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The Mediation Influence of Organisational Innovation on The Corporate Entrepreneurship and Business Performance Relationship

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Abstract

The study investigated the influence of corporate entrepreneurship (CE) on business performance (BP) with organisational innovation (OI) mediating the effect of that relationship. A total of 303 structured questionnaires were administered to selected SMEs owner/managers in Pietermaritzburg, South Africa in order to collect data. The study utilised a cross-sectional survey methodology. On the direct effect, results indicated a statistically significant positive relationship between CE and BP. Likewise, on the indirect effect, (CE-OI and OI-BP), a positive relationship was produced with partial mediation influence of OI. The findings enhance the current corpus of entrepreneurial literature. SME owner/managers are encouraged to improve their investments in both CE and OI as these two variables have capacity to positively impact business performance.

Keywords: *Business performance, corporate entrepreneurship, mediation, organisational innovation, resource-based view (RBV), small and medium enterprises (SMEs)*

Introduction

The significance of the SMEs sector in South Africa arises from its contribution of more than 34% to the country's gross domestic product (GDP), and its role in employing around 50% to 60% of the labour force (International Finance Corporation (IFC), 2023). A strong SMEs sector assists South Africa in reducing the effects of socio-economic systemic challenges such as high unemployment rate, poverty and inequitable distribution of income (Makwara et al., 2023; Fatoki, 2021). Nevertheless, a consensus among experts exists that over 70% of South African SMEs experience failure within the first five years of establishment (Zhou et al., 2024; Matekenya & Moyo, 2022; Bowmaker-Falconer & Meyer, 2022; Bushe, 2019). This is despite the support policies and programs rendered

to these organisations since the attainment of democracy in 1994 (Musabayana & Mutambara, 2022). Given this background, and the constant environmental instability SMEs are expected to adopt appropriate measures to enhance their performance and gain competitive edge (Mashingaidze et al., 2024).

One of the measures to assure enhanced competitiveness and performance, particularly in adverse economic times, is the implementation of CE. Wolcott and Lippitz (2007) view CE as a systematic approach used by teams within an established organisation to generate, nurture, initiate, and oversee a separate business venture that leverages the parent company's assets, market position, competencies, or other resources. CE is a dynamic concept that emphasises the need for cultivating an environment that encourages, and sustains, individuals to engage in creativity and innovation within an organisation (Baena-Luna et al., 2024), thereby enhancing the potential for business performance (BP). In the context of the present investigation, CE is defined as the strategic orientation of a company, which includes a collection of obligations and actions concerning entrepreneurial conduct within a well-established firm (Ziyae & Sadeghi, 2020). Lampe et al. (2020) observe that the manner in which firms manage CE is fundamental to their success in the face of the rapid tempo of global transformations.

Ahmed et al. (2021) note that many studies have shown that CE can significantly improve BP. For example, studies in developed (Rodríguez-Peña, 2023; Ahmed et al., 2021; Ziyae & Sadeghi, 2020; Roundy & Bayer, 2019; Umrani et al., 2017) and developing countries (van der Westhuizen & van Rensburg, 2022; Abdissa et al., 2021; Kwinje et al., 2020; Tipu & Fantazy, 2018) have established that the successful implementation of CE is associated with enhanced firm performance. A study by Urban (2017), focusing on the South African large firms, indicated that CE positively influence corporate performance. However, there are gaps in the extant literature and areas like CE in SMEs need more research. Rodríguez-Peña (2023) cautions researchers against making broad generalisations about findings across multiple countries, especially if such countries seem to have similar characteristics. Hence, the findings of the previous studies cannot be applied in the context of SMEs in South Africa. Other researchers (Ziyae & Sadeghi, 2020; van der Westhuizen & van Rensburg, 2022; Abdissa et al., 2021) have advocated for additional investigations into the context-specific contingencies that influence the performance of CE. In this regard, Makanyeza et al. (2023) suggest that innovation functions as a configuration mechanism.

