





Employee engagement, job satisfaction and decent work in the Zimbabwean gold mining sector



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Orientation: The mining industry is a high-risk industry with demanding work environment. Often times, it encounters a myriad of problems that include failure to retain top talent due to lack of job satisfaction. Productivity of the mining companies usually decrease due to these problems.

Research purpose: The study seeks to investigate the relationship between employee engagement, job satisfaction and decent work considering Kwekwe District as a case study.

Motivation for the study: There is limited research conducted on the link between employee engagement, job satisfaction and decent work, particularly in the mining sector.

Research approach/design and method: This study is quantitative in nature. Using the Minnesota Satisfaction Questionnaire, Decent Work Scale and Utrecht Work Engagement Scale, the data used were gathered directly from 253 miners in the gold mining environment. Structural equation modelling (SEM) was used to assess the relationship between employee engagement, job satisfaction and decent work and to test the structural model.

Main findings: The results of SEM show that employee engagement is positively linked to job satisfaction; decent work is positively connected to employee engagement; and decent work positively influences job satisfaction. Further, the study indicates that decent work fully moderates the relationship between employee engagement and job satisfaction.

Practical/managerial implications: The constructs of employee engagement, job satisfaction and decent work are significantly related. Human resource interventions are needed to deal with these constructs.

Contribution/value-add: This research contributes to the existing body of literature by revealing the relationship between employee engagement, job satisfaction and decent work.

Keywords: employee engagement; job satisfaction; decent work; structural equation modelling; Zimbabwe; gold mining sector.

Introduction

The Zimbabwean mining sector is arguably the driver of the Zimbabwean economy as revealed by its contribution to the country's gross domestic product (GDP). In 2023, it contributed 12% of the GDP and 80% of national exports (Chamber of Mines of Zimbabwe, 2023). Zimbabwe is blessed with more than 63 minerals, including gold, platinum, diamonds and lithium. The mining sector in Zimbabwe serves as a crucial foundation of the country's economic stability, fuelling economic growth and development, job creation, foreign currency earnings through exports, and effective resource management. Even though the mining industry in Zimbabwe has a significant economic impact, it is a high-risk industry. Accidents, which result in the injury and death of employees and destruction of the environment, infrastructure and property, are a big threat to its sustainability. Major causes of accidents include poor production environment and labour discipline or violation of operating rules (Luo et al., 2019; Yu et al., 2019; Zhang et al., 2020). Chen et al. (2020) and Ge et al. (2019) indicated that 97% of accidents in mines are because of unsafe behaviours of the miners.

The mining sector has a challenge of guarding against high labour turnover, which has precipitated the loss of revenue because of dwindling productivity. Its vitality and potential are intricately intertwined with, among other things, the levels of job satisfaction, employee engagement and decent work experienced by its workforce. These factors are vital aspects of sustainable human

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resource management (HRM) that can assist mining firms to deal with the diverse expectations and needs of prospective and current workers without harming long-term company prospects. Davidescu et al. (2020), Strenitzerová and Achimský (2019) and Lorincová et al. (2018) postulated that sustainable HRM may assist mining firms to entice and retain high-quality workers, enhance worker management and reduce unsafe behaviours to guarantee production safety. Retention of workers promotes firms' success, competitive advantage and longevity.

The satisfaction of employees within this sector holds considerable significance given job satisfaction's potential to profoundly impact various aspects of operational efficiency and overall outcomes in the sector. Job satisfaction is described as the degree of satisfaction that employees experience in their roles (Mashavira et al., 2023). It is the positive or favourable feeling resulting from one's evaluation of their job or job experiences. Essentially, job satisfaction is a panacea to goal attainment. The longevity of employees at an organisation hinges on them feeling valued. Hence, managers of firms should treat employees as valued assets of the firms. In essence, job satisfaction reflects the overall sense of fulfilment and contentment that employees derive from their jobs, encompassing various aspects such as job security (Hasan et al., 2021), compensation, workplace relationships and the broader work environment.

Employee engagement is described as an employee's commitment to and contentment with their work (Sapkota, 2021). In other words, it refers to the state in which individuals are emotionally and intellectually committed to the organisation. Engaged employees feel a sense of connection to their organisation and demonstrate high levels of enthusiasm for their work. Highly engaged employees demonstrate passion, a clear sense of purpose and a readiness to exceed expectations in their roles (Maleka et al., 2022). They demonstrate a genuine interest in their work and the success of the company, believing that their contributions have a meaningful impact (Hasan et al., 2021). This results in lower absenteeism and turnover rates, high levels of job satisfaction, enhanced well-being and health, additional extra-role behaviours, a superior demonstration of personal initiatives and greater performance, learning motivation and proactive behaviour (Schaufeli & Bakker, 2004). Employee engagement holds particular importance in the mining sector, especially as frontline workers typically exhibit resistance to organisational changes (Dziuba et al., 2020). Organisations that prioritise engagement by providing supportive structures, tools and resources empower employees to feel fulfilled and motivated to contribute to company success. When employees perceive their organisations as supportive, they reciprocate by demonstrating positive attitudes towards their work and the organisation (Bahadır et al., 2024; Park & Kim, 2024; Tsachouridi & Nikandrou, 2018).

Duffy et al. (2016) postulated that, according to the psychology of working theory (PWT), decent work can permit people to get

job satisfaction through need satisfaction. Basically, PWT highlights the significance of decent work for all working adults and elucidates how people can get a sense of attainment and contentment through decent work (Duffy et al., 2016). When people are participating in decent work, they can get decent pay and develop good relations with others in the workplace (Wan & Duffy, 2022). As social connection needs and survival needs are met, individuals witness greater job satisfaction and lesser job burnout (Duffy et al., 2017). Wang et al. (2019) implemented PWT and revealed that decent work can adversely affect employees' turnover intention, and Buyukgoze-Kavas and Autin (2019) discovered that decent work can adversely forecast employees' withdrawal intentions. Interestingly, Kaan Namal et al. (2024) postulated that decent work augments social protection (SP), decreases inequalities and augments people's purchasing power, thereby resulting in economic sustainability. Given its significance, the United Nations has nominated decent employment as one of its sustainable development goals in 2019 (Kaan Namal et al., 2024).

Even though employee engagement, job satisfaction and decent work are vital aspects of sustainable HRM, there is no research conducted on the link between employee engagement, job satisfaction and decent work considering the mining sector. Further, the moderating role of decent work on the relationship between employee engagement and job satisfaction is yet to be examined. Given that mining employees in Zimbabwe are associated with lower organisational loyalty and higher turnover (Chamber of Mines of Zimbabwe, 2023), it is of vital importance to analyse the association between employee engagement, job satisfaction and decent work.

The mining sector in Zimbabwe has undergone notable transformations in recent years, driven by technological advancements, corporate consolidations and endeavours to secure existing markets and explore new opportunities (Mining Industry Survey Report, 2023). These changes have had a significant impact on frontline workers, who often have limited influence over the evolution of their work environment. Consequently, many employees harbour concerns about their future prospects.

