

DOES GOOD PAY COMPENSATE FOR A DISSATISFYING JOB? THE RELATIONSHIP BETWEEN GROSS WAGE, WAGE SATISFACTION, JOB SATISFACTION AND LIFE SATISFACTION

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COMMENTS

The reader is reminded of the following:

- The editorial style as well as the references used in this mini-dissertation follows the format as prescribed by the Publication Manual (6th edition) of the American Psychological Association (APA). This practice is in line with the policy of the Programme in Industrial Psychology of the North-West University (Vaal Triangle Campus) to use APA style in all scientific documents as from January 1999.
- The mini-dissertation is submitted in the form of a research article. The editorial style specified by the South African Journal of Industrial Psychology (which agrees largely with the APA style) is used, but the APA guidelines were followed in constructing the tables.

DECLARATION

I, Jacob Alexander de Coning, hereby declare that **Does good pay compensate for a dissatisfying job? The relationship between gross wage, wage satisfaction, job satisfaction and life satisfaction** is my own work and that the views and opinions expressed in this work are mine and those of relevant literature references as indicated in the references.

Furthermore, I declare that the contents of this research study will not be submitted for any other qualification at any other tertiary institution.

JACOB ALEXANDER DE CONING

December 2015

DECLARATION FROM THE LANGUAGE EDITOR

I declare that I have edited the mini-dissertation **Does good pay compensate for a dissatisfying job? The relationship between gross wage, wage satisfaction, job satisfaction and life satisfaction** submitted by **J. A. de Coning**.

DR ELSABÉ DIEDERICKS

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“The WageIndicator data used in this paper have been made available by the WageIndicator Foundation, and have been used with their permission. The Foundation bears no responsibility for the analysis or interpretation of the data reported here.”

Tables based on the data should include the following citations:

Source: WageIndicator 2013

Selection: [South Africa, employed individuals]

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TABLE OF CONTENTS

Comments	i
Declaration	ii
Declaration from the Language Editor	iii
Acknowledgements	iv
Summary	ix
CHAPTER 1	
1.1 Problem Statement.....	11
1.2 Research Objectives.....	15
1.2.1 General Objective.....	16
1.2.2 Specific Objective.....	16
1.3 Research Method.....	16
1.3.1 Literature Review.....	16
1.3.2 Participants.....	17
1.3.3 Measuring Instruments.....	17
1.3.4 Research Procedure.....	18
1.3.5 Statistical Analysis.....	18
1.3.6 Ethical Considerations.....	18
1.4 Overview of Chapters.....	19
1.5 Chapter Summary.....	19
References.....	20
CHAPTER 2 RESEARCH ARTICLE.....	26

CHAPTER 3 CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS.....	81
3.1 Conclusions.....	81
3.2 Limitations of Research.....	83
3.3 Recommendations.....	84
3.3.1 Recommendations for Organisations.....	84
3.3.2 Recommendations for Future Research.....	84
References.....	86
 ANNEXURES.....	 89

LIST OF TABLES

Table 1	Participants Characteristics.....	40
Table 2	Life Satisfaction, Job Satisfaction, Wage Satisfaction Cross Tabulation.....	45
Table 3	Life Satisfaction, Job Satisfaction and Gross Wage Cross Tabulation.....	48
Table 4	K-Way and Higher Order Effects.....	50
Table 5	Partial Associations.....	51
Table 6	Cell Counts and Residuals.....	53
Table 7	Parameter Estimates.....	55
Table 8	Significance Tests for the Hierarchical Model of Life Satisfaction.....	56
Table 9	Cross Tabulation of Frequencies for Two-way Interaction Effects.....	57

LIST OF FIGURES

Figure 1	Example Quadrants.....	43
Figure 2	Normal Probability Plot for the Selected Model.....	54
Figure 3	Model of Interactions.....	65

SUMMARY

Title: Does good pay compensate for a dissatisfying job? The relationship between gross wage, wage satisfaction, job satisfaction and life satisfaction.

Key terms: Life satisfaction, job satisfaction, wage satisfaction, gross wage, South Africa

Success in organisations is highly dependent upon people. To this end a significant amount of research has gone into how to motivate employees both with monetary and non-monetary incentives. In recent years organisations have realised that employees do not live in isolation and that aspects beyond their workplace can affect the motivation and performance. In light of this, a more positive approach is becoming popular which goes beyond work-related factors in an attempt to enhance employee well-being. The question is being asked, if satisfied workers are more productive, how can satisfaction be increased? Specifically, what effect does money have on satisfaction and how can this be leveraged?

The general objective of this study was to examine the complex relationships that exist between gross wage, wage satisfaction, job satisfaction and life satisfaction. A cross sectional survey design was used. Access was gained to the South African data of the international WageIndicator (WI) dataset. After data cleaning, a final sample of ($n = 763$) remained. Frequency tables were used to provide a summary of the data. Thereafter, cross tabulation was used to test the assumptions for hierarchical log linear analysis. As the assumptions were met, hierarchical log linear analysis was carried out to determine what relationships exist between gross wage, wage satisfaction, job satisfaction and life satisfaction.

The results indicated that there is no direct link between gross wages and life satisfaction or between gross wages and job satisfaction. A direct relationship was found between gross wage and wage satisfaction ($z = 6.00$; $Sig. = 0.70$). Analysis revealed that relationships exist between job satisfaction and life satisfaction ($z = 7.49$; $Sig. = 0.04$), wage satisfaction and life satisfaction ($z = 7.36$; $Sig. = 0.05$), as well as between wage satisfaction and job satisfaction ($z = 8.31$; $Sig. = 0.06$).

The knowledge gained for the interactions that exist between life, job and wage satisfaction and gross wage will assist organisations and individuals to better understand the importance of wages in the satisfaction relationship, without overestimating its effect. From the strength of

effect between satisfaction variables, it is clear that focusing on satisfaction-enhancing variables beyond remuneration is also important.

Recommendations are made which can be applied in practice and in future research.

CHAPTER 1

INTRODUCTION

This mini-dissertation investigates the relationship between gross wages, wage satisfaction, job satisfaction and life satisfaction with a specific view of answering the question “Does good pay compensate for a dissatisfying job?”

In this chapter the problem statement will be provided, as well as an overview of research already done on gross wages, wage satisfaction, job satisfaction and life satisfaction. An explication of the research questions, research objectives and research hypotheses will be followed by a discussion of the research methodology. Lastly, the layout of the chapters and a summary of this chapter will be given.

1.1 Problem Statement

Attracting and retaining highly skilled talent remain a key challenge in the modern world of work. A highly skilled and talented workforce has proven to provide a competitive advantage to an organisation, with many top companies investing in talent attraction and retention (Deloitte Consulting, 2014). In some cases this “war for talent” has changed from a scenario dominated by a scarcity of skilled workers to one of attracting the right talent (Beechler & Woodward, 2009; Schlechter, Hung, & Bussin, 2014). Africa, however, is still facing a significant shortage in skilled workers as they often migrate to more developed countries (Schlechter et al., 2014). Adding to this, companies are more attentive than ever in how they spend limited resources to attain a good return on investment (HayGroup, 2010; Whelan, 2013). Cost containment and performance improvement have become the order of the day as companies seek to maintain and grow profits. In short, companies are trying to do more with less and as such they seek to leverage their human capital to add value and grow profits (Deloitte Consulting, 2014). At the same time, the well-being of employees is of the utmost importance (Grawitch, Gottschalk, & Munz, 2006; Juniper, 2011).

More high performing organisations are considering both the work and non-work factors impacting upon their business. Factors such as job satisfaction, life satisfaction,

communication, work-life balance and career opportunities all represent key engagement drivers in the modern world of work (AON Hewitt, 2013). This more holistic approach to attraction, retention and engagement is not limited to companies. Cities such as Minneapolis and Chicago are investing in bicycle routes in order to not only attract new talent to their respective cities, but also to retain the new talent (Walljasper, 2012). Non-work aspects, such as life satisfaction can be expected to play an increasingly important role in the future.

Much of the importance of non-work factors from an organisational perspective stems from the spill-over effect. Numerous studies have shown that an individual's home life can spill over and affect his/her work life and vice versa (Demerouti, Bakker, & Schaufeli, 2005; Hanson, Hammer, & Colton, 2006; Sundaresan, 2014). Given that life satisfaction is a broad concept covering all domains of an individual's life; it is not surprising that numerous definitions for this construct can be found in literature. These definitions differ in terms of what life satisfaction encompasses as well as what factors affect it. Early definitions emphasised the role of the individual's overall evaluation of his/her life in a positive light (Judge, Locke, Durham, & Kluger, 1998; Judge & Watanabe, 1993). Other scholars conceptualise life satisfaction as a feeling or attitude at a point in time, ranging on a continuum from positive to negative (Diener, Suh, Lucas, & Smith, 1999).

Diener et al. (1999) go beyond an individual's current life satisfaction to state that one's desire to change one's life - past and future life satisfaction - as well as one's perception of others' view of one's life is also important (Buetell, 2006). Other scholars differentiate between objective and subjective measures of life satisfaction. Objective measures refer to how well a person's living conditions match those typically associated with the "good life" such as safety, income security, and health, while subjective measures touch on whether a person values his/her own life (Veenhoven, 2013). Researchers have found that life satisfaction is related to one's contributions in life and how one values them (Veenhoven, 2014); a sense of meaning is important to life satisfaction (Datu & Mateo, 2015; Steger, 2012).

Several theories have been developed to explain how life satisfaction is affected by workplace factors. Equity theory states that an individual's satisfaction is related to his/her perception regarding the fairness of resource distribution (Al-Zawahreh & Al-Madi, 2012; Yamnill & McLean, 2001). The neo-classic utility model argues that individuals seek to maximise their utility; as pay is a factor which increases utility, it stands to reason that individuals should be

more satisfied as their pay increases (Weintraub, 1993). Individuals are, however, not driven by purely economic factors and research in the social sciences has indicated that the relationship is not that simple. The income inequality model (Hagerty & Veenhoven, 2003) also indicates that wages contribute to life satisfaction as a whole, rather than just to job satisfaction. While there is preliminary evidence to suggest that life satisfaction might contribute more significantly to job performance than job satisfaction (Erdogan, Bauer, Truxillo, & Mansfield, 2012; Judge, Thoresen, Bono, & Patton, 2001), the effects of job satisfaction should not be ignored.

Researchers have established that job- and life satisfaction are positively related to each other (Judge, Bono, Erez, & Locke, 2005; Mafini & Dlodlo 2014). High job satisfaction contributes positively to an organisation resulting in, amongst others, increased productivity, lower absenteeism, increased employee motivation, an increase in corporate citizenship as well as reduced turnover (Bako, 2014; Chen, Ployhart, Thomas, Anderson, & Bliese, 2011; Pushpakumari, 2008). Given the drive to foster a productive, engaged and healthy workforce, as well as increase profits in the slow growth conditions; job satisfaction should be of interest to organisations, as its effects can contribute tangibly to their bottom line.

Several definitions for job satisfaction have been developed. Some researchers such as Locke (1969), and Agho, Meuler, and Price (1993) emphasise the individual's personal appraisal of job experiences, conditions or the outcomes associated with being employed. The focus of this definition lies on either the individual's personal perception of his/her job which is shaped by his/her values, needs and expectations (Buitendach & De Witte, 2005) or his/her affective reaction to his/her job (Williams, 2004). Other facets that affect job satisfaction such as co-workers, pay, job conditions, supervision, nature of work and benefits are also utilised by researchers as measures of job satisfaction (Williams, 2004).

Job satisfaction provides a powerful tool through which organisations can leverage human capital. This being said, neither life nor job satisfaction can diminish the importance of remuneration in the employment mix. One need only look at discussions surrounding minimum wage legislation (Smith, 2014; U.S. News & World Report LP, 2015) or discussions surrounding wages in the South African mining sector (Bell, 2015; Fin24.com, 2015) to see that remuneration remains an important and touchy subject for various parties. Some studies suggest that the importance of wages is in fact understated in many surveys (Rynes, Gerhart,

& Minette, 2004). The link between wages and job satisfaction is well established with past research indicating that a positive relationship exists between these two constructs (Danish & Usman, 2010; Mafini & Dlodlo, 2014). This positive relationship between wages and job satisfaction, coupled with the benefits associated with both life and job satisfaction provide further support for the consideration of a model which includes all three these constructs.

The link between wages and life satisfaction is, however, not that clear. On the one hand, there are studies which state that life satisfaction does not increase with income. Among these, is the well-known Easterlin paradox which states that wealthy countries are not more satisfied than poor countries (Easterlin, 1974; Easterlin & Angelescu, 2009). Other studies state that while wages do not increase satisfaction, they may, however, buy experiences and so indirectly increase satisfaction (Dunn, Gilbert, & Wilson, 2011; Geller, 2012). Lastly, there are studies indicating that income increases life satisfaction. Some state that life satisfaction only increases with income up to a point (Kahneman & Deaton, 2010), whilst others found that it increases without bound (Sacks, Stevenson, & Wolfers, 2012). Clearly these constructs need to be further researched. Perhaps a more in depth examining of wages can shed light on the seemingly varied effects thereof.

In terms of wages, both direct income - as in the utility and expectancy theory (Brown, Gardner, Oswald, & Qian, 2008; Clark, Kristensen, & Westergård-Nielsen, 2009; Clark & Oswald, 1996) - as well as comparison income - as in equity theory - has been researched (Al-Zawahreh & Al-Madi, 2012; Vroom, 1964; Yamnill & McLean, 2001). These theories offer different views regarding employees' satisfaction and motivation regarding their wages. Lydon and Chevalier (2002) found that both direct income and indirect income are related to an individual's job satisfaction. The link between comparison income and job satisfaction was reinforced by the work of Clark and Oswald (1996) who found that these two constructs were negatively related when comparing wages between different companies; and were positively related to each other (Clark et al., 2009) when comparing wages within an organisation.

