



The Impact of Human Capital Disclosures in Sustainability Reporting on Corporate Market Valuation: An Empirical Assessment from the Johannesburg Stock Exchange

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Abstract: Although human capital disclosures (HCDs) have been increasingly embedded within international sustainability reporting frameworks, such as the Global Reporting Initiative (GRI) and environmental, social and governance (ESG) standards, the extent to which these disclosures influence corporate market valuation (MV) remains inconclusive. Previous scholarship has underscored the value relevance of employee-related information in fostering investor confidence and reinforcing stakeholder trust. However, empirical observations continue to indicate that human capital (HC) information is frequently fragmented, inconsistently structured, and insufficiently detailed, thereby limiting its interpretive utility in financial markets. In this study, the influence of disclosed HC metrics within sustainability reports on MV was empirically investigated through a deductive, content analysis-based methodology. Employee-related indicators aligned with GRI standards were systematically categorised into a human capital disclosure index (HCDI), encompassing six dimensions: human capital availability (HCA), human capital wellbeing (HCW), human capital investment (HCI), human capital engagement (HCE), human capital risk (HCR), and human capital value (HCV). Internal consistency of the constructed index was validated using Cronbach's alpha, with values exceeding the 0.60 threshold across all dimensions. An ex-post facto research design was applied to the top 100 listed entities on the Johannesburg Stock Exchange (JSE) to examine the relationship between the HCDI and MV. The results revealed no statistically significant association between the extent of HC disclosures in sustainability reporting and corporate market valuation. This outcome corroborates existing evidence that information asymmetry and the opaque integration of HC metrics into broader sustainability narratives may attenuate their perceived relevance by investors. Consequently, it is suggested that enhanced standardisation, disaggregation, and contextualisation of HC data are essential to improve its decision-usefulness in capital markets. The findings contribute to ongoing debates concerning the materiality of non-financial disclosures and underscore the imperative for clearer regulatory guidance and reporting uniformity regarding human capital within sustainability frameworks.

Keywords: Human capital disclosure (HCD); Market valuation (MV); Sustainability reporting; Global Reporting Initiative (GRI); Environmental, social and governance (ESG); Johannesburg Stock Exchange (JSE)

JEL Classification: J80; M41

1. Introduction

Human capital (HC) metrics or employee-related indicators form part of non-financial disclosure in sustainability reporting and provide value-relevant information for investor decision-making. Essentially, HC information builds stakeholder trust and enhances investor confidence (Aggarwal, 2023; Alvarez, 2015; Di Vaio et al., 2020; Farneti et al., 2019; Gamerschlag, 2013; Grassmann et al., 2019; Lajili, 2022; Lim & Mali, 2022; Nkundabanyanga et al., 2014; Pandit, 2021; Pigatto et al., 2023; Raimo et al., 2020; Salvi et al., 2022; Sürdü et al., 2020; Tejedo-Romero & Araujo, 2022; Terblanche & de Villiers, 2019).

According to Mariappanadar & Kairouz (2017), investors use HC information in corporate reports to draw

market inferences when buying, holding or selling stocks. Despite this, human capital disclosure (HCD) in sustainability reporting is unstandardised, scant, and voluntarily disclosed, leading to information asymmetry, which negatively affects corporate market valuation (MV). High information asymmetry results in low corporate MV; hence, companies are encouraged to improve voluntary disclosures to minimise investment risks (Bhatia & Kaur, 2024; Diantimala et al., 2022; Gim et al., 2023). However, Peters & Wobo (2024) found that social disclosure including HC metrics in sustainability reporting increases information disparities with significant impact on organisational performance. To improve value-relevant disclosures, standard setters such as the United Nations (UN) Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) emphasise credible and comparable sustainability disclosure (Abeysekera, 2022; Afolabi et al., 2023; Alvarez, 2015; Bananuka et al., 2023; de Villiers et al., 2022; Perera-Aldama, 2023; Pizzi et al., 2022; Rowbottom, 2023; Zaid & Issa, 2023). These regulations seek to prevent companies' impression management in disclosing specific information to manipulate investor confidence with the aim of maximising corporate MV. As a result, many organisations globally have adopted reporting standards to increase sustainability information to avoid asymmetric impact on firm value (Amin et al., 2024; Friske et al., 2022; Remo-Diez et al., 2023; Sahetapy, 2023). They have implemented regulations on fair disclosures to ensure equal access to information for all investors.