This study is structured as follows. Section 'Literature review and hypotheses development' presents literature review and hypotheses development. The method adopted in this study is outlined in the section 'Method'. The 'Results' section presents the results and the 'Discussion' section discusses the results. Section 'Conclusions' concludes the study.

Literature review and hypotheses development

Theoretical framework

Psychology of working theory

Initially proposed by Duffy et al. (2016), the PWT complements the existing vocational theories by stressing the role of privilege social class and freedom of choice in career

selection and fulfilment. Notably, the theory, which is aptly rooted in the tenet of decent work, intends to establish a work environment where all individuals are treated with dignity and respect despite their disadvantaged backgrounds and/or being portrayed marginalised citizens. The central tenets of the PWT align with counselling psychology's emphasis on social justice, multiculturalism and intersectionality, offering a comprehensive perspective on work that transcends privilege and identity statuses (Allan et al., 2020; Blustein et al., 2023; Duffy et al., 2016). Recognising the significance of work in individuals' lives has long been a focal point of counselling psychology (Pereira et al., 2019). The PWT sheds light on how marginalisation and discrimination may affect employee career development process (Allan et al., 2021). The PWT posits that sociocultural factors should be prioritised in understanding the career decisions and work experiences of employees across different backgrounds within a specific sector. It is essential to recognise that the career development movement revolves around individuals' levels of autonomy in their work-related decisions, with an emphasis on practices that gradually empower those with greater degrees of volition and privilege.

Justification of using psychology of work theory

The PWT seeks to understand the diverse work experiences of individuals (Brill, 2021; Duffy et al., 2016). It puts decent work based on experiences of marginalisation and discrimination, at the helm of overall employee well-being and workplace satisfaction (Buyukgoze-Kavas & Autin, 2019). In the context of the Zimbabwean mining sector, where high labour turnover is a concern (Mining Industry Survey Report, 2023), embracing the principles of decent work outlined in the PWT can be instrumental. On an individual level, understanding the psychological needs met through one's work can guide better life decisions (Baranik et al., 2022). With automation altering job landscapes, it becomes crucial to comprehend how work psychologically benefits individuals. For employees in the Zimbabwean mining sector, familiarity with the PWT can provide insights into what constitutes 'good' work and its benefits. Psychology of working theory serves as the conceptual backdrop for devising intervention strategies in a bid to promote the adaptive choices among the personnel in the Zimbabwe's mining environment.

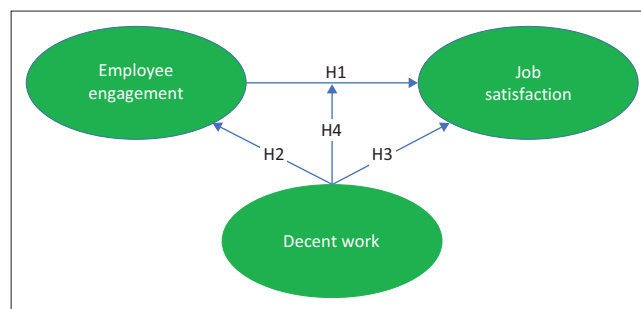
Conceptual framework

Figure 1 outlines a conceptual framework, which links variables in a series of structural relationships.

Hypotheses development

Employee engagement and job satisfaction

Employee engagement involves a long-term emotional connection and serves as a precursor to more short-term aspects of employee sentiment, such as job satisfaction and commitment (Hermawan et al., 2020). Engaged employees are more likely to be satisfied and motivated, which in turn contributes to retaining top talent and providing a competitive



H, hypothesis.

FIGURE 1: Conceptual framework.

advantage to the organisation. It is often considered a component of employee retention, which ultimately leads to job satisfaction. Basically, employee engagement positively influences job satisfaction (Antoniou et al., 2024; Ibrahim & Hussein, 2024; Côté et al., 2021; Orgambidez-Ramos & de Almeida, 2017). Based on the literature reviewed, the following hypothesis is proposed:

H1: Employee engagement is positively associated with job satisfaction.

Decent work and employee engagement

Decent work and employee engagement share a direct relationship (BowenXue et al., 2024; Kaan Namal et al., 2024). In a sample of physicians, Ferraro et al. (2020) discovered a positive connection between decent work and work engagement. Graça et al. (2021) suggested that greater levels of work engagement may be attained via investment in the formation and upkeep of decent work. Also, BowenXue et al. (2024) revealed a positive correlation between decent work and work engagement. Further, McIlveen et al. (2021) postulated that decent work has a positive relationship with job satisfaction and work engagement and negative association with withdrawal intentions. Thus, the following hypothesis is designed:

H2: Decent work is positively associated with employee engagement.

Decent work and job satisfaction

It is important to note that through decent work, there is job satisfaction, as better prospects for personal development and social integration are created (Seubert et al., 2021). The freedom of expression for the employees and the ability to organise and participate in the decisions that affect their lives engender job satisfaction. Properly prioritising both work and lifestyle creates conditions conducive to job satisfaction. Allan et al. (2020) found positive correlations between decent work balance and job satisfaction. McIlveen et al. (2021) exposed that decent work has a positive relationship with job satisfaction and work engagement and a negative connection with withdrawal intentions. The findings of McIlveen et al. (2021) are mostly coherent with views of PWT, which presumes decent work as a spring of need satisfaction, work fulfilment and well-being. If the survival needs and social connection needs are achieved, employees witness greater job satisfaction and lower job burnout (Duffy et al., 2017).

Atitsogbe et al. (2021) and Duffy et al. (2016) are some of the authors who propounded that job satisfaction is positively connected to decent work. From the reviewed literature, the following hypothesis is proposed:

H3: Decent work is positively associated with job satisfaction.

Decent work moderates the relationship between employee engagement and job satisfaction

The existing literature has indicated that decent work has positive connections with job satisfaction and work engagement (McIlveen et al., 2021). Kaan Namal et al. (2024) indicate that decent work, which is a multifaceted discipline, hinges on the provision of human dignity and equity and hence creates a fertile ground for job satisfaction and employee engagement. However, it should be noted that there is a lack of specific studies on the moderation effect of decent work on the relationship between employee engagement and job satisfaction, particularly within the mining sector. Based on the literature aforementioned, the following hypothesis has been formulated:

H4: Decent work moderates the relationship between employee engagement and job satisfaction.

Method

Positivism research philosophy

This research philosophy affirms that reliable knowledge can be solely acquired through empirical observation and measurement. Marshal et al. (2021) state that positivism relies on the 'hypothetico-deductive' method to test predefined hypotheses, often quantitatively, establishing functional relationships between causal (independent) variables and outcomes (dependent variables), as noted by Horton et al. (2022). The primary aim of positivist research is to uncover explanatory associations or causal connections that facilitate prediction and control of the phenomena under study. This concept of truth is defined by certainty, congruence with reality, and accuracy. Positivists advocate for a complete separation between researchers and participants to ensure the objective development of knowledge, operating within the frameworks of dualism and objectivity, as described by Amini et al. (2022). This separation is achieved by adhering to rigorous protocols to minimise bias, as proposed by Creswell (2018). Positivism emphasises objectivity, downplaying the significance of individuals' subjective experiences and values, whether those of participants or researchers, a viewpoint that is deemed irrelevant within positivist thought.