It is interesting to note that wage satisfaction is noticeably absent from discussions regarding the interaction between wages, job satisfaction and life satisfaction. It could be expected that the degree to which one is satisfied with one's wages would also play a role in the above interaction. This creates a research gap.

Several definitions exist for wage satisfaction with some authors defining it in terms of the positive feelings someone holds towards his/her wage (Miceli & Lane, 1990), while others define it in terms of the discrepancy between the wage an individual receives and the wage the individual believes he/she should receive (Weiner, 1980). Research indicates that wage satisfaction consists of multiple dimensions (Heneman III & Schwab, 1985) and that it involves both satisfaction with wage amount and the wage process (Brown & Huber, 1992).

Reviewing the literature available on wage satisfaction, it becomes apparent that there is a deficit of recent articles on the subject. This emphasises the need to research these interactions. Prior research focused on the relationships between two of the constructs of interest such as job- and life satisfaction or on the various factors influencing one of these constructs. The relationship between all three constructs is rarely considered. One study by Mafini and Dlodlo (2014) examined the relationship between job- and life satisfaction with wages as a factor contributing to job satisfaction; thus providing interesting insights. The authors acknowledged that future studies may benefit from a larger sample size.

This study focused on the relationship between gross wage, wage satisfaction, job satisfaction and life satisfaction. The link between wages and other motivation and performance factors (Becchetti, Castriota, & Tortia, 2009; Cook, 2006; Leete, 2000) as well as the established relation between job- and life satisfaction (Judge et al., 2005; Judge et al., 1998) helped shape the research objectives. While adults spend about one third of their lives at work (World Health Organization, 1994), most life satisfaction research tends to focus on non-work populations (Erdogan et al., 2012). This represents a gap in literature that is especially pertinent within the management fields. This alongside theoretical models describing the interaction between these constructs (Weintraub, 1993) provide further support for testing an integrated model.

1.2 Research Objectives

The research objectives are divided into general and specific objectives.

1.2.1 General Objective

The general objective of this research was to determine whether good pay compensated for a dissatisfying job with the specific view to examining the complex relationships that exist between gross wage, wage satisfaction, job satisfaction and life satisfaction.

1.2.2 Specific Objectives

The specific objectives of this study were to:

- study how the relations between wages, wage satisfaction, job satisfaction and life satisfaction were conceptualised in literature;
- investigate what relationship, if any, existed between wages and life satisfaction.
- clarify the relationship between wages and job satisfaction;
- determine what relationship existed between wages and wage satisfaction;
- determine what relationship existed between life- and job satisfaction;
- examine what interaction existed between life- and wage satisfaction;
- study the relationship between job- and wage satisfaction; and
- determine whether, based on the above, good pay could compensate for a dissatisfying job.

1.3 Research Method

The research method consisted of a literature review and an empirical study. The results were presented in the form of a research article.

1.3.1 Literature Review

In phase 1, a thorough review regarding wage satisfaction, job satisfaction and life satisfaction was conducted with the aim of investigating the relationship between these variables. Relevant articles were consulted. The sources that were consulted included:

- Ebscohost (E-Journals; EconLit; Google Scholar; JSTOR; PsycINFO; PsycArticles; SocINDEX); and
- Wage Indicator Foundation Publications Page.

1.3.2 Participants

For the purpose of this study, the WageIndicator dataset was utilised. The data set is populated by means of a non-probability convenience sampling method in the form of the web-based WageIndicator survey. The sample for this study was the South African labour force, consisting of individuals in paid employment. This study utilised the available WageIndicator data on apprentices, employers, own-account workers, freelancers, workers in family businesses and workers in the informal sector. This resulted in a total population size of 8254 which should be sufficient to analyse, interpret and draw conclusions from data gathered.

1.3.3 Measuring Instruments

The WageIndicator dataset has been active in South Africa since September 2005 (Tijdens et al., 2010). The WageIndicator survey is multilingual in nature and aims to collect data regarding wages and working conditions. The wage indicator survey has been operational in 65 countries since 2000 (Institute for the Study of Labor, 2013).

The database is accessed through application to the International Data Service Centre (IDSC) (Institute for the Study of Labor, 2013). Such access is restricted to universities and research institutes; once an application by such an institution has been approved, the dataset is provided free of charge. The dataset covers a timespan from 2000 to 2013, though the dates may vary per country. The data for 2000 to 2005 is released as a single dataset. For the years 2006 and onwards, data is available as annual releases (Institute for the Study of Labor, 2013). The WageIndicator dataset contains continuous variables which can be merged across all years.

The database is populated by the *WageIndicator Survey*. The WageIndicator survey utilises sixteen items to evaluate an individual's direct income and how that income is structured. Two items specifically relate to wage satisfaction (e.g. how satisfied are you with your pay/ how satisfied are you with your income?). The WageIndicator survey provides both information on direct income (e.g. what is your net income) as well as comparison income (e.g. I have reached the top of my grade). The survey expands on this by providing further information regarding profit sharing, bonuses, allowances and commission earned. Job- and wage satisfaction are measured using a 5-point scale ranging from 1 = dissatisfaction to 5 = highly satisfied. Life

satisfaction is measured on a Likert-type scale ranging from 1 = dissatisfaction to 10 = satisfaction.

1.3.4 Research Procedure

The first research objective was answered by means of a thorough literature review. As this study made use of secondary data in the form of the WageIndicator dataset, the data collection process was irrelevant. This web-based volunteer survey generates cross sectional and longitudinal data which specifically covers wages, benefits, working hours, working conditions and industrial relations (Institute for the Study of Labor, 2013). The survey contains detailed questions concerning earnings, benefits, working conditions, employment contracts, training, education, occupation, industry and household characteristics.

1.3.5 Statistical Analysis

SPSS 22 (IBM Corporation, 2013) was used to calculate frequencies to provide a description of the data. Next, cross tabulation was used to check whether the conditions for hierarchical log-linear analysis had been met. Thereafter, log linear analysis was conducted to determine the relationships between gross wage, wage satisfaction, job satisfaction and life satisfaction. Additional cross tabulations were done to further examine the data.

1.3.6 Ethical Considerations

Trust is essential in order to facilitate the completion of web-based surveys (Tijdens et al., 2010). Therefore, the WageIndicator survey as well as hosting websites strives to earn the trust of respondents through the quality of their webpage and survey design. In order to protect the confidentiality and privacy of respondents, no names, addresses or other direct identifiers are requested from respondents. The above is in line with the ICC/ESOMAR International Code on Market and Social research (ESOMAR, 2014). The WageIndicator dataset is housed on three different servers located in the United States of America, the Netherlands and China (Tijdens et al., 2010). As previously mentioned, access to the dataset is controlled by the IDSC and access is only granted to universities or other research institutes after a successful formal application process (Institute for the Study of Labor, 2013). The IDSC therefore acts as a

gatekeeper with regard to this study. This addresses some of the security concerns associated with storing research data on personal computers (Struwig & Stead, 2011).

In order to conduct research in an ethical manner, care must be taken that no physical or emotional harm is done to research participants (De Vos, Strydom, Fouche, & Delport, 2011). The WageIndicator survey remains completely voluntary, with visitors to the hosting site being invited to complete the questionnaire. They may also opt out at any time. Informed consent represents a necessary condition in ethical research (De Vos et al., 2011); to this aim the WageIndicator-hosting sites provide information regarding the goal of the survey as well as assurances of anonymity. This research proposal was submitted to the North-West University's Research Ethics Committee for approval prior to the commencement of the study.

1.4 Overview of Chapters

In Chapter 2 the findings of the research objectives will be discussed in the form of a research article. Chapter 3 deals with the conclusions, limitations of this research study.

1.5 Chapter Summary

In this chapter the following were presented, namely the problem statement, research objectives and the research hypotheses. The measuring instruments and the research method used in the study were also explained, followed by a brief overview of the chapters.

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CHAPTER 2

RESEARCH ARTICLE

Does Good Pay Compensate for a Dissatisfying Job? The Relationship between Gross Wage, Wage Satisfaction, Job Satisfaction and Life Satisfaction

Abstract

The aim of this study was to investigate the relationships between life-, job- and wage satisfaction as well as how these relationships relate to gross wages within a South African sample. A cross-sectional approach was used. A non-probability convenience sample was obtained in the form of the WageIndicator dataset. Frequency tables, hierarchical log linear analyses and cross tabulations were carried out to determine what relationships exist between gross wage, wage-, job- and life satisfaction. Strong direct relationships were found between wage-, job- and life satisfaction. Gross wage was related to wage satisfaction. However, no direct relationships were found between gross wage and life satisfaction, and gross wage and job satisfaction. The findings suggest that gross wage and wage satisfaction do not compensate for a dissatisfying job in terms of life satisfaction.

Key terms: Life satisfaction, job satisfaction, wage satisfaction, gross wage, WageIndicator, South Africa.

Introduction

For organisations to be successful in a volatile, uncertain, complex and ambiguous world, they need the right people (Bennett & Lemoine, 2014; Rolfe, 2012; Zimmermann, 2015). Organisational success depends on people. Whether you believe it comes down to having the right talent (Erker, Smith, Paese, & Concelman, 2013; Spreier, Ferguson, & Garonzik, 2008), adaptable talent (Lawrence, 2014) or simply working hard (Stack, 2012), it still depends on people (Lee, 2010). Many experts agree that people can be a very valuable asset to an organisation, but only if they are managed and supported correctly (Allen, 2014; Duncan, 2013; Mallari, 2014). For years management authors have questioned and explored how to properly manage employees. Only in recent years has a positive approach, focusing on how to support and empower employees, gained popularity (Kruse, 2013). This positive approach focuses on more than just work, with companies increasingly considering how both work and non-work aspects impact their employees and how to leverage these aspects to achieve a competitive advantage.

The link between employee satisfaction and positive organisational outcomes is well researched and has been propagated by popular articles, giving rise to sayings such as “a happy workforce is a productive workforce” (Oswald, Proto, & Sgroi, 2014; Price, 2015; Tam, 2013). Conversely, some of the biggest risks facing organisations are people-related (Beale, 2015; Bendelta, 2015; Ernst & Young Global Limited, 2015). Modern realities of intense international competitiveness, rising commodity prices and rapid change mean organisations can no longer afford not to invest in the proper leveraging of their human resources (Deloitte Consulting, 2014; HayGroup, 2010; Whelan, 2013).

Experts are divided on how to best invest in people. In the past many adopted the view that people will work simply because they are paid to. Intuitively it seems to make sense that paying people more, should make them more productive (Chamorro-Premuzic, 2013). Research shows this is not always the case and while wages play an important part in attracting individuals (Nienaber, Bussin, & Henn, 2011), wages may not be that effective in increasing productivity or engagement (Chamorro-Premuzic, 2013; Kohn, 1993). That being said, wages continue to form a key part of talent management (Becker, Hyland, & Soosay, 2011). Companies structure competitive wage packages in an attempt to attract and retain the right talent. Beyond attraction,

past research has shown that remuneration may also contribute significantly to both retention and motivation (Nienaber et al., 2011).

There has long been debate about the link between wages and happiness. Some researchers believe that wages affect humans in much the same way as their instinctive needs, such as hunger and thirst (Lea & Webley, 2006). Others point to money not being the key to happiness, but that it can be a means to an end (Geller, 2012), such as buying new experiences (Time Inc., 2014). Studies have found that income may increase overall life satisfaction (Stevenson & Wolfers, 2008), rather than day to day feelings of happiness (Kahneman & Deaton, 2010; Kahneman, Krueger, Schkade, Schwarz, & Stone, 2006); and that income may reduce sadness rather than promote happiness (Kushlev, Dunn, & Lucas, 2015). These studies all seem to agree that increasing satisfaction is a desirable outcome.

Employees high on life satisfaction therefore do not only seem more productive, but also healthier. Adults spend about one third of their lives at work (World Health Organization, 1994), therefore it can be expected that satisfaction with work-related aspects would significantly affect their life satisfaction. This link is supported by various theories such as the equity theory (Al-Zawahreh & Al-Madi, 2012; Yamnill & McLean, 2001), the neo-classic utility model (Devereux & Engel, 2003; Weintraub, 1993) and the income inequality model, being developed to explain how work-related aspects affect life satisfaction (Hagerty & Veenhoven, 2003).

This study seeks to investigate the complex relationships between wage-, job- and life satisfaction and examine the role of gross wage in this relationship. Lastly, this study determines exactly how important wages are to our overall satisfaction by answering the question: Does good pay compensate for a dissatisfying job?

Life Satisfaction

Life satisfaction can refer to an overall positive evaluation of the quality of one's life (Saris, Veenhoven, Scherpenzeel, & Bunting, 1996) or to the subjective enjoyment of life (Veenhoven, 2014). While life satisfaction involves some aspects of quality of life, it refers more to individuals' satisfaction with their lives regardless of whether or not they are living the "good life" (Veenhoven, 2014). Life satisfaction is often used interchangeably with

happiness and subjective well-being (Silva, de Keulenaer, & Johnstone, 2012; Veenhoven, 2014), although it has several advantages over these terms. Life satisfaction refers more to an overall evaluation of one's life (Judge, Locke, Durham, & Kluger, 1998; Judge & Watanabe, 1993), rather than current feelings as may be suggested by subjective well-being (Saris et al., 1996).