A study on the mediating role of OI in the CE-performance relationship in South Africa has not been conducted. Prior studies have predominantly relied on data gathered from Western settings (Rodríguez-Peña, 2023; Urbano et al., 2022; Vanacker et al., 2021). This paper confirms these findings by employing data gathered from the manufacturing SMEs in the context of South Africa. The manufacturing industry in South Africa is a burgeoning industry utilising innovation to improve industrial operations (Serumaga-Zake & van der Poll, 2021). In line with the Resource-Based View (RBV), this paper advances the importance of value creation strategies, such as CE, in enhancing business performance (Umrani et al., 2017). The RBV is employed to elucidate the correlation between CE and BP, with innovation acting as the fundamental basis for BP (Ferreira et al., 2017). An investigation of this kind has the potential to direct the field of entrepreneurship research towards the creation of a framework for implementing corporate entrepreneurship. The ensuing portions of this article are organised as follows: a review of the literature, a description of the methodology, presentation of the results, analysis and discussion, and conclusion.

Literature Review

Theoretical framework

The RBV is a prevalent paradigm in the entrepreneurship field (Hitt et al., 2016). Barney (1991) suggests that businesses use resources that are valuable, uncommon, and hard to replicate to gain competitive advantages to maximise their performance potential. Finding novel and distinctive ways to repurpose resources is necessary for CE to help the business generate new rents (Battistini et al., 2013). The RBV theory lends credence to the notion that it positively influences SMEs' increased sustainability (Urbano et al., 2022). In light of this, we suggest that SMEs who employ value-creating strategies, like CE, have a greater chance of outperforming their rivals who do not employ these tactics and gaining a competitive edge. CE reflects a company philosophy that encourages exceptional performance to obtain a competitive edge (Zahra, 2021; Tang et al., 2015). Thus, CE is viewed as one of a company's intangible resource that can be utilised to improve the performance of SMEs (Song et al., 2019).

Corporate entrepreneurship

Corporate entrepreneurship (CE) stresses the endeavours by employees/groups to instigate, generate, and introduce novel ideas and practices within a corporation (Nam et al., 2023). The development and reinforcement of CE's theory has been hampered by attempts by researchers to create several conceptualisations and terminologies for the field (Glinyanova et al. 2021). According to Urbano et al. (2022:5), CE refers to “actions within organisations that focus on generating new business, promoting innovation, and facilitating transformation and renewal.” Within the present investigation, CE is characterised as a company's strategic focus, encompassing a range of pledges and initiatives centred around entrepreneurial conduct across a well-established enterprise (Ziyae & Sadeghi, 2020). The study focuses on five aspects of CE, namely work discretion, organisational boundaries, managerial support, time availability, and rewards reinforcement (Umrani et al., 2018). Research has also indicated that the concept of CE offers employees the necessary tools and platform to think creatively and implement innovative ideas, leading to positive outcomes for both individuals and organisations (van der Westhuizen & van Rensburg, 2022; Baena-Luna et al., 2024; Ziyae & Sadeghi, 2020).

Organisational innovation

According to Matekenya and Moyo (2022), innovation is the process of developing a business by seizing new opportunities and eventually improving sustainable performance. Innovation, as a concept, was first introduced by Schumpeter in 1930 (Makanyeza et al, 2023). He categorised innovation into five different categories, which include the development of new or improved items, industry structure, markets, processes, and sources of supply. In line with this classification, Bel (2010:47) regards innovation as the creation of a new product or service, and business model that can be effectively utilised to enhance service provision to customers. This study considers organisational innovation (OI). Dana et al. (2021) define OI as a novel implementation by an organisation to decrease administrative expenses while improving performance. In this study, innovation takes the implementation of a new plan, process, technology, structure, program, service, product, or administrative system.

Business performance

Performance is a crucial variable for assessing organisational success (Ni et al., 2020). Business performance (BP) is the measure of how well an organisation generates and delivers value to its customers (Muthuveloo et al., 2017). In business and management studies, literature has extensively examined performance as a multidimensional concept, encompassing both non-financial and financial measures (Ni et al., 2020; Mabenge et al., 2020). Muthuveloo et al. (2017) contend that subjective non-financial factors play a crucial role in predicting objective financial measures. Several studies have provided evidence in favour of using both subjective and objective indicators in the evaluation of performance (Mabenge et al., 2020; Ziyae & Sadeghi, 2020; Roundy & Bayer, 2019). Hence, this study relied on both indicators to evaluate BP. The objective indicators included gross profit margin, sales turnover, and net profit (Mashingaidze et al., 2021) while the subjective measures included customer satisfaction and relative market share improved (Mabenge et al., 2020).