Quantitative research approach

The quantitative research method involves an approach that uses numerical or statistical techniques in research design (Saunders et al., 2018). This means that data collected through questionnaires can be presented using graphs and charts to interpret the gathered information. Research design is defined as the structured framework within which a study is conducted (Evan, 2020). It refers to a plan that guides researchers in addressing the questions raised by the research

problem. Many scholars, including Kothari (2018), describe research design as a blueprint or plan that forms the basis of the entire study. The quantitative research design forms the foundation of the entire research endeavour.

Creswell (2018) argued that quantitative research is a robust method for gathering empirical data on a specific topic. This approach allows for standardised data collection and analysis, facilitating comparison of results across different studies. According to Kothari (2018), standardised data collection protocols and clear definitions of abstract concepts enable study replication. Quantitative research fundamentally contributes to a broad understanding of behaviour and other phenomena across various settings and populations, characterised by its speed, focus, scientific rigour and relevance.

Explanatory – Case study research design

It entails an intensive, systematic investigation of a community in which the researcher examines in-depth data relating to several variables (Bhangu et al., 2023). The 'explanatory – case study research design' leads to better conclusions as the researcher would have gained insights into a certain subject. Thus, a great understanding of the subject allowed the researchers to hone subsequent research questions and can greatly increase the usefulness of study conclusions. This research design is a yardstick for measuring the validity of assertions from participants as it seeks to determine how and why things happen. The design is also straightforward and hence it was easy to implement because the steps fall into clear, separate stages.

Research population and research sample

The researchers derived the target population in the mining sector in Kwekwe District of Zimbabwe. The target population consisted of 2500 employees in gold mineral sector along the Great Dyke in the Midlands province of Zimbabwe. The sample of 270 participants was conveniently selected. Our sample consisted of miners from different gold mines in Kwekwe District, Zimbabwe. Kwekwe District is found in the Midlands province, in central Zimbabwe. The mines were chosen because they lie across the Great Dyke.

Convenience sampling technique

This study utilised convenience sampling, which is a non-probability sampling method where participants are chosen based on their easy accessibility (Othman et al., 2021). Convenience sampling is commonly used in clinical and qualitative research, selecting participants who are readily available in specific locations like hospitals, medical records databases (Saunders et al., 2018), online platforms or customer lists. In qualitative research, participation often depends on individuals' motivation, driven by interest in the research topic, a desire to express opinions, or support specific viewpoints (Makofane & Shirindi, 2018). This method is favoured when researchers have limited time and resources to collect data. Participants are included in the sample based

on their proximity, availability or willingness to participate in the study.

Several benefits make convenience sampling an attractive option for researchers. Firstly, it is budget-friendly (Dawadi et al., 2021). This method allows for cost-effective data collection because minimal effort is required to set up. Researchers can gather data through online surveys shared on social media, questions posed in public settings (Marshall et al., 2021), or even online polls. Compared to other methods, convenience sampling offers a highly affordable way to gather information. Secondly, convenience sampling is ideal for pilot testing (Munce et al., 2021). Sometimes referred to as accidental, opportunity or grab sampling, this method involves collecting data from the easiest people to reach.

Data collection

Online questionnaires were designed in this examination and they were forwarded to respondents via email and WhatsApp. The respondents were given a period of 2 months to complete the questionnaire, in essence, September and October of 2023. In sum, 150 underground miners, 100 surface miners and 20 surface managers were chosen to participate in the study as our sample. Thus, a total of 270 questionnaires were distributed during that 2-month period, of which 253 questionnaires were gathered, giving us a response rate of 93.70%. After eliminating invalid and incomplete questionnaires, 247 remained for data analysis, giving us an effective response rate of 91.48%. The valid responses were from mostly males (82.19%). Female responses contributed 17.81% of the total valid responses. Most of the respondents (74.09%) fell within the 30–39 years age group and most of the respondents (76.11%) had 5–10 years working experience in their recent corporation. In terms of qualifications, most of the participants had certificates (54.94%).

Procedure

To participate in this study, respondents were required to be currently employed (and subsequently paid for their work) as miners in one of the mining companies and to have at least 12 months of working experience. We contacted the respondents through their HR departments. Recruitment was done by personally talking to the miners, indicating to them the main aim of the study. The miners were asked to sign the informed consent letter before completing the questionnaire if interested in participating in the study. Researchers informed the respondents that their responses are anonymous and confidential and they will be used for academic purposes only. Thus, they were advised not to write their names on the questionnaires. This improved the accuracy of the research results. Respondents were informed that participation in the study was voluntary and that they could halt the survey at any given time if preferred. All procedures performed in this study involving human participants were in accordance with the ethical standards of the institutional research committee. All methods were executed in agreement with applicable regulations and guidelines.

Instruments

Job satisfaction

In this study, job satisfaction was assessed using the Measurement Scale developed by Weiss, Kalleberg and other researchers at the University of Minnesota in the 1960s, known as the Minnesota Satisfaction Questionnaire (MSQ). It is designed to gauge an employee's satisfaction with his or her job and provides detailed insights into specific aspects of job satisfaction. The MSQ exists in three versions: two long forms (the 1977 version and the 1967 version) and a short form. Although the scale originally comprised 20 items, the researcher adapted it for relevance to the study, reducing it to 15 items deemed most useful. The focus of this scale was to identify factors that contribute to job satisfaction among employees. The validity of the scale was supported by previous studies (see, for instance, Abuhashesh et al., 2019; Dziuba et al., 2020), which affirmed its high reliability, stability and construct validity. In this research, Cronbach's alpha (CA) coefficients ranged from 0.90 to 0.89, indicating strong internal consistency. Also, the talent management aspect of the scale also showed high internal consistency with a CA of 0.878.

Decent work

In this study, decent work was assessed using the Decent Work Scale developed by Duffy et al. (2016), comprising a 15-item scale with 5 factors and/or subscales corresponding to the 5 components of decent work. One item was removed because of redundancy with other variables. This scale focuses on rights at work (RW), SP, social dialogue (SD) and employment creation (EC). The researchers relied on reviews and previous research (see, for example, Duffy et al., 2016) to support the validity of the scale. Further, several studies (see, for instance, Allan et al., 2020; Blustein et al., 2023) confirmed the high reliability, stability and construct validity of the decent work scale.

Employee engagement

Job engagement was examined using the most commonly implemented instrument for this aim, the Utrecht Work Engagement Scale (UWES). The UWES is structured into three subsections: vigour (V) (with six items), dedication (D) (with five items) and absorption (A) (with six items) each rated on a 5-point frequency scale. Conceptually, the response choices are on a 7-point Likert scale from 0 = 'Never' to 6 = 'Always/Every day'. The initial scale indicated good internal consistency, with CA values greater than 0.90 (Schaufeli et al., 2002b). The UWES was validated in several countries (see, for instance, Machado et al., 2014; Schaufeli et al., 2002a).

