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The predictive role of self-awareness on organisational resilience in the construction sector in Zimbabwe

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Abstract

This study examines the predictive influence of self-awareness, a core dimension of authentic leadership, on organisational resilience within Zimbabwe's construction sector. The research was motivated by the sector's chronic instability, high firm attrition, and operational discontinuities caused by macroeconomic volatility, supply-chain disruption, and skills shortages. Drawing upon Authentic Leadership Theory (ALT) and Organisational Resilience Theory (ORT), the study explores how self-aware leadership behaviour enhances adaptive learning, decision integrity, and recovery capacity. A cross-sectional quantitative design was employed, using data from 353 respondents drawn from a population of approximately 3,000 construction firms. Statistical analysis using structural equation modelling (SEM) established a significant positive relationship between self-awareness and organisational resilience ($\beta = 0.417$, $p < 0.05$; $R^2 = 0.63$). Findings indicate that leaders who are self-reflective, emotionally intelligent, and behaviourally consistent enable their organisations to anticipate disruptions, manage uncertainty, and sustain continuity during crises. The study contributes to leadership and resilience scholarship by validating self-awareness as a critical behavioural antecedent of resilience in a developing-economy context. It provides actionable insights for leadership development, crisis preparedness, and organisational learning within the construction industry.

Keywords: authentic leadership, self-awareness, organisational resilience, leadership development, construction industry, Zimbabwe.

Introduction

The contemporary global business landscape is characterised by volatility, uncertainty, complexity, and ambiguity (VUCA), conditions that increasingly demand resilient and adaptive leadership. Within this milieu, the construction sector, by nature, project-driven, capital-intensive, and interdependent, faces particularly acute exposure to systemic shocks. Across both developed and developing economies, the industry has been profoundly disrupted by economic instability, pandemic-induced supply chain disruptions, geopolitical conflict, and inflationary pressures (Sushil & Gupta, 2024). For Zimbabwe, these global dynamics intersect with domestic structural weaknesses, including erratic monetary policy, high interest rates, and inconsistent infrastructure investment, creating a persistently fragile operating environment.

As Ma and Liu (2024) observe, crises in the construction sector are often cascading: disruptions in logistics, shortages of skilled labour, or funding interruptions can rapidly propagate across projects and firms. The effects, such as delayed completion, cost overruns, or insolvency, highlight the critical need for organisational resilience. In such contexts, leadership effectiveness transcends technical expertise; it encompasses cognitive adaptability, self-regulation, and reflective awareness that enable proactive anticipation and recovery from adversity (Duchek, 2020; Hillmann & Raetzke, 2022).

In recent years, the notion of resilience has shifted from being conceptualised merely as a post-crisis recovery mechanism to an adaptive capability embedded within organisational systems (Linnenluecke, 2017; Lengnick-Hall & Beck, 2021). In this view, resilience is not a static attribute but a dynamic process of sense-making, learning, and transformation. The construction sector's operational environment, marked by fragmented supply chains, volatile pricing, and contractual uncertainties, demands that leaders continuously recalibrate strategy and decision-making in response to changing conditions (Ruiz-Martin et al., 2022). Leaders who demonstrate self-awareness, as a cognitive and affective capability, are better positioned to detect weak signals of disruption, interpret their implications, and align organisational responses accordingly (Liu et al., 2024).

Moreover, resilience within the construction sector is increasingly conceptualised as a multi-level phenomenon that integrates individual, team, and organisational dimensions (Hillmann et al., 2021; Newman et al., 2023). Individual leader resilience, anchored in emotional regulation and self