study, data needed to be collected from a representative sample of professional individuals. Preferably the sample participants needed to be from the same industry, as to ensure that the data will be of a generalizable nature and therefore useful. As this study contains variables that can be useful in any professional setting, it was decided that the sample would be taken from multiple industries to gain a better perspective of the interrelationships among the variables. This would be seen to represent the population of South African professionals across multiple sectors.

As this represents a large group of South Africa's population it was outside the researcher's power to collect a random representative sample. Instead it was decided that convenience/availability sampling would be more suitable in finding organisations or individuals willing to participate in this study. This is a non-probability sampling technique in which the researcher makes use of the available sample's responses and is based on their availability and proximity. It is used where there is limited direct access to the sample participants as well as difficulty gathering data from large and successful organisations. This method was used due to the limited time and resources of the researcher. Bigger samples sizes lend themselves to higher statistical power of the results, therefore increasing the result's generalisability. This, however, increases the costs to the researcher and creates more administrative tasks.

The data was collected by means of an online web-based questionnaire. The measuring instruments chosen to measure the constructs, as well as the informed consent agreement, were placed online, which granted access to participants anytime and anywhere. This was done to decrease the administrative tasks, as well as be more convenient for participants.

A government department consented to be part of the study, and the chief director of that department agreed to act as the contact person between the researcher and the potential respondents. A contact person was used in this instance to ensure that there were no ethical issues regarding the researcher having direct access to the work email addresses of the participants and contacting them during working hours. The contact person for the department received an e-mail from the researcher containing a link to the survey and an opening statement from the researcher describing the purpose of the study. The contact individual then

sent this e-mail to the work e-mail addresses of all the employees in the department. Additionally, a LinkedIn inbox message containing the link to the questionnaire and an opening statement from the researcher describing the purpose of the study was sent personally to each potential respondent. By contacting the individuals in their personal capacity, this presented no ethical consideration as no obligation was required to complete the survey. All participants self-selected to participate in the study. All the responses to the web-based survey were automatically captured on the online survey system used. This data was then accessed via a password only known to the researcher and exported into an SPSS format for analysis.

Initially, the researcher hoped to obtain a minimum of $N = 400$ completed online surveys. This was suggested as the minimum to ensure statistical power of the measurement model. Statistical power embodies the likelihood that a false hypothesis will be correctly rejected (Theron, 2013). This was required to guarantee that the results could be generalised to the target population. However, due to uncontrollable circumstances, each participant had to be contacted personally and individually. The final sample comprised 180 professional individuals who completed the surveys.

Regrettably, it was not practically feasible to conduct systematic sampling and convenience sampling was used where individuals who fit the criteria and who were willing to participate were approached, selected, and considered. 20 surveys were discarded as they were completed either incorrectly or were found to be incomplete. Approximately 700 links (electronic surveys) were distributed and this concluded with a response rate of 25.72% individuals who completed surveys indicating a relatively low response rate as well as a high rate of incomplete responses. The online questionnaire was also used to gather information on the biographical characteristics of the sample (including age, gender, language, education, tenure, and industry). The results from this information show that this sample was not representative of the South African professional working population. This could most likely be attributed to the use of convenience sampling, and also possibly due to the self-selection nature of participation in this survey. Table 3.1, shown below, provides a summary of the demographic profile of the research participants.

Table 3.1

Demographic profile of participants

Age		
Minimum – maximum	Mean	Standard deviation
18 – 75	32	7.29
Gender		
Variable	Frequency	Percentage
Female	105	58%
Male	75	42%
Home language		
Afrikaans	100	56%
English	65	36%
Ndebele	1	1%
Tswana	3	2%
isiXhosa	2	1%
Other (not specified)	9	5%
Highest qualification		
Grade 12/Matric/Senior Certificate	7	4%
Diploma/Advanced Certificate	17	9%
3-year Degree/Advanced Diploma	26	14%
Honours/4-year Degree/Postgrad Diploma	63	35%
Masters/Advanced Degree	53	29%
Doctorate/PhD	12	7%
Other	2	2%
Tenure with current company		
Under 1 year	51	28%
1 – 2 years	36	20%
3 – 5 years	45	25%
6 – 10 years	23	13%
More than 10 years	18	10%
N/A	7	4%
Industry		
Agriculture	6	3%
Communications: Marketing/Advertising/PR	4	2%
Construction	4	2%
Education and Training	25	14%

Engineering	12	7%
Finance	13	7%
Government and Public Service	22	12%
Health Services	11	6%
Human Resources	23	13%
IT	10	6%
Mining and Manufacturing	2	1%
Retail	6	3%
Other	42	23%

3.6.2 Measurement instruments

To be able to unambiguously evaluate the model fit, according to the directions of the *ex post facto* correlational design, the latent variables contained within the structural model depicted in Figure 3.1 must be operationalised. This operationalisation takes place when psychometrically sound instruments measure all the relevant variables. The evidence available in relevant literature on the reliability and validity of the selected measurement instruments will justify the choice of instruments. The extent to which these selected instruments (in other words indicator variables) represent the latent variables of interest will be empirically tested using PLS analysis, which will be described in section 3.8.

In sciences such as psychology, the practice of combining multiple items into a single composite measure, which is assumed to reflect an underlying theoretical construct, is considered the norm. This is the method employed to elicit responses from participants to be able to observe the reactions and prevalence. According to De Villis (as cited in Spector et al., 2006) reasons motivating the use of this method is that multiple items of a single underlying construct can enhance: a) reliability, b) content validity, and c) construct validity. Researchers generally use inter-item correlations to indicate that these items measure the same construct.

The survey utilised for the present study had five sections. Section 1 contains the informed consent and biographical information and consists of eight questions. Section 2 is the HEXACO-PI-R, which consists of 40 items. Section 3 is the Counterproductive Workplace Behaviour Checklist (CWB-C-32), consisting of 32 items. Section 4 is the Job Demands-Resources Scale (JDRS), consisting of 13 items. Appendix B contains the informed consent document that participants had to complete.

3.6.2.1 Counterproductive workplace behaviour checklist

The CWB-C-32 was used to obtain the subject's scores on the various CWB. These factors include: Theft, Abuse, Sabotage, Withdrawal, and Production Deviance. A total score for overall CWB exhibited by the individual is presented. Spector et al. (2006) recorded the Coefficient as .90, which is highly satisfactory. The alphas for the sub-dimensions of organisational and interpersonal CWB was found to be .86 respectively (Barbaranelli, Fida, & Gualandri, 2013).

Coefficient alphas for the various factors included in the scale ranged from .85 to .55, where abuse obtained the highest coefficient. This can be ascribed to the fact that, in comparison to the other factors, abuse has 18 items where sabotage only has 3 items, as well as the lowest coefficient. This inventory measures the above-mentioned factors by using a 5-point Likert-type scale. Where 1 = the least frequent (*Never*) and 5 = the most frequent (*Every day*). The scoring method for this measure is to total all the responses to the appropriate items. The overall score represents the sum of all 32 items (Anjum & Parvez, 2013; Rauf & Farooq, 2014; Spector, et al., 2006).

Here are example items of each of the subscale: "Purposely wasted your employer's materials/supplies", "Purposely did your work incorrectly", "Came to work late without permission", "Stolen something belonging to your employer", and "Started or continued a damaging or harmful rumour at work".

The scoring keys for the CWB-C-32-items utilised for this study are as follows:

- Sabotage is tested with items 1, 5, and 6.
- Production Deviance is tested with items 2, 10, and 12.
- Withdrawal is tested with items 3, 4, 11, and 13.
- Theft is tested with items 7, 16, 17, 18, and 22.
- Abuse is tested with items 8, 9, 14, 15, 19, 20, 21, and 23-32.

All 32 items of the CWB-C are scored positively. Correspondingly, the present study treats counterproductive workplace behaviour as a unidimensional construct. A *total* score represents a participant's standing on CWB. According to Spector et al. (2006), the total index

approach has exerted dominance in the study of CWB and its associated constructs. Most authors compute a single overall score, especially if the CWB-C-32 is considered a causal indicator where the distinct items assess different things but combine to define the construct.

3.6.2.2 *HEXACO personality inventory – revised 60*

Items taken from the HEXACO-PI-R 60 is used to measure the personality variables included in the structural model. These factors are the honesty-humility factor, emotionality, agreeableness, and conscientiousness. This inventory is a shortened version of the HEXACO-PI-R 200, but the coefficient alphas remain satisfactory, ranging from .66 to .82 (Ashton & Lee, 2009; Lee & Ashton, 2006, 2009).

This inventory assesses the six personality dimensions as outlined by the HEXACO personality model and the complete measure contains 60 items, which are rated on a 5-point Likert-type scale. The possible answers vary from 1 to 5, with 1 representing Strongly disagree, 2 representing Disagree, 3 representing Neutral, 4 representing Agree, and 5 representing Strongly agree. Each of the four personality dimensions are assessed with 10 relevant questions each, therefore 40 items of the measure will be utilised in this study (Ashton & Lee, 2009; Lee & Ashton, 2004). This survey offers scale scores for the six personality dimensions of the HEXACO framework and for four narrower facet-level traits that are found in each of the broad dimensions, as can be seen in Table 3.2 (Ashton et al., 2010).

Table 3.2.

HEXACO factors sub-dimensions (Lee & Ashton, 2004)

Honesty-Humility	Sincerity	Agreeableness	Forgiveness
	Fairness		Gentleness
	Greed-avoidance		Flexibility
	Modesty		Patience
Emotionality	Fearfulness	Conscientiousness	Organisation
	Anxiety		Diligence
	Dependence		Perfectionism
	Sentimentality		Prudence
Extraversion	Social self-esteem	Openness to Experience	Aesthetic appreciation
	Social boldness		Inquisitiveness

Sociability
Liveliness

Creativity
Unconventionality

In studies done previously each of the six HEXACO scales shows satisfactory internal consistency. The Cronbach's alphas of the six dimensions are .75 or above, where honesty-humility scored .82, emotionality scored .75, extraversion scored .78, agreeableness scored .78, conscientiousness scored .80, and openness to experience scored .66.

An example item of the honesty-humility subscale is "I wouldn't use flattery to get a raise or promotion at work, even if I thought it would succeed". An example item of the emotionality subscale is "I would feel afraid if I had to travel in bad weather conditions". An example item of the agreeableness subscale is "I rarely hold a grudge, even against people who have badly wronged me". An example item of the conscientiousness subscale is "I plan ahead and organise things to avoid scrambling at the last minute". As previously stated, only the factors that feature most prominently throughout the literature will be investigated regarding their relationship with the exhibition of a general factor of CWB. These include honesty-humility, conscientiousness, agreeableness, and emotionality.

The scoring keys for the HEXACO-items utilised for this study are as follows:

- Honesty-humility is tested with items 4, 8, 12, 16, 20, 24, 28, 36, and 40. Questions 8, 16, 20, 28, 32, and 40 are scored in reverse (i.e. negatively – high is low and low is high).
- Emotionality is tested with items 3, 7, 11, 15, 19, 23, 27, 31, 35, and 39. Questions 23, 27, 35, and 39 are scored in reverse.
- Agreeableness is tested in questions 2, 6, 10, 14, 18, 22, 26, 30, 34, and 38. Questions 6, 10, 14, and 38 are scored in reverse.
- Conscientiousness is tested in questions 1, 5, 9, 13, 17, 21, 25, 29, 33, and 37. Questions 9, 13, 17, 21, 29, and 37 are scored in reverse.

Before calculating the various scale scores, the indicated items need to be reverse coded.

3.6.2.3 Job Demands

Items taken from the Job Demands-Resources Scale (JDRS) were used to measure the Job Demands – i.e. work overload and job insecurity, contained within the structural model. Jackson and Rothman (2005) developed it to measure job demands and resources. The scale was validated among a population of South African professionals spread across multiple industries (Rothman et al., 2006).

The JDRS was developed based on a qualitative approach including both a literature review and interviews with groups participating in the study. This scale shows alpha coefficients for all its sub-dimensions, ranging from .76 to .92. Work overload specifically obtained a coefficient alpha of .76, which is highly satisfactory. Job security/insecurity obtained a coefficient alpha of .90. Construct (factorial) validity was found for all five Job Demands dimensions, including workload and job insecurity. The measure consists of 48 questions in total, which are rated on a 4-point category rating scale. The response options sorts responses from “never”, “sometimes”, “often” to “always”.

The two dimensions for this study is that of work overload and job insecurity and will be measured by 10 questions and 3 questions respectively (Jackson & Rothman, 2005; Rothman et al., 2006). 13 questions related to the work overload and job insecurity constructs in the JDRS are included in this study. All items are scored positively.

Here are example questions of each of the subscales: “Do you have too much work to do?” and “Do you need to be more secure that you will still be working in a year's time?”.