Some scholars, however, conceptualise life satisfaction as a feeling or attitude at a point in time (Diener, Suh, Lucas, & Smith, 1999). This does not necessarily negate the definition of life satisfaction as an overall evaluation, as these evaluations can occur at different points in time and do not necessarily have to refer to the same point in time. People may not be particularly satisfied with their lives at present, but they are satisfied with their past and possible future paths; overall the individual may then experience high life satisfaction taking these evaluations into account at different times (Buetell, 2006; Diener et al., 1999; Saris et al., 1996). Research has shown that overall evaluations of one's life as well as day to day feelings of happiness both independently contribute to overall life satisfaction (Rojas & Veenhoven, 2013).

Broadly one can consider two main measurement approaches used in social indicators research, namely objective and subjective. Objective quality of life refers to how well living conditions match those observable criteria of the good life, such as income security for everyone, safety, good healthcare and education. Subjective quality of life refers to whether an individual appreciates his/her life personally (Silva et al., 2012; Veenhoven, 1996). Quality of life then seems to occasionally refer to quality of society and at other times to the happiness of citizens (Veenhoven, 2013).

Veenhoven (2014) provides a useful conceptualisation to understand the life satisfaction and quality of life relationship. Presented as a fourfold matrix, life satisfaction has to do with both the value of one's life as well as one's inner qualities. Life satisfaction occurs when an individual internally values his/her life and its contributions. This seems to be supported by Steger's (2012) work which found that life satisfaction is conceptually linked with meaning. The sense that one's life matters and holds value, even momentarily, may lead one to be more satisfied with one's life or self-worth. This appears to be corroborated by the work of Datu and Mateo (2015), who found that life satisfaction is related to gratitude and the presence of meaning in a person's life.

Life satisfaction is a broad concept that goes beyond satisfaction with individual life domains, although it may be affected by these domains. Satisfaction with one's job and wages, for example, may contribute to life satisfaction, but it does not automatically provide an indication of its existence (Saris et al., 1996). Life satisfaction of employees seems to be a function of their expectations and the fulfilment of these expectations, which is affected by a socialisation process (Rojas & Veenhoven, 2013). Furthermore, direct links between life and job satisfaction have been established by researchers (Judge, Bono, Erez, & Locke, 2005; Mafini & Dlodlo 2014).

Spillover Effect

One way to understand how changes in one area can affect another is through the spillover effect. The spillover occurs when behaviours, moods, stresses, and emotions from work spill over into family life (Lawson, Davis, Crouter, & O'Neill, 2013). The spillover effect is based on the premise that humans do not live in isolated compartments, but rather that what happens in one life domain can spill over to and affect another. Spillover effects can be positive or negative (Lawson, Davis, McHale, Hammer, & Buxton, 2014), although Sonnentag and Binnewes (2014) found that negative affect is more far reaching than positive spillover. Considering how life-, job- and wage satisfaction are found to be linked in literature, it is conceivable that higher life satisfaction may increase an individual's job satisfaction at work even if his/her job is not comfortable. Conversely, lower life satisfaction may cause an individual to perceive even positive life events in a more negative way. Wang (2012) indicated that a lack of knowledge among employees regarding a minimum wage can result in negative spillover.

Considering that life satisfaction can contribute to improved job performance, reduced absenteeism, reduced unwanted turnover and increased organisational commitment (Johnson et al., 2008; Reizer, 2015), it is strange that there seems to be a lack of research on life satisfaction in the work context (Erdogan, Bauer, Truxillo, & Mansfield, 2012). It can therefore be concluded that a workforce with high levels of life satisfaction is a desirable outcome. Since research has shown that employed individuals experience higher life satisfaction (Johnson et al., 2008; Luhmann, Weiss, Hosoya, & Eid, 2014) and that there is a link between job- and life satisfaction (Judge et al., 2005; Mafini & Dlodlo 2014), it is useful to examine job satisfaction in more detail.

Job Satisfaction and Life Satisfaction

Research has established a strong link between job- and life satisfaction (Judge et al., 2005; Mafini & Dlodlo 2014), where job satisfaction contributes to life satisfaction and vice versa (Judge & Watanabe, 1993). Job satisfaction is focused on satisfaction with work-related aspects rather than life as a whole. Different definitions for job satisfaction exist with some scholars simply defining it as “the degree to which an individual likes or is content with his/her job” (Spector, 1997, p2). Others argue that it is determined by more complex psychological responses regarding one’s job (Weiner, Schmitt, & Highhouse, 2012). Additionally, job satisfaction can be viewed and measured, based on an individual’s feelings towards his/her job (affective job satisfaction) (Paik, Parboteeah, & Shim, 2007; Thompson & Phua, 2012) as well as the individual’s thoughts regarding his/her job (cognitive job satisfaction) (Moorman, 1993).

Previous studies examined certain job-related aspects that lead to or predict job satisfaction. These predictors include, amongst others, wages, job security, promotion, work volition, good future prospects, and autonomy (Carr & Mellizo, 2013; Duffy, Autin, & Bott, 2015; Mafini & Dlodlo, 2014; Meyerding, 2015; Schweitzer, Chianello, & Kothari, 2013). Herzberg’s two-factor theory of job satisfaction states that these predictors can be further divided into those leading to intrinsic and to extrinsic job satisfaction (Goetz, Campbell, Broge, Dörfer, Brodowski, & Szecsenyi, 2012). Factors such as motivation and recognition serve to predict extrinsic job satisfaction, while job security, wages and working conditions help to mitigate job dissatisfaction (Goetz et al., 2012).

As with life satisfaction there is a strong body of research supporting the positive outcomes of job satisfaction. Probably of greatest interest to industry is the strong correlation between job satisfaction and performance (Bako, 2014; Judge, Thoresen, Bono, & Patton, 2001; Pushpakumari, 2008). This relationship appears to be reciprocal as job satisfaction leads to performance and performance also affects job satisfaction (Christen, Iyer, & Soberman, 2006). Additionally, job satisfaction also contributes to reduced turnover intention (Chen, Ployhart, Thomas, Anderson, & Bliese, 2011), and absenteeism (Christen et al., 2006) and may contribute to a more positive work climate (Pushpakumari, 2008).

Wages, Wage Satisfaction, Job Satisfaction and Life Satisfaction

While wages are often seen as a predictor of job satisfaction, their effect on employee motivation can be diverse, affecting individuals differently in different circumstances (Carr & Mellizo, 2013; Mafini & Dlodlo, 2014; Schweitzer et al., 2013). This lack of a single “one-size-fits-all” approach is evident in the wide range of different wage practices that can be seen in industry.

There is a differentiation between direct- and comparison income. Direct income is typically used in the economic sciences and represents the actual net or gross income a person receives (Brown, Gardner, Oswald, & Qian, 2008; Clark, Kristensen, & Westergård-Nielsen, 2009; Clark & Oswald, 1996). Comparison income, on the other hand, refers to an individual’s income compared to that of another individual, either internal or external to the organisation (reference group); or to the individual’s current income compared to his/her own past income stream (adaptive expectations) (Al-Zawahreh & Al-Madi, 2012; Yamnill & McLean, 2001). This measurement is most often utilised within the social sciences. These diverse ways of describing wages have different effects on employee motivation and as such several theories have been developed to explain these interactions.

In terms of direct income, the concept of utility is often used to explain the link between income and satisfaction. Utility, in an economic sense, refers to the perceived ability of an item to satisfy an individual’s needs or wants (Oxford University Press, 2015; WebFinance Inc, 2015) or to the total satisfaction received from consuming a good or service (Investopedia LLC, 2015; WebFinance, Inc, 2015). The neo-classic utility model states that individuals are driven to maximise their utility (Devereux & Engel, 2003; Weintraub, 1993), which can be done in part by increasing their wage. The assumption is that the higher an individual’s wage, the more he/she can spend on satisfying his/her needs which would result in increased satisfaction. Some researchers suggest that life satisfaction coincides so well with utility, that it may be seen as a reasonable proxy thereof (Silva, de Keulenaer, & Johnstone, 2012).

Compensating wage differentials is based on utility theory and represents another attempt to explain the link between wages and satisfaction. According to this theory, individual utility is derived from both wages and non-financial job aspects (Block, Millán, Román, & Zhou, 2013; Böckerman, Ilmakunnas, & Johansson, 2011). This approach explains the existence of wage

differentials where a firm pays a higher wage or allowance in order to compensate for less favourable non-financial job aspects.

Not everyone agrees with the wages and life satisfaction link. Economist Richard Easterlin found that increasing individuals' average income does not necessarily increase their satisfaction (Clark, Frijters, & Shields, 2008; Easterlin, 1974; Easterlin & Angelescu, 2009). Known as Easterlin's paradox, this holds several implications for organisations, individuals, political policy and law makers (Paul & Guilbert, 2013; Worstall, 2013; Worstall, 2012). Several studies have since contradicted Easterlin's paradox (Sacks, Stevenson, & Wolfers, 2012; Sacks, Stevenson, & Wolfers, 2010; Stevenson & Wolfers, 2013). Stevenson and Wolfers (2008) found that the effect of wage on life satisfaction is stronger for absolute income and that income comparisons play a more limited role (Drichoutis, Nayga, & Lazaridis, 2010). Comparison income still appears to play a role as Paul and Guilbert (2013) found that peer group income has a significant negative effect on life satisfaction.

Kahneman and Deaton's (2010) work indicates that an increase in income may increase life satisfaction without bound, but not necessarily day to day feelings of happiness. Research has also found that an increase in income may also inhibit individuals from savouring the positive aspects of their lives (DeVoe & House, 2012; Quoidbach, Dunn, Petrides, & Mikolajczak, 2010). While the exact nature of the interaction differs, the above studies provide further support for the link between income and life satisfaction. In a later study, Easterlin claims that there is no link between economic growth and increases in life satisfaction over the long term and that any other findings are simply short term effects or statistical artefacts (Easterlin, 2013). The above lends further support to this study.

Recognising that facets other than gross income may affect an individual's satisfaction, the social sciences often view wages in terms of a comparison between individuals. This implies that an individual's satisfaction with his/her wages is based on his/her perception of how well or poorly it compares to the income of others (Clark et al., 2009). Research found that reference group pay is as important as own pay (Ferrer-i-Carbonell, 2005), and that life satisfaction is gained partly from how well one's income compares to that of a reference group (Brown, Gardner, Oswald, & Qian, 2008; Welsch & Kühling, 2014). Research has found that both comparison income and one's expectations about one's future income have an effect on life satisfaction (Caner, 2014). Boyce, Brown, and Moore (2010) suggest that an individual's

ranked income is a better predictor of overall life satisfaction and that income will only increase the life satisfaction if it increases an individual's ranked position relative to that of others as well. The same is true for job satisfaction (Kifle, 2014).

Research has shown that there is a negative relationship between comparison income and job satisfaction (Montero & Vásquez, 2014) when individuals compare themselves to others external to their company (Clark & Oswald, 1996). However, when comparing internally the effect is positive; researchers believe that this may be due to the individual viewing others' income within the organisation as a signal of what the individual may be able to earn with time (Clark et al., 2009). Another study found that the signal effect is positive for new entrants into the company, but decreases as the gap between a person's own salary and that of his reference group decreases (Godechot & Senik, 2013). Choice of comparison groups tend to differ by gender, where men typically display higher competitiveness than women (Mumford & Smith, 2015). Studies have shown that both direct income and comparison income are related to an individual's job satisfaction (Kifle, 2014; Lydon & Chevalier, 2002).

One topic that seems underrepresented in recent articles dealing with wages is the concept of wage satisfaction. Miceli and Lane (1990) found that wage satisfaction is associated with the amount of positive or negative feelings that individuals have toward their wages and it has been proven to significantly contribute to job enthusiasm (Lee & Lin, 2014). Wage satisfaction is often broken down into four dimensions, namely wage level, wage raise, benefits, and wage administration or structure. One study found that a structure containing these four dimensions better explained variance in pay satisfaction than previous models (Heneman III & Schwab, 1985; Judge, 1992, 1993). Brown and Huber (1992) also differentiate between wage outcome satisfaction and wage process satisfaction and found that the relationship between these two facets is relatively stable over time.

Lawler's model provides another conceptualisation of wage satisfaction, the basic premise of which is that wage satisfaction represents the discrepancy between the perceived wages one receives and the perceived wages one should receive (Porter & Lawler, 1968; Weiner, 1980). Weiner (1980) found that expressing the above discrepancy in terms of perceived wages explained more variance than the original model. Other researchers expanded on this model by adding variables such as pay system administration (Dyer & Theriault, 1976). The inclusion of these variables significantly enhanced the predictive power of the model (Weiner, 1980). It is

interesting to note that the perceived importance of wages increases as wages rise (DeVoe, Pfeffer, & Lee, 2013), which may lead to wages contributing more to wage satisfaction in higher income groups. As wage satisfaction also deals with process satisfaction, the question can be asked if it is not similar to fairness. Research has found that wage satisfaction and fairness are two different constructs (Scarpello & Carraher, 2008). When considering wages and wage satisfaction, it may be useful to consider the role of fairness as well.

Fairness can be defined as “the quality of treating people equally or in a way that is reasonable” (Cambridge University Press, 2015; Oxford University Press, 2015) and is often related to the concepts of justice or what is right and equal (Jenkins, 2012; Velasquez, Andre, Shanks, & Meyer, 2014). At face value it seems to make sense that when individuals believe that they are being paid fairly compared to their reference group, they should be more satisfied with their wages.