Plan for data analysis

The main aim of this study is to analyse the relationship between three job characteristics constructs, namely employee engagement, job satisfaction and decent work. In this analysis, we use Smart partial least squares (PLS) software and adopted the PLS path modelling approach to estimate our structural equation model. Statistical Package

for the Social Sciences (SPSS) 28.0 and Microsoft Excel were also used. Partial least squares structural equation modelling (PLS-SEM) was adopted because of its great efficiency in parameter approximation (Andrade, 2021). The direct influence was analysed by path analysis in the context of the structural model test, and the moderating influence was examined as well. Several metrics were used to assess the reliability (i.e. CA and CR [composite reliability]), validity (i.e. average extracted variance) of the results, and goodness-of-fit of the model.

Ethical considerations

Ethical clearance to conduct this study was obtained from the Great Zimbabwe University, School Research Committee (reference number: 08/08/2023).

Results

The results of the study are presented in this section.

Measurement model testing

Ensuring the internal consistency of the constructs utilised in this study is crucial for upholding the reliability and validity of the research instruments. The results of assessments for CA, CR and average variance extracted (AVE) are presented in Table 1. These results yield significant insights into the data quality, enabling researchers to derive valid conclusions from the findings.

In Table 1, the internal consistency of the study's constructs is affirmed, as indicated by CA and CR values surpassing the recommended threshold of 0.70 (Hair et al., 2010). That is to say, the data show good reliability. We assessed convergent validity according to AVE values. As AVE values exceed the prescribed 0.5 thresholds (Fornell & Larcker, 1981; Hair et al., 2010; Nunnally, 1994), the data indicate good convergent validity. Strengthening the model's dependability involved removing measurement items with factor loadings below 0.70.

To ascertain discriminant validity, the Fronell-Larcker criterion was applied, and the findings are detailed in Table 2.

TABLE 1: Reliability and convergent validity.

Variable	CA	CR	AVE
A	0.883	0.928	0.811
D	0.905	0.934	0.779
DW	0.975	0.977	0.702
EC	0.904	0.929	0.723
EE	0.960	0.965	0.696
JS	0.947	0.955	0.680
RW	0.950	0.960	0.799
SD	0.918	0.936	0.710
SP	0.939	0.950	0.732
V	0.926	0.943	0.734

A, absorption; AVE, average variance extracted; CA, Cronbach's alpha; CR, composite reliability; D, dedication; DW, decent work; EC, employment creation; EE, employee engagement; JS, job satisfaction; RW, rights at work; SD, social dialogue; SP, social protection; V, vigour.

Table 2 shows substantive proof that discriminant validity has been fulfilled as the square roots of AVE exceed the correlation coefficients between constructs implemented in this examination (Wan & Duffy, 2022). This compelling observation affirms the unique nature of the measurement constructs, ensuring they capture distinct underlying aspects. Correlations for the variables adopted in this assessment are also outlined in Table 2. Decent work was positively associated with job satisfaction ($r = 0.621$) and employee engagement ($r = 0.819$). Employee engagement showed a positive relationship with job satisfaction ($r = 0.810$). Therefore, the correlations indicated introductory support for the designed hypotheses.

To fortify the argument for discriminant validity, the study has also incorporated the heterotrait-monotrait ratio of correlations (HTMT) technique, the outcomes of which are detailed in Table 3.

As indicated in Table 3, the HTMT ratios consistently remain below the recommended threshold of 0.9, indicating strong discriminant validity. This outcome emphasises the reliability and validity of the measurement model used.

Table 4 presents the results of the variance inflation factor (VIF) analysis conducted in the study to check the existence of multicollinearity.

Table 4 presents VIF values for all latent variables in the model. High VIF values pose a risk of biased estimates and unreliable outcomes. However, the results in Table 4 reveal that all VIF values comfortably stay well below the suggested threshold of 3.3, as Hair et al. (2011) recommended. This reassures that multicollinearity is not a notable concern in the study's data, fortifying the model's reliability and boosting the validity of research outcomes.

Goodness-of-fit measures

To assess the goodness-of-fit of the designed model, the normed fit index (NFI) and standardised root mean square residual (SRMR) were used (see Table 5).

TABLE 2: Correlation coefficient matrix and discriminant validity.

Variable	A	D	DW	EC	EE	JS	RW	SD	SP	V
A	0.900	-	-	-	-	-	-	-	-	-
D	0.873	0.883	-	-	-	-	-	-	-	-
DW	0.811	0.864	0.838	-	-	-	-	-	-	-
EC	0.634	0.749	0.679	0.850	-	-	-	-	-	-
EE	0.812	0.844	0.819	0.811	0.834	-	-	-	-	-
JS	0.817	0.807	0.621	0.784	0.810	0.825	-	-	-	-
RW	0.815	0.795	0.813	0.816	0.825	0.811	0.894	-	-	-
SD	0.878	0.874	0.738	0.821	0.820	0.819	0.835	0.842	-	-
SP	0.874	0.850	0.787	0.768	0.708	0.726	0.736	0.709	0.855	-
V	0.858	0.843	0.835	0.816	0.851	0.787	0.808	0.817	0.761	0.857

The number in bold is the square root of AVE.

A, absorption; D, dedication; DW, decent work; EC, employment creation; EE, employee engagement; JS, job satisfaction; RW, rights at work; SD, social dialogue; SP, social protection; V, vigour.

The model's acceptability is underscored by the SRMR value of 0.076, which is below the recommended threshold of 0.08 (Goretzko et al., 2024), indicating a solid fit. Moreover, the NFI value of 0.907 exceeds the suggested 0.90 threshold, affirming a robust model fit to the data. These findings collectively indicate that the proposed model effectively captures the relationships among the variables in the study.

Structural equation model and hypotheses testing

The hypothesised associations in the conceptual framework were assessed using a structural equation model. Table 6 outlines the path coefficients, computed according to the associations.

The path analysis results reveal a statistically significant positive correlation between employee engagement and job satisfaction ($\beta = 0.312, p < 0.001$). Also, the analysis identified a significant positive relationship between decent work and employee engagement ($\beta = 0.919, p < 0.001$). Further, the analysis revealed a significant positive impact of decent work on job satisfaction ($\beta = 0.456, p < 0.001$).

In this study, we employed a bootstrapping procedure with 5000 samples to assess the significance of both direct and indirect moderating effects of decent work on the relationship between employee engagement and job satisfaction. Table 7 shows the results of the moderating effects of decent work on the relationship between employee engagement and job satisfaction.

In Table 7, we see that the moderating effect of decent work on the positive relationship between employee engagement

TABLE 3: Heterotrait-monotrait discriminant validity.

Variable	A	D	DW	EC	EE	JS	RW	SD	SP	V
A	-	-	-	-	-	-	-	-	-	-
D	0.877	-	-	-	-	-	-	-	-	-
DW	0.851	0.822	-	-	-	-	-	-	-	-
EC	0.859	0.838	0.832	-	-	-	-	-	-	-
EE	0.830	0.812	0.851	0.871	-	-	-	-	-	-
JS	0.858	0.811	0.854	0.846	0.850	-	-	-	-	-
RW	0.891	0.859	0.800	0.879	0.891	0.872	-	-	-	-
SD	0.876	0.859	0.891	0.861	0.880	0.880	0.893	-	-	-
SP	0.861	0.824	0.831	0.835	0.857	0.878	0.889	0.878	-	-
V	0.848	0.819	0.820	0.875	0.810	0.826	0.862	0.851	0.823	-

A, absorption; D, dedication; DW, decent work; EC, employment creation; EE, Employee engagement; JS, job satisfaction; RW, rights at work; SD, social dialogue; SP, social protection; V, vigour.