3.7 MISSING VALUES

Before any analysis can be performed on data, it must first be determined if there is any missing data. The amount of missing values and the type of data (specifically whether the data has a multivariate normality) will determine the data analysis method to be used. The probability of finding missing values during data collection is great since surveys were used to collect the data. This can be attributed to absenteeism and/or non-responses of participants. Regardless of the reason, it can have a detrimental impact of the indicator variables if it is not handled appropriately before data analysis. Methods to correct problems related to missing values range from data deletion to data imputation (Jöreskog

& Sörbom, 1996b). How to deal with such data will depend on how much of the data is missing and partly on the mechanism(s) that gave rise to the missing data. These mechanisms depend on the type of data being used (Everitt & Dunn, 1991).

In the current study, missing values were not a big concern because the participants filled in a web-based survey requiring them to complete all the items included. This consequently assisted in avoiding missing values. However, as mentioned earlier, 20 surveys were discarded as they were completed either incorrectly or were found to be incomplete.

3.8 STATISTICAL ANALYSIS

To analyse the questionnaire data and test the structural model as depicted in Figure 3.1 item analysis and Partial Least Squares (PLS) analysis was used.

3.8.1 Item analysis

The measures used to operationalise the latent variables included in the structural model were developed to measure a specific construct or a dimension carrying a specific definition. Items were developed and intended to serve as indicators of an individual's level on a specific construct. The items function as stimuli that elicit uncontaminated responses in relation to the person's behaviour regarding a specific underlying variable. If the intended purposes of the design were successfully met, then this would be indicated in several item statistics. This is, however, not always achieved, which proves why it is vital to investigate whether the items included in the measures are indeed reflective of the intended variable.

Item analysis was performed in order to identify if the items used were a consistent and thus reliable representation of the latent variables. This was done by investigating the Cronbach alpha's and average inter-item correlations of the indicator variables – in other words, the measurement items. As per Nunnally's (1978) delineation reliability scores of $\geq .70$ were considered satisfactorily high. Identifying poor items that unsuccessfully or incorrectly represent the latent variable is the main objective of item analysis. In other words, the analysis is done to identify items that do not elicit the response from the variables they are meant to. Item analysis allows for the selection or omission of items from the test, but more importantly, item analysis is a helpful tool to assist in improving an item by identifying it. Poor items are cannot distinguish between different states of the latent variable – in other words, each

participant taking the test and responding to the items will always obtain the same standing on the specific variable (Gochyyev & Sabers, 2012).

Following this analysis, there was some concern regarding multiple items, especially the complete emotionality and work overload sub-scales. items 3, 6, and 7 in the agreeableness sub-scale and honesty-humility items 6 and 9 were also found to be problematic. Item analysis was then used to identify poor items and steps were taken to improve their reliability. These steps, however, did not improve the reliability of the measure significantly enough and it was decided to keep the items. The sub-scale issues did, however, warrant further exploration, which will be discussed in Chapter 4.

3.8.2 Partial Least Square structural equation modelling

To further examine the data Partial Least Squares (PLS) analysis was utilised. PLS path modelling is recommended when researchers must estimate the factor loadings of the measurement model at the same time as the path coefficients of the structural model (Anderson & Swaminathan, 2011). This technique reproduces relationships between sets of observed (indicator) variables using unobserved (latent) variables (Chin, 1998; Roldan & Sanches-Franco, 2012). PLS focuses on the prediction of a specific set of hypothesised relationships that maximises the explained variance of the dependent variable. A hallmark attribute of PLS is that it can help to avoid problems associated with small sample sizes and can be used in situations where other methods cannot be used, for example SEM (Chin, 1998; Hair, Ringle, & Sarstedt, 2011, 2013; Haenlein & Kaplan, 2004).

PLS analysis is a variance-based structural equation modelling technique that can be used as an alternate to the better-known covariance-based causal analysis technique generally referred to as SEM. PLS is considered a soft modelling technique where minimal demands are placed on measurement scales, sample size and residual distributions (Chin, 1998). PLS path modelling is seen as a causal predictive analysis useful in situations where the complexity is high and there is minimal theoretical information – in short, it is beneficial to use during theory building (Dijkstra & Henseler, 2015; Roldan & Sanches-Franco, 2012).

Contrastingly, SEM takes on a hard modelling approach, which aims to reproduce the covariance matrix of the observed or structural model. SEM uses maximum likelihood, in an

effort to decrease the difference between the sample covariance and those predicted by the theoretical model. In addition, covariance-based structural equation models are full information procedures which requires all the information to determine path strengths (Roldan & Sanches-Franco, 2012). Thus, even one incorrectly defined structural path or one construct with weak measures will have an effect on all the other estimates in the covariance-based structural equation model (Chin, Peterson, & Brown, 2008; Haenlein & Kaplan, 2004). PLS path modelling is a component-based least square alternative, which means it can function with incomplete information and is a more robust solution to these issues.

PLS models can be formally defined with two sets of linear equations; the inner model and the outer model. The outer model examines the relationships between latent variables and their indicators or manifest variables. It can also be likened to the measurement model used in SEM. The inner model examines the relationships between unobserved or latent variables and resembles the structural model used in SEM (Henseler, Ringle, & Sinkovics, 2009). This sequence ensures that adequate indicators are included in the model before it is attempted to reach conclusions concerning the relationships included in the structural model (Hair et al., 2011).

PLS path modelling cannot offer any goodness-of-fit criterion such as with SEM. Consequently, multiple criteria are created to assess partial model structures (Roldan & Sanches-Franco, 2012). This two-step process includes, firstly, the assessment of the outer model, and secondly, the assessment of the inner model. At the beginning of the two-step process, model assessment focus on the measurement model. A systematic evaluation of PLS estimates reveals the reliability and validity of the measurement model according to certain criteria. It only makes sense to evaluate the inner path model (structural model) when the calculated latent variable scores of the measurement model indicate sufficient reliability and validity (Chin, 1998).

PLS also allows one to model in a formative/effective or reflective/causal sense. This choice is dependent on the theoretical reasoning behind the study. A formative measurement model has causal relationships functioning from the indicator variable to the latent variable of interest – i.e. any change in the indicator affects a change in the latent variable. The reflective model has a causal relationship from latent to indicator variable – a change in the indicator is caused by the latent variable (Henseler et al., 2009; Roemer, 2016). Thus, each indicator variable is

presumed to be created as a linear function of its latent variables as well as the residual. In line with the normal convention within SEM and PLS, reflective indicators were utilised in the current study.

PLS modelling's exploration and prediction value is the reason why it was utilised, because it is recommended during the early stages of theoretical development to test and validate exploratory models – to find out what is underlying the relationships being presented (Henseler et al., 2009; Henseler, Hubona, & Ray, 2016; Roemer, 2016).

Another advantage, which is especially suitable in this study, is that PLS path modelling is very apt for prediction-oriented research. Therefore, PLS helps researchers to direct their attention to the explanation of effects and relationships involving endogenous constructs. Furthermore, PLS path modelling is preferred when researchers must estimate a larger complex model that captures attitudes and behaviour (Roemer, 2016).

First, a series of analyses had to be done to investigate the measurement model, before the PLS model estimation could take place. The method used to determine this was by looking at composite reliabilities and average variance extracted (AVE) values. For composite reliability to be regarded as satisfactory, the coefficients must exceed .70 (Hail et al., 2011; Litwin 2003). For AVE, a value exceeding .50 is deemed satisfactory. Upon completion of the systematic evaluation of the reliabilities of the latent variables, the PLS estimates revealed the measurement model reliability and validity based on certain criteria related to the measurement model.

Only once the latent variable scores showed proof of satisfactory validity and reliability could the structural model estimates be evaluated (Chin, 1998). In the structural model, different latent variables are related to each other. A bootstrapping sampling procedure was executed to evaluate the significance of the main as well as interaction effects. It is imperative to note that when the reliability score for the estimated construct increases the approximations of the structural paths have a tendency to be more accurate (Chin, 1998).

Moderating effects are present in the current study and was examined using PLS path modelling. PLS utilises a three-stage estimation algorithm. During the first stage an iterative scheme of simple and/or multiple regressions, depending on the model, are done until a

solution congregates on a set of weights that are utilised for estimating the latent variables scores – in other words examining the outer or measurement model. This process is characterised by latent variable or indicator scores estimated for each latent variable. Then the latent variable scores are entered as dependent and independent variables into one or more regressions. The second and third stages are simple, non-iterative applications of ordinary least squares regression for obtaining loadings, path coefficients, and mean scores. The latent variables and indicators are treated as deviations from their means – examining the inner model (Chin, 1998). Because of the nature of the second stage, the majority of the recommendations for testing moderating effects in multiple regression are also applicable to PLS path modelling. When the researcher refers to moderating effects, it should be interpreted in the context of PLS path modelling, which means it is moderating relationships within the structural model. The researcher is interested in the moderating effect of latent variables on the direct relationships between two other latent variables (Henseler & Fascott, 2010).

For statistical analysis, SEM was initially the preferred option, but ultimately the sample size was deemed too small to make SEM practically feasible, subsequently necessitating the use of PLS.

3.8.3 Bootstrapping

To provide confidence intervals for all the parameter estimates, a nonparametric bootstrap procedure was used in PLS. This builds a more reliable basis for statistical inference (Efron & Tibshirani, 1993; Davison & Hinkley, 2003).

Bootstrapping is a nonparametric approach to effect-size estimation and hypothesis testing that does not have any expectations about the shape of the distributions of the variables or the sampling distribution of the statistic. Asymmetries and other forms of non-normality in the sampling distribution introduces a power problem, and bootstrapping's nonparametric approach has been proposed as a way to bypass this difficulty. Bootstrapping is also ideal for small samples, because it generates a test that is not based on large-sample theory (Preacher & Hayes, 2004). Instead of making an assumption and imposing a shape on the sampling distribution, bootstrapping involves empirically guesstimating the entire sampling distribution through the examination of the variation of the statistic within the sample. The bootstrap

maintains the identical model structure; the inferential foundation is simply different (Efron & Tibshirani, 1993; Mooney & Duval, 1993).

The premise underlying nonparametric bootstrapping is that, provided that we have no further knowledge regarding the population, our single best estimate of said population is the sample. We therefore treat the sample as the population and use a bootstrapping technique called Monte Carlo sampling to generate a series of resamples from the original sample (Mooney & Duval, 1993). Thereby, approximating the shape, spread and bias of the sampling distribution of a particular statistic. The sampling distribution can be seen as the distribution of the values that the statistic calculated from an infinite number of random samples of the size n from the given population. The Monte Carlo sampling technique takes this literally, building an estimate of the sampling distribution by drawing many samples of size n randomly from the population and calculating the statistic for each of these samples (Mooney & Duval, 1993).

PLS results of all the bootstrap values give the mean and standard error of each path coefficient. In this instance, if a confidence interval for an estimated path coefficient includes zero, the null hypothesis will be rejected. Therefore, a non-significant relationship can be concluded between hypothesised variables.

3.9 ETHICAL CONSIDERATIONS

The ethical considerations were taken into consideration to ensure that the rights and well-being of the research participants are ensured. The researcher consulted the professional code of ethics and guidelines for ethically responsible research that were applicable to this study. The present study can be considered a low-risk study, as there are no serious potential risks associated with participating in it. The biggest ethical concern with the current study was its focus on CWB. As this is a sensitive topic, and the measurement items include behaviour that is considered illegal, if disclosed it could cause harm to participants. Therefore, it was of crucial importance to guarantee the anonymity and confidentiality of the respondents.

The questionnaire was distributed electronically placing no obligation on any individuals in the participating organisations to complete the questionnaire. It remains their discretionary choice to take part in the study. By completing this questionnaire and participating, individualised consent was provided to use the data confidentially. Confidentiality was

assured due to the difficulty involved in matching results with participants due to the anonymity provided by the electronic questionnaire.

Furthermore, informed consent was required from individuals involved. Participants would not be liable or held accountable for their participation in this study, ensuring that this study poses no risk to the well-being of the participants. In the consent form attached to the questionnaire a comprehensive explanation of the study was provided, along with the objectives of the study. The following information was communicated to participants: the objectives and purpose of the research, what participation in the research would entail, how the research results would be used, who the researcher is, and their rights as participants.

To conclude, there were no major ethical threats in the current study. The procedures mentioned above were presented to guarantee the confidentiality, protection, and anonymity of participants. The researcher was confident that with these procedures in place all ethical and legal requirements were complied with.

3.10 CHAPTER SUMMARY

In Chapter 3 a detailed overview of the methodology used was provided to ultimately answer the research-initiating question. An overview of the research design and method, sampling method, and the resultant measures used for operationalisation and statistical techniques were provided.

An *ex post facto* research design was utilised to empirically investigate the hypothesised paths. A suitable sample was selected by means of convenience/availability sampling and data was gathered from professional individuals. Several measurement instruments were utilised to assemble the self-administered web-based survey. These instruments were specifically chosen based on their validity and reliability. Item analysis and PLS was utilised to analyse the data and test the hypothesised relationships.

CHAPTER 4

RESULTS

4.1 INTRODUCTION

Chapter 4 presents and discusses the statistical results which are in turn based on the statistical methods discussed in Chapter 3. The chapter starts with a discussion of the item analysis which was performed to determine the psychometric soundness of the indicator variables meant to represent the latent dimensions, namely: CWB, HEXACO personality dimensions, and Job Demands (work overload and job insecurity).