In South Africa, companies listed on the Johannesburg Stock Exchange (JSE) have since adopted the GRI standards in the early 2000s for sustainability reporting (Kassier, 2024; Maubane et al., 2014) and continue to improve the disclosure of environmental, social and governance (ESG) material issues (Chininga et al., 2024; Matemane et al., 2024). Several studies have applied the GRI standards to assess HCD in sustainability reporting to signal the value-relevance of HC metrics in building stakeholder trust and maximising investor returns (Alvarez, 2015; Pedrini, 2007; Posadas & Tarquinio, 2021; Van der Zahn, 2023). Increased HC information not only reduces the market-to-book-value gap of the organisations (Abdolmohammadi, 2005; Alfraih, 2018; Bangara et al., 2024; Keter et al., 2024; Marzo, 2013; Widiatmoko et al., 2020) but also captures the missing, unrecorded and unmeasured intangible asset in corporate valuation.

Sustainability information asymmetry is an agency problem that can be attributed to the lack of transparency by managers and the board of directors (BoDs). Gim et al. (2023) confirmed the importance of improved sustainability disclosure in reducing information asymmetry to enable accurate analyst forecasting and fair market valuation. HCD reduces information imbalance and facilitates market efficiency with improved equity valuations, while insufficient disclosures conceal the true value of HC in the investment community. Hence, it is essential to understand how the HC metrics are captured in the GRI standards for assessing the true value of people's embodied assets in the organisations. Essentially the value of HC is often obscured, camouflaged, omitted and mostly concealed in the sustainability reporting. To extract HC information from corporate reports, a disclosure index can be developed through taxonomy classification based on the GRI standards and key HR categories. According to the literature, several taxonomies have been developed and tested in corporate disclosure studies, including sustainability reporting. To reflect, Raar (2007) used a taxonomy classification method to assess social and environmental disclosures in the annual reports to improve understandability and comparability. The study derived key indicators, namely, profile, policies, external relations, management performance, occupational health and safety, product performance and sustainability as the main categories of measurement. Lueg & Lueg (2021) used a taxonomy method for assessing integrated reports by analysing the sustainability narratives and classified this information into form and content constructs. Lueg (2022) validated these constructs using capital market data and confirmed the usefulness of the framework in sustainability reporting. Lastly, Posadas & Tarquinio (2021) classified fifteen (15) GRI standards related to labour practices and decent work into a designated framework to assess the adoption of the EU Directive 2014/95. This literature survey indicates that taxonomies are implemented to guide disclosure assessment (Moneva et al., 2022). Currently, no study provides scientific evidence on the influence disclosed HC metrics have on corporate MV in sustainability reporting. Therefore, the main objectives of this study are:

- **Research objective 1:** To extract the HC metrics from the GRI sustainability standards.
- **Research objective 2:** To measure the influence of disclosed HC metrics in sustainability reporting on corporate MV.

To achieve these objectives, this study will construct a disclosure index through taxonomy development to extract HC metrics in the GRI standards to assess HCD in sustainability reporting. This approach allows the researcher to identify and code information into specific categories by means of either a deductive or inductive approach, taking into consideration the regulatory requirements in sustainability reporting (Confetto & Covucci, 2021; La Torre et al., 2018; Lueg, 2022; Lueg & Lueg, 2021; Moneva et al., 2022; Raar, 2007).