The link between fairness and wage satisfaction seems to be supported by research with several experimental and field studies determining that individuals care about fair wages, both under experimental conditions and in real life (Bewley, 1995; Lee & Lin, 2014). Some researchers state that individuals are always motivated by fairness concerns (Bolton & Ockenfels, 2000; Fehr & Schmidt, 1990). This claim is, however, based purely on experimental research and may differ under real world conditions (Alewell, Friedrich, & Guth, 2007). While philosophers state that everyone should be able to agree on what is just and equitable, fairness seems somewhat subjective. Individuals’ satisfaction with their wages may differ depending on the reference groups they select. Different criteria such as compensation procedures, interaction with management, transparency of wage practices and actual wage amount all contribute to perceptions of fairness (Konow 2003; Vaughan-Whitehead 2010; Wu, Sturman, & Wang, 2013).

Researchers distinguish between horizontal fairness (between employees) and vertical fairness between employees and their employer (Güth, Königstein, Kovács, & Zala-Mező, 2001). Wade, O'Reilly and Pollock's (2006) findings which indicate that CEO pay serves as an important reference point for determining wage fairness falls within the latter category. Fairness is of interest to organisations as it is generally believed that individuals reward fair behaviour and punish unfair behaviour (insult effect) (Ma, Tunney, & Ferguson, 2014; Smith 2015). Research has also found that wage fairness influences employee motivation (Leete,

2000). Fairness leads to gratitude and cooperation where unfairness leads to resentment. This sentiment appears to be supported by Verhoogen (2007) who found that increases in perceptions of wage fairness resulted in increased performance. Perceptions of wage fairness also seem to be related to effort (Becker, 2013). Equity theory posits that individuals will adjust their performance based on their perceptions of the fairness of their pay (Adams, 1963). A recent study also found that individual- and procedural fairness contribute most to individuals' wage satisfaction (Zheng, Wang, & Song, 2014), while Oishi, Kesebir, and Diener (2011) found that the negative effect of income inequality on life satisfaction was better explained by perceived unfairness than by income.

Direction of Interaction

From the above it is clear that intricate relationships exist between the constructs of life satisfaction, job satisfaction, wages and employees' satisfaction with wages. As such, a discussion on the direction of interaction between these constructs is useful. Life satisfaction is the overarching concept as it refers to one's satisfaction with life as a whole rather than a single domain, although it may be affected by life domains. Life satisfaction provides several positive effects to an individual, such as improved physical functioning, and increased longevity (Dogan & Çelik, 2014).

Job satisfaction is more closely related to satisfaction with one's job or aspects of that job and this may vary at different points in time (Diener et al., 1999). Research has shown that job satisfaction contributes to life satisfaction and leads to several positive organisational outcomes (Dogan & Çelik, 2014; Johnson et al, 2008). The link between job- and life satisfaction is not a one-way relationship, however, as life satisfaction has been shown to directly affect job satisfaction, leading to positive work outcomes (Judge et al., 2005; Judge & Watanabe, 1993; Mafini & Dlodlo 2014). Some studies even suggest that life satisfaction may have a more significant effect on productivity than job satisfaction (Erdogan et al., 2012; Judge et al., 2001).

The link between wages and job satisfaction is well researched, with wages generally being seen as a predictor of job satisfaction (Carr & Mellizo, 2013; Schweitzer et al., 2013). Given the interrelatedness of job- and life satisfaction, it is not surprising that research has also found life satisfaction affecting gross wage and vice versa (Dogan & Çelik, 2014). Boodoo, Gomez, and Gunderson (2014) found that comparison wage, in particular, plays a role in improving the

life satisfaction of working individuals, while Haushofer and Fehr (2014) found that long-lasting inadequate wages can lead to a state of anxiety. Utility theory explains that higher wages may lead to higher overall satisfaction (Devereux & Engel, 2003; Weintraub, 1993), a sentiment which is mirrored by the income inequality theory (Hagerty & Veenhoven, 2003). Another study shows that the reverse is also true, in that higher life satisfaction is correlated with higher income later in life (De Neve & Oswald, 2012).

There seems to be some conflicting views regarding the effect of wages on life satisfaction. Some authors claim that wages do not significantly increase happiness after a set amount (Kahneman & Deaton, 2010), while another study claims wages raise life satisfaction without bound (Stevenson & Wolfers, 2008). In actuality, these differences boil down to how life satisfaction is conceptualised; some view it as daily experiences of happiness and others as an evaluation of one's life as a whole. This explains why Kushlev, Dunn, and Lucas (2015) found that wages may decrease sadness rather than promote everyday feelings of happiness. Therefore, the manner in which life satisfaction is conceptualised seems to affect its interaction with wages.

Concluding from the above, it is hypothesised that gross wage is related to life satisfaction (Hypothesis 1), that a relationship exists between gross wage and job satisfaction (Hypothesis 2) and that a direct relationship exists between gross wage and wage satisfaction (Hypothesis 3).

In a study covering quality of work and life satisfaction, Johnson et al. (2008) found that employment contributes to life satisfaction and quality of life. Several studies found that employed individuals generally experience higher life satisfaction than unemployed individuals, even those employed in “bad” jobs, i.e. jobs with low job quality (Arampatzi, Burger, & Veenhoven, 2015; Grün, Hauser, & Rhein, 2010; Luhmann, Weiss, Hosoya, & Eid, 2014). Based on the above, it is hypothesised that a strong relationship can be found between job satisfaction and life satisfaction (Hypothesis 4).

Utility and inequality theories hold that life satisfaction may increase with an increase in wages (Devereux & Engel, 2003; Hagerty & Veenhoven, 2003; Weintraub, 1993). It is hypothesised that since life satisfaction seems to be related to wages, a relationship may exist between wage satisfaction and life satisfaction (Hypothesis 5). Similarly, as wages are often viewed as a

predictor of job satisfaction (Carr & Mellizo, 2013; Duffy et al., 2015), it is hypothesised that wage satisfaction is related to job satisfaction (Hypothesis 6). Given the relationship between wages and job satisfaction (Duffy, Autin, & Bott, 2015) and the prevalence of wage practices that provide allowances for uncomfortable or dangerous work, it is theorised that a high gross wage may compensate for lower job satisfaction (Hypothesis 7).

The following hypotheses are set for this study:

Hypothesis 1: Gross wage is related to life satisfaction.

Hypothesis 2: Gross wage is related to job satisfaction.

Hypothesis 3: Gross wage is related to wage satisfaction.

Hypothesis 4: Job satisfaction is related to life satisfaction.

Hypothesis 5: Wage satisfaction is related to life satisfaction.

Hypothesis 6: Wage satisfaction is related to job satisfaction.

Hypothesis 7: High gross wage compensates for a dissatisfying job.

Method

Research Design

This study is quantitative in nature and follows a cross-sectional approach. The cross sectional method allows for the examination of numerous subjects at a single point in time (Birkbeck University of London, 2015; Institute for Work and Health, 2015; Salkind, 2009). Substantial research is available on the subjects of job- and life satisfaction, and the predictive effect wages may have on job satisfaction. Less research is available regarding satisfaction with wages, life satisfaction within the work context, as well as studies examining the four variables contained in this study. Data analysis was conducted using a correlational approach. In correlational studies researchers examine real world variables and determine the extent to which different variables are related to one another (Gellert, 2015; McLeod, 2008).

Participants

The target population for the WageIndicator (WI) survey is the working population within the country being surveyed. This study utilised the South African dataset and focuses only on individuals who are actively employed. Data cleaning resulted in a final sample of $N = 763$.

The sample is not limited to a single organisation or geographic region and represents different genders, marital statuses, education levels, income levels, ages and racial groups.

In terms of wage distribution, 557 individuals fall within the low wage category (R 18.00 to R 7 519.00 per month); 1069 fall within the medium category (R 7 521.00 to R 21 949.00 per month); and lastly 552 individual fall within the high category with wages ranging from R 22 000.00 to R 749 000.00 per month. The spread seems to tend towards a normal distribution with more individuals in the medium category than in the other two. These figures are for the initial sample population ($N = 2178$) and not the final cleaned sample of $N = 763$. For a full breakdown of the wage categories, refer to Appendix A.

Table 1

Participants Characteristics – Cleaned sample ($N = 2178$)

Item	Category	Frequency	Percentage
Education	< Grade 12	63	8.3
	Grade 12	244	32.0
	NTC I to III	38	5.0
	Diploma	199	26.1
	Bachelor's Degree	120	15.7
	Honours Degree	67	8.8
	Master's Degree	28	3.7
	Doctorate	4	0.5
Gender	Female	471	61.7
	Male	292	38.3
Household Status	Living with partner	479	62.8
	Living with one or more children	381	49.9
Current Marital Status	Divorced	55	7.2
	Married	373	48.9
	Never Married	324	42.5
	Widowed	9	1.2

From the above Table, it is clear that females comprise the majority of the sample (61.7%). The highest percentage of subjects in the sample has a Grade 12 qualification (32%), followed by a diploma (26.1%), while 48.9% are married.

Measuring Instrument(s)

The WI dataset contains both cross sectional and longitudinal data regarding working conditions and wages across 65 countries. The dataset contains a timespan from 2000, although the dates may differ between countries depending on the first year the survey was made available. The WI survey has been active in South Africa since 2005 with the 2013 dataset being the most recent available at time of access. Access to the dataset can only be obtained through a formal application process made to the International Data Service Centre (IDSC) and access is restricted to universities and research institutions.

Wage Indicator Survey

Data collection for the international WageIndicator (WI) dataset is done via an online multilingual survey hosted on dedicated sites within each of the countries covered by the survey. These dedicated sites provide users with a salary comparison tool and job related information tailored to the specific country. Visitors to these sites are invited to complete the WageIndicator survey and an incentive is offered for completion. The WI survey measures life satisfaction by means of a Likert-type scale ranging from 1 = *dissatisfaction* to 10 = *satisfaction*. Researchers have found that single item life satisfaction measures exhibit similar criterion validity to multiple item measures and do not produce systematically different correlations (Cheung & Lucas, 2014). Furthermore, Lucas and Donnellan (2012) indicate that single item measure may be more reliable than previously thought. This provides support for the use of single item measures to measure life satisfaction.

Job satisfaction is measured with a direct evaluation (*How satisfied are you with your job?*). Dolbier, Webster, McCalister, Mallon, and Steinhardt (2005) found that responses on single item measures of job satisfaction can be treated as valid.

In terms of wages the survey utilises one item to evaluate an individual's gross wage (e.g., *What is your gross income?*) and how this is structured. The survey contains one item directly related to wage satisfaction (e.g., *How satisfied are you with your pay?*). Both wage- and job satisfaction are measured using a 5-point Likert-type rating scale, ranging from 1 = *highly dissatisfied* to 5 = *highly satisfied*.

As secondary data was utilised in this study it is useful to elaborate on the limitations of secondary data. One key area of concern in the use of secondary data is that participants may still be identified, analysis must be structured in such a way that no inferences can be made that might lead to the identification of participants (Law, 2005; van Nederpelt & Daas, 2012). In order to protect the confidentiality and privacy of respondents, no names, addresses or other direct identifiers are requested from respondents (Tijdens, van Zijl, Hughie-Williams, van Klaveren, & Steinmetz, 2010). The above is in line with the ICC/ESOMAR International Code on Market and Social research (ESOMAR, 2014). Another concern is that data may be used for purposes other than the study for which it was originally collected, the collected data may not necessarily be suitable for additional analysis (Law, 2005; van Nederpelt & Daas, 2012). The WageIndicator dataset is specifically designed to collect detailed information concerning people's earnings, benefits, working conditions, employment contracts and training (Tijdens et al., 2010). It is not tailored to one individual study. The purpose is to provide a large high quality dataset to universities and research institutions.

Research Procedure

Access to the WageIndicator dataset was obtained through a formal application process to the International Data Service Centre (IDSC). Upon approval, the dataset was downloaded in the form of an SPSS input file and stored locally. The latest available dataset (2013) was selected and cleaned to remove missing or incomplete values. This was done using IBM SPSS (IBM Corporation, 2015). Next the data was filtered to include only respondents who were actively employed and/or working; the resulting sample included 8 254 respondents (original sample/population size).

In consultation with other researchers, the dataset was reviewed to determine which variables should be included in the study in order to answer the research question "Does good pay compensate for a dissatisfying job?" The reasoning was to examine groups which receive a high gross wage, experience low job satisfaction and high life satisfaction; this would be most suited to answering the primary research question. This reasoning is supported by research indicating that two-way interactional relationships exist between wages, job satisfaction and life satisfaction, with life satisfaction being a broader overarching concept (Boodoo, Gomez, & Gunderson, 2014; Dogan & Çelik, 2014; Erdogan et al., 2014). The following variables were selected, namely gross wage; wage satisfaction; job satisfaction; and life satisfaction.

For the wage-, job- and life satisfaction variables, the decision was made to focus on contrast groups (high and low). Groups were selected that scored either high or low on wage-, job- or life satisfaction. These contrast groups were then compared to gross wage.

In order to achieve this, four new variables were declared in IBM SPSS which divided the selected variables into three categories, namely low (1); medium (2); or high (3). Thereafter the medium (2) group was removed for the satisfaction variables, leaving the following categories, namely high, medium and low gross wage; high and low wage satisfaction; high and low job satisfaction; and high and low life satisfaction.

This allows for the comparison of contrast groups between the different variables, for example, comparing gross wage with job satisfaction.