Hypotheses development

Corporate entrepreneurship and business performance

CE is a crucial strategy for all types of businesses, regardless of the purpose for which it is being used (Glinyanova et al. 2021; Roundy & Bayer, 2019). Meanwhile, research has shown that companies with a higher CE posture outperform others, which is indicative of their future performance (Lampe et al., 2020; Umrani et al., 2018). Scholars also provide direct support for this idea, emphasising the close relationship and critical importance of the two (Vanacker et al., 2021; Sariwulan et al., 2020). The effect of CE on BP in Pakistan was investigated by Ahmed et al. (2020), and a strong positive correlation was established. In Columbia, Rodríguez-Peña (2021) came to the conclusion that in an emerging economy, CE has a positive impact on BP. In a similar vein, Nam et al. (2023) demonstrated that CE had a beneficial effect on non-financial performance. The subsequent hypothesis was formulated as indicated below:

H₁: CE is positively related to BP.

Corporate entrepreneurship and organisational innovation

Numerous academics have investigated the organisational elements of strategy, resources, and entrepreneurial spirit that support innovation performance (Urban, 2017). According to Bouncken et al. (2016), CE positively influenced firm innovation. In Tunisia, Cherif (2022) provided evidence that CE behaviour fosters organisational learning processes, and consequently the ability to develop new products. In Iran, Zahra (2019) observed that CE increases the rate of product innovation in SMEs. A meta-analysis by Tseng et al. (2019) discovered that one significant factor influencing innovation performance is CE. According to Baena-Luna et al. (2024), CE may encourage businesses to use creative approaches to break into new markets and create brand-new goods. Kuratko et al. (2015) assert that the introduction of radical and disruptive product/process innovations can enhance economic productivity through CE. From the above arguments, it is hypothesised that:

H_2 : CE is positively related to the OI

Organisational innovation and business performance

Innovation increases productivity and financial results in organisations by allowing them to create the conditions for improvements in their management systems, processes, structures, and products/services (Matekenya & Moyo, 2022; Ali et al., 2021; Niu et al., 2020). Organisations can benefit from innovation at different organisational levels (Makanyeza et al., 2023). Likewise, innovation was found to have the potential to enhance an organisation's technical and managerial proficiency, experience, corporate image; and to increase productivity and performance (Mabenge et al., 2020). Elsewhere, Moreira et al. (2017) reported a correlation between OI and service innovation. In a similar vein, research by De Vries et al. (2016) showed that OI raises efficiency and effectiveness. While there is a significant body of research on OI and BP, this study specifically elaborates research on the performance implication among South African SMEs, as has been observed that firm innovation levels vary across different enterprises in different contexts, making them difficult to imitate. (Chen et al., 2022). In the final analysis, the following hypothesis is put forth:

H_3 : OI is positively related to the BP.

Organisational innovation and its mediation influence

Prior studies have shown that OI has a beneficial effect on BP (Makanyeza et al., 2023). This study examines OI's mediating role, on the CE and OP in the South African context. The rationale behind this is that systems and processes within organisations are configured using organisational innovation to address environmental uncertainties (Mabenge et al., 2020). In SMEs, Al-Hakimi et al. (2022) illustrate that OI mediates the CE and supply chain resilience. Similarly, Yildiz and Aykanat (2021) demonstrated that OI positively affect the link between strategy agility and performance while Al Mamun et al. (2021) concluded that OI mediate the strategic orientation-performance relationship. Given this background, it is proposed that OI can support CE to enhance OP. Thus, from the above discourse, the following proposition is put forward:

H₁: OI mediates the relationship between CE and OP.

In summary, the hypothesised relationships are illustrated in Figure 1.

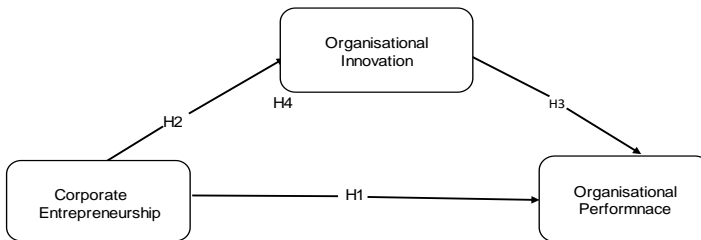


Figure 1: Conceptual framework

Source: Designed by authors

Research Methodology

Research philosophical assumption

The study's objectives were to ascertain how CE affected OP and to create a model that would account for OI's mediating function in a South African setting. Hence, the study was grounded in the positivist ontology and quantitative research methodology. Because a conceptual framework

was created using pre-existing theory, the deductive approach was appropriate. The ability of the deductive research approach to facilitate statistical modelling and hypothesis testing is one of its distinctive features (Williams et al., 2022). The survey strategy was congruent with the quantitative research methodology adopted for the study. Hence, through the survey strategy, the study's objectives were translated into structured questions that enabled the researchers to collect data from many respondents.