After item analysis was performed, Partial Least Squares (PLS) path analysis was used to further investigate and support the reliability and validity of the different measurements and, therefore confirm the reliability of the measurement or outer model. Furthermore, PLS was used to analyse and investigate the relevant paths between the latent variables and hereby investigate the structural or inner model. SEM was initially planned as a statistical analysis method, but because of the limited sample size this was not feasible. As mentioned in Chapter 3, PLS path analysis is a very reliable, robust, and sufficient statistical analysis tool.

4.2 ITEM ANALYSIS

Item analysis provides preliminary information on the reliability of the measures used in the study to validate the measurement/outer model. According to Theron (2013) a decision should be made based on the results of item analysis and the nature of the poor items on whether these items should be transformed or deleted from the instrument or respective scale(s). If the overall reliability of the measurement or scale is greatly affected by showing substantial improvement after the identified items have been deleted, they should not be included in subsequent analyses. Cronbach's alphas and average inter-item correlations for each measurement were mainly used to identify any poor items present in this study.

The Cronbach's alpha is considered satisfactory at $\geq .70$ (Hair et al., 2011). Cronbach's alpha measures the internal consistency of a group of items by measuring the similarity of the group of items. "It is an indication of how well the different items complement each other in their measurement of different aspects of the same variable or quality" (Litwin, 2003, p. 22). Values closer to one is indicative of a higher internal consistency; values closer to zero is indicative

of a lower internal consistency. Groups of items with an alpha below .70 should be used with caution.

The internal consistency of a scale can also be examined with item-to-scale correlations and intercorrelations of items within a scale. If a group of items measures a single latent construct, one would assume that each item alone correlates with the scale overall and that items within such a scale are positively correlated. Average inter-item correlation values between 1.0 and $>.05$ indicate excellent reliability, while values between $<.05$ and $.00$ indicate acceptable reliability. According to Clark and Watson (1995), average inter-item correlations should be between $.15$ and $.50$. For an even stricter criterion, the average inter-item correlation should be $>.3$ (Netemeyer, 2001). A higher score for inter-item correlation can be seen as a good score, because it illustrates that these items are – to a certain degree – measuring the same construct. Furthermore, large average inter-item correlations could indicate that those scales contain items that are particularly intercorrelated, thus creating the possibility of having a narrower focus.

Item analysis was performed on all the items of measures utilised for data collection. The summary of the item analysis results can be seen in Table 4.1. This table shows Cronbach's alphas and average inter-item correlation of all the total scales.

4.2.1 Counterproductive work behaviour

For this paper the focus will be on dimensions related to both CWB-O and CWB-I and which adds to a total value of CWB. Specifically, abuse, theft, sabotage, withdrawal, and production deviance as delineated in the measure established by Spector et al. (2006). The CWB-C-32 was implemented as a measuring instrument. Furthermore, the present study treated counterproductive work behaviour as a unidimensional construct. Thus, the *total* score functioned as a causal indicator of the underlying construct of CWB. Items related to different sub-dimensions assess different things but combine to define the overall CWB construct.

The Cronbach's alphas for the scale utilised was satisfactory, since nearly all the sub-dimensions scored $.70$ or higher (sabotage = $.66$, production deviance = $.70$, withdrawal = $.76$, theft = $.82$, abuse = $.92$). Sabotage indicated a score slightly below $.70$, but since it is incremental, we can critically assume sabotage to be satisfactorily reliable as well. This shows

that, according to this principle, the sub-category items did indeed measure the latent variable of interest satisfactorily and measures what was intended to be measured.

The average inter-item correlation score for the measure was .56 and proved to be acceptable. This can be considered a good level of inter-item correlation as the value is both positive and above 0. The individual inter-item correlations for the subscales were between .47 – .56. These inter-item correlations were deemed acceptable even according to the stricter criteria of $>.3$. Therefore, the overall results show that the measure is measuring CWB as it is supposed to.

Table 4.1

Internal consistency reliability of scales

Scale	Sample size	Number of items	Mean	Standard deviation	Cronbach's alpha	Average inter-item correlation
C	180	10	38.59	5.32	.74	.23
A	180	10	33.17	4.98	.66	.17
E	180	10	30.85	5.87	.74	.22
H-H	180	10	38.17	5.45	.68	.19
CWB	180	32	6.29	1.59	.81	.56
JIS	180	3	5.91	2.67	.92	.79
WO	180	10	27.96	4.93	.83	.34

A = Agreeableness, C = Conscientiousness, E = Emotionality, H-H = Honesty-Humility, CWB = Counterproductive Workplace Behaviour, JIS = Job insecurity, WO = Work overload

4.2.2 HEXACO personality factors

For this study, the sub-dimensions considered to represent the latent variable of personality were conscientiousness, agreeableness, emotionality, and honesty-humility. This was done to align with the purpose of the present study, which is to identify antecedents of CWB that contribute to the variance of its occurrence in the work place. Therefore, since throughout the literature CWB is mostly accounted for by the conscientiousness, agreeableness, and emotionality factors (as set out in the Big Five and FFM models of personality) these were examined. In addition, the HEXACO model, presented by Lee and Ashton (2004), posits that

the honesty-humility factor significantly determines the tendency to exhibit CWB, thus this dimension was also inspected.

The Cronbach's alphas for the scales utilised of each personality dimension was satisfactory, since nearly all sub-dimensions scored .70 or higher (conscientiousness = .74, agreeableness = .66, emotionality = .74, honesty-humility = .68). Agreeableness and honesty-humility indicated a score slightly below .70, but since it is incremental, we can critically assume agreeableness and honesty-humility to be satisfactorily reliable as well. The Cronbach's alpha coefficient did not improve considerably when any of the individual items were deleted and as such, no items were considered for removal. This indicates, according to this principle, that the items did indeed measure the latent variable of interest satisfactorily and measures what was intended to be measured.

The average inter-item correlation score for all the scales were also found to be acceptable as all of them scored between .17 – .23 (Conscientiousness = .23, Agreeableness = .17, Emotionality = .22, Honesty-Humility = .19). This can be considered a good level of inter-item correlation as the value is both positive and above 0 (Tabachnick & Fidell, 2001). Therefore, the overall results show that the scales are measuring Conscientiousness, Agreeableness, Emotionality, and Honesty-Humility as it is supposed to.

4.2.3 Job Demands

Throughout this study, the focus remains on work overload and job insecurity to incorporate both a challenge and a hindrance stressor in the investigation of the relationship between some antecedents and CWB.

The Cronbach's alphas of the scales utilised for each job demand was satisfactory, since all sub-dimensions scored above .70 (overload = .83, job insecurity = .92). This indicates that the scales represent what the sub-dimensions were measuring.

The internal consistency was also confirmed by an average inter-item correlation score of .76 and .36 for job insecurity scale and work overload respectively. This can be considered a high level of inter-item correlation. As the value is both positive and above .30. Therefore, the overall results show that the JDRS sub-scales of job insecurity and work overload, measures the construct as it is supposed to.

4.2.4 Decision regarding measurement model

Item analysis was used to determine the reliability and validity of the indicator variables. Based on this subsequent analysis, satisfactory evidence was given to include the items in the measuring instruments. All items, except for singular items included in the Agreeableness and Honesty-Humility scale, were established as internally consistent and reliable, according to the pre-defined criteria. Since these scores were only marginally less than acceptable levels of reliability, further analysis was continued without the exclusion of any scales or items. No significantly poor items were found and thus no deletions were made necessary at this stage. This was supported by the satisfactory levels of inter-item correlations obtained for the subscales included in the study. This led to the conclusion that the results obtained from the item analysis were acceptable and, thus, justified subsequent analysis.

4.3 PARTIAL LEAST SQUARE PATH ANALYSIS

Partial least squares analysis (PLS) is a widely used multivariate technique considered able to deal with many variables and to correlate variables in cases with small sample sizes. PLS is also considered a useful method when conducting prediction-orientated research as it can be used to focus on explaining endogenous constructs, as was used in this study, to analyse the data obtained (Henseler et al., 2009).

As discussed in Chapter 3, PLS consists of a two-stage analytical procedure. In the first stage the measurement model was tested (reliability and validity measures) and this was followed by testing the structural model (hypothesised relationships) (Anderson & Gebring, 1988; Chin, 1998) (Chin, 1998; Anderson & Gebring, 1988). The primary objective of testing the measurement model was to establish the measurement quality – in other words the reliability of the indicators – of the inner model. After the reliability of each latent variable scale was determined, path coefficients were studied to establish the significance and strength of the hypothesised relationships (Hair et al., 2011). Hence, once it is shown that the measurement model obtained suitable reliability in measuring the latent variables of interest, only then can the relationships between the variables be tested and evaluated. This is then done with the aim to establish the fit of the structural model to determine the significance of the hypothesised relationships.

A bootstrapping technique was used to test the significance of the path coefficients as well as the loadings. This required 1 000 resamples to define the significance levels for loadings, weights, and path coefficients (Suriety, Ramayah, Lo, & Tamizi, 2014).

Additionally, as there are moderating effects present in the proposed model, these were also analysed using PLS. As mentioned in Chapter 3, this analysis also involves two steps: first an iterative process is used where latent variable scores are estimated for each variable. These values are then entered as dependant and independent variables into one or more regressions. The second step is when the moderating effects are tested through multiple regressions through PLS path modelling (Henseler & Fascott, 2010).

4.3.1 Measurement model

To determine the quality of the items that were utilised in the survey the measurement model was analysed. The purpose of this analysis is to establish the reliability of the items, as well as the nature of their relationship with the latent variables. The outer model is another name for the measurement model because it determines factors outside the structural model (Kidd, 2018).

The reliability analysis was done to examine the outer model or measurement model. This was done by inspecting the composite reliability and the average variance extracted (AVE). Table 4.2 is a summary of the reliability analysis conducted as part of PLS path analysis.

The composite reliability value measures the reliability of the latent variable scales. Values equal to or higher than .70 are considered satisfactory (Litwin, 2003). The AVE measures the amount of variance in the indicator variables explained by a common factor – in other words the latent variable of interest. The AVE score can be likened to the other reliability scores, although the AVE is a much stricter measure of reliability. If the score is above .50 it indicates that the indicator variables do measure the relevant construct. Values smaller than the critical value of .50 indicate that the latent variable scales do not measure theoretically related constructs. The reliability statistics can be found in Table 4.2.

Table 4.2

Reliability and AVE scores for the PLS Measurement Model

Latent variables	Sub-scale	Composite reliability (outer model)	Average variance extracted (AVE)
CWB		.90	.64
Personality			
	Conscientiousness	.79	.29
	Agreeableness	.72	.24
	Emotionality	.58	.17
	Honesty-Humility	.77	.27
Job-Demands			
	Work overload	.00	.15
	Job insecurity	.95	.86

4.3.1.1 CWB

The composite reliability of the scale was exceptionally good, obtaining a score of .90. The reported AVE value was found satisfactory, with a total score of .64, exceeding the critical value of .50. Therefore, the overall results indicate that the CWB-C-32 does indeed measure what it was intended to measure.

4.3.1.2 HEXACO Personality Dimensions

From Table 4.2 the composite reliability of three out of the four scales was good, with values ranging between .72 – .79 (conscientiousness = .79, agreeableness = .72, honesty-humility = .77). However, the composite reliability of the emotionality scale of .58 was not acceptable. This indicates that this measure lacks reliability and further investigation into the sub-scale was needed.

Lastly, AVE presents the average amount of variance in indicator variables that a construct has managed to explain. The reported AVE values for the remaining personality factors (excluding emotionality, which reliability already warrants further investigation) were not

satisfactorily, due to the fact that none of the sub-dimensions scored above the critical value of .50 (conscientiousness = .29, agreeableness = .24, honesty-humility = .27).

As this is well below the critical value of .50 it is cause for great concern as it indicates that the personality sub-dimensions are unreliable and does not explain significant variance in measuring the constructs. This could indicate that the measured sub-dimensions correlate with indicator variables that are theoretically unrelated and only a small amount of variance in the items can be explained by the respective personality sub-dimensions. In other words, the measure might not have consistently and reliably measured the latent variables of interest. Even though statistical analysis can continue, caution needs to be taken before making any substantial inferences from the data on the conscientiousness, agreeableness, and honesty-humility factor scores.

4.3.1.3 Job demands

As indicated in Table 4.2 only the composite reliability of job insecurity was exceptional, with a value of .95. Work overload, however, obtained a composite reliability of .00, which was not at all acceptable. This shows that this measure lacks reliability and further investigation into the sub-scale was needed.

The AVE for job insecurity was found satisfactory, with a total score of .86, exceeding the critical value of .50. This indicates that the scale explains significant variance in measuring the construct and can be deemed a reliable indicator.

4.3.2 Investigation into the Emotionality Scale

Further investigation into the emotionality scale was done by performing Exploratory Factor Analysis (EFA) using oblimin rotation. These results were interpreted, and a new factor structure measure was tested to assess its reliability.