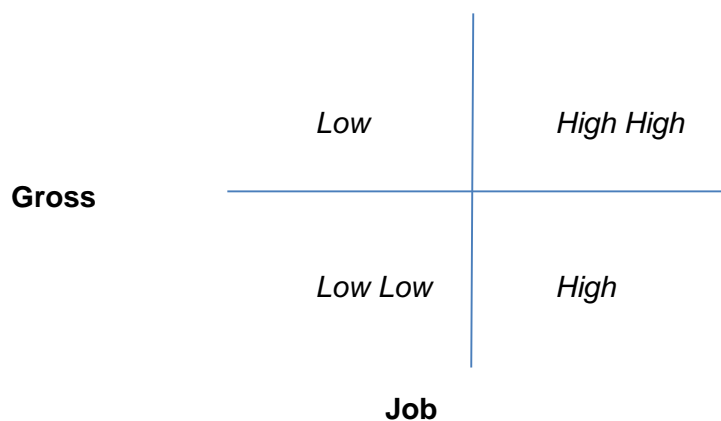


Figure 1. Example quadrants

Three categories of gross wages (high, medium, low) were retained as this would allow the exploration of interactions between satisfaction and medium wage, should the need arise. Gross wage is the only variable that contains continuous data as individuals could enter any amount rather than select from a scale.

For a detailed breakdown of how the measurement scales were categorised into variables, refer to Appendix A.

Statistical Analysis

IBM SPSS 22 (IBM Corporation, 2013) was utilised to clean the initial dataset; thereafter the categories described above were extracted with the use of Microsoft Excel 2013 (Microsoft Corporation, 2015). Statistical analysis was then carried out by means of SPSS 22 (IBM Corporation, 2013). Firstly, frequencies were calculated in order to provide a description of the sample. During this process IBM SPSS removed missing and incomplete values, leaving a total of 2 178 responses across three categories. Removal of the medium (2) category for the satisfaction variables resulted in a total sample of 763 (final sample). The frequency procedure is typically used on categorical data and can produce summary measures such as frequency tables, pie charts or bar charts (Kent State University, 2015). Frequency tables summarise a single categorical value.

Cross tabulation was used to produce a contingency table of the data. Cross tabulation is used to summarise a relationship between two categorical variables by determining the number of times each of the category combinations occur within the sample (Illinois State University, 2008; Kent State University, 2015). The contingency table therefore contains the number of cases that falls into each of the categories. This table was used to test whether the assumptions required for hierarchical log linear analysis were met, namely no counts less than 1 and not more than 20% less than 5 (Field, 2013). As these conditions were met, the study moved on to log linear analysis.

Hierarchical log linear analysis was utilised to construct a model that predicts the data. Log linear analysis allows for the expression of categorical data in the form of a linear model, provided logarithmic values are used (Field, 2013). The analysis constructs a model containing all possible interactions between the variables under study. This model perfectly fits the data; however, it is usually very complex. Using a process of backward elimination, log linear analysis removes interactions until the removal of an interaction significantly affects the model fit (Field, 2013). Removal of interactions follows a hierarchical progression moving from highest order interaction (three-way) to lower order interactions (two-way). The purpose of this process is to end with the simplest model that best fits the data. Lastly cross tabulations were used to interpret significant effects. The frequencies across different categories were plotted and graphically displayed.

Results

Cross Tabulation

Cross tabulation was used to summarise the relationship between the categorical variables (Illinois State University, 2008; Kent State University, 2015), allowing researchers to identify interactions that may not be apparent when analysing the tool dataset (Michael, 2015). A cross tabulation of life satisfaction, job satisfaction and wage satisfaction is reported in Table 2.

Table 2

Life Satisfaction, Job Satisfaction and Wage Satisfaction Cross Tabulation

Life Satisfaction				Wage satisfaction		Total
				1.00	2.00	
1.00	Job satisfaction	1.00	Count	247	12	259
			Expected Count	234.4	24.6	259.0
			% within Job satisfaction	95.4%	4.6%	100.0%
			% within Wage satisfaction	68.2%	31.6%	64.8%
			% of Total	61.8%	3.0%	64.8%
			Std. Residual	.8	-2.5	
		2.00	Count	115	26	141
			Expected Count	127.6	13.4	141.0
			% within Job satisfaction	81.6%	18.4%	100.0%
			% within Wage satisfaction	31.8%	68.4%	35.3%
			% of Total	28.7%	6.5%	35.3%
			Std. Residual	-1.1	3.4	
	Total		Count	362	38	400
			Expected Count	362.0	38.0	400.0
% within Job satisfaction			90.5%	9.5%	100.0%	
% within Wage satisfaction			100.0%	100.0%	100.0%	
% of Total			90.5%	9.5%	100.0%	
Std. Residual			5.2	-5.4		
2.00	Job satisfaction	1.00	Count	77	5	82
			Expected Count	43.1	38.9	82.0
			% within Job satisfaction	93.9%	6.1%	100.0%
			% within Wage satisfaction	40.3%	2.9%	22.6%
			% of Total	21.2%	1.4%	22.6%
			Std. Residual	5.2	-5.4	
		2.00	Count	114	167	281
			Expected Count	147.9	133.1	281.0
			% within Job satisfaction	40.6%	59.4%	100.0%
			% within Wage satisfaction	59.7%	97.1%	77.4%

Total	% of Total	31.4%	46.0%	77.4%
	Standardised Residual	-2.8	2.9	
	Count	191	172	363
	Expected Count	191.0	172.0	363.0
	% within Job satisfaction	52.6%	47.4%	100.0%
	% within Wage satisfaction	100.0%	100.0%	100.0%
	% of Total	52.6%	47.4%	100.0%

According to Table 2, there were no cells with less than 5 expected counts. The assumption of log-linear analysis has therefore been met (Field, 2013).

Table 2 shows that in the *low life satisfaction* sample, a total of 362 participants (90.5% of the total low life satisfaction sample) experienced low wage satisfaction. Of these, 247 participants (68.2% of the sample that was dissatisfied with their wages) experienced low job satisfaction, while 115 participants (31.8% of the sample that was dissatisfied with their wages) experienced high job satisfaction. Further, 38 participants in the low life satisfaction sample (9.5% of the total) experienced high wage satisfaction and of these 12 (31.6% of the high wage satisfaction sample) experienced low job satisfaction, while 26 (68.4% of the high wage satisfaction sample) experienced high job satisfaction.

In the *high life satisfaction* sample, a total 191 participants (52.6% of the high life satisfaction sample) reported low wage satisfaction. Of these, 77 participants (40.3% of the sample that was dissatisfied with their wages) experienced low job satisfaction, while 114 (59.7% of the sample that was dissatisfied with their wages) experienced high job satisfaction. Further, 172 participants (47.4% of the total) in the high life satisfaction sample reported high wage satisfaction, and of these 5 (2.9% of the high wage satisfaction sample) reported low job satisfaction, while 167 (97.1% of the high wage satisfaction sample) experienced high job satisfaction.

At high levels of life satisfaction and when job satisfaction was low, the standardised residual was significant for both those that reported low wage satisfaction ($z = 5.20$) and high wage satisfaction ($z = -5.40$). When wage satisfaction was low, significantly more participants than expected reported low job satisfaction. When wage satisfaction was high, significantly fewer participants than expected reported high job satisfaction. At high levels of life satisfaction and when job satisfaction was high, the standardised residual was significant for both those that

reported low wage satisfaction ($z = -2.80$) and high wage satisfaction ($z = 2.90$). When wage satisfaction was high, significantly more participants than expected reported high job satisfaction. When wage satisfaction was low, significantly fewer participants than expected reported high job satisfaction.

A cross tabulation of life satisfaction, job satisfaction and gross wage is reported in Table 3.

Table 3

Life Satisfaction, Job Satisfaction and Gross Wage Cross Tabulation

Life satisfaction			Gross Wage			Total
			1	2	3	
1	Job satisfaction	1 Count	109	113	37	259
		Expected Count	99.1	114.6	45.3	259.0
		% within Jobsat	42.1%	43.6%	14.3%	100.0%
		% within Gwage	71.2%	63.8%	52.9%	64.8%
		% of Total	27.3%	28.2%	9.3%	64.8%
		Std. Residual	1.0	-.2	-1.2	
		2 Count	44	64	33	141
		Expected Count	53.9	62.4	24.7	141.0
		% within Jobsat	31.2%	45.4%	23.4%	100.0%
		% within Gwage	28.8%	36.2%	47.1%	35.3%
		% of Total	11.0%	16.0%	8.3%	35.3%
		Std. Residual	-1.4	.2	1.7	
	Total	Count	153	177	70	400
		Expected Count	153.0	177.0	70.0	400.0
		% within Jobsat	38.3%	44.3%	17.5%	100.0%
		% within Gwage	100.0%	100.0%	100.0%	100.0%
		% of Total	38.3%	44.3%	17.5%	100.0%
		Std. Residual				
2	Job satisfaction	1 Count	31	32	19	82
		Expected Count	19.4	36.4	26.2	82.0
		% within Jobsat	37.8%	39.0%	23.2%	100.0%
		% within Gwage	36.0%	19.9%	16.4%	22.6%
		% of Total	8.5%	8.8%	5.2%	22.6%
		Std. Residual	2.6	-.7	-1.4	
		2 Count	55	129	97	281
		Expected Count	66.6	124.6	89.8	281.0
		% within Jobsat	19.6%	45.9%	34.5%	100.0%
		% within Gwage	64.0%	80.1%	83.6%	77.4%
		% of Total	15.2%	35.5%	26.7%	77.4%
		Std. Residual	-1.4	.4	.8	
	Total	Count	86	161	116	363
		Expected Count	86.0	161.0	116.0	363.0
		% within Jobsat	23.7%	44.4%	32.0%	100.0%
		% within Gwage	100.0%	100.0%	100.0%	100.0%
		% of Total	23.7%	44.4%	32.0%	100.0%
		Std. Residual				

When life satisfaction is low, approximately 40% of individuals in the low and medium wage category report low job satisfaction. Strangely, job satisfaction does not seem to increase in a linear fashion as income increases. While a higher percentage of individuals in the medium

wage category (45.5%) report high job satisfaction compared to the low wage category (31.2%), the high wage category reports the lowest levels of job satisfaction (23.4%). When life satisfaction is high, there are fewer people reporting low job satisfaction in the low (37.8%) and medium (39%) wage categories when compared to those with low life satisfaction. The high income category seems to be the exception with 23.2% of people experiencing low job satisfaction when life satisfaction is high, compared to 14.3% when life satisfaction is low. When life satisfaction is high, the percentage of individuals who report high job satisfaction is somewhat similar compared to when life satisfaction is low. The high wage category shows the highest increase from 17.5% when life satisfaction is low to 34.5% when life satisfaction is high. From Table 3 it is not yet clear what interactions exist between gross wage, job- and life satisfaction.

Preliminary Model Screening

The full model was proposed because there was no prior reason to remove any associations. Screening and model building are used to eliminate associations that do not contribute to observed cell frequencies (Field, 2013).

Table 4 contains the information needed to start the model-building procedure; the simultaneous tests for the effects of each order, each order and higher, and the test of individual association. The likelihood ratio and Pearson criteria are used to evaluate the K-way and higher order effects and the K-way effects. The K-way and higher order effects are reported in Table 4.

Table 4

K-Way and Higher Order Effects

	K	<i>df</i>	Likelihood Ratio		Pearson
			χ^2	<i>p</i>	χ^2
K-way and Higher Order Effects ^a	1	23	681.624	.000	713.896
	2	18	465.223	.000	623.545
	3	9	10.933	.280	10.536
	4	2	.529	.767	.506
K-way Effects ^b	1	5	216.401	.000	90.352
	2	9	454.289	.000	613.009
	3	7	10.404	.167	10.030
	4	2	.529	.767	.506

a. Tests that k-way and higher order effects are zero

b. Tests that k-way effects are zero

According to Tabachnick and Fidell (2014), it is necessary to test all four-way effects combined and three- and four-way effects combined, because combined effects take precedence over individual effects. If both combined tests are non-significant, the three- and four way associations are deleted regardless of its partial test. If the combined test is significant and the three- or four-way effects are significant, the three- or four-way effects are retained in the model. Table 4 shows that the model fit could be improved by removing the four-way and three-way interactions. Thus, the model does not need to contain associations greater than two-way.

Table 5 provides the basis of a search for the best model of one- and two-way effects.

Table 5

Partial Associations

Effect	<i>df</i>	Partial Chi-Square	<i>p</i>
Wage*Job satisfaction*Wage satisfaction	2	.202	.904
Wage*Job satisfaction*Life satisfaction	2	2.158	.340
Wage*Wage satisfaction*Life satisfaction	2	1.135	.567
Job satisfaction*Wage satisfaction*Life satisfaction	1	8.084	.004
Wage*Job satisfaction	2	5.853	.054
Wage*Wage satisfaction	2	24.523	.000
Job satisfaction*Wage satisfaction	1	85.612	.000
Wage*Life satisfaction	2	3.096	.213
Job satisfaction*Life satisfaction	1	54.871	.000
Wage satisfaction*Life satisfaction	1	52.564	.000
Wage	2	46.133	.000
Job satisfaction	1	8.615	.003
Wage satisfaction	1	159.858	.000
Life satisfaction	1	1.795	.180

Significance $p < 0.01$

Table 5 shows that various associations were statistically significant ($p < 0.01$): Job satisfaction by wage satisfaction (partial $\chi^2 = 85.612$, $p < 0.001$), Job satisfaction by life satisfaction (partial $\chi^2 = 54.871$, $p < 0.001$), Wage satisfaction by life satisfaction (partial $\chi^2 = 52.564$, $p < 0.001$), and wage by wage satisfaction (partial $\chi^2 = 24.523$, $p < 0.001$). Two of the two-way associations are nonsignificant: Wage by job satisfaction (partial $\chi^2 = 5.853$, $p > 0.01$), and wage by life satisfaction (partial $\chi^2 = 3.096$, $p > 0.001$). All first-order effects need to be included in the final hierarchical model, because they are highly significant or part of a significant two-way interaction. Although one three-way effect, job satisfaction by wage satisfaction by life satisfaction was statistically significant (partial $\chi^2 = 8.084$, $p < 0.01$), the three-way associations are not considered for inclusion, because the simultaneous tests take precedence over the component associations (Tabachnick & Fidell, 2014).