2. Literature Review

2.1 HCD Theoretical Perspective

Theoretically, HC is defined as employees' competencies that depend on investment, earnings and wellbeing

(Gamerschlag, 2013; Mpofu, 2024; Nkundabanyanga et al., 2014). HC is one of the most critical intangible assets, and if it is disclosed according to stakeholder expectations can generate investor returns. Tejedo-Romero & Araujo (2022) applied the stakeholder, legitimacy and agency theories in HCD analysis and concluded that the BoDs must observe the disclosure regulations to improve transparency for reducing the agency costs. In terms of stakeholder theory, the organisations are expected to provide value-relevant HC information to key stakeholders on measures to improve the employees' level of competence. According to Gamerschlag (2013), HC value-relevant information required by key stakeholders can cover the employees' qualifications or competence, motivation or commitment, and initiatives to attract, develop and retain skills. Absar (2016) confirmed that stakeholders require disclosed HC information such as the number of employees, age profile of employees, gender classification of employees, recruitment and selection practices, employee disability training and development programmes, employee compensation and benefits, labour relations practices, occupational safety and health system, employee satisfaction survey details, employee retention strategies, innovation initiatives, attrition rate and whistleblower policy.

On the other hand, information regarding total workforce, employee turnover, benefits for full-time employees, compliance with minimum wage policy, breakdown of employees per category and salary by employee category is essential for stakeholder confidence (Sahari et al., 2018). According to Mariappanadar & Kairouz (2017), HC information provides key employee indicators that investors consider in resource allocations, while the broader stakeholder fraternity relies on these disclosures to understand the potential economic growth of companies. In terms of legitimacy theory, the extent of HC information reflects the organisations' commitment to employees, society and broader stakeholders (Tejedo-Romero et al., 2023). Companies legitimise their operations in the society by sharing the required HC information about their business activities in the annual reports. In doing so, organisations will demonstrate how they maintain the norms of societies where they are domiciled and the extent to which they prioritise the interests of communities (Bangara et al., 2024). However, managers have a tendency of disclosing favourable HC information to protect their own interests instead of those of their shareholders. This relates to agency theory, highlighting how company executives or the board members may use HCD to create a good impression about the application of HR practices aimed at employee engagement (Tejedo-Romero et al., 2023). Such behaviour increases agency costs and may be detrimental to the company's market value. Therefore, efforts must be made to share balanced HC information by aligning sustainability reporting with the GRI standards. Lajili (2022) confirmed that internal HR systems must incorporate appropriate metrics on HR practices that contribute towards enhancing stakeholder trust and organisational performance.

2.2 Sustainability Reporting

Sustainability reporting is a strategic communication mechanism providing information on the ESG risks, impacts and opportunities. Companies adopt the GRI standards and align their internal reporting practices to ensure that internal and external stakeholders receive information that demonstrates corporate social investment (CSI) in responsible businesses that not only prioritise financial returns but also strive to improve socio-economic development and preserve the environmental ecosystem (Abeysekera, 2022; Alvarez, 2015; Cinquini et al., 2012; Lim & Mali, 2022; Maione, 2023; Massaro et al., 2018; Pedrini, 2007; Petcharat & Zaman, 2019; Ramona & Askarany, 2023). In recent years, there has been a proliferation of international standards aimed at regulating sustainability reporting to provide comparable ESG information by avoiding duplication and omission. In 2020, the International Sustainability Standards Board (ISSB), acting under the auspices of the International Financial Reporting Standards (IFRS) Foundation, undertook stakeholder consultations with academics, government agencies, practitioners, investors, nongovernmental organisations (NGOs) and social partners to revise the global sustainability disclosure standards (Afolabi et al., 2023; Ali et al., 2023; Pizzi et al., 2022; Zaid & Issa, 2023). The IFRS/ISSB sustainability initiative is essential in promoting financial and non-financial reporting but seems to duplicate the existing GRI framework, thereby confirming the significance of these standards for substantiality reporting (de Villiers et al., 2022). Similarly, SASB established sustainability reporting requirements based on five dimensions, namely, environment, social capital, human capital, business model and innovation, and leadership and governance, which are also embedded in the GRI framework (Busco, 2020). Essentially, the GRI framework provides broad sustainability reporting standards enabling organisations to implement internal information management systems to collect, store and distribute value-relevant sustainability data required to improve investor decision-making and enhance stakeholder trust. The GRI framework has been adopted for over two decades by most companies listed on the JSE in South Africa and provides a structured approach to organise sustainability information in the corporate reports (Wachira et al., 2020).