4.3.2.1 EFA results and decision regarding the Emotionality scale

In the investigation of the factor loadings (shown in Table 4.3), the data showed a pattern indicating that the indicator items are representing two underlying factors. Items 1, 3, 4, 5, 7, 8, 9, and 10 clustered together to represent one factor and items 2 and 6 loaded onto a separate

factor. To further investigate this the researcher examined the underlying factor structure of the emotionality scale, as included in the HEXACO-PI 60. According to Lee and Ashton's (2004) examination into the psychometric properties of the measure, four sub-scales represent the emotionality scale, namely: fearfulness, anxiety, dependence, and sentimentality. The second factor that was indicated in the EFA results were the items related to the anxiety dimension. Thus, according to the data obtained from the current study, it showed that the anxiety factor is either separate to the overall emotionality factor, or in this instance it has a stronger impact on the exhibition of CWB than the other four sub-scales.

Table 4.3

Oblimin Rotation – Emotionality

Items	Factor 1	Factor 2
Emotionality1	-.54	-.20
Emotionality2	-.05	-.86
Emotionality3	-.72	.13
Emotionality4	-.59	.04
Emotionality5	-.50	-.21
Emotionality6	.04	-.74
Emotionality7	-.69	.17
Emotionality8	-.47	-.10
Emotionality9	-.56	-.25
Emotionality10	-.59	.13

To protect the integrity of the measure and to interpret the results obtained with caution, it was decided not to split the emotionality factor into two separate factors. This stance is based on the theoretical argument that anxiety as sub-construct has a vital role in defining, as well as predicting, emotionality, not only in the HEXACO model, but also in the Big Five model and the Five Factor model. Therefore, it is considered an integral part of the factor in conjunction with the three other sub-factors.

In addition, a subject matter expert (Kidd, 2018) suggested investigating the impact on the measurement model's overall reliability when the entire emotionality factor would be

removed from the model. The reliability statistics (incorporating the newly split work overload factors – investigated in section 4.3.3) is indicated in Table 4.5.

By examining the composite reliability of all the variables, with exclusion of the emotionality factor, the initial investigation shows overall reliability of the measures included, with scores ranging from .72 - .95, exceeding the critical value of .70. The AVE, as previously stated, presents the average amount of variance in indicator variables that a construct is managed to explain. The AVE for CWB, workload overload, work relationship overload, and job insecurity (scores ranging between .50 - .86) was above the critical values of .50. However, the personality dimensions still included in the model (honesty-humility, agreeableness, and conscientiousness) were still not found satisfactory, according to this stricter analysis of reliability. The reported AVE values for the remaining personality factors indicate that these measures do not consistently measure what they are intended to measure, and caution needs to be taken when interpreting their results.

Therefore, even though the reliability of the measure did improve marginally by excluding the emotionality factor, it did not do so substantially, and it was recommended to keep the emotionality factor intact for theoretical exploration and interpretations purposes.

4.3.3 Investigation into the Work Overload scale

Like the emotionality scale investigation, an Exploratory Factor Analysis (EFA) was performed using oblimin rotation to investigate the Work Overload scale. These results were interpreted, and a new factor structure measure was tested to assess its reliability.

4.3.3.1 EFA results and decision regarding the Work Overload scale

Upon investigating the factor loadings, as shown in Table 4.4, the data indicated that the items are representing two separate, but related, underlying factors. Items 1 – 6 seemed to be representing one item and 7 – 10 another. Not only relying on the statistical evidence, the researcher studied the content of the items that relate to each other. Items 1 – 6 were found to involve workload related content e.g. “Do you have too much to do?” or “Do you have to be attentive to many things in your work?”. Items 7 – 10, on the other hand, involved the relationship demands aspects included in everyday workload e.g. “Do you have contact with difficult people in you work?” or “Does your work put you in emotionally upsetting

situations?”. Based on this investigation, and after consultation with a subject matter expert (Kidd, 2018) it was decided to split the items into two new factors, namely: workload overload and work relationship overload, and to test a new model including these variables.

Table 4.4

Oblimin Rotation – Work Overload

Items	Factor 1	Factor 2
Overload 1	.68	.05
Overload 2	.76	.14
Overload 3	.78	-.24
Overload 4	.73	.16
Overload 5	.80	.00
Overload 6	.77	.04
Overload 7	.25	.69
Overload 8	.19	.71
Overload 9	.06	.80
Overload 10	-.15	.50

After splitting the overload factor, the composite reliability of the scales improved drastically from .00 for the work overload factor, to .88 and .79 for workload overload and work relationship overload respectively. This indicated that the overall measurement accuracy of these items increased, causing the confidence in the results’ accuracy to improve. Deductions could now be made with more certainty.

4.3.4 Decision regarding Emotionality and Work Overload

Based on the above investigations it was decided, in consultation with two subject matter experts, that the conceptual model should still include the emotionality factor and now include the two overload variables, namely: workload overload and work relationship overload.

Regarding the inclusion of the complete emotionality factor, it was debated that the theoretical implication of this removal would be too great. It would mean not only the adjustment of the

conceptual model supported by previous research, but also the removal of two important hypothesised relationships of the study that could still contribute to the understanding of the relationship between personality factors, job demands and CWB. The emotionality factor was not split into two separate factors, one being renamed anxiety, as to protect the integrity of the measure. Results obtained will be interpreted with extreme caution. This lack of stability in the emotionality measurement will be mentioned as a big limitation in this study.

The decision to split the work overload factor and ultimately creating two new variables in the measurement model meant that the indicator variables needed to be shuffled accordingly and the structural model adapted to include the two newly defined variables. This also had the implication of rewriting the hypotheses to reflect the new conceptual and structural model. The newly defined structural model is presented and examined in the subsequent sections of this chapter.

4.3.5 New structural model and hypotheses

As this study aimed to test a structural model, an adapted model needed to be created that could be tested with measurement accuracy. As per PLS analysis, the measurement model should fit first and then only can the structural model be tested. Therefore, the work overload scale needed to be split into two new variables to ensure this. The newly created structural model and subsequent hypotheses are shown below.

4.3.5.1 The new structural model

The new structural model, including workload overload and work relationship overload as two new variables, is depicted in Figure 4.1.

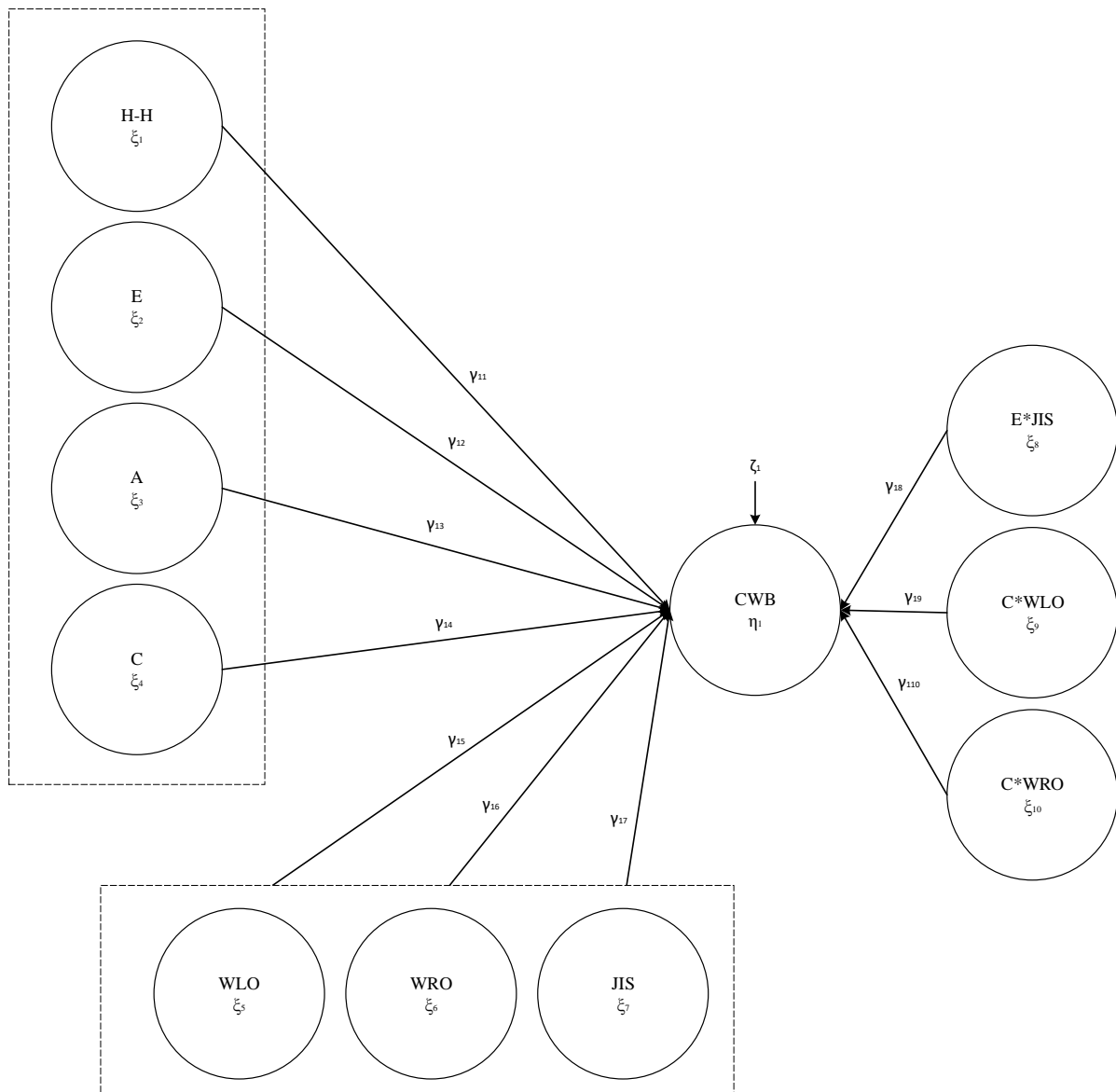


Figure 4.1. New structural model

4.3.5.2 Substantive Hypotheses

The re-written hypotheses depicted on Figure 4.1 are listed below.

Hypothesis 1: Honesty-Humility (ξ_1) has a significant negative effect on the exhibition of CWB (η_1).

Hypothesis 2: Emotionality (ξ_2) has a significant negative positive on the exhibition of CWB (η_1).

Hypothesis 3: Agreeableness (ξ_3) has a significant negative effect on the exhibition of CWB (η_1).

Hypothesis 4: Conscientiousness (ξ_4) has a significant negative effect on the exhibition of CWB (η_1).

Hypothesis 5: Workload overload (ξ_5) has a significant positive effect on the exhibition of CWB (η_1).

Hypothesis 6: Work relationship overload (ξ_6) has a significant positive effect on the exhibition of CWB (η_1).

Hypothesis 7: Job insecurity (ξ_7) has a significant positive effect on the exhibition of CWB (η_1).

Hypothesis 8: Emotionality (ξ_2) has a significant positive moderating effect on the relationship between Job insecurity (ξ_7) and CWB (η_1).

Hypothesis 9: Conscientiousness (ξ_4) has a significant negative moderating effect on the relationship between workload overload (ξ_5) and CWB (η_1).

Hypothesis 10: Conscientiousness (ξ_4) has a significant negative moderating effect on the relationship between work relationship overload (ξ_6) and CWB (η_1).

4.3.5.3 Statistical Hypotheses

The statistical hypotheses presented here are derived from the substantive hypotheses that indicated the logic underlying the formulation of the structural model, research design, and the statistical analysis. These statistical hypotheses were based on the new structural model.

Hypothesis 1

$$H_{01}: \gamma_{11} = 0$$

$$H_{a1}: \gamma_{11} < 0$$

Hypothesis 2

$$H_{02}: \gamma_{12} = 0$$

$$H_{a2}: \gamma_{12} > 0$$

Hypothesis 3

$$H_{03}: \gamma_{13} = 0$$

$$H_{a3}: \gamma_{13} < 0$$

Hypothesis 4

$$H_{04}: \gamma_{14} = 0$$

$$H_{a4}: \gamma_{14} < 0$$

Hypothesis 5

$$H_{05}: \gamma_{15} = 0$$

$$H_{a5}: \gamma_{15} > 0$$

Hypothesis 6

$$H_{06}: \gamma_{16} = 0$$

$$H_{a6}: \gamma_{16} > 0$$

Hypothesis 7

$$H_{07}: \gamma_{17} = 0$$

$$H_{a7}: \gamma_{17} > 0$$

Hypothesis 8

$$H_{08}: \gamma_{18} = 0$$

$$H_{a8}: \gamma_{18} > 0$$

Hypothesis 9

$$H_{09}: \gamma_{19} = 0$$

$$H_{a9}: \gamma_{19} < 0$$

Hypothesis 10

$$H_{010}: \gamma_{110} = 0$$

$$H_{a10}: \gamma_{110} < 0$$

4.3.6 Investigation and interpretation of the new measurement model

Once again, the composite reliability and the average variance extracted (AVE) were utilised to examine the reliability of the measures included in the new measurement model. As stated by Hail et al. (2011) when composite reliability is equal to or higher than .70 it is deemed satisfactory. All the variables, except for the emotionality scale, were found to show satisfactory reliability. Emotionality obtained a score of .58, and even though this is below the

critical value, a subject matter expert advised, that even though this was cause for concern it could still be deemed acceptable, granted that caution be taken when interpreting the subsequent results. By looking at the results for workload overload and work relationship overload, with scores of .88 and .79 respectively, the composite reliability indicated that the measures indeed measure what they were intended to measure and a noticeable increase in reliability is evident from the original work overload factor.