TABLE 4: Variance inflation factor results.

Variable	A	D	V	EC	SP	RW	SD
VIF	2.64	2.87	3.15	3.13	2.57	2.29	3.02

A, absorption; D, dedication; EC, employment creation; RW, rights at work; SD, social dialogue; SP, social protection; V, vigour; VIF, variance inflation factor.

TABLE 5: Goodness-of-fit results.

SRMR	NFI
0.076	0.907

SRMR, standardised root mean square residual; NFI, normed fit index.

and job satisfaction was significant ($\beta = -0.123, p = 0.008$). Given the earlier findings, Table 8 outlines decisions regarding the designed hypotheses.

Figure 2 offers a comprehensive visual depiction of the fitted model, displaying both coefficients and factor loadings. This visual representation provides an overview of the relationships among latent variables, observed indicators and their corresponding path coefficients, elucidating the strength and direction of associations between constructs. Examining Figure 2 allows researchers to glean insights into the overall structural dynamics of the model and the intricate interactions among its components.

Interestingly, the findings reveal that employee engagement and decent work collectively account for 88.3% of the overall variability in job satisfaction.

Discussion

This study aimed to assess the association between three job characteristics constructs, namely employee engagement, job satisfaction and decent work. We observed that there is a positive link between employee engagement and job satisfaction. That is to say, employee engagement positively promotes job satisfaction. Engaging employees involves enhancing their working conditions to maximise their potential. Employee engagement also facilitates personal development and social integration by aligning employees' values with the organisation's goals (Ababneh, 2023). Management can implement various employee engagement strategies, such as fostering a positive work environment, to ensure that employees are well-motivated and can achieve set targets. Martinez et al. (2021) articulated that engaged employees are typically motivated, which contributes to job satisfaction. Engaging employees is crucial for a firm's long-term success, as job satisfaction leads to increased productivity, higher customer satisfaction and improved employee retention. Abraham (2012) postulated that the

TABLE 6: Path analysis results.

Relationship	Coefficient (β)	T statistic	p
EE \rightarrow JS	0.312	3.65	< 0.001
DW \rightarrow EE	0.919	42.66	< 0.001
DW \rightarrow JS	0.456	5.10	< 0.001

EE, employee engagement; JS, job satisfaction; DW, decent work.

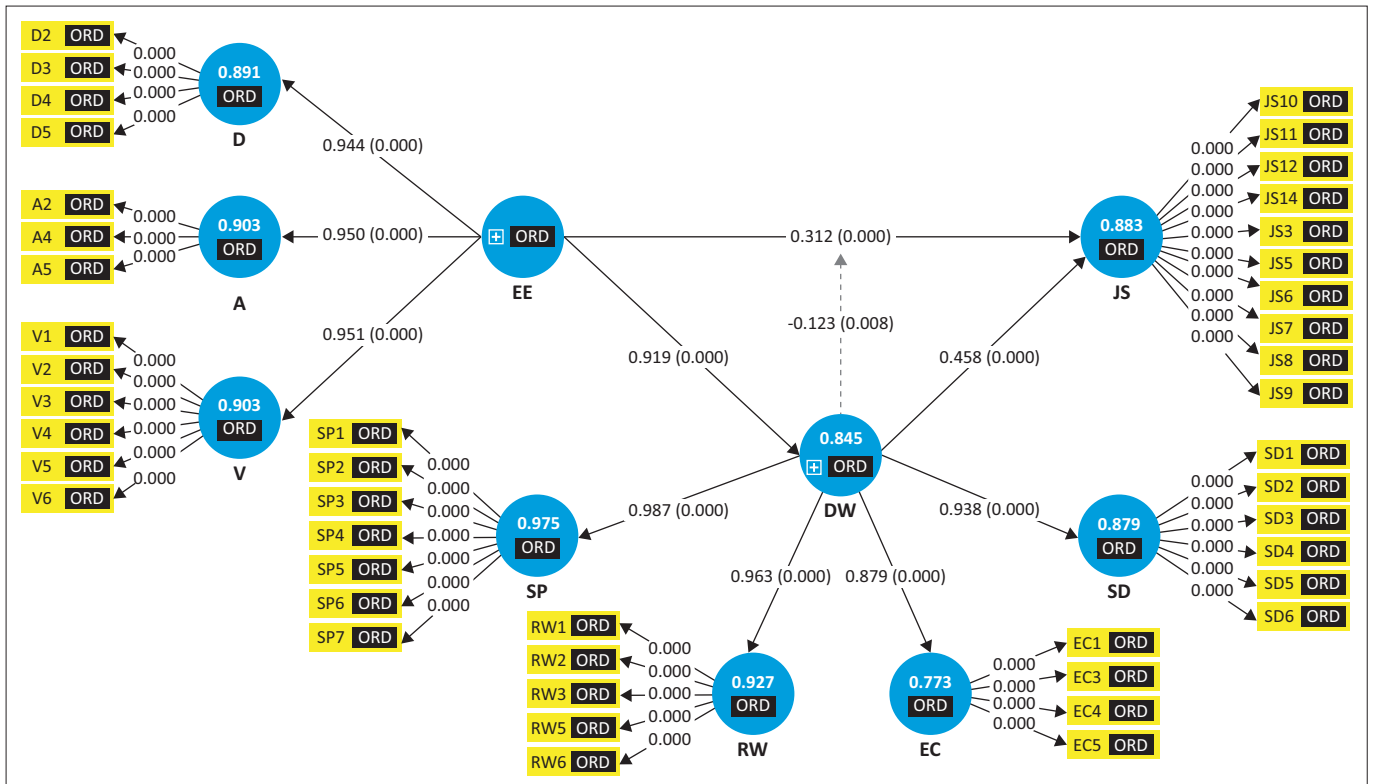
TABLE 7: Moderation effects.

Relationship	Coefficient			95% CI (bias-corrected)	
	Beta	T	p	2.50%	97.50%
DW \rightarrow EE \rightarrow JS	-0.123	2.66	0.008	-0.209	-0.023

EE, employee engagement; JS, job satisfaction; DW, decent work.

TABLE 8: Hypotheses decisions.

Hypothesis	Decision
H1: Employee engagement is positively associated with job satisfaction.	Supported
H2: Decent work is positively associated with employee engagement.	Supported
H3: Decent work is positively associated with job satisfaction.	Supported
H4: Decent work serves as a moderator in the positive relationship between employee engagement and job satisfaction.	Supported



A, absorption; D, dedication; DW, decent work; EC, employment creation; EE, employee engagement; JS, job satisfaction; RW, rights at work; SD, social dialogue; SP, social protection; V, vigour; ORD, ordinal data.

FIGURE 2: Structural equation model.

association between employee engagement and job satisfaction is positive. Hermawan et al. (2020) is some of the authors who have indicated that employee engagement positively influences job satisfaction.