Companies are expected to include a GRI content index in their annual reports to serve as a navigation tool for stakeholders to locate information (León & Salesa, 2023; Mori Junior & Best, 2017). de Villiers et al. (2022) confirmed the importance of adopting the GRI framework with key sustainability reporting indicators. To this effect, GRI standard 102-55 provides economic, environmental and social reporting indicators, including HC metrics, which were used to construct the disclosure index.

2.3 HCD in Sustainability Reporting

Few studies have investigated the relationship between HCD and sustainability reporting with results signifying the value-relevance of employee-related information. Firstly, Pedrini (2007) used the GRI framework to determine the integration of HC indicators in sustainability reporting. This study confirmed that employment, labour management relations, health and safety, training and education, as well as diversity-specific HC metrics are disclosed in sustainability reporting. Later, Cinquini et al. (2012) established that HC information, namely, employees' characteristics, training, skills, wellbeing, and insurance policy, was most disclosed in sustainability reporting. However, this study did not apply the GRI framework, but the HC metrics were identified through a literature survey to assess the employee-related information in the sustainability reports. Furthermore, Alvarez (2015) utilised the HC items based on the GRI framework to assess the disclosure in the sustainability reports and confirmed that more of this information is covered as part of social disclosures. In another study, Posadas & Tarquinio (2021) identified fifteen (15) labour practices through GRI standards. Metelytsia & Gagalyuk (2024) assessed HC disclosure in sustainability reporting and categorised the key metrics in terms of employee composition (the average number of full-time employees by level, segments, gender, age, state of health, type of employment contract, and nature of employment), social leave (fourteen-day leave at the birth of a child, additional ten-day leave for childcare, parental leave before the child reaches the age of three, percentage of own employees who used their right to leave), employment and employee turnover (number of new jobs created, number of employees hired, number of own employees conscripted for military service, number of dismissed employees, number of employees retired, and employee turnover rate), salary, remuneration, financial support (employee compensation fund, ratio of the average salary of a fulltime employee to the nominal salary of full-time employees, non-refundable financial assistance, free meals, assistance for treatment, medicines, voluntary medical insurance, life insurance and material assistance to mobilised workers) education, skills and career development plans (average annual number of training hours per employee, total number of training hours by study topics and training format, number of employees who took part in the competence assessment, number of employees who participated in the performance evaluation) health and safety (average number of full-time employees, number of hours worked by full-time employees, man-hours total number of training hours on the topics of labour protection, fire safety and occupational hygiene, number of registered industrial injuries, number of industrial injuries with significant consequences excluding fatal cases, number of deaths due to injuries at work, level of injuries and mortality at work) and freedom of collective bargaining and social dialogue (average number of full-time employees who are members of a trade union). Therefore, HCD in sustainability reporting is becoming a regulatory requirement often captured under social information transparency (Van der Zahn, 2023) and HC Metrics are incorporated in the GRI standards.