Stepwise Model Selection

Stepwise selection by simple deletion of the model with six two-way terms was conducted with IBM SPSS HILOGLINEAR. The selection process stopped after the second step because the criterion probability (.01) was reached. Each potential model generates a set of expected frequencies. The goal of the model selection is to find the smallest number of effects that still provides a fit between expected and observed frequencies. Criteria for the optimal model are that: a) it must have a nonsignificant Likelihood ratio chi-square value, and b) the selected model should not be significantly worse than the next more complicated model (Tabachnick & Fidell, 2014).

The first model (Step 0) included six effects. The model was not significant, meaning that it provided an acceptable fit between expected and observed frequencies: $\chi^2 = 10.934$, $df = 9$, $p = .280$. At Step 1 effects are deleted one at a time. Wage by job satisfaction ($p = .054$) and wage by life satisfaction ($p = .213$) were deleted at Step 1, because these effects produced the smallest chi-square change from Step 0. This model was also statistically nonsignificant ($\chi^2 = 14.030$, $df = 11$, $p = .231$). The second criterion for model selection is that the model should not be significantly different from the next more complicated model. Deletion of the two effects (wage by job satisfaction and wage by life satisfaction) did not result in a significant difference between the models: $\chi^2(1) = (14.030 - 10.934) = 3.096$, $\Delta df = 3$, $p = .213$. Therefore, the model in Step 1 was retained because it was not significantly worse than the next more complicated model.

The model of choice for explaining the observed frequencies includes all first-order effects and the two-way associations between job satisfaction and wage satisfaction, job satisfaction and life satisfaction, wage satisfaction and life satisfaction, as well as wage and wage satisfaction.

Adequacy of Fit

The likelihood ratio χ^2 (14.030, $p = .231$) indicates a good fit between observed and expected frequencies. Confidence limits for χ^2 were found by using an IBM SPSS syntax developed by Smithson (2003). Confidence limits (90%) are 0–16.861. The upper level is slightly higher than the critical value of 14.030 ($df = 18$, $\alpha = .05$). Assessment of fit of the model in individual cells proceeds through inspection of the standardised residuals for each cell. The cell counts and residuals are reported in Table 6.

Table 6

Cell Counts and Residuals

Wage	Job satisfaction	Wage satisfaction	Life satisfaction	Observed		Expected		Std. Residuals
				Count	%	Count	%	
1	1	1	1	106.000	13.9%	93.831	12.3%	1.256
			2	30.000	3.9%	26.860	3.5%	.606
		2	1	3.000	0.4%	1.117	0.1%	1.781
			2	1.000	0.1%	1.555	0.2%	-.445
	2	1	1	38.000	5.0%	41.019	5.4%	-.471
			2	32.000	4.2%	44.290	5.8%	-1.847
		2	1	6.000	0.8%	4.854	0.6%	.520
			2	23.000	3.0%	25.474	3.3%	-.490
2	1	1	1	107.000	14.0%	113.417	14.9%	-.603
			2	31.000	4.1%	32.467	4.3%	-.257
		2	1	6.000	0.8%	3.014	0.4%	1.720
			2	1.000	0.1%	4.193	0.5%	-1.559
	2	1	1	53.000	6.9%	49.581	6.5%	.485
			2	58.000	7.6%	53.535	7.0%	.610
		2	1	11.000	1.4%	13.091	1.7%	-.578
			2	71.000	9.3%	68.702	9.0%	.277
3	1	1	1	34.000	4.5%	44.638	5.9%	-1.592
			2	16.000	2.1%	12.778	1.7%	.901
		2	1	3.000	0.4%	2.980	0.4%	.012
			2	3.000	0.4%	4.146	0.5%	-.563
	2	1	1	24.000	3.1%	19.514	2.6%	1.016
			2	24.000	3.1%	21.070	2.8%	.638
		2	1	9.000	1.2%	12.944	1.7%	-1.096
			2	73.000	9.6%	67.930	8.9%	.615

Table 6 shows the observed and expected frequencies for each cell and the standardised residual values from which discrepancies are evaluated. Most of the standardised residual values are quite small. None of the cells have values that exceed the critical value of 1.96. Therefore, the model fit in individual cells is acceptable.

Figure 2 shows a normalised probability plot of residuals.

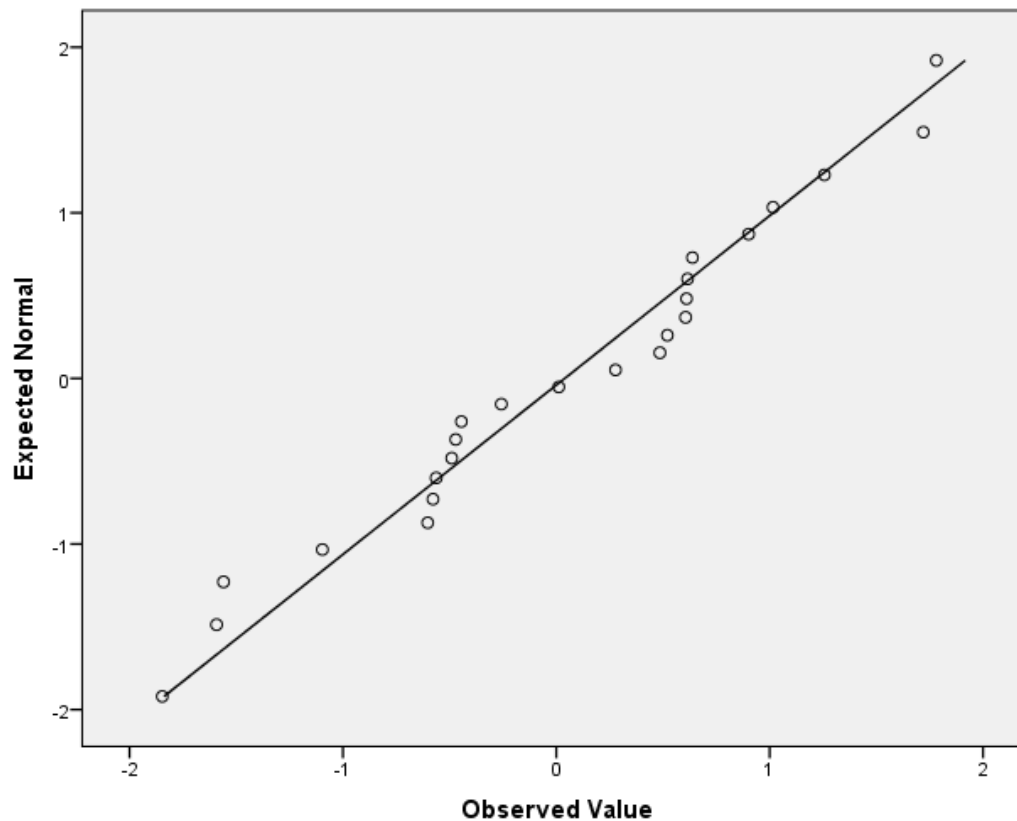


Figure 2. Normal probability plot for the selected model

Figure 2 shows that the observed standardised residuals are close to those that are expected (the diagonal line). The closer the observed frequencies are to the expected frequencies, the better the specified model fits the data.

Interpretation of the Selected Model

Two types of information are useful in interpreting the model, namely parameter estimates for the model and marginal observed frequency tables for all included effects. The log-linear parameter estimate, the z -value (coefficient/standard error), and confidence intervals for estimates are reported in Table 7. Because life satisfaction, job satisfaction, and wage satisfaction had only two levels of each variable, each effect is summarised by a single parameter value where one level of the effect has the positive value of the parameter and the other the negative value of the parameter. Effects with the largest standardised parameter estimates (z) hold the most importance in influencing frequency in a cell (Field, 2013; Tabachnick & Fidell, 2014).

Table 7

Parameter Estimates

Effect	Parameter	Estimate	SE	z	95% Confidence Interval	
					Lower Bound	Upper Bound
Job satisfaction*Wage satisfaction	1	.574	.069	8.310	.439	.710
Job satisfaction*Life satisfaction	2	.332	.044	7.495	.245	.419
Wage satisfaction*Life satisfaction	3	.395	.054	7.365	.290	.501
Wage satisfaction* Wage	4	.421	.070	6.00	.283	.559
	5	.020	.057	.346	-.092	.132
Job satisfaction	6	-.492	.068	-7.216	-.626	-.359
Wage satisfaction	7	.824	.073	11.343	.682	.967
Life satisfaction	8	-.102	.054	-1.891	-.207	-.004
Wage	9	-.237	.070	-.370	-.374	-.099
	10	.354	.057	6.195	.242	.466

** $p \leq 0.01$ – statistically significant

The strongest predictor of cell size is wage satisfaction ($z = 11.343$). The least predictive of all the effects in the model is the interaction between wage satisfaction and wage category. Parameter estimates indicate the relative strength of the effects.

Table 8 summarises significance tests and their confidence intervals (see Smithson, 2003). Note that the expected value of chi-square when the null hypothesis is true is equal to the degrees of freedom.

Table 8

Significance Tests for the Hierarchical Model of Life Satisfaction

Effect	<i>Partial Association</i> χ^2	90% Confidence Interval	
		Lower Bound	Upper Bound
First-order effects			
Wage satisfaction	159.858	120.967	204.155
Wage	46.133	26.490	71.182
Job satisfaction	8.615	1.664	20.976
Life satisfaction	1.795	0.000	8.908
Second-order effects			
Job satisfaction*Wage satisfaction	85.612	57.876	118.756
Job satisfaction*Life satisfaction	54.871	33.209	81.945
Wage satisfaction*Life satisfaction	52.564	31.488	79.232
Wage satisfaction*Wage	24.523	10.118	42.361

While Table 4 gives us an indication that one- and two-way interactions significantly affect model fit, partial associations can show which interactions affect the model. From Table 8 it is clear that removing the variables being studied, will significantly affect the data. Secondly, it shows that the job satisfaction and wage satisfaction; job satisfaction and life satisfaction; as well as wage satisfaction and life satisfaction significantly affect the model. The reaction between wage satisfaction and wages is the only direct income relationship which affects the data. It is also clear from the χ^2 -values that the satisfaction interactions have a much greater effect on the model than the wage interaction.

Table 9 shows cross tabulations between the significant associations in the model.

Table 9

Cross Tabulation of Frequencies for Two-way Interaction Effects (N = 763)

			Wagesat		Total
			1.00	2.00	
Job satisfaction	1.00	Count	324	17	341
		Expected Count	247.1	93.9	341.0
		% within Job satisfaction	95.0%	5.0%	100.0%
		% within Wage satisfaction	58.6%	8.1%	44.7%
	2.00	Count	229	193	422
		Expected Count	305.9	116.1	422.0
		% within Job satisfaction	54.3%	45.7%	100.0%
		% within Wage satisfaction	41.4%	91.9%	55.3%
			Life Satisfaction		Total
			1.00	2.00	
Job satisfaction	1.00	Count	259	82	341
		Expected Count	178.8	162.2	341.0
		% within Job satisfaction	76.0%	24.0%	100.0%
		% within Life satisfaction	64.8%	22.6%	44.7%
	2.00	Count	141	281	422
		Expected Count	221.2	200.8	422.0
		% within Job satisfaction	33.4%	66.6%	100.0%
		% within Life satisfaction	35.3%	77.4%	55.3%
			Life Satisfaction		Total
			1.00	2.00	
Wage satisfaction	1.00	Count	362	191	553
		Expected Count	289.9	263.1	553.0
		% within Wage satisfaction	65.5%	34.5%	100.0%
		% within Life satisfaction	90.5%	52.6%	72.5%
	2.00	Count	38	172	210
		Expected Count	110.1	99.9	210.0
		% within Wage satisfaction	18.1%	81.9%	100.0%
		% within Life satisfaction	9.5%	47.4%	27.5%
			Wage satisfaction at		Total
			1.00	2.00	
Wage	1.00	Count	206	33	239
		Expected Count	173.2	65.8	239.0
		% within Wage	86.2%	13.8%	100.0%
		% within Wage satisfaction	37.3%	15.7%	31.3%
	2.00	Count	249	89	338
		Expected Count	245.0	93.0	338.0
		% within Wage	73.7%	26.3%	100.0%
		% within Wage satisfaction	45.0%	42.4%	44.3%
	3.00	Count	98	88	186
		Expected Count	134.8	51.2	186.0
		% within Wage	52.7%	47.3%	100.0%
		% within Wage satisfaction	17.7%	41.9%	24.4%

Concerning the association between job satisfaction and wage satisfaction, most of the participants that reported job dissatisfaction (95%) also reported dissatisfaction with their wages. A slight majority of those who were satisfied with their jobs (54.3%), were dissatisfied with their wages. If wage satisfaction was high, more participants than expected showed high job satisfaction. Therefore, wage satisfaction was strongly related to job satisfaction.

Regarding the association between job satisfaction and life satisfaction, most participants that reported low job satisfaction (76%) also reported dissatisfaction with their lives. The majority of participants (66.6%) that reported job satisfaction also reported satisfaction with their lives. Therefore, job satisfaction was strongly associated with life satisfaction.