Study results indicated that there is a positive relationship between decent work and employee engagement. The concept of decent work recognises work not only as a means of income but also as a source of personal dignity, family stability, community peace and economic growth that fosters opportunities for productive employment (De Carlo et al., 2020). Using a sample of physicians, Ferraro et al. (2020) revealed that decent work promotes work engagement. Graça et al. (2021) revealed that decent work facets positively forecast work engagement in all its three facets (D, V and A). BowenXue et al. (2024), McIlveen et al. (2021), Ferraro et al. (2020) and Ferraro et al. (2018) are some of the sources that support the notion that decent work and work engagement are positively related.

We discovered that there is a positive association between decent work and job satisfaction. The PWT postulates that decent work positively relates to job satisfaction and well-being, which has important inferences for organisational and individual outcomes (Kaan Namal et al., 2024). Decent work improves SP, diminishes inequalities and upsurges people's purchasing power (Kaan Namal et al., 2024). Also, the possibility of people witnessing a gist of fulfilment and value in their particular professions is amplified when they are exposed to equitable treatment, given opportunities for

professional and personal development, and function within a conducive and secure work setting (ILO, 1999). In support of our finding, Kaan Namal et al. (2024) discovered a substantial positive impact of decent work on job satisfaction in Turkiye's IT sector employment agency. Buyukgoze-Kavas and Autin (2019) discovered a positive association between decent work and job satisfaction in Turkiye. Among other sources, Atitsogbe et al. (2021), McIlveen et al. (2021), Seubert et al. (2021), Allan et al. (2020), Ribeiro et al. (2019) and Duffy et al. (2016) are some of the authors that propounded that job satisfaction is positively connected to decent work.

The results of this study revealed that decent work fully moderates the relationship between employee engagement and job satisfaction. That is to say, decent work has a direct and positive effect on the relationship between employee engagement and job satisfaction. This was not surprising because we have discovered that employee engagement positively promotes job satisfaction, there is a positive relationship between decent work and employee engagement, and there is a positive association between decent work and job satisfaction.

Conclusions

Using SEM, the study examined the relationship between three job characteristics constructs, namely employee engagement, job satisfaction and decent work considering Kwekwe District as a case study. Using the MSQ, Decent

Work Scale and UWES, the data used were gathered directly from 253 miners in the gold mining environment. The results of the study show that employee engagement is positively linked to job satisfaction; decent work is positively connected to employee engagement; and decent work positively influences job satisfaction. Further, the study indicates that decent work fully moderates the relationship between employee engagement and job satisfaction. This indicates that the constructs of employee engagement, job satisfaction and decent work are significantly related. Therefore, human resource interventions are needed to deal with these constructs. Mining firms are encouraged to prioritise decent work in their workplaces, particularly in today's environment where attracting top talent is challenging. Also, mining firms should integrate decent work practices into their organisational cultures. Further, mining firms should employ various employee engagement and job satisfaction strategies to achieve organisational targets.

Even though this analysis produced interesting results, some matters exist for the extension of this study. The findings of this study are specific to the mining sector, focusing primarily on Kwekwe District, and may not be generalised to other sectors of the economy. Future research should aim to develop a structural explanatory model for the broader Zimbabwean mining industry to promote the generalisability of the results beyond the Midlands province. In addition to employee engagement, job satisfaction and decent work, subsequent studies could incorporate more factors like training and development and work–life balance in such a study.

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Competing interests

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Authors' contributions

T.M., N.M., M.C. and F.R.M. contributed equally to this work.

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Data availability

Data are available from the corresponding author, F.R.M, upon reasonable request.

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References

- Ababneh, O.M.A. (2023). Team engagement for boosting team innovative behaviour in small and medium enterprises: An integrating framework of attitudinal and trait-related determinants. *The International Journal of Entrepreneurship and Innovation*, 1–16. <https://doi.org/10.1177/14657503231156876>
- Abraham, S. (2012). Job satisfaction as an antecedent to employee engagement. *SIES Journal of Management*, 8, 27–36.
- Abuhashesh, M., Al-Dmour, R., & Masa'deh, R. (2019). Factors that affect employees job satisfaction and performance to increase customers' satisfactions. *Journal of Human Resources Management Research*, 2019(2019), 354277. <https://doi.org/10.5171/2019.354277>
- Allan, B.A., Autin, K.L., & Wilkins-Yel, K.G. (2021). Precarious work in the 21st century: A psychological perspective. *Journal of Vocational Behavior*, 126, 103491. <https://doi.org/10.1016/j.jvb.2020.103491>
- Allan, B.A., Autin, K.L., Duffy, R.D., & Sterling, H.M. (2020). Decent and meaningful work: A longitudinal study. *Journal of Counseling Psychology*, 67(6), 669–679. <https://doi.org/10.1037/cou0000432>
- Amini, R., Shahboulaghi, F.M., Tabrizi, K.N., & Forouzan, A.S. (2022). Social participation among Iranian community-dwelling older adults: A grounded theory study. *Journal of Family Medicine and Primary Care*, 11(6), 2311–2319. https://doi.org/10.4103/jfmpc.jfmpc_1775_21
- Andrade, C. (2021). The limitations of quasi-experimental studies, and methods for data analysis when a quasi-experimental research design is unavoidable. *Indian Journal of Psychological Medicine*, 43(5), 451–452. <https://doi.org/10.1177/02537176211034707>
- Antoniou, A.S., Pavlidou, K., Charitaki, G., & Alevriadou, A. (2024). Profiles of teachers' work engagement in special education: The impact of burnout and job satisfaction. *International Journal of Disability, Development and Education*, 71(4), 650–667. <https://doi.org/10.1080/1034912X.2022.2144810>
- Atitsogbe, K.A., Kossi, E.Y., Pari, P., & Rossier, J. (2021). Decent work in sub-Saharan Africa: An application of psychology of working theory in a sample of Togolese primary school teachers. *Journal of Career Assessment*, 29(1), 36–53. <https://doi.org/10.1177/1069072720928255>
- Bahadır, F., Yeşiltaş, M., Sesen, H., & Olaleye, B.R. (2024). The relation between perceived organizational support and employee satisfaction: The role of relational psychological contract and reciprocity ideology. *Kybernetes*, 53(1), 102–122. <https://doi.org/10.1108/K-04-2022-0520>
- Baranik, L.E., Wright, N., & Smith, R.W. (2022). Desired and obtained work values across 37 countries: A psychology of working theory perspective. *International Journal of Manpower*, 43(6), 1338–1351. <https://doi.org/10.1108/IJM-12-2020-0555>
- Bhangu, S., Provost, F., & Caduff, C. (2023). Introduction to qualitative research methods – Part I. *Perspectives in Clinical Research*, 14(1), 39–42. https://doi.org/10.4103/picr.picr_253_22
- Blustein, D.L., Lysova, E.I., & Duffy, R.D. (2023). Understanding decent work and meaningful work. *Annual Review of Organizational Psychology and Organizational Behavior*, 10(1), 289–314. <https://doi.org/10.1146/annurev-orgpsych-031921-024847>
- BowenXue, Feng, Y., Zhao, Y., Li, X., Yang, Y., Zhang, J., Zhang, Y., Hu, Z., & Luo, H. (2024). Decent work, work engagement, and turnover intention among registered nurses: A cross-sectional study. *BMC Nursing*, 23(1), 31. <https://doi.org/10.1186/s12912-023-01662-6>
- Brill, L. (2021). What is decent work? A review of the literature. In F. Christie, M. Antoniadou, K. Albertson, & M. Crowder (Eds.), *Decent work: Opportunities and challenges* (pp. 11–26). Emerald Publishing.
- Buyukgoze-Kavas, A., & Autin, K.L. (2019). Decent work in Turkey: Context, conceptualization, and assessment. *Journal of Vocational Behavior*, 112, 64–76. <https://doi.org/10.1016/j.jvb.2019.01.006>
- Chamber of Mines of Zimbabwe. (2023). *State of the mining industry survey report*. Government of Zimbabwe.
- Chen, S., Xu, K., Zheng, X., Li, J., Fan, B., Yao, X., & Li, Z. (2020). Linear and nonlinear analyses of normal and fatigue heart rate variability signals for miners in high-altitude and cold areas. *Computer Methods and Programs in Biomedicine*, 196, 105667. <https://doi.org/10.1016/j.cmpb.2020.105667>
- Côté, K., Lauzier, M., & Stinglhamber, F. (2021). The relationship between presenteeism and job satisfaction: A mediated moderation model using work engagement and perceived organizational support. *European Management Journal*, 39(2), 270–278. <https://doi.org/10.1016/j.emj.2020.09.001>
- Creswell, J.W. (2018). *Qualitative inquiry and research design: Choosing among five traditions*. Sage Publications.
- Davidescu, A.A., Apostu, S.A., Paul, A., & Casuneanu, I. (2020). Work flexibility, job satisfaction, and job performance among Romanian employees – Implications for sustainable human resource management. *Sustainability*, 12(15), 6086. <https://doi.org/10.3390/su12156086>