2.4 The Relationship Between HCD and Corporate Market Value

Research investigating the asymmetric effect of sustainability reporting on financial returns signals the importance of ESG disclosure on corporate MV (Amin et al., 2024; Friske et al., 2022; Remo-Diez et al., 2023; Sahetapy, 2023). From an HCD perspective, numerous studies confirm the value-relevance of employee-related information on maximising corporate MV and investor returns. Firstly, Abdolmohammadi (2005) determined that increased levels of HCD in employee satisfaction, personnel, employee retention, flexitime, telecommuting, and empowerment are significantly associated with market capitalisation. As part of intellectual capital disclosure (ICD), HC information was accounted for in determining the mediating effect on the relationship between financial performance and MV (Keter et al., 2024). This emphasises the importance of increased HCD in bridging the gap between market and book value (Abdolmohammadi, 2005). Similarly, Dammak (2015) examined how ICD, including HC information, leads to increased company wealth and confirmed the impact on MV. Recently, Widiatmoko et al. (2020) used a case study approach to compute path analysis in corporate governance attributes on ICD and market capitalisation. It was established that increased ICD has a direct and indirect mediation effect on corporate governance and market capitalisation. Although it is expected that increased voluntary non-financial disclosure will improve organisational performance, Horn et al. (2018) found no effect of this sustainability information on the corporate MV of JSE-listed companies. This literature survey reemphasises the significance of capturing total intangible assets in corporate reporting by including HCD to bridge the gap between market and book value. No study has been conducted to assess disclosed HR metrics in sustainability reporting on MV.

3. Research Methodology

A cross-sectional design was adopted in a sample of the top 100 companies listed on the JSE in 2022 to assess the influence of disclosed HC metrics in sustainability reporting on market value (MV). This ex-post facto research design is normally used where existing published data of listed companies is accessible in the public domain (Akparhuere, 2019; Confidence et al., 2024). In this study, companies were selected based on large market

capitalisation, whereas those with medium to low market value were excluded. Selection of companies based on market capitalisation provides sufficient data required for statistical analysis (Bhana, 2021), but this depends on variables included in the disclosure index (Abdo & Fisher, 2007). Therefore, to construct a disclosure index, a deductive approach was followed by using the GRI standards to identify HC metrics, and the GRI content index was used to locate this information in sustainability reporting. This bottom-up procedure adopted predefined categories guiding the subsequent classification of dimensions to organise related items of measurement (Alvarez, 2015; Confetto & Covucci, 2021; Pedrini, 2007; Sujatha et al., 2011). Objectivity and consistency are important for classifying information into categories (Alvarez, 2015). Only HC metrics or employee-related standards were extracted from the GRI framework to construct the disclosure index with six categories. Therefore, Table 1 below provides the categories of the disclosure index with a sample HC metric or employee-related information extracted from the GRI standards:

Table 1. Human capital sustainability disclosure index

Categories and Definitions	HC Metrics Extracted from the GRI Standards
1. Human capital allocation (HCA): Information regarding the methods and initiatives taken to attract and source talent into the organisation.	<ul style="list-style-type: none"> Number of employees based on business operations. Number of employees per employment contract. Number of employees per geographic location. <ul style="list-style-type: none"> Number of new recruits per age group. Diversity statistics per category of other indicators. <ul style="list-style-type: none"> Employee turnover rate. Number of employees covered for health and safety. <ul style="list-style-type: none"> Parental leave by gender.
2. Human capital wellbeing (HCW): Information regarding the programmes and initiatives to secure the health and safety of employees.	<ul style="list-style-type: none"> Number of work-related hazards on routine basis. Number of injuries including fatalities and hours. <ul style="list-style-type: none"> Number of employee grievances. Number of resolved employee grievances. Number of employees trained on ethics.
3. Human capital investment (HCI): Information regarding the financial and non-financial resources utilised to optimise people's skills for improving performance.	<ul style="list-style-type: none"> Number of employees trained on anti-corruption per category. Number of employees trained on anti-corruption per region. <ul style="list-style-type: none"> Number of employees trained on human rights. <ul style="list-style-type: none"> Average hours of training by gender. Average hours of training by category. Number of employees in collective bargaining. Employee engagement on remuneration. <ul style="list-style-type: none"> Trade union membership statistics. Frequency of engaging trade unions. Frequency of engaging employee on anti-corruption policies. <ul style="list-style-type: none"> Number of employee issues to the trade union. <ul style="list-style-type: none"> Incidents of child labour.
4. Human capital engagement (HCE): Companies' interaction with internal, and external stakeholders through its employees.	<ul style="list-style-type: none"> Incidents of young workers exposed to hazardous work. <ul style="list-style-type: none"> Incidents of forced labour. Incidents of compulsory labour. Number of discrimination incidents.
5. Human capital risk (HCR): Information regarding the organisations' events or occurrences negatively affecting employees, and the employees' unethical behaviour negatively affecting the organisation.	<ul style="list-style-type: none"> Number of violations of rights of indigenous peoples. <ul style="list-style-type: none"> Ratio of the annual total compensation. Ratio of the % increase in compensation. <ul style="list-style-type: none"> Ratio of the basic salary. Ratio of the entry level wage by gender. Tax on remuneration and taxes withheld. Tax on remuneration and taxes paid.
6. Human capital value (HCV): Information regarding paid remuneration, benefits and incentives to employees and the board for illustrating shareholder value-creation.	