With AVE, being a stricter assessment of reliability, a score of $>.50$ indicates that the measure is indeed measuring the relevant latent variable. CWB and all the included job-demands factors showed acceptable reliability. The AVE results for the conscientiousness, agreeableness, emotionality, and honesty-humility show that there was a lot of variance in how people answered the questions. The constructs only explain 29%, 24%, 17%, and 27% of the variance in the measure respectively. Therefore, while the statistical investigation may continue, results regarding these scales should be interpreted with caution. Reliability statistics are indicated in Table 4.5.

Table 4.5

Reliability and AVE scores for the New PLS Measurement Model

Latent variables	Sub-scale	Composite reliability (outer model)	Average variance extracted (AVE)
CWB		.90	.64
Personality			
	Conscientiousness	.79	.29
	Agreeableness	.72	.24
	Emotionality	.58	.17
	Honesty-Humility	.77	.27
Job-Demands			
	Workload overload	.88	.56
	Work relationship overload	.79	.50
	Job insecurity	.95	.86

The last evaluation of the items' reliability for the latent variable scales was done by conducting a PLS bootstrap analysis and examining the outer loadings. This was done to investigate construct validity, which also indicates the extent to which a measure measures the latent variable it is supposed to. Thus, each scale's discriminant validity was tested. Discriminant validity looks at the extent to which each scale measures something unique and does not overlap with the other scales.

To determine whether the item loadings were significant or not, PLS bootstrapping was conducted. Evaluation of the outer loadings was crucial for this specific purpose. To examine the outer loadings, it needed to be determined whether zero falls within the 95% confidence interval. If zero falls within this interval, the factor loadings would not be statistically significant; if zero does not fall within this interval, the factor loadings are significant and can thus be seen as a reliable measure.

Table 4.6 provides the outer loadings giving an indication of the strength of the relationships between latent variables and items measuring them in the survey.

Table 4.6

Outer Loadings

Latent variable	Path	Original sample (O)	95% confidence interval (lower)	95% confidence interval (upper)	Significant
<i>Personality</i>	A → AG1	.65	.36	.76	yes
	A → AG2 (R)	.37	.04	.58	yes
	A → AG3 (R)	.07	-.22	.36	no
	A → AG4 (R)	.78	.59	.83	yes
	A → AG5	.51	.20	.60	yes
	A → AG6	.39	-.12	.62	no
	A → AG7	.22	-.23	.60	no
	A → AG8	.65	.33	.80	yes
	A → AG9	.39	.14	.54	yes
	A → AG10(R)	.42	.03	.66	yes
	C → C1	.76	.51	.84	yes
	C → C2	.64	.27	.77	yes

	C → C3 (R)	.46	.05	.63	yes
	C → C4 (R)	.54	.30	.80	yes
	C → C5 (R)	.58	.17	.71	yes
	C → C6 (R)	.43	.03	.69	yes
	C → C7	.32	.04	.60	yes
	C → C8 (R)	.59	.35	.75	yes
	C → C9	.52	.09	.66	yes
	C → C10 (R)	.37	.10	.57	yes
	E → EM1	.41	-.15	.66	no
	E → EM2	.83	-.39	.86	no
	E → EM3	.16	-.35	.59	no
	E → EM4	.07	-.39	.53	no
	E → EM5	.50	-.27	.80	no
	E → EM6 (R)	.51	-.17	.74	no
	E → EM7 (R)	-.01	-.56	.61	no
	E → EM8	.49	-.19	.74	no
	E → EM9 (R)	.26	-.22	.64	no
	E → EM10 (R)	.15	-.30	.65	no
	H-H → HH1	.56	.31	.70	yes
	H-H → HH2 (R)	.68	.46	.81	yes
	H-H → HH3	.28	-.04	.50	no
	H-H → HH4 (R)	.55	.35	.69	yes
	H-H → HH5 (R)	.59	.23	.75	yes
	H-H → HH6	.29	.01	.54	yes
	H-H → HH7 (R)	.23	-.10	.48	no
	H-H → HH8 (R)	.55	.25	.73	yes
	H-H → HH9	.43	.14	.62	yes
	H-H → HH10 (R)	.78	.57	.86	yes
<i>CWB</i>	CWB → Abuse	.89	.80	.93	yes
	CWB → ProdDev	.84	.63	.92	yes
	CWB → Sabot	.79	.42	.91	yes
	CWB → Theft	.86	.76	.92	yes
	CWB → Withdr	.56	.34	.72	yes

<i>Job Demands</i>	JS → JS1	.92	.74	.96	yes
	JS → JS2	.92	.72	.96	yes
	JS → JS3	.93	.78	.98	yes
	WLO → WO1	.54	-.29	.9	no
	WLO → WO2	.72	-.02	.85	no
	WLO → WO3	.62	.01	.76	yes
	WLO → WO4	.76	-.05	.86	no
	WLO → WO5	.90	-.17	.94	no
	WLO → WO6	.87	-.19	.93	no
	WRO → WO7	.67	.18	.83	yes
	WRO → WO8	.68	.26	.84	yes
	WRO → WO9	.92	.72	.96	yes
	WRO → WO10	.46	-.04	.80	no

A = Agreeableness, C = Conscientiousness, E = Emotionality, H-H = Honesty-Humility, CWB = Counterproductive Workplace Behaviour, JIS = Job insecurity, WLO = Workload overload, WRO = Work relationship overload

Consequently, the results indicate the latent variable scales for CWB, conscientiousness, and job insecurity were statistically significant. It should be noted that all the items included in the emotionality scale were found to be not significant, beckoning more caution to the already risky reliability of the measure. However, a recommendation was made to continue noting this. Additionally, singular items included in the measures of agreeableness (item 3, 6 & 7), honesty-humility (items 3 & 7), workload overload (items 1, 2, 4, 5 & 6) and work relationship overload (item 10) were found to be not significant. Workload overload only indicated one discriminant item posing some concern into the overall reliability but based on the positive reliability results of this measure and the other implicated items in prior analyses, the statistical analyses continued. However, the results should, once again, will also be interpreted with caution. All the remaining items were found to be statistically significant and therefore their reliability was confirmed.

From these results it can be understood that not all latent variable scales were internally consistent and reliable. However, the composite reliability scores for most of the scales were satisfactorily high ($> .70$) thus confirming the reliability of most of the scales included in the survey. A majority of the scales obtained satisfactorily high average inter-item correlations, which confirmed the internal consistency reliability of those latent variable scales.

Consequently, it can be concluded that, even though the measurement model's reliability was not as high as one would have wanted it to be, in most instances it was still acceptable. Further investigation into the path coefficients could continue, but with caution and due consideration of the limitations observed regarding certain measurement scales.

4.3.7 Investigation and Interpretation of the new structural model

To determine the quality of the relationships between the latent variables the structural model was analysed by means of PLS structural model analysis. The purpose of this was to establish to which extent the latent variables relate to one another. Therefore, the relationship and influence of the exogenous variables on the endogenous variable was determined. As mentioned in Chapter 3, the structural model is also known as the “inner model”, since it defines the factors inside the structural model (Kidd, 2018). Analysing the structural model includes testing for multicollinearity, evaluating the R-Squares, and interpreting the main effects and moderating effects.

4.3.7.1 Multicollinearity

When regression analyses are done, many predictor variables are present, and it is assumed that all the predictors are not too linearly related to one another. Sometimes, however, the predictors do correlate too highly with each another and in these instances one predictor can then be linearly predicted from others quite accurately. This will result in unstable regressions due to inconsistent changes in the coefficient estimates in response to incremental changes in either the model or the data and therefore should be identified during the outer model analysis (Hair et al., 2011).

To test for multicollinearity a variance inflation factor (VIF) was used. VIFs measure how much the variance in the estimated regression coefficients of related predictor variables is inflated in comparison to when the predictor variables are unrelated (Hair et al., 2011). This indicates how much correlation exists between the predictors during the analysis and it is used to describe how much correlation between variables (multicollinearity) was found in the regression analysis. If multicollinearity is present it is problematic as it can increase the variance of the regression coefficients, causing them to be unstable and difficult to interpret.

Various recommendations for acceptable levels of VIF have been published. Hair et al., (2011), propose that a strict limit of 5 be used. It was found that all the scores were below 5. Therefore, no indication of multicollinearity problems exists within the current model. Table 4.7 indicates the multicollinearity values for the exogenous latent variables.

Table 4.7

Multicollinearity between latent variables

Latent variable	A	C	E	H-H	CWB	JS*E	JS	WO	WO*C
Agreeableness					1.24				
Conscientiousness					1.48				
Emotionality					1.10				
Honesty-Humility					1.40				
CWB									
Job insecurity					1.24				
WLO					1.41				
WRO					1.35				

A = Agreeableness, C = Conscientiousness, E = Emotionality, H-H = Honesty-Humility, CWB = Counterproductive Workplace Behaviour, JIS = Job insecurity, WLO = Workload overload, WRO = Work relationship overload

4.3.7.2 R-Square

R-Square represents the structural model's predictive accuracy and is calculated as the squared correlation between a specific endogenous construct's predicted and actual values (Hair et al., 2013). R-square provides the combined effects of independent variables on the dependent variable. In other words, it signifies the amount of variance in the endogenous constructs explained by all the related exogenous constructs (Hair et al., 2013). The R-square value ranges from 0 to 1 and values closer to 1 indicates a high predictive accuracy. Table 4.8 indicates the R-square values.

The CWB score is .59 indicating that 59% of the variance in CWB can be explained by the effect of the exogenous latent variables. This proves that the model does explain some variance in the endogenous latent variable, but it needs to be noted that other variables also seem to explain incremental variance in CWB.

Table 4.8

R-Square values for the endogenous latent variable

Latent variable	R-square
CWB	0.59

4.3.7.3 Evaluating and interpreting the main effects

It is important to note that the purpose of PLS path modelling is to facilitate prediction, not to test a theory (Henseler et al., 2009; Henseler et al., 2016). Once the reliability of each latent variable scale was examined and, in some instances, completely confirmed, path coefficients were studied to establish the strength and significance of the hypothesised relationships. The PLS bootstrapping method was used to determine significance between variables.

Table 4.9 indicates whether the direct path coefficients were significant or not. To determine the strength and significance of the hypothesised paths, as suggested in the new structural model (Figure 4.1), path coefficients were investigated. This was done by determining whether zero fell within the 95% confidence interval, as explained in section 3.8.3. Information on whether the hypothesised paths were significant or not was provided for each path.

Table 4.9

Path Coefficients between variables

Latent variable	PLS path coefficient	95% confidence interval (lower)	95% confidence interval (upper)	Description
A → CWB	-.12	-.27	.02	Not Significant
C → CWB	-.21	-.34	-.06	Significant
E → CWB	-.12	-.25	.14	Not Significant
H-H → CWB	-.12	-.25	-.02	Significant
JS → CWB	.03	-.09	.14	Not Significant
WLO → CWB	-.02	-.16	.17	Not Significant
WRO → CWB	.26	.09	.35	Significant

A = Agreeableness, C = Conscientiousness, E = Emotionality, H-H = Honesty-Humility, CWB = Counterproductive Workplace Behaviour, JIS = Job insecurity, WLO = Workload overload, WRO = Work relationship overload

Hypothesis 1: Honesty-humility has a significant negative effect on the exhibition of CWB.

The hypothesised negative relationship between honesty-humility and CWB was found to be statistically *significant* (PLS path coefficient = $-.12$), as zero did not fall within the 95% confidence interval. This result corroborates previous research done on this subject (Ashton & Lee, 2008; Chirumbolo, 2015; Oh et al., 2011).

Therefore, according to these findings individuals who show a higher honesty-humility factor would be less prone to exhibit CWB than those lower on the factor, who could more easily revert to CWB.

Previous research suggests that the honesty-humility factor would outperform conscientiousness (as defined in the Big Five model) as a reliable and consistent predictor of CWB (Ashton & Lee, 2008). In the present study, however, conscientiousness (PLS path coefficient = $-.21$) still seems to be the stronger predictor of CWB than honesty-humility (PLS path coefficient = $-.12$). The low AVE score should then also be taken into consideration as the honesty-humility factor, according to the more stringent criteria, did not measure the factor consistently in the current sample.

Hypothesis 2: Emotionality has a significant positive effect on the exhibition of CWB.