- Dawadi, S., Shrestha, S., & Giri, R.A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), 25–36. <https://doi.org/10.46809/jpse.v2i2.20>
- De Carlo, A., Dal Corso, L., Carluccio, F., Colledani, D., & Falco, A. (2020). Positive supervisor behaviors and employee performance: The serial mediation of workplace spirituality and work engagement. *Frontiers in Psychology*, 11, 18–34. <https://doi.org/10.3389/fpsyg.2020.01834>
- Duffy, R.D., Allan, B.A., England, J.W., Blustein, D.L., Autin, K.L., Douglass, R.P., Ferreira, J., & Santos, E.J. (2017). The development and initial validation of the Decent Work Scale. *Journal of Counseling Psychology*, 64(2), 206. <https://doi.org/10.1037/cou0000191>
- Duffy, R.D., Blustein, D.L., Diemer, M.A., & Autin, K.L. (2016). The psychology of working theory. *American Psychological Association*, 63(2), 127–148. <https://doi.org/10.1037/cou0000140>
- Dziuba, S.T., Ingaldi, M., & Zhuravskaya, M. (2020). Employees' job satisfaction and their work performance as elements influencing work safety. *System Safety: Human-Technical Facility-Environment*, 2(1), 18–25. <https://doi.org/10.2478/czoto-2020-0003>
- Evan, G.D. (2020). *Ethical considerations when preparing a clinical research protocol* (2nd ed.). Amazon.
- Ferraro, T., Dos Santos, N.R., Moreira, J.M., & Pais, L. (2020). Decent work, work motivation, work engagement and burnout in physicians. *International Journal of Applied Positive Psychology*, 5(1), 13–35. <https://doi.org/10.1007/s41042-019-00024-5>
- Ferraro, T., Pais, L., Dos Santos, N.R., & Moreira, J.M. (2018). The decent work questionnaire (DWQ): Development and a validation in two samples of knowledge workers. *International Labour Review*, 157(2), 243–265. <https://doi.org/10.1111/ilr.12039>
- Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.1177/002224378101800104>
- Ge, J., Xu, K., Zheng, X., Yao, X., Xu, Q., & Zhang, B. (2019). The main challenges of safety science. *Safety Science*, 118, 119–125. <https://doi.org/10.1016/j.ssci.2019.05.006>
- Goretzko, D., Siemund, K., & Sterner, P. (2024). Evaluating model fit of measurement models in confirmatory factor analysis. *Educational and Psychological Measurement*, 84(1), 123–144. <https://doi.org/10.1177/00131644231163813>
- Graça, M., Pais, L., Mónico, L., Santos, N.R.D., Ferraro, T., & Berger, R. (2021). Decent work and work engagement: A profile study with academic personnel. *Applied Research in Quality of Life*, 16(3), 917–939. <https://doi.org/10.1007/s11482-019-09780-7>
- Hair, J.F., Sarstedt, M., Ringle, C.M., & Mena, J.A. (2011). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40, 414–433. <https://doi.org/10.1007/s11747-011-0261-6>
- Hasan, H., Nikmah, F., Nurbaya, S., Fiernaningsih, N., & Wahyu, E.E. (2021). A review of employee engagement: Empirical studies. *Management Science Letters*, 11, 1969–1978. <https://doi.org/10.5267/j.msl.2021.3.013>
- Hermawan, H., Thamrin, H.M., & Susilo, P. (2020). Organizational citizenship behavior and performance: The role of employee engagement. *Journal of Asian Finance, Economics*, 7(12), 1089–1097. <https://doi.org/10.13106/jafeb.2020.vol7.no12.1089>
- Horton, A., Nugus, P., Fortin, M.C., Landsberg, D., Cantarovich, M., & Sandal, S. (2022). Health system barriers and facilitators to living donor kidney transplantation: A qualitative case study in British Columbia. *Canadian Medical Association Open Access Journal*, 10(2), E348–E356. <https://doi.org/10.9778/cmajo.20210049>
- Ibrahim, B.A., & Hussein, S.M. (2024). Relationship between resilience at work, work engagement and job satisfaction among engineers: A cross-sectional study. *BMC Public Health*, 24(1), 1077. <https://doi.org/10.1186/s12889-024-18507-9>
- ILO. (1999). *Decent work [The ILO's decent work agenda]*. Author. Retrieved from <https://www.ilo.org/global/topics/decent-work/lang-en/index.htm>
- Kaan Namal, M., Tufan, C., Sani Mert, I., & Arun, K. (2024). Decent work, employee satisfaction, and the mediating role of social courage in reducing turnover. *SAGE Open*, 14(2), 21582440241242060. <https://doi.org/10.1177/21582440241242060>
- Kothari, C.R. (2018). *Research methodology: Methods and techniques* (2nd ed.). New Age International.
- Lorincová, S., Hitka, M., Štarchoň, P., & Stachová, K. (2018). Strategic instrument for sustainability of human resource management in small and medium-sized enterprises using management data. *Sustainability*, 10(10), 3687. <https://doi.org/10.3390/su10103687>
- Luo, Z., Shi, B., & Li, P. (2019). Analysis of the law of serious and extra serious accidents in non-coal mines in China during 2001–2016. *Gold*, 40(1), 67–70.
- Machado, P.G.B., Porto-Martins, P.C., & Benevides-Pereira, A.M.T. (2014). Engagement no trabalho em profissionais de uma empresa de transporte público urbano. *Psicologia Argumento*, 32(79, Supl. 2), 175–185.
- Makofane, M.D.M., & Shirindi, M.L. (2018). The importance of data collection for qualitative research in social work, In A.L. Shokane, J.C. Makhubele, & L.V. Blitz (Eds.), *Issues around aligning theory, research and practice in social work education* (Knowledge pathing: Multi-, inter- and trans-disciplining in social sciences series Volume 1, pp. 27–50). AOSIS. <https://doi.org/10.4102/aosis.2018.BK76.02>
- Maleka, M.J., Meyer, I., Hlatywayo, C.K., & Mpopo, M. (2022). Moderated mediation effect on the relationship between job satisfaction, employee engagement and commitment in organisations operating in three Southern African Development Community countries. *Journal of Contemporary Management*, 19(2), 444–466. <https://doi.org/10.35683/jcm21080.175>