The disclosure index was used together with the GRI content index to identify and score disclosed HC metrics in sustainability reporting using a nominal score of 0 = HC metrics not disclosed and 1 = disclosed HC metrics. In terms of data analysis, the final disclosure index was tested to determine the reliability of the dimensions with related items.

A Cronbach's alpha value of above 0.60 is recommended to confirm the reliability of the disclosure index (Cormier et al., 2009; Sürdü et al., 2020). Therefore, the following regression equation was tested:

$$\text{LogMV}_{it} = B_0 + B_1\text{HCA}_{it} + B_2\text{HCW}_{it} + B_3\text{HCI}_{it} + B_4\text{HCE}_{it} + B_5\text{HCR}_{it} + B_6\text{HCV}_{it} + \varepsilon \quad (1)$$

where, LogMV is the logarithm of market value computed as a dependent variable, whereas HCA, HCW, HCI,

HCE, HCR and HCV described in Table 1 served as independent variables.

4. Results

The results of the study are presented in terms of reliability, descriptive, correlation and regression outputs. Overall, Cronbach's alpha values yield HCA (0.804), HCW (0.753), HCI (0.595), HCE (0.674), HCR (0.761) and HCV (0.631). Most items except in HCI yielded Cronbach's alpha values above 0.60, indicating that the items measured the underlying dimensions. Cronbach's alpha values below 0.60 indicate that some items of the dimension do not share variance with others in the same construct, which can be attributed to range restriction in a sample size.

4.1 Descriptive Statistics

The descriptive statistics are provided below in Table 2 to summarise the data and to provide context for the subsequent analyses:

Table 2. Descriptive statistics

Variables	Mean	Std. Deviation	Skewness	Kurtosis
LogMV	142.440	340.255	3.764	13.812
HCA	0.240	0.374	1.877	3.978
HCW	0.220	0.397	1.837	4.212
HCI	0.220	0.297	2.790	15.072
HCE	0.210	0.342	2.252	6.242
HCR	0.110	0.275	4.001	22.006
HCV	0.170	0.317	3.484	21.242

The logarithmic market value was estimated to be approximately 142 billion, whereas the overall mean of the independent variables indicates that most HC metrics are not disclosed, which is concerning given the stakeholder and investor expectations. It seems that the companies' HCD in sustainability reporting is not in line with the key metrics of the GRI standards, and this increases information asymmetry in the market.