The hypothesised positive relationship between emotionality and CWB was found to be statistically *insignificant* (PLS path coefficient = $-.12$), as zero falls within the 95% confidence interval. This differs from previous research which examined this relationship (Sackett, 2002; Spector, 2011). Even though the relationship was found to be negative, in contrast to the stated hypothesis, it was still found to be not significant. This result shows that the two variables are not related, and levels of emotionality have no effect on a person's likelihood of engaging in CWB.

It must be noted that this insignificant finding could be attributed, at least in part, to the insignificant paths found between the emotionality scale and its subscales/items. The small relationships found between the items and the measurement scale could indicate that the items fail to provide an accurate picture of emotionality in the current research participants. In addition, the low composite reliability and AVE score of the emotionality scale should

considered as this indicates that the items did not measure the construct reliably in the current sample. Therefore, even though the relationship was found to be statistically insignificant, the data does seem to indicate a small, but still negative relationship between emotionality and CWB that should be explored theoretically.

Hypothesis 3: Agreeableness has a significant negative effect on the exhibition of CWB.

The hypothesised negative relationship between agreeableness and CWB was found to be statistically *insignificant* (PLS path coefficient = $-.12$), as zero falls within the 95% confidence interval. Even though the nature of the relationship was negative, as hypothesised, it was not significant. This differs from previous research done to examine this relationship (Berry et al., 2007). This indicates that the two variables are not related, and the level of a person's agreeableness has no effect on the likelihood of them engaging in CWB.

There exists the possibility that other variables, not considered in the current study, could moderate, or mediate the relationship, and therefore no direct relationship was found. Additionally, this insignificant finding could also be attributed, in part at least, to the small and sometimes insignificant relationships found between the agreeableness scale and its subscales/items. The AVE score of the agreeableness scale should also be taken into consideration as this indicates that the items did not measure the construct reliably in the current sample. Therefore, even though the relationship was also found to be statistically insignificant, the data does seem to indicate that a small, but negative relationship between agreeableness and CWB exists and this should also be explored theoretically.

Hypothesis 4: Conscientiousness has a significant negative effect on the exhibition of CWB.

The hypothesised negative relationship between conscientiousness and CWB was found statistically *significant* (PLS path coefficient = $-.21$), as zero does not fall within the 95% confidence interval. According to the path coefficient, the nature of the relationship is negative, as hypothesised, which means as the one increases, the other decreases. This coincides with previous research done on this relationship (Berry et al., 2007; O'Neill et al., 2011; Sackett & Devore 2001; Scott & Judge, 2013).

Thus, it can be concluded that the more conscientious – task orientated, diligent, and dutiful – an individual is, the less likely they are to participate in CWB. The converse can then also be true, and it can be concluded that the less conscientious an individual, the more likely they are to participate in CWB.

Furthermore, the AVE score of the conscientiousness scale should once again be considered as this indicates that the items pertaining to it in the HEXACO-PI-60 did not measure the construct reliably in the current sample. This gives us the indication that, based on the current results, the HEXACO-PI-R did not measure the included personality dimensions consistently and reliably in the sample group.

Hypothesis 5: Workload overload has a significant positive effect on the exhibition of CWB.

This hypothesised positive relationship between workload overload and CWB was found to be statistically *insignificant* (PLS path coefficient = -.02), as zero falls within the 95% confidence interval. However, according to the path coefficient, the nature of the relationship is negative albeit insignificant. This goes against the research, which found that an overwhelming amount of work, draining the individual's resources, initially serves as a challenge stressor, but when this is prolonged, they revert to CWB as a coping or balancing mechanism (Balducci et al., 2011; Widmer et al., 2012).

There exists the possibility that other, unknown variables moderate or mediate the relationship between workload overload and CWB, and therefore no direct relationship was determined in the current study.

Hypothesis 6: Work relationship overload has a significant positive effect on the exhibition of CWB.

The positive hypothesised relationship between work relationship overload and CWB was found to be *significant* (PLS path coefficient = -.28), with zero not falling within the 95% confidence interval. According to the path coefficient, the nature of the relationship is positive, as hypothesised, which means as the one increases, the other increases as well. This supports previous research suggesting the higher interrelationship demands increase the possibility of

CWB, especially interpersonal forms such as abuse (Gilboa et al., 2008, Welbourne & Sariol, 2017).

Therefore, the higher work-related relationship demands, such as interpersonal conflict in the work place, the more likely people are to respond with and exhibit CWB. The converse can then also be assumed to be true, and it can be concluded that the less work relationship demands the individual faces, the less likely they are to participate in CWB.

Hypothesis 7: Job insecurity has a significant positive effect on the exhibition of CWB.

The hypothesised positive relationship between job insecurity and CWB was found to be statistically *insignificant* (PLS path coefficient = .03), as zero falls within the 95% confidence interval. This is different from previous research which indicated that the more insecure an individual feels in their job, the more likely they are to revert to CWB as an adaptive coping mechanism (Chirumbolo, 2015; Van den Broeck et al., 2010). Even though the nature of the relationship in the current study was positive, as hypothesised, it was not significant. This result shows that the two variables are not related and that the level job insecurity experienced has no effect on the likelihood of a person engaging in CWB.

Once more the possibility exists that other variables play a moderating or mediating role in the relationship between job insecurity and CWB, and therefore no direct relationship was found in the current study.

4.3.7.4 Evaluating and interpreting the proposed moderating hypotheses

Path coefficients were examined to determine the significance, strength, and direction of the hypothesised moderating effects presented in the new structural model depicted in Figure 4.1. Once again path coefficients were examined by verifying if zero fell within the 95% confidence interval between the upper and lower bootstrap values. The path coefficients are presented in Table 4.10.

Table 4.10

Moderating Path Coefficients

Latent variable	PLS path coefficient	95% confidence interval (lower)	95% confidence interval (upper)	Description
JS*E → CWB	-.10	-.24	.13	Not Significant
WLO*C → CWB	.21	-.20	.30	Not Significant
WRO*C → CWB	-.28	-.36	-.06	Significant

A = Agreeableness, C = Conscientiousness, E = Emotionality, H-H = Honesty-Humility, CWB = Counterproductive Workplace Behaviour, JIS = Job insecurity, WLO = Workload overload, WRO = Work relationship overload

Hypothesis 8: Emotionality has a significant positive moderating effect on the relationship between job insecurity and CWB.

The hypothesised positive moderating effect of emotionality on the relationship between job insecurity and CWB was found to be statistically *insignificant* (PLS path coefficient = -.1), as zero falls within the 95% confidence interval. However, according to the path coefficient, the nature of the relationship is negative albeit insignificant. This differs from previous research investigating this relationship (Balducci et al., 2011; Folkman & Lazarus, 1985). This result shows that the variables are not related, and that emotionality does not act as an amplifier of the relationship between job insecurity and CWB.

It is important to note once again that the low composite reliability and AVE score of the emotionality scale should also be taken into consideration as this indicates that the items did not measure the construct reliably in the current sample.

Hypothesis 9: Conscientiousness has a significant negative moderating effect on the relationship between workload overload and CWB.

The hypothesised negative moderating effect of conscientiousness on the relationship between workload overload and CWB was found to be statistically *insignificant* (PLS path coefficient = -.02), as zero falls within the 95% confidence interval. Even though the nature of the relationship was negative, as hypothesised, it was not significant. This is in contrast with previous research (Zhou et al., 2014). This result shows that the variables are not related and

that conscientious does not have a buffering effect on the relationship between workload overload and CWB.

Additionally, it also could not be inferred from the current results whether a curvilinear relationship between workload overload and CWB exists as previously suggested (Huy et al., 2011). Consequently, it cannot be inferred that people high on conscientiousness would initially experience more work as a challenge that can be overcome.

Hypothesis 10: Conscientiousness has a significant negative moderating effect on the relationship between work relationship overload and CWB.

The hypothesised negative moderating effect of conscientiousness on the relationship between work relationship overload and CWB was found to be statistically *significant* (PLS path coefficient = $-.28$), as zero does not fall within the 95% confidence interval. According to the path coefficient, the nature of the relationship is negative, as hypothesised, which means that conscientiousness buffers the relationship between work relationship overload and CWB. This supports previous research propositions (Eschelman et al., 2015; Palmer et al., 2017; Spector & Fox, 2002).

Therefore, people with high conscientiousness, when faced with high relationship demands are less likely to respond with CWB than people scoring low on conscientiousness. Thus, this supports the buffering hypothesis, which posits that inherit personality traits act as constraints or buffers when faced with certain taxing demands, such as high levels of work relationship demands. In other words, when an individual scores high on conscientiousness they are less likely to respond with CWB, even when confronted with high relationship demands at work.

4.4 CHAPTER SUMMARY

The purpose of this chapter was to present, interpret, and discuss the statistical results. Firstly, Item analysis was conducted and was found to be satisfactory according to all criteria. This was followed by testing the reliability of the outer model and this was not completely supported, which necessitated an additional investigation into the reliability of problematic scales. The problematic measures were found, and attempts were made to rectify the lack of reliability. During this investigation it was noted that the original scales for emotionality and work overload were measuring two factors and not one as originally indicated. It was then

decided to split the work overload factor and keep the emotionality factor in tact to protect its integrity and then re-test the models' reliability. This was followed by re-drawing the structural model and hypothesised relationships. After this, analysis into the inner-model was continued and the significance of paths between latent variables investigated.

Ten hypotheses were tested, but only four were found to be significant. The non-significant paths could be attributed to a multitude of reasons outside the scope of the present study. However, hypotheses 1, 4, 6, and 10 were all found to be statistically significant and therefore supporting previous research that honesty-humility, conscientiousness and work relationship overload has an impact on the exhibition of CWB. It is noteworthy that the work overload dimension, traditionally associated with workload, was found to be better represented by the relational loads placed on individuals. The conceptual model was re-drawn to reflect the results of the study and can be seen in Figure 4.2.

In Chapter 5 practical implications of the study will be discussed to assist South African human resource practitioners, industrial psychologists, and line managers of organisations who employ professional individuals. The limitations of the study as well as recommendations for future research will also be discussed.

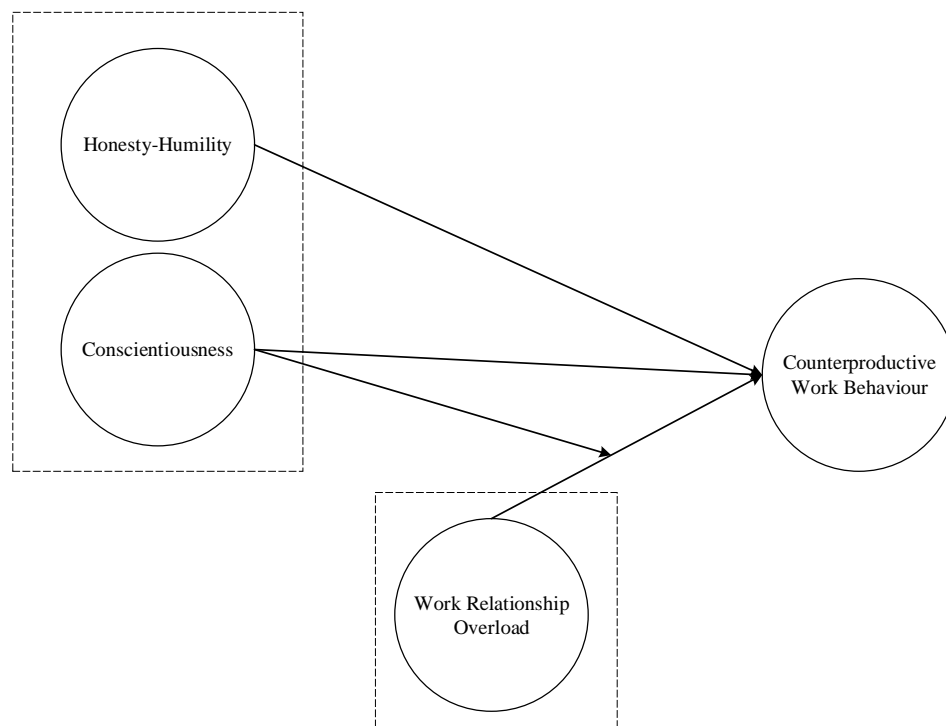


Figure 4.2. Conceptual model based on findings

CHAPTER 5

IMPLICATIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The purpose of the present study was to investigate the relationships and impact of personality, posited as personal resources, and certain job demands with CWB. CWB is known to include numerous destructive behaviours that could affect the organisation directly, or indirectly, by damaging its stakeholders, its reputation, and its ethical culture. As CWB has become a more prominent problem that organisations face, strategies need to be considered to counteract these negative effects on the competitiveness and success of organisations. Having an awareness of what leads to this behaviour can assist human resource practitioners and industrial psychologists in South Africa to counteract the negative outcomes associated with this type of behaviour.

Therefore, this chapter focuses on outlining practical interventions based on the findings of the current study, which can be used to mitigate negative outcomes. Additionally, limitations of the current study as well as recommendations for future research will also be discussed.