- Marshal, C., Rossman, G.B., & Blanco, G.L. (2021). *Designing qualitative research* (7th ed.). Sage Publications.
- Martinez, H.A., Rochford, K., Boyatzis, R.E., & Rodriguez-Chaves, S. (2021). Inspired and effective: The role of the ideal self in employee engagement, well-being, and positive organizational behaviors. *Frontiers in Psychology*, 12, 662386. <https://doi.org/10.3389/fpsyg.2021.662386>
- Mashavira, N., Nyoni, N.D., Mathibe, M.S., & Chada, L. (2023). Work-life balance in the Zimbabwe retail sector: Testing a job-engagement and job-satisfaction model. *Acta Commercii*, 23(1), 1–10. <https://doi.org/10.4102/ac.v23i1.1139>
- McIlveen, P., Hoare, P.N., Perera, H.N., Kossen, C., Mason, L., Munday, S., Alchin, C., Creed, A., & McDonald, N. (2021). Decent work's association with job satisfaction, work engagement, and withdrawal intentions in Australian working adults. *Journal of Career Assessment*, 29(1), 18–35. <https://doi.org/10.1177/1069072720922959>
- Mining Industry Survey Report. (2023). *Ripple of woes: Zimbabwe Mining Industry to face tough times ahead*. Government of Zimbabwe.
- Munce, S.E.P., Gutterman, T.C., & Jaglal, S.B. (2021). Using the exploratory sequential design for complex intervention development: Example of the development of a self-management program for spinal cord injury. *Journal of Mixed Methods Research*, 15(1), 37–60. <https://doi.org/10.1177/1558689820901936>
- Nunnally, J.C. (1994). *Psychometric theory 3E*. Tata McGraw-Hill Education.
- Orgambidez-Ramos, A., & De Almeida, H. (2017). Work engagement, social support, and job satisfaction in Portuguese nursing staff: A winning combination. *Applied Nursing Research*, 36, 37–41. <https://doi.org/10.1016/j.apnr.2017.05.012>
- Othman, S.M.E., Steen, M., & Fleet, J. (2021). A sequential explanatory mixed methods study design: An example of how to integrate data in a midwifery research project. *Journal of Nursing Education and Practice*, 11(2), 75–89. <https://doi.org/10.5430/jnep.v11n2p75>
- Park, J., & Kim, J. (2024). The relationship between perceived organizational support, work engagement, organizational citizenship behavior, and customer orientation in the public sports organizations context. *Behavioral Sciences*, 14(3), 153. <https://doi.org/10.3390/bs14030153>
- Pereira, S., Dos Santos, N., & Pais, L. (2019). Empirical research on decent work: A literature review. *Scandinavian Journal of Work and Organizational Psychology*, 4(1), 1–15. <https://doi.org/10.16993/sjwop.53>
- Ribeiro, M.A., Teixeira, M.A.P., & Ambiel, R.A.M. (2019). Decent work in Brazil: Context, conceptualization, and assessment. *Journal of Vocational Behavior*, 112, 229–240. <https://doi.org/10.1016/j.jvb.2019.03.006>
- Sapkota, S.P. (2021). Impact of organizational justice on Job performance in Nepalese Quality Assurance Accredited (QAA) College. *Nepalese Journal of Management Research*, 1, 63–69. <https://doi.org/10.3126/njmgtr.v1i0.37324>
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity: International Journal of Methodology*, 52(4), 1893–1907. <https://doi.org/10.1007/s11135-017-0574-8>
- Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 293–315. <https://doi.org/10.1002/job.248>
- Schaufeli, W.B., Martínez, I.M., Pinto, A.M., Salanova, M., & Bakker, A.B. (2002a). Burnout and engagement in university students: A cross-national study. *Journal of Cross-Cultural Psychology*, 33(5), 464–481. <https://doi.org/10.1177/0022022102033005003>
- Schaufeli, W.B., Salanova, M., González-Romá, V., & Bakker, A.B. (2002b). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71–92. <https://doi.org/10.1023/A:1015630930326>
- Seubert, C., Hopfgartner, L., & Glaser, J. (2021). Living wages, decent work, and need satisfaction: An integrated perspective. *European Journal of Work and Organizational Psychology*, 30(6), 808–823. <https://doi.org/10.1080/1359432X.2021.1966094>
- Strenitzzerová, M., & Achimský, K. (2019). Employee satisfaction and loyalty as a part of sustainable human resource management in postal sector. *Sustainability*, 11(17), 4591. <https://doi.org/10.3390/su11174591>
- Tschouridi, I., & Nikandrou, I. (2018). Integrating social comparisons into perceived organisational support (POS): The construct of relative perceived organisational support (RPOS) and its relationship with POS, identification and employee outcomes. *Applied Psychology*, 68(2), 276–310. <https://doi.org/10.1111/apps.12161>
- Wan, W., & Duffy, R.D. (2022). Decent work and turnover intention among new generation employees: The mediating role of job satisfaction and the moderating role of job autonomy. *Sage Open*, 12(2), 21582440221094591. <https://doi.org/10.1177/21582440221094591>
- Wang, D., Jia, Y., Hou, Z.J., Xu, H., Zhang, H., & Guo, X.L. (2019). A test of psychology of working theory among Chinese urban workers: Examining predictors and outcomes of decent work. *Journal of Vocational Behavior*, 115, 103325. <https://doi.org/10.1016/j.jvb.2019.103325>
- Yu, K., Cao, Q., Xie, C., Qu, N., & Zhou, L. (2019). Analysis of intervention strategies for coal miners' unsafe behaviors based on analytic network process and system dynamics. *Safety Science*, 118, 145–157. <https://doi.org/10.1016/j.ssci.2019.05.002>
- Zhang, J., Xu, K., Reniers, G., & You, G. (2020). Statistical analysis the characteristics of extraordinarily severe coal mine accidents (ESCMAs) in China from 1950 to 2018. *Process Safety and Environmental Protection*, 133, 332–340. <https://doi.org/10.1016/j.psep.2019.10.014>