4.2 Correlation Analysis

Correlation analysis was generated, and Table 3 shows the relationship between HCD in sustainability reporting and corporate MV:

Table 3. Correlation analysis

Measures	Market Value	HCA	HCW	HCI	HCE	HCR	HCV
LogMV	1.000						
HCA	0.068	1.000					
HCW	-0.043	0.415**	1.000				
HCI	-0.129	0.351**	0.463**	1.000			
HCE	-0.207*	0.406**	0.434**	0.503**	1.000		
HCR	-0.120	0.388**	0.385**	0.390**	0.634**	1.000	
HCV	0.015	0.473**	0.309**	0.400**	0.471**	0.402**	1.000

Note: * – Correlation is significant at the 0.05 level (2-tailed); ** – Correlation is significant at the 0.01 level (2-tailed), MV – Market value; HCA – Human capital allocation; HCW – Human capital wellbeing; HCI – Human capital investment; HCE – Human capital engagement; HCR – Human capital risk; HCV – Human capital value

Disclosure of metrics in HCW, HCI, HCE and HCR revealed a negative correlation coefficient with corporate MV, whereas HCA and HCV show a positive but low correlation. It seems that companies prioritise the disclosure of HC information in talent sourcing practices, remuneration, benefits and incentives which is value-relevant in the market. All the HC dimensions yielded statistically significant positive correlation with one another, indicating balanced and comparable disclosure of HC metrics.

Overall, disclosed HC metrics in sustainability reporting seem insufficient to positively influence MV.

4.3 Regression Analysis

To test the underlying hypotheses, multiple regression analysis was performed in examining the influence of HCD in sustainability reporting on MV. Table 4 presents the results:

Table 4. Multiple regression analysis

	B	SEB	β	t	Sig.	95% Confidence Interval		Tol	VIF
(Constant)	1.736	0.135		12.870	<0.001	1.468	2.004		
HCA	0.006	0.028	0.026	0.197	0.844	-0.051	0.062	0.583	1.716
HCW	0.020	0.049	0.052	0.409	0.683	-0.078	0.118	0.637	1.569
HCI	-0.013	0.051	-0.035	-0.257	0.798	-0.114	0.088	0.553	1.808
HCE	-0.089	0.041	-0.294	-2.165	0.033	-0.171	-0.007	0.562	1.778
HCR	-0.010	0.039	-0.037	-0.256	0.799	-0.088	0.068	0.505	1.982
HCV	0.035	0.038	0.127	0.906	0.367	-0.041	0.111	0.532	1.881

Note: B – Unstandardised coefficient and constant for linear regression equation; SEB – Standard error of B; β – Standardised regression coefficient; t – Measure of the difference in variation of sample size; Sig. – Significant at $p \leq 0.05^*$, $p \leq 0.01^{**}$ and $p \leq 0.001^{***}$; Tol – Tolerance; VIF – Variance inflation factor

Firstly, variance inflation factor (VIF) values of below 10 confirm the absence of multicollinearity between the independent variables. In terms of hypothesis testing, the study found no statistically significant positive relationship of HCD in sustainability reporting on corporate MV. In fact, HCE revealed a statistically significant negative influence (β -0.089; $p = 0.033$) on MV, implying that disclosed metrics on the number of employees in collective bargaining, employee engagement on remuneration, trade union membership statistics, frequency of engaging trade unions, frequency of engaging employees on anti-corruption policies and the number of employee issues to the trade union disclosed HC metrics by the listed companies are insufficient to attract investor confidence, build stakeholder trust and maximise MV. Less disclosed HCD affects broader stakeholder engagement and negatively influences the maximisation of investment returns (Posadas & Tarquinio, 2021). Bangara et al. (2024) also found a negative relationship between HCD and MV in Kenyan organisations but a statistically positive effect in South African companies. This study did not focus on the HC metrics in sustainability reporting but highlights an interesting finding on how the extent of HCD can either positively or negatively affect MV. Therefore, the alternative hypotheses are accepted in that disclosed HC metrics in sustainability reporting do not influence corporate MV.

5. Discussion

Since the adoption of the GRI standards, HCD has always been embedded in sustainability reporting, and the value of people's intangible assets towards business improvement remains concealed. By isolating HR metrics from the GRI standards, companies can reveal the true value of HC to key stakeholders and enable investor decision-making. In this study, disclosed information in HCW, HCI, HCE and HCR was found not to influence MV, while HCA and HCV have statistically insignificant positive influence. The results are consistent with Horn et al. (2018), who found no effect of disclosed sustainability information by the JSE-listed companies on the corporate MV. Similarly, Bangara et al. (2024) found a negative relationship between HCD and companies' performance in Kenya's companies, but not with South African organisations. These conflicting results confirm the significance of HCD on MV, although the focus of these two studies was not specifically on disclosed HC metrics in sustainability reporting. It seems that the JSE-listed companies in South Africa are less transparent with employee wellbeing, HC investment, engagement and employee risk information, perhaps due to the sensitivity of this information in the market. Relative to mandatory disclosure, most companies are transparent with HCV information such as paid remuneration, benefits and incentives. Surprisingly, HCA information related to the attraction and sourcing of talent into the organisation was disclosed despite the sensitive nature of such disclosures. It is well-established that less HCD negatively affects MV (Abdolmohammadi, 2005; Bangara et al., 2024; Dammak, 2015; Keter et al., 2024; Widiatmoko et al., 2020), and hence, companies are encouraged to improve voluntary disclosures to enhance investor confidence and build stakeholder trust (Abdolmohammadi, 2005; Alfrah, 2018; Lueg & Lueg, 2021). It is important to note that sensitive employee-related information has a negative effect in the market and must be managed prudently to reduce the risk of access to competitors (Aggarwal, 2023; Sürdü et al., 2020). Asymmetric HC information can be beneficial in minimising the risk of sensitive information and exposing the company's HR strategies to its competitors. Conversely, lack of HC transparency deprives key stakeholders of value-relevant information for decision-making, ultimately affecting corporate MV. Therefore, HCD is a trade-off between disclosing sensitive HC information to the public and the risk of non-disclosure on MV.

In fact, according to Peters & Wobo (2024), extensive sustainability reporting can lead to information asymmetry and negatively impact the MV. To manage this voluntary disclosure conundrum, companies adopting the GRI standards will disclose value-relevant HC information that is beneficial to the investment community (Alvarez, 2015). Essentially, the BoDs must facilitate internal disclosure practices in line with the GRI standards to regulate HCD in sustainability reporting for reducing information asymmetry and avoid devaluation of the companies' intangible assets in the investment market. BoDs play a significant role in improving sustainability reporting to key stakeholders (Bananuka et al., 2023; Marzo, 2013; Raar, 2007), and disclosed HCD can reduce

the gap between market and book value of the companies (Abdolmohammadi, 2005). The results of the study confirm the use of the GRI standards in identifying, classifying and assessing HCD in sustainability reporting towards leveraging MV, although no statistically significant influence was established.

6. Conclusions

The study sought to examine the influence of disclosed HC metrics in sustainability reporting on corporate MV. HCD in sustainability reporting is camouflaged and not isolated to demonstrate the true value of people's intangible assets. HR professionals have always been challenged to demonstrate the impact of HR practices on the companies' bottom line by improving the disclosure of HC information in the corporate reports. It is clear from the results of the study that the continued lack of HCD negatively affects the companies' performance in terms of MV, and now the GRI standards can be utilised to organise employee-related disclosures according to HCW, HCI, HCE, HCR, HCA and HCV categories. This implies that HR professionals must create information systems that produce value-relevant information with HR metrics extracted from the GRI standards as part of the disclosure strategy. In this way, more transparency based on these metrics will mitigate the risk of information asymmetry and leverage corporate MV.

Data Availability

The data used to support the research findings are available from the corresponding author upon request.

Conflicts of Interest

The author declares no conflict of interest.

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