Concerning the association between wage satisfaction and life satisfaction, the majority of the participants who were dissatisfied with their wages (65.5%) were dissatisfied with their lives. The majority of participants that reported wage satisfaction (81.9%) were satisfied with their lives.

Regarding the association between gross wage and wage satisfaction, the majority of participants in the low gross wage category (86.19%) reported low wage satisfaction. Only 13.8% of the participants in the low gross wage category reported high wage satisfaction. Furthermore, more participants than expected in the high gross wage category (52.7%) reported low wage satisfaction. A graphical representation of the interactions found in Table 9 can be found in Appendix B.

Contrary to expectations, no direct statistically significant three-way interactions were found between gross wage, job satisfaction and life satisfaction. Therefore, Hypothesis 1 “Gross wage is related to life satisfaction” and Hypothesis 2 “Gross wage is related to job satisfaction” are rejected.

A direct link was found between gross wages and wage satisfaction. This result still supports Hypothesis 3 “Gross wage is related to wage satisfaction”. A positive relationship was found between job- and life satisfaction. This provides support for Hypothesis 4 “Job satisfaction is related to life satisfaction”. Wages and life satisfaction were found to be directly related, thereby supporting Hypothesis 5 “Wage satisfaction is related to life satisfaction”.

A relationship was found between wage satisfaction and job satisfaction. This was the strongest relationship among any of the variables and provides support for Hypothesis 6 “Wage satisfaction is related to job satisfaction”.

The backwards elimination process consisted of six steps resulting in a model that showed relationships exist between gross wage and wage satisfaction; and wage satisfaction and job satisfaction, job satisfaction and life satisfaction, and wage satisfaction and life satisfaction. No direct links were found between wages and life satisfaction. Interactions were found between wage, job- and life satisfaction. Overall interactions between satisfaction variables appear stronger than interactions between satisfaction and wages.

The results showed that of the people who experienced low job satisfaction, 19 (of the expected 26 cases) experienced high life satisfaction when gross wage was high. A total of 31 people (compared to an expected number of 19 cases) who experienced low job satisfaction, experienced high life satisfaction when gross wage was low. The hierarchical log-linear analysis also confirmed that an interaction did not exist between gross wage, wage satisfaction, job satisfaction and life satisfaction. Therefore, Hypothesis 7, “High gross wage compensates for a dissatisfying job” is rejected.

Discussion

The aim of this study was to examine the relationships between gross wage, wage satisfaction, job satisfaction and life satisfaction with the specific goal of answering the question: “Does good pay compensate for a dissatisfying job?” To the author’s knowledge, no study has examined all four these variables, certainly not in the South African context. All hypotheses were based on existing theories and prior research studies.

Hypothesis 1 stated that gross wage is related to life satisfaction. This reasoning is based on the neo-classical utility theory (Devereux & Engel, 2003; Weintraub, 1993) which theorises that since income can be used to satisfy needs, an increase in income would equate to an increase in life satisfaction. The income inequality theory (Hagerty & Veenhoven, 2003) mirrors this sentiment that life satisfaction rises with an increase in wages. Contrary to expectations, results indicated that no direct link exists between gross wage and life satisfaction. As such, individuals will not become more satisfied or content with their lives as their income rises. This result is surprising as several studies have found a link between wages

or income and life satisfaction (Cheung & Lucas, 2015; Lucas & Schimmack, 2009; Office for National Statistics, 2015; Sacks, Stevenson, & Wolfers, 2012; Sacks, Stevenson, & Wolfers, 2010; Stevenson & Wolfers, 2013). Plagnol (2011) found that income is an important component of well-being, and well-being can be used interchangeably with life satisfaction (Silva, de Keulenaer, & Johnstone, 2012; Veenhoven, 2014).

Several studies indicate that an individual's wages compared to others contribute more to his/her life satisfaction than an absolute value, as measured in this study (Boodoo, Gomez, & Gunderson, 2014; Brown, Gardner, Oswald, & Qian, 2008; Ferrer-i-Carbonell, 2005; Kifle, 2014). The opposite seems to be true in times of economic crisis (Caner, 2014). Perhaps the use of an absolute wage amount reduces the effect between wages and life satisfaction to non-significant levels. Other research has found that absolute income has a stronger effect on life satisfaction than comparison income (Stevenson & Wolfers; 2008). Research shows that an increase in income is more likely to raise overall evaluations of one's life (Kahneman & Deaton, 2010).

Studies report contradictory findings depending on how life satisfaction is conceptualised, whether this be overall evaluations of one's life or day to day experiences of happiness. Life satisfaction amongst employees also refers to their expectations and how well these are fulfilled, which again gives credence to the idea that an increase in wages should lead to an increase in life satisfaction (Rojas & Veenhoven, 2013). Other studies suggest that there is no direct link between life satisfaction and wages; however, they theorise that satisfaction gained from wages depends on how wages are spent, where buying experiences lead to greater life satisfaction than material goods (Dunn, Gilbert, & Wilson, 2011; Geller, 2012; Gilovich, Kumar, & Jampol, 2015).

In addition to the above studies supporting a possible interaction, there are studies indicating that no relationship exists between wages and life satisfaction (Clark, Frijters, & Shields, 2008; Easterlin, 1974; Easterlin & Angelescu, 2009). While dealing primarily with interactions at a national level, the Easterlin paradox is perhaps the most well-known and most contested of these studies, with several authors seeking to disprove the paradox (Sacks, Stevenson, & Wolfers, 2012; Sacks, Stevenson, & Wolfers, 2010; Stevenson & Wolfers, 2013). Despite this, Easterlin (2013) maintains that no relationship exists between wages and life satisfaction in the long term and that any findings to the contrary may simply be due to short-term effects or the

result of statistical artefacts. This may provide another explanation for why the current study did not find any relationship between gross wage and life satisfaction.

A later study found that GDP growth per capita does increase individuals' life satisfaction, but that it would take prolonged periods of growth to raise life satisfaction by one point on a 10-point life satisfaction scale (Veenhoven & Vergunst, 2014). Perhaps an examination of the variables across a longitudinal dataset would shed more light on the current model.

Hypothesis 2 stated that a relationship exists between gross wage and job satisfaction. This study found no relationship between gross wage and job satisfaction, thereby disproving Hypothesis 2. Taking these results into account, it is unlikely that an individual would be more satisfied with his/her job purely because he/she is paid a higher wage. This hypothesis was based on the reasoning that wages are often seen as a predictor of job satisfaction (Carr & Mellizo, 2013; Duffy et al., 2015; Mafini & Dlodlo, 2014; Meyerding, 2015; Ross, Young, Sturts, Kim, & Ross, 2014). Several authors assert that wages are the most important predictor of job satisfaction (Schweitzer, Chianello, & Kothari, 2013; Lydon & Chevalier, 2002), while Miller (2014) states that wages are consistently rated as the top or second most important aspect of job satisfaction across different generations.

Yang and Wang (2013) do not necessarily view wages as a predictor, but still found that wages have a significant impact on job satisfaction. Another study found that individuals report lower job satisfaction in low wage categories (Kara & Murrmann, 2011). It seems that job satisfaction is not only related to current wages, as Lydon and Chevalier (2002) found that future wage expectations also impact this relationship.

Not all researchers believe that an absolute wage amount affects job satisfaction, but rather that the job satisfaction gained from wages depends on how it compares to the wages of others (Clark, Kristensen, & Westergård-Nielsen, 2009; Ferrer-i-Carbonell, 2005; Montero & Vásquez, 2014). Kifle (2014) finds some common ground between these two views, stating that both absolute- and relative income affect job satisfaction. The inclusion of a comparison income measure could perhaps affect the gross wage and job satisfaction relationship.

It appears that the manner in which wages are structured has an effect on job satisfaction. Pfeffer and Langton (1993) found that the higher the wage dispersion between employees, the

lower their individual satisfaction. However, this effect lessens with an increase in tenure and when pay is based on experience and productivity. Research has found that performance- based pay increases job satisfaction (Artz, 2008; Green & Heywood, 2007). Nicholls (2012) found that occupational group, race and gender all affect reward preference. Given these findings and the prevalence of incentive schemes (Grigoriadis & Bussin, 2007), perhaps the link between job satisfaction and performance depends, in part, on how a wage is structured.

In terms of the two-factor theory of job satisfaction, wages are particularly linked to extrinsic job satisfaction which reduces job dissatisfaction rather than promote job satisfaction (Goetz et al., 2012). Examination of the cross tabulations in Table 3 shows a decrease in job dissatisfaction as wages increase (from 42.1% in the low wage category to 14.3% in the high wage category); however, upon closer inspection, the percentage of individuals in the high wage category is low regardless of job satisfaction (23.4% in high wage category when job satisfaction is high), when life satisfaction is low.

Hypothesis 3 stated that there is a direct relationship between gross wage and wage satisfaction. Results indicated that wages and wage satisfaction are related; therefore, wage satisfaction is likely to rise if wages increase. Studies have found that wage satisfaction is multi-dimensional in nature (Williams, McDaniel, & Nguyen, 2006), consisting of satisfaction with wage level, raise, benefits as well as wage administration (Heneman III & Schwab, 1985; Judge, 1992, 1993). Lawler's model supports the link between wages and wage satisfaction by conceptualising wage satisfaction as the discrepancy between the perceived wage that one should receive and the wage one receives (Dyer & Theriault, 1976; Porter & Lawler, 1968; Weiner, 1980; Williams et al., 2006). While significant, the relationship between gross wage and wage satisfaction is one of the weaker interactions observed in this study ($z = 6.00$). This is not unexpected, as this study examined only one of the dimensions of wage satisfaction, namely wage level.

Smith (2015) found that workers do not only care about their wage level, but also about the rate at which their wages increase. The so-called insult effect shows that below-median wage increases as well as pay cuts reduce wage satisfaction; the latter occurring even when a company is doing badly (Smith, 2015). Another study by Clark and Oswald (1996) found that if wages remain constant, wage satisfaction drops with an increase in education. This seems to support the link between wage increases and wage satisfaction. In addition to actual wage level,

wage satisfaction is affected by several factors, such as perceived fairness (Moorman 1991; Netemeyer et al., 1997), and autonomy (Godeanu, 2012). That being said, wage fairness remains a different construct from wage satisfaction (Scarpello & Carraher, 2008). In line with expectations and existing literature, this study found that a relationship exists between gross wage and wage satisfaction.

Hypothesis 4 stated that job satisfaction is related to life satisfaction. This study found a relationship between job satisfaction and life satisfaction, thereby confirming Hypothesis 4. Based on this result, an increase in job satisfaction would likely correspond with an increase in life satisfaction and vice versa. This hypothesis was based on literature indicating that a relationship exists between these two constructs (Judge et al., 2005; Mafini & Dlodlo 2014). Past research has found that a reciprocal relationship exists between job satisfaction and life satisfaction, where an increase in one can lead to an increase in the other (Judge & Watanabe, 1993). In this study life satisfaction was conceptualised as an overall evaluation of one's life in a positive light (Saris et al., 1996), while job satisfaction is viewed in a similar manner as defined by Spector (1997) as "the degree to which an individual likes or is content with his/her job" (p. 2). The relationship found between job satisfaction and life satisfaction in this study is in line with expectations.

Hypothesis 5 stated that wage satisfaction is related to life satisfaction. This study found a direct link between wage satisfaction and life satisfaction, indicating that one's wage satisfaction affects one's satisfaction with one's life as a whole. The opposite may also be true. There is a gap in literature regarding the link between wage satisfaction and life satisfaction. However, as life satisfaction is a broad concept that entails overall satisfaction as well as satisfaction with life domains, it stands to reason that an increase in one domain may affect overall life satisfaction (Rojas, 2006; Saris et al., 1996; Woo, Kim, & Uysal, 2015).

Wage satisfaction is often viewed as the discrepancy between expected wage and actual wage (Weiner, 1980). Keeping this in mind, it seems that when an individual's expectations regarding his/her wage are not met, it may have consequences more far reaching than previously thought. Such a discrepancy between expected and actual wage may affect an individual's satisfaction with his/her entire life, rather than just satisfaction with job-related aspects. Lastly, there is a body of evidence that suggests that life satisfaction is less dependent on an actual wage amount (Boodoo, Gomez, & Gunderson, 2014), but that it is rather linked to

the manner in which a wage is spent (Dunn, Aknin, & Norton, 2008; Mogilner & Norton, 2015; Nicolao, Irwin, & Goodman, 2009). Across all income groups pro-social spending - where individuals spend their money on others rather than on themselves - correlates with an increase in life satisfaction (Dunn & Norton, 2013). Taking this into account along with the fact that excess wealth does not increase life satisfaction (Kahneman & Deaton, 2010), perhaps the true potential for income to increase life satisfaction occurs when individuals have enough income to not be overly worried about their financial situation, also spending their income in a charitable manner to the benefit of others. With these two conditions met, an individual may well be more satisfied with his/her wages and so be more satisfied with his/her life as a result. In line with expectations, the results indicate that a relationship exists between wage satisfaction and life satisfaction, thus confirming Hypothesis 5.

Hypothesis 6 stated that wage satisfaction is related to job satisfaction. Results indicate that wage satisfaction is related to job satisfaction. Intuitively it seems to make sense that an employee who is satisfied with his/her wages would also be more satisfied with his/her job. As with life satisfaction, there is a gap in research examining the relationship between job satisfaction and wage satisfaction. Schreurs, Guenter, van Emmerik, Notelaers, and Schumacher (2015) found that a relationship does exist between wage satisfaction and job satisfaction, providing support for this hypothesis. While contrary to this study's findings, research indicates that wages can affect job satisfaction. Given that wages are linked to both wage satisfaction (Heneman III & Schwab, 1985; Judge, 1992, 1993; Smith, 2015; Williams, McDaniel, & Nguyen, 2006) and job satisfaction (Carr & Mellizo, 2013; Duffy et al., 2015; Mafini & Dlodlo, 2014; Meyerding, 2015; Ross, Young, Sturts, Kim, & Ross, 2014) in literature, it stands to reason that a relationship may exist between these two constructs. This study found that a relationship exists between wage satisfaction and job satisfaction, providing support for Hypothesis 6.

In conclusion, a relationship was only found between gross wage and wage satisfaction. Contrary to expectations there appears to be no direct link between gross wage and life satisfaction, and gross wage and job satisfaction. Relationships were found between all three satisfaction variables. The relationships between these satisfaction variables were also stronger than between wages and wage satisfaction, as can be seen in Figure 3.



Figure 3. Model of interactions

Regarding the research question and Hypothesis 7 “High gross wage compensates for a dissatisfying job”, the answer is not as straight forward as initially thought. This study views wage as compensating for a dissatisfying job when an individual’s job satisfaction is low, but his/her life satisfaction and gross wage are high. Considering that wages do not seem to impact life satisfaction, this result seemed unlikely. However, an increase in wages does increase wage satisfaction and decreases wage dissatisfaction. Wage satisfaction, in turn, is strongly related to life satisfaction. Therefore, if an individual is paid a wage that increases his/her wage satisfaction, it could buffer or “compensate” the negative effect of low job satisfaction. Therefore, due to the strong relationship found between wage and job satisfaction, it is more likely that an increase in wage satisfaction would increase job satisfaction rather than buffer it. In conclusion, a higher wage may compensate for a dissatisfying job, but it is more likely to indirectly raise an individual’s job satisfaction.

Implications for Management

While this study did not find direct relationships between wages and life satisfaction, the interconnectedness of variables suggests that it may still have an effect through wage satisfaction. The interrelationships between variables provide further support that focusing on one or two elements to enhance employee satisfaction is likely to be limited in its success. From the model and strength of relationships found across income groups, it is clear that a holistic view balancing wage-, job- and life satisfaction along with fair wages would likely yield the best results. It is important to note that any attempts to address employee satisfaction should deal with both satisfaction concepts and wages.

The question can, however, be asked why organisations should care about satisfaction. Simply put, it is in their interest to do so, employees high on job- and life satisfaction tend to be more productive, healthier, less likely to be absent and exhibit higher motivation (Bako, 2014; Chen

et al., 2011; Christen et al., 2006; Dogan & Çelik, 2014; Reizer, 2015). Employees also tend to reward a satisfying wage with increased effort (Verhoogen, 2007), tend to be more enthusiastic about their jobs (Lee & Lin, 2014), and more motivated (Leete, 2000). Employees who are satisfied with their wages may also reduce a company's risk exposure to wage-related conflict.

The results of this study show that wage-, job- and life satisfaction are very closely integrated; therefore, if organisations want to reap the full benefits of a satisfied workforce, they must focus on all three these areas. This study also shows that paying a fair wage that satisfies employees, not only contributes to workplace outcomes, but may in fact also affect every aspect of their lives.

Limitations for the Study and Recommendations for Future Research

The study utilised convenience sampling methods and as such its results may not be generalisable to the general population (Lund Research Ltd., 2012). This study did not examine how any biographical factors may affect the specified model. Future studies could focus on factors such as age, gender, education or geographic region that might affect the relationships between gross wage, job satisfaction, and life satisfaction. Furthermore, this study did not consider the type of job and or situational factors. It may be useful to examine whether the position an employee holds within a company will affect the relationship between gross wage and satisfaction. This study did not consider perceptions of fairness and how these could relate to life satisfaction; future studies may include perceptions of fairness or equity. As with most studies examining wages and life satisfaction, this study can only comment on the correlations between variables.

While there are some studies that incorporate or include findings from different disciplines, research findings tend to remain in silos in their respective fields (Bijleveld & Aarts, 2014; Birat, 2014). While significant work has been done to summarise findings across different fields (Bijleveld & Aarts, 2014; Lea & Webley, 2006), it may be useful to work more closely with other disciplines to better answer questions related to the psychology of wages. This is especially true if one considers that money is linked to psychological and biological outcomes that have far reaching consequences across multiple disciplines.

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CHAPTER 3

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

The general and specific objectives of this study shape the conclusions drawn in this section. The limitations of the study are also discussed along with recommendations for future research.

3.1 CONCLUSIONS

The purpose of this study was to determine whether good pay can compensate for a dissatisfying job, also to clarify the existing relationships between gross wages, wage satisfaction, job satisfaction and life satisfaction.

The first objective of this study was to examine how the relations between wages, wage satisfaction, job satisfaction and life satisfaction are conceptualised in literature. This was achieved by examining the complex reciprocal interactions that occur between life, job and wage satisfaction as well as the effect of wages on these interactions. Life satisfaction is the broadest of the constructs under study and refers to one's satisfaction with one's life as a whole (Saris, Veenhoven, Scherpenzeel, & Bunting, 1996). Life satisfaction is affected by and can affect various domains in a person's life, such as his/her job satisfaction. Job satisfaction concerns one's satisfaction with one's job (Spector, 1997) and is often equated with higher levels of productivity from the workforce (Bako, 2014; Pushpakumari, 2008). Considering that adults spend about a third of their lives at work (World Health Organization, 1994), it is not surprising that job satisfaction affects life satisfaction (Judge, Bono, Erez, & Locke, 2005; Mafini & Dlodlo 2014). The reciprocal nature of these interactions means that life satisfaction also affects job satisfaction (Judge & Watanabe, 1993) and that life satisfaction may in fact be a stronger predictor of job performance (Erdogan, Bauer, Truxillo, & Mansfield, 2012).

There is still some debate on whether money affects life satisfaction and even in which way (Easterlin, 1974; Easterlin & Angelescu, 2009; Kahneman & Deaton, 2010; Sacks, Stevenson, & Wolfers, 2012). This being said, money clearly has a major impact on people's lives and research in many fields tries to explain why money plays such a paramount role in so many aspects of our lives. The availability of so much research shows that our understanding has come a long way since the simple practices of doubling pay to double performance (Business

Management Daily, 2006; Worstall, 2012). The link between job satisfaction and wages is well researched and wages are often seen as a predictor of job satisfaction (Carr & Mellizo, 2013; Mafini & Dlodlo, 2014; Schweitzer, Chianello, & Kothari, 2013).

It is interesting to note that discussions on satisfaction with wages seem to be absent when examining the relationships between wages, job- and life satisfaction. Wage satisfaction can be viewed as the discrepancy between the perceived wage one should receive and the actual wage (Weiner, 1980). From this definition, it is clear that both wage amount and expectations concerning one's wage are important. Research has determined that there are four dimensions to wage satisfaction, namely wage level, wage raise, benefits and wage administration or structure (Heneman III & Schwab, 1985; Judge, 1992, 1993). Lastly, wage satisfaction is related to job satisfaction (Schreurs, Guenter, van Emmerik, Notelaers, & Schumacher, 2015), and research has found that it is not the same construct as fairness (Scarpello & Carraher, 2008).

The second objective of this study was to investigate what relationship, if any, exists between wages and life satisfaction. Results indicated that no direct link existed between gross wages and life satisfaction. Contrary to many studies (Cheung & Lucas, 2015; Plagnol, 2011; Sacks, Stevenson, & Wolfers, 2010, 2012; Stevenson & Wolfers, 2013), a person is unlikely to be more satisfied with his/her life as a whole purely because of an increase in wages. Income undeniably plays a very important part in life; however, it does not seem to be the sole predictor of living a satisfied life.

Next this study aimed to examine the relationship between gross wages and job satisfaction. The results were quite surprising as no direct relationship was found between wages and job satisfaction. While wages are often considered to predict job satisfaction (Carr & Mellizo, 2013; Duffy, Autin, & Bott, 2015; Meyerding, 2015; Ross, Young, Sturts, Kim, & Ross, 2014), analysis reveals that an individual does not become more satisfied with his/her job as his/her gross wage rises. Research therefore acknowledges that wages are not the sole driver of job satisfaction (Mafini & Dlodlo, 2014).

In line with expectations, the next analysis revealed that wages are related to wage satisfaction. Previous research on this topic indicated that wage amount is a dimension of wage satisfaction (Heneman III & Schwab, 1985; Judge, 1992, 1993). Considering this interaction, wage satisfaction is likely to correspond with an increase in gross wages. Several studies indicate that one's expectations (Rojas & Veenhoven, 2013) and one's income - compared to others

(Caner, 2014) - affect one's satisfaction, both in one's job and beyond. If a person's expectation of his/her wages is not met and his/her wage compares poorly to others, it is conceivable that he/she would not be satisfied with his/her wage. The spillover effect indicates that one area in one's life may spill over and affect others. Would this be true for wage satisfaction?

To find out, this study determined what relationships exist between wage satisfaction, job satisfaction and life satisfaction. In line with expectations, relationships were found between job satisfaction and life satisfaction, wage satisfaction and life satisfaction as well as between wage satisfaction and job satisfaction. What was interesting, though, is that the strength of the interaction between these satisfaction variables was significantly stronger than the interaction found between wages and wage satisfaction. This indicates that changes in one satisfaction area may have a dramatic impact on the others.

The interrelatedness of the satisfaction variables also cast the lack of interaction between gross wages and job- and life satisfaction in a different light. This study fully recognises that wages play an important part in people's lives; however, it now seems likely that wages could impact job- and life satisfaction through wage satisfaction. An increase in wages would likely raise wage satisfaction; thereby contributing to an increase in job- and life satisfaction.

The strong interactions found between satisfaction variables are useful for organisations, consultants, non-profit organisations and even governments. This model clearly indicates that if one desires to raise one area of satisfaction, one can target any of the two related areas to achieve results. Naturally leveraging all three areas would increase the chances of a successful intervention. This study's results also indicate that what happens to an individual at work has far reaching consequences, even outside the workplace. For better or worse, how companies treat individuals can ultimately shape their lives in all areas.

3.2 Limitations of this Research

The dataset utilises convenience sampling and so it is not generalisable to the general population (Lund Research Ltd., 2012). Given the quantitative nature, one can clearly see what interactions took place between variables; however, one cannot determine why these interactions occurred. The interactions between some variables (life satisfaction, job satisfaction and wages) can be partly explained by referring to previous research. However, the

absence of research regarding the role of life satisfaction in the interaction between these variables makes a discussion of the results somewhat difficult. The role of fairness and equity in satisfaction evaluations was also not considered. In the current study, biographical information such as gender, age, and location was not considered; therefore, it is unclear if the specified model will stay consistent across different biographic groups.

3.3 Recommendations

3.3.1 Recommendations for Organisations

From the findings in this study, it seems that simply paying individuals more could compensate for poor working conditions. However, changes in one area of employment can significantly affect others. Employers therefore need to pay attention to factors in the workplace that can enhance employees' job satisfaction and wage satisfaction. However, this study also found that wage satisfaction and job satisfaction are linked to life satisfaction. Therefore, decisions taken in the work context could affect employees' satisfaction with their entire lives, not just their work.

It would seem then that the key to happier more productive employees is a balance between reasonable pay and the more "soft" practices aimed at enhancing job satisfaction. Reasonable pay will always be a matter of debate and it is not the aim of this study to determine what amount is fair or not; that being said, results indicate that paying individuals R 7 521.87 or more per month resulted in a 12.5% decrease in wage dissatisfaction. It is useful to note that as wage, job- and life satisfaction are so strongly related, changes affecting one area also affect the others. So, when organisations strive to enhance wage- and job satisfaction, thereby promoting happy and productive workers, they also contribute towards making people happier in general.

3.3.2 Recommendations for Future Research

Results indicate that a significant percentage of people remain highly dissatisfied with their wages even in a high wage category. It might be useful for future research to explore the reasons for wage dissatisfaction in South Africa. This study used subjective self-report indicators to measure life- and job satisfaction; although these can be treated as valid (Cheung & Lucas, 2014), future research may try to confirm the model with the inclusion of objective indicators such as predictors of job satisfaction or social indicators of life satisfaction. The absence of recent articles on wage satisfaction represents a significant gap in the literature; studies in this

area would be useful to better understand the interactions found in this study. The specified model could be tested across a longitudinal dataset to examine how contextual factors in a country's economy affect the interactions found. The model could also be tested with the inclusion of biographical data to determine if interactions remain consistent for different ages, genders, education levels etc. Lastly, it would be useful to examine whether the manner in which wages are structured has any effect on the interactions found in this study.

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ANNEXURES

Appendix A: Breakdown of Variable Categories

Table 1

Breakdown of Wage Categories

	Low wage category	Medium wage category	High wage category
Min	R 18.00	R 7 521.87	R 22 000.00
Max	R 7 519.00	R 21 949.00	R 749 000.00
Mean	R 4 724.76	R 13 676.45	R 55 425.55
Median	R 5 000.00	R 13 175.00	R 33 500.00
Mode	R 6 000.00	R 12 000.00	R 25 000.00
Frequency	557	1069	552
Range	R 7 501.00	R 1 427.13	R 727 000.00

Appendix B: Graphical Representation of Cross Tabulations

Job satisfaction by Wage satisfaction



Job satisfaction by Life satisfaction



Wage satisfaction by Life satisfaction



Gross wage by Wage satisfaction