5.2 PRACTICAL IMPLICATIONS

The findings of the current study provide insight into the relationships between the latent variables and could serve a practical purpose on how human resource practitioners and industrial psychologists can limit CWB to promote individual as well as organisational performance. The PLS path analysis reported a total R-square value of .56 indicating that the total model did account for more than half of the variance observed in CWB. It can therefore be concluded that the theoretical model and the latent variables provided valuable insight into CWB and possible strategies to mitigate its effects.

In this current study, CWB and the exogenous latent variables were examined from the perspective of the JD-R framework. This provided a useful avenue of exploration when considering the practical implications of current research findings. As the JD-R framework posits that performance is either negatively affected by ill-health processes or positively impacted by motivational processes, practical implications would have to focus on limiting the one and increasing the other (Bakker & Demerouti, 2014). In this study that would take

the form of enhancing the positive effects of personal resources included in the model, and limiting the negative effects caused by excessive job demands. Therefore, practical implications that target the decrease of CWB in current as well as future employees were considered by influencing the job demands and personal resources included in the model.

5.2.1 Interventions aimed at reducing counterproductive work behaviour

CWB is inescapable in the workplace, costly to organisations, and it negatively affects the well-being of employees. Therefore, there is a need to understand what can be done to remedy the consequences of existing issues associated with it and ideally find more proactive ways to prevent it. The current study examined the relationship between certain personality characteristics and job demands with the exhibition of CWB to do exactly that.

The hypothesised moderating effect between high conscientiousness on work relationship overload and CWB was found to be statistically significant (PLS path = -.28). Hence, it can be concluded that when relationship demands are high or overwhelming, and the individual scored high on conscientiousness, they will be less likely to respond with CWB than individuals who scored low on conscientiousness.

The results of the current study suggest that the more task and goal-oriented an individual is naturally, the less likely it will be that excessive relationship demands (for instance interpersonal conflict with a colleague) will interfere with the individual's task performance and cause them to respond with CWB. This links to previous findings stating that individuals high in this trait work harder towards challenging goals and are more likely to be motivated by challenges and deliver higher performance than individuals who are not quite as goal-directed and dutiful (Eschelman et al., 2015; Penney et al., 2011). They are also more likely to perceive a challenge stressor as a motivator, at least initially (Yang & Diefendorff, 2009). Lin et al., (2015) posited that individuals with high levels of conscientiousness, who naturally have the inclination to set more demanding personal goals and strive for achievement, would more willingly direct their personal resources to meet performance requirements as a priority and deliver outcomes in the face of challenges. Additionally, the individuals' innate disposition to persist and persevere can be said to influence their perception of a stressor. Additionally, it can also influence the extent to which they persist when facing a challenge stressor, such as highly demanding relationships at work that interfere with goal achievement.

Accordingly, employees with high conscientiousness are said to be more likely to focus on their duties even when they are confronted with organisational or relationship constraints (Bowling & Eschelman, 2010).

From the above-mentioned findings, it becomes evident that CWB is a result of both dispositional as well as situational factors. In line with Robinson and Bennett (as cited in Bennett & Robinson, 2000) CWB will be more prevalent when situational demands are high (high work relationship demands) and personal resources (conscientiousness) are low. Therefore, certain personality traits, such as conscientiousness, can act as a protective constraint for the individual against the negative consequences of work relationship overload.

Although there has been a lot of research done in the past on screening techniques used to identify individuals based on certain personality traits that could increase the prevalence of CWB in organisations (for example low conscientiousness or low honesty-humility), these techniques do not clarify a course of action when current employees are exhibiting this behaviour. This will, however be discussed in section 5.2.2. While selection is a good method to decrease the influx of CWB into the organisation, there also needs to be a bigger emphasis placed on current employees – how does one limit the effects there?

This could be addressed by techniques that target CWB of incumbent employees through legal enforcement, rules, policy, and employee discipline – all contribute to the organisation's stance on issues related to CWB.

Lim, Cortina and Magley (2008) suggest that management should define and ideal appropriate and respectful workplace behaviour and clearly state expectations of professional conduct in mission statements, policy manuals, and new employee orientations to reinforce the importance and to encourage the benefits thereof. This method has been proven to significantly decrease the incidence of CWB amongst colleagues (Anderson & Gebring, 1988; Roxana, 2013). Additionally, by creating this conducive and supportive social environment at work and establishing proper ways to treat colleagues can assist employees in identifying themselves with the organisation and its goals, which will lead to the internalisation of organisational norms relating to appropriate behaviour (Raman, Sambasivan, & Kumar, 2016).

On the other hand, a strict rule enforcement approach is said to increase employment dissatisfaction, work-team conflict, unproductivity, and employee turnover as it is perceived that although the organisation's needs are considered, employee needs are secondary and not emphasised enough (Lim et al., 2008). Therefore, these policies and practices should aim to build the capacity of employees as well as their managers to better navigate through challenging interpersonal demands, encouraging them to take a softer approach that enables rather than directs specific behaviour.

Therefore, to ensure the success of policy implementation and maximise its impact on the negative consequences of interpersonal work demands, it should be accompanied by appropriate training enabling employees, as well as managers, to handle and mediate conflict arising between and with subordinates (Lim et al., 2008). Examples of training considered in past research has been conflict management, professional communication skills, emotional-coping skills, and stress management interventions, as well as emotional intelligence training (Raman, Sambasivan, & Kumar, 2016). It should also be noted that managers and team leaders should be aware of factors (such as interactional injustice and distributive injustice elements) embedded in their workplace. These factors cause CWB and affects their employees, as a lack of awareness of these factors could lead to failure of planned interventions. In other words, if it is perceived, for example, that effort is not rewarded equally based on irrelevant criteria, such as favouritism, and this does not change, no planned intervention will be able to successfully address CWB as the root cause is not being addressed (Chang & Smithirakrai, 2010).

Furthermore, any formal organisational interventions implemented to address CWB, be it job design, job analysis, or training, should convey organisational support to individuals struggling to cope with excessive demands. This is likely to reduce the probability of employees enacting CWB as this has been shown to be an emotional response to frustrating job experiences reflected by more withdrawal from employees (Robinson & Bennett, 1995). Research suggests that perceived organisational support helps prevent high as well as low risk individuals to refrain from enacting CWB as they feel heard and considered in, for example, policy decisions (Palmer et al., 2017). Previous research also suggests that organisational design characteristics could influence the likelihood CWB. For example, cyber-loafing (a form of withdrawal) is said to be less prevalent in a non-bureaucratic organisational as a result of more frequent and transparent communication amongst employees (Robinson &

Greenberg, as cited in Liberman, Seidman, McKenna, & Buffardi, 2011) and this could also be the case for more interpersonal demands placed on the individual as more communication would lessen uncertainty and increase perceived organisational support. Additionally, an open office design where employee actions are clearly visible to their colleagues and supervisors has been known to affect the participation in CWB as it constitutes a form of social accountability (Liberman et al., 2011). In other words, people will be less like to act inappropriately towards colleagues when there are others observing their behaviour and could hold them accountable for it.

Linking to this, according to research, it should be noted that the policies that organisations use to control and influence employees will have minimal impact on employees' behaviour when the employees' expectations are not met (Jensen, Opland, & Ryan, 2010). In other words, research suggests that for policy implementation to be effective, it needs to be considered fair in procedure and distribution towards all employees (Tremblay, Cloutier, Simard, Chênevert, & Vandenberghe, 2010). Thus, suggesting that organisational justice perceptions play a significant role in determining policy implementation success (Chang & Smithirakrai, 2010; De Coninck, 2010; Demir, 2011). This, however, was not explored in the current study, but remains an important consideration.

5.2.2 Interventions aimed at increasing personal resources in the form of HEXACO personality factors

The hypothesised negative relationship between conscientiousness and CWB was found to be statistically significant (PLS path = -.21). Therefore, it supports previous research suggesting that individuals scoring high on the conscientiousness trait are less likely to enact CWB (Berry et al., 2007; Spector, 2011).

The hypothesised negative relationship between honesty-humility and CWB was found to be statistically significant (PLS path = -.12). This also supports previous research suggesting that individuals scoring high on the honesty-humility factor are less likely to engage in CWB (Ashton & Lee, 2008; Chirumbolo, 2015; Oh et al., 2011).

From the results mentioned above it becomes clear that organisations would wish to increase the prevalence of individuals high on conscientiousness and high on honesty-humility. As

personality is considered salient and not as malleable as certain performance aspects, one way to limit or decrease the impact of CWB through the prevalence of these personality factors would be a selection-based approach (Fine, 2012). This could be done by administering a personality questionnaire as part of the recruitment and selection process (MacLane & Walmsley, 2010). However, organisations should caution against a singular focus when making selection decisions, as data on personality preferences only provide one piece of the puzzle and additional, more job-related content should also be considered to ensure fair and equitable labour practices are being adhered to. Therefore, the psychometric information obtained on personality, as well as other aspects of the individual, such as ability, interests, thinking styles, critical incidents, learning potential, etc., should only be considered as additional information included in a holistic process that incorporates various other sources of job relevant information, such as structured competency-based interview, work simulations, and practical exercises.

In the Employment Equity Act of South Africa (Republic of South Africa, 1998) it is stated that: “Psychological testing and other similar assessments of an employee are prohibited unless the test and assessment being used (a) has been scientifically shown to be valid and reliable; (b) can be applied fairly to all employees; (c) is not biased against any employee or group”. From this it is deduced that the Act places certain restrictions on the use of psychometric information. Therefore, if assessments are considered organisations need to ensure that they adhere to these requirements and that trained and accredited individuals administer and interpret the results obtained.

However, as mentioned in section 5.2.1, by implementing a selection-based approach the existing employees who may have low levels of conscientiousness and/or honesty-humility who are exhibiting CWB in an organisation is still ignored. To address this previous research suggests implementing targeted stress interventions, as according to Robinson and Bennett (as cited in Bennett & Robinson, 2000) CWB is often the result of a perceived specific event that triggers the individual into action as a response to stressful situations. These stress interventions need to be targeted at increasing individuals’ coping capacity by increasing their personal resources needed to appropriately and efficiently deal with work place stress, such as work relationship overload. Although it should also be noted that these interventions should not only be targeted at vulnerable individuals – in other words not only those who are more likely to exhibit CWB. Even though individuals high in conscientiousness and honesty-

humility are better able to deal with the stress associated with certain situational stressors, it is by no means unlikely that they too will enact CWB eventually. Therefore, they also need to be equipped on how to effectively manage prolonged and long-term work stressors to avoid CWB (Eschelman et al., 2015).

5.2.3 Interventions aimed at decreasing the impact of job demands

The hypothesised positive relationship between work relationship overload and CWB was found to be statistically significant (PLS path = .26). It can therefore be concluded that when highly taxing interpersonal demands at work are experienced, CWB will be more likely.

As work relationship overload seems to be a prominent situational factor associated with CWB, this should be a focus of organisational policies and procedures (Lim et al., 2008). An example of what organisations can do to minimise this workplace stressor is, firstly, to ensure that employees have all the materials and support required to do their jobs. In providing this, the employer builds the foundation of support to the individual, allowing them to do their work. From there they will be able to better focus on handling more interpersonally related demands. Perceived organisational support has been found to decrease the likelihood of CWB in organisations. After this has been satisfied, then only can the focus move towards implementing policies that promote appropriate and acceptable professional conduct between employees. By defining and addressing this, organisations could also minimise interpersonal conflict among employees.

5.3 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The following section provides an overview of the limitations experienced during the current study. This by no means negates the results discussed in Chapter 4, but rather provides suggested improvements and recommendations for future research.

The first limitation to the study was the limited sample size. While 180 participants allowed statistical analysis to continue, a greater sample size would have increased the statistical power of the results, thereby increasing the credibility of the study. According to Theron (2013) a high sample size would increase the likelihood of accurately rejecting insignificant relationships between variables. An additional limitation involving the sample size was its impact on the representativeness of the research sample. The sample predominantly consisted

of female and Afrikaans speaking individuals. The aim of any researcher should be to draw a representative sample of the workforce enabling the generalisation of results obtained back to the population. This will ensure that the practical implications of the results are relevant to the entire population affected by the research findings. A possible reason for the small sample size could be the method of distribution, which in this case involved contacting individuals personally via their work email addresses and placing no obligation on them to complete it. They could have possibly been unable to complete the survey due to time constraints or simply due to a lack of motivation to do so even though a monetary incentive, presented in the form of a lucky draw, was offered. Therefore, for future research it is recommended that more focus should be placed on reaching a larger more representative sample of the South African workforce.

The fact that the study used self-report data collected via an online questionnaire also presented a limitation. A concern linked to self-report measures is method bias, for example; impression management (Anglim, Lievens, Everton, Grant, & Marty; 2018). It should also be noted that self-selection bias could be creating method bias, as there is a possibility that those who opt to participate in the survey have certain characteristics that then influence the results of the study. Therefore, it is advised that in future research that objective measures of the variables be used to measure the latent variables.