Sampling Technique

The observable population comprised of all independently owned and formally registered SMEs with the Department of Trade and Industry (DTI) in KwaZulu Natal, specifically in Pietermaritzburg. According to DTI, there are 1 800 registered SMEs in Pietermaritzburg. A total of 317 respondents were selected based on the criteria established by Krejcie and Morgan (1970). The study employed simple random sampling in which 317 unique random numbers were generated each corresponding to a specific SME on the sampling frame list. This technique ensured that every SME within Pietermaritzburg had an equitable opportunity of being chosen, hence ensuring that the sample accurately reflected the whole population. Only 303 of the 317 responses were used in the analysis; outliers caused the remaining questionnaires to be discarded. Respondents' demographic data is illustrated in Table 1.

Table 1: Sample profile ($n=303$)

Characteristic		Frequency	%
Gender	Male	215	71
	Female	88	29
Age	Less than 25	21	6.9
	25-35 years	78	25.7
	36-45 years	45	14.9
	46-55 years	112	37
	+56 years	47	15.5
Position	Owner	237	78.2
	Manager	66	21.8
Education	Metric	82	27.1
	Degree	132	43.6
	Masters	84	27.7
	PhD	5	1.7

Source: Research data (2024)

Of the 303 respondents, 215 (71.0%) were men and 88 (29.00%) were women. The bulk of the respondents, according to the data's initial screening, was older than 46. Owners of the participating enterprises made up 78.2% of the respondents. Finally, findings indicate that 72.9 percent of respondents held a bachelor's degree or higher, whereas only 27.1% had a high school diploma.

Measures

To measure CE, the study modified 48 items from Hornsby et al.'s (2002) works. This scale's items represent the degree to which new concepts are developed and integrated into the organisation's operations. The modified scale was employed in other related and comparable studies (For example, Umrani *et al.*, 2017; Ahmed et al., 2020). The study utilised a five-point Likert scale, from 1 to 5, where 1 represented strong disagreement, and 5 strong agreement. The five items used to evaluate organisational innovation were modified from Mashingaidze et al. (2022). Respondents were asked to answer questions about the organisation's beliefs regarding innovation. Both subjective and objective measures were employed to assess the organisation's performance. The objective indicators included gross profit margin, sales turnover, and net profit (Mashingaidze et al., 2021) while the subjective measures included customer satisfaction and relative market share improved (Mabenge et al., 2020).

Data collection procedure

The self-administered technique was used to gather data in the month of May 2023. Due to their extreme busy schedules of respondents and the fact that most of them did not have personal internet connections at work, this was required. As a result, having direct communication with the data collection team allowed for more efficient and timely data collection. Participation was optional, a consent form was also provided. More so, respondents were given a letter that contained information about the study. The practice of confidentiality and anonymity was implemented to safeguard the privacy of the respondents.

Results And Discussion

Given that PLS path modelling is a widely used method in academic research, data analysis was conducted using this methodology (Hair et al., 2019). Two steps were taken in the study's evaluation and reporting of PLS-SEM results: firstly, the measurement model was assessed and secondly, paths analysis was performed and hypotheses were tested.

Measurement model assessment

Researchers must ascertain the individual item reliability, content validity, discriminant validity, convergent validity, and internal consistency (Hair et al., 2019). Table 2 presents the results of the assessment of the measurement model.