Another limitation involves the lack of measurement accuracy. As described in Chapter 4, initially, all the factor loadings of the emotionality scale and the original work overload scale were statistically insignificant, indicating that there was no common factor underlying these specific scales. Based on further investigation and consultation with subject matter experts, it was decided to keep the emotionality scale intact, but split the work overload scale into two new constructs, namely: workload overload and work relationship overload. Therefore, the structural model, as it was initially hypothesised, could not be reliably tested. As the factor loading of the emotionality scale remained indiscriminate, the responses from this section of the questionnaire should be interpreted and reported with extreme caution. Good reliability scores have been reported for this scale previously. However, future research should attempt to further develop and validate this scale to explore emotionality in its relationship with CWB. Finally, items 3, 6 and 7 of the agreeableness scale, items 3 and 7 of the honesty-humility scale, and items 1, 2, 4, 5, and 6 of the workload overload scale, and item 10 of work

relationship overload scale were also found to be not statistically significant. Therefore, the responses to these sections should also be interpreted with caution.

Another big limitation to this study will be the obstacle and possibility that participants will not provide honest responses to the CWB related questions. Even though confidentiality was assured by means of using an online questionnaire, CWB involves highly sensitive inquiries about potentially self-incriminating information (Berry, Carpenter, & Baratt, 2012; Bowling & Gruys, 2010; MacCann, 2013; Greco, O'Boyle, & Walter, 2015). The possibility that individuals underreport the extent to which they engage in CWB should be cause for concern. This underreporting might be due to the fear of being found out, or being punished, or due to a general unwillingness to present oneself in anything but a positive light. While some forms of counterproductive behaviour are public (such as absence), many are acts by employees who do not wish to be detected (for example theft, sabotage and harassment). This can limit the credibility of the data and cause the data to reflect the wrong phenomenon. In the face of the difficulties of direct observation, data on the covariance of counterproductive behaviours come from three sources: (a) self-report of the rate of occurrence, (b) judgments by others (for instance supervisors) of the rate of occurrence, and (c) direct judgments about the rate of co-occurrence of counterproductive behaviour (Sackett & Devore, 2001).

Individual differences in personality complicates the measurement and examination of interaction effects. Especially when examining the impact that these differences have on the likelihood to revert to CWB as a coping mechanism in a meaningful manner. This also presented as a limitation in the current study (Jensen & Patel, 2011). In the current study it was found that, contrary to research done by Ashton and Lee (2008), conscientiousness still out predicts honesty-humility factor when it comes to predicting CWB. Consequently, even though the honesty-humility trait did relate to the exhibition of CWB, conscientiousness still showed a stronger relationship leading to the conclusion that highly dedicated and goal-oriented individuals are even less likely to exhibit CWB than those who are deemed sincere and un-deceitful. Therefore, future research should consider investigating interaction effects among more variables to further investigate the extent of these relationships.

In the current study CWB was considered to represent a total score, summarising the five elements of CWB as defined by Spector et al., (2006). However, different reactions toward CWB-O and CWB-I need to be distinguished to further explore the nuanced nature of the

CWB and personality relationship (Martinko et al., 2002). Thus, it is recommended that future research explore the two elements of CWB independently as well as a total score to examine differences in relationships.

Lastly, although the R-square value reported in the PSL model was satisfactory (.59), the probability that other important variables could explain additional variance in the hypothesised relationships, is high. The possibility exists that other personal as well as situational variables affect the likelihood of CWB. Therefore, future research on the structural model should include more variables to expand the prediction power related to CWB.

5.4 CONCLUSION

The main purpose of the present study was to test a structural model examining the variance in CWB. This was based on the JD-R models' conceptualisation of the relationship between certain salient personality characteristics/personal resources, prominent job demands, and CWB to establish its prevalence under professional individuals. Furthermore, the researcher aimed to provide practical implications to be considered by human resource practitioners and industrial psychologists based on the research findings. These implications were formulated with the aim to decrease the impact of job demands and increase the prevalence of personal resources, in other words, innate characteristics of the individuals, to lessen CWB prevalence in organisations. Upon reflection, the researcher concludes that the research objectives were successfully met.

Of the ten hypotheses that were formulated through a review of the relevant literature, four were found to be statistically significant. The non-significance of the remaining seven paths that were identified can be attributed to a multitude of reasons. As mentioned in the limitations noted for this study, the small sample size could have influenced the results. The non-significant paths might also be because of the inclusion of the emotionality scale, which was deemed to be problematic, as discussed in Section 5.3. It also needs to be noted that the original structural model was redesigned based on statistical findings that suggested that the work overload factor should be measured as two separate, but related constructs: workload overload and work relationship overload. Additionally, even though previous research has focused on related avenues of exploration, none includes and focuses on all the specific variables included and the hypothesised moderating effects. This necessitates that additional

research is needed to examine these moderating effects of the specific job resources, personal resources, and job demands.

Moreover, Hypotheses 2, 3, 5, 7, 8, and 9 were found to not be statistically significant. Hypotheses 3 and 4 investigated the relationship between agreeableness and emotionality with CWB. This is in contradiction with previous research that found significant relationships between these constructs (Ashton & Lee, 2008; Chirumbolo, 2015; Oh et al., 2011). It should, however, be noted that the emotionality scale was found to be problematic and could have contributed to this insignificant finding. Hypothesis 8 investigated the moderating relationship of emotionality on job insecurity with CWB and this could also possibly be attributed to the problematic emotionality measure.

Hypothesis 7 was also found to be insignificant. This too is in contradiction with previous research suggesting that job insecurity has a positive relationship with CWB. Suggesting that people who experience job insecurity are more likely to revert to CWB as a form of coping (Gilboa et al., 2008; Welbourne & Sariol, 2017). It could be that other variables moderate or mediate the relationship between these constructs and consequently need to be explored in future research.

Hypotheses 1, 4, 6, and 10 were all found to be statistically significant. According to this finding, certain personality characteristics (for instance conscientiousness) can act as a barrier or resource that will help the individual to effectively deal with work relationship demands. An interesting finding was that work relationship demands and not Workload demands are more taxing on individuals than previously estimated (Lazarus, 2006). Management should recognise the importance of personal resources explored in the study, which will enable them to develop interventions that can enhance the coping capacity of employees to deal with work relationship demands.

The objective of this study was to understand and explore the variant nature of CWB by examining the relationship between certain personality characteristics, considered to be personal resources, and job demands. The research findings illustrate the importance of enhancing personal resources and coping capacities of individuals to enable them to effectively and productively deal with work related stress. The important moderating effect of conscientiousness also provides insight into practical implications for practitioners. The

results obtained, in combination with practical interventions suggested, provide human resource practitioners and industrial psychologists with valuable insight into managing and limiting CWB within the workplace.

In conclusion, these findings provide insight into the nature of the variables, their direct and moderating relationships and, consequently, their practical implications for human resource/industrial psychology practitioners, managers, organisations, and other researchers.

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APPENDIX A



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DESC Approval Notice

New Application

22-Nov-2016

Van der Westhuizen, Jani J

Proposal #: SU-HSD-002142

Title: The HEXACO personality dimensions and Counterproductive Workplace Behaviour; the effects of job demands

Dear Miss Jani Van der Westhuizen,

Your **New Application** received on **20-Oct-2016**, was reviewed

Please note the following information about your approved research proposal:

Proposal Approval Period: **21-Nov-2016 -20-Nov-2019**

General comments:

The researcher has attached a template for application of institutional permission but the actual institutional permission does not seem to have been received and is therefore not attached. The reviewer must re-iterate that data collection cannot commence until such time as the institutional permission is received. The REC agrees with the DESC that this is a low risk application and the researcher may start with data collection as soon as the institutional permission is received.

Please take note of the general Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

Please remember to use your **proposal number** (SU-HSD-002142) on any documents or correspondence with the REC concerning your research proposal.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

Also note that a progress report should be submitted to the Committee before the approval period has expired if a continuation is required. The Committee will then consider the continuation of the project for a further year (if necessary).

This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health). Annually a number of projects may be selected randomly for an external audit.

National Health Research Ethics Committee (NHREC) registration number REC-050411-032. We wish you the best as you conduct your research.

If you have any questions or need further help, please contact the REC office at 218089183.

Included Documents:

DESC Report

REC: Humanities New Application

Sincerely,

Clarissa Graham

REC Coordinator

Research Ethics Committee: Human Research (Humanities)

APPENDIX B

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STELLENBOSCH UNIVERSITY**CONSENT TO PARTICIPATE IN RESEARCH**

Research Title: HEXACO personality factors and Counterproductive Work Behaviour - the influence of job demands

You are asked to participate in a research study conducted by Miss Jani van der Westhuizen from the Industrial Psychology Department at Stellenbosch University. The results obtained will contribute to the completion of a Master's of Commerce degree in Industrial Psychology. The results of this study will contribute to the completion of the thesis component of this postgraduate programme. You were selected as a possible participant in this study because you are a working individual and can give valuable input to the data gathering process of this study.

1. PURPOSE OF THE STUDY

Job performance is seen as one of the most important workplace constructs. Literature has indicated that overall job performance consists out of three equally important broad performance domains namely, task performance, organisational citizenship behaviour (OCB), and counterproductive workplace behaviour (CWB). CWB is therefore regarded as important consideration when considering work effectiveness. Despite the advances in clarifying what drives CWB, there is a lack of consensus in the literature on the extent to which specific antecedents can predict CWB. The purpose of this study is therefore to investigate whether certain personality characteristics and job demands can serve as predicting antecedents of the extent to which employees engage in CWB.

2. PROCEDURE

Participation in this study is voluntary. If you volunteer to participate in this study, you will be asked to answer questions related to how personality and the demands of your job affect

your work situation. Three questionnaires were used for this purpose. There are no right or wrong answers; we are only interested in your personal opinion. For the purpose of this study, think about your role and personal preferences as related to your current work situation. Completion of the questionnaire will take place at a time and location that is convenient to you as it will be done electronically. Completion will require between 15 - 20 minutes of your time and access to the internet will be required.

3. POTENTIAL RISKS AND DISCOMFORTS

All questionnaires will be answered anonymously, and participants' particulars will not be recorded at all. Participants will be required to set aside approximately 15 - 20 minutes to complete the questionnaire. Due to the personal nature of some of the items you may experience some discomfort when reflecting on the issue; your responses remain completely anonymous however, as mentioned, data will be collected in a manner that prevents the identification of any individual participant. Only conclusions can be inferred relating to trends identified within the data of the sample as a whole.

4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

Participation in this study will provide valuable information on the extent to which personality can be seen as a predictor in certain job performance related behaviour as well as the role of certain job demands in determining this performance. Your participation will unfortunately not result in any direct personal benefit. Results will, however, provide the practitioners and researchers with information on how certain personality preferences and job demands affect the performance of people in the workplace and how this can be incorporated into existing or possible future intervention programmes. This can then provide information into certain steps that the organisation can take to ensure that personality and demands does not place undue pressures on the individual that might negatively impact on performance and this can be facilitated by understanding the associated implications. General feedback on the results will be provided to the organisation that participates in this study. As stated earlier, your individual results will be captured anonymously and cannot be linked with any person.

5. PAYMENT FOR PARTICIPATION

No payment will be made to organisations or individuals that participate in the research study. However, you will have the opportunity to participate in a lucky draw competition for you as the research participants, with the winner receiving a cash prize of R2000. The lucky draw

will by no means affect the confidentiality of your responses as this process will be done independently from the data collection procedure.

6. CONFIDENTIALITY

- **Coding and access to questionnaire data:**

The questionnaire utilizes a system that cleans the sending information. This means that the researcher will not be able to identify the source of the questionnaire data. To add to this, no information will be collected to enable personal identification of the research participants. If, however, you wish to participate in a lucky draw in order to stand a chance to win a R 2000 cash prize, you will be asked to provide your cell phone number. This will not be linked to your survey answers and will merely require you to provide your number separately. The data collected from the participants will be stored in a password protected electronic format. Only Jani van der Westhuizen (principal researcher), Ms Michele Boonzaier (research supervisor), and the statistician will have access to the data.

- **Questionnaire results**

This research study is intended for publication at the Stellenbosch University. The results of this study will be published in the form of an open source electronic thesis that will be published on Sun Scholar. Upon completion, the thesis will be available as an open source electronic thesis on SUN Scholar, with data only supplied on an aggregate basis. This information is supplied in order to uplift the research community, to inform organisational interventions and to strengthen the body of knowledge available within the academic field of Industrial Psychology.

7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind, other than not being eligible to enter the competition. The survey will prompt you to fill in any responses that you might have skipped. The investigator may withdraw you from this research if circumstances arise which warrant doing so.

8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact Jani van der Westhuizen (15720381@sun.ac.za or jvdwest07@gmail.com) or Ms M Boonzaier (mib@sun.ac.za).

9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without legal penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development at Stellenbosch University.

I hereby agree that I have read and understand the above mentioned information and provide my voluntary consent to participate in the present research study under the specified conditions:

☐ Yes

☐ No