Table 2: *Measurement model evaluation*

Latent constructs	Standardised Loadings	AVE	CR
Management support			
MS1	0.569	0.620	0.898
MS2	0.764		
MS3	0.753		
MS4	0.668		
MS5	0.739		
Reinforcement			
R1	0.628	0.604	0.889
R2	0.720		
R3	0.726		
R4	0.738		
R5	0.762		
R6	0.783		
Work discretion			
WD1	0.719	0.514	0.946
WD3	0.660		
WD5	0.724		
WD7	0.772		
Organisational boundaries			
OB1	0.772	0.554	0.844
OB2	0.692		

OB5	0.783		
OB7	0.768		
Time availability			
TA1	0.720	0.653	0.855
TA2	0.673		
TA3	0.726		
Business performance			
OP1	0.773	0.571	0.849
OP2	0.768		
OP3	0.687		
OP4	0.779		
OP5	0.874		
OP6	0.765		
Organisational Innovation			
OI1	0.7608	0.564	0.876
OI2	0.8738		
OI3	0.6813		
OI4	0.7701		
OI5	0.6739		
OI6	0.8738		
OI7	0.8702		

Source: Research data (2024)

Table 2 shows that all of the study's latent variables had sufficient outer loadings, with values of at least 0.5. Consequently, the study's individual item reliability criterion was met. Table 2 shows that the measures' internal consistency reliability was adequate, with composite reliability coefficients ranging from 0.843 to 0.946 for each latent variable (Saunders et al., 2019). The study showed adequate convergent validity because all the constructs achieved the minimum of 0.50 AVE, as shown by the AVE scores presented in Table 3 (Chin, 1998). The AVE values as shown in Table 3, varied between 0.639 and 0.792. Therefore, the findings obtained were above the required threshold of 0.50 (Fornell & Larcker, 1981), indicating the successful attainment of convergent validity.

With discriminant validity, Hair et al. (2019) assert that the correlations between the latent constructs must be less than the square root of the AVE. Table 3 shows that all the latent constructs had AVEs greater than the minimum cut-off of 0.5.

Table 3: Discriminant validity

Latent variable	MS	R	WD	OB	TA	BP	OI
Management support (MD)	.787						
Reinforcement (R)	.303	.777					
Work discretion (WD)	.284	.093	.717				
Organisational boundaries (OB)	.276	.387	.281	.744			
Time availability (TA)	.462	.401	.407	.629	.808		
Business performance (BP)	.382	.217	.392	.438	.424	.756	
Organisational Innovation (OI)	.296	.281	.582	.265	.431	.548	.751

Note: The square root of the AVE is indicated by entries that are bolded.

Source: Research data (2024)

Table 3 demonstrates a higher level of association between the square root of AVE and the latent factors. Furthermore, Table 3 demonstrates that all the AVE values (highlighted in bold) exceeded the squared inter-construct correlations (SICC) as proposed by Fornell and Larcker (1981). The data demonstrate that the study effectively established discriminant validity.

Testing study hypotheses

Structural equation modelling (SEM)

The hypotheses H_1 to H_3 were tested using SEM. A bootstrapping approach with confidence intervals and an estimate of 5,000 resamples to test the direct and indirect hypotheses was applied (Hair et al., 2019). Table 4 presents the path coefficients for the ongoing inquiry. Findings show that there exists a robust link between CE and OI ($\beta = .273$, $t = 4.162$, $p < .01$). Therefore, H_1 was confirmed. Table 4 demonstrates that CE has a significant effect on OI ($\beta = .398$, $t = 5.594$, $p < .01$). Therefore, H_2 was confirmed. In addition, the findings indicate a significant and positive influence of OI on BP ($\beta = .275$, $t = 3.736$, $p < .01$). Consequently, H_3 was supported.

Table 4. Direct Effects Bootstrapping Results.

Hypotheses	Construct	Effect	t-value	Remark
H ₁	CE→BP	0.273***	4.162**	Supported
H ₂	CE→OI	0.398***	5.594**	Supported
H ₃	OI→BP	0.275***	3.736**	Supported

Note. CE-corporate entrepreneurship; OI-Organisational Innovation; BP-Business performance.

***p < .01.+

Research data (2024)

Empirical findings demonstrated a statistically significant impact of CE on BP. The results suggest that SME owner/managers consider CE to be a crucial factor in enhancing BP. The findings validate the current literature (Rodríguez-Peña, 2023; Abdissa et al., 2021; Ziyae & Sadeghi, 2020; Kwinje et al., 2020). The alignment with previous research has bolstered the RBV of firms, which recognises the CE culture as possessing characteristics of rarity, difficulty to duplicate, value, and limited substitutability, hence facilitating business performance (Urbano et al., 2022). The study also confirmed a favourable correlation between CE and OI. The findings indicate that firms that actively promote and facilitate CE experience higher levels of innovativeness. The result is consistent with the conclusions from other studies (Cherif, 2022; Zahra, 2019; Tseng et al., 2019; Urban, 2017; Bouncken et al., 2016). Furthermore, this study specifically examined the direct impact of OI on BP. Our analysis points to empirical support for H₃, which proposed that OI and OP had a direct and strong relationship. ($\beta = .275$, $t = 3.736$, $p < .01$). The findings of this inquiry add credence to the literature on entrepreneurship stressing that innovation improves firm performance by allowing organisations to create the conditions for improvements in processes, systems, structures, and products/services (Ali et al., 2021; Ferreira et al., 2020; Su et al., 2020; De Vries et al., 2016).

The role of organisational innovation

The findings indicate that OI serves as a mediator in the interaction ($\beta = .172$, $t = 2.753$, $p < .01$) between CE and BP. Table 9 below provides an illustration of the findings.

Table 5: *Mediating role of OI*

Hypotheses	Construct	Description	Effect	t-value	Remark
H ₄	CE→ OI→ BP	OI mediates the effect of CE on BP	0.172***	2.753**	Supported

Note. CE-Corporate Entrepreneurship; OI-Organisational Innovation; BP-Business Performance.

***p < .01.

Source: Research data (2024)

The empirical data have substantiated earlier findings on the mediating role of OI (Al-Hakimi et al., 2022; Yildiz & Aykanat, 2021; Al Mamun et al., 2021). Similarly, RBV posits that OI serves as a means of attaining a BP (Makanyeza et al., 2023). This finding contributes to the field of entrepreneurial literature by recognizing that OI partially mediates the CE-BP relationship. Overall, the empirical findings indicate that all the hypotheses were confirmed.

Implications

Theoretical implications

First, by offering more empirical support for the firm theory's RBV, the current study has provided implications on the RBV. According to the RBV, an organisation's resources are imperative in determining its sustainable competitive advantage (Barney, 1991). Therefore, in order to maximise their use, organisations must focus more on each resource's development and proper allocation. The findings support the claim that CE, a crucial strategic resource, contributes significantly to the explanation of BP. In particular, the current study has attempted to find potential answers as to how South African SMEs can adopt CE to influence BP. By considering OI and CE as essential organisational resources, this study has expanded the RBV theory. The current study filled in gaps in the literature by incorporating OI as a mediating variable to enhance the contextual factors influencing the performance implications of CE on BP in a South African SMEs sector. The results of the earlier studies on the relationship between CE and BP (Zahra, 2015) have been inconsistent due to many differences in contexts. This

provided mature justification for adding a mediating variable, the context on which CE may lead to BP, to the current study.

Practical implications

The present investigation has generated numerous valuable insights concerning CE practices in the South African SMEs sector. The findings suggest that SMEs owner/managers should actively encourage and support corporate entrepreneurial activities within the organisation. This can include fostering an entrepreneurial culture, providing resources and incentives for employees to engage in innovative initiatives, and empowering them to take calculated risks. Management of SMEs should also prioritise the development of organisational capabilities and processes that enable innovation. This can involve implementing effective knowledge management systems, encouraging collaboration and idea-sharing, and providing the necessary infrastructure and resources to facilitate innovative activities. Lastly, given the significant role played by OI in the nexus between CE and BP, SME owner/managers should focus on cultivating a culture of entrepreneurship and innovation simultaneously. This enables them to leverage the synergistic effects of CE and OI to enhance overall business performance.

Despite the robustness of the study findings, there are some key limitations which must be considered when interpreting the results. Firstly, because of the cross-sectional design of the current study, it was not possible to make causal inferences from the population. Future studies ought to perform longitudinal research to examine the relationships of the current study over an extended period of time, in order to obtain conclusive evidence of the posited relationships. Secondly, the study only focused on the SMEs sector in Pietermaritzburg, South Africa. Hence, it may not be practical to generalise the results. Additional research endeavours could be undertaken with large enterprises and in other places throughout South Africa. Lastly, self-reported measures were used in this study. There are high chances of common method variance as the measures may have an impact on the actions, emotions, and views of the individuals selected at random. Even though the researchers took precautions to lessen desirability issues, these issues could still arise. As a result, when examining the relationships under investigation, future studies may use different techniques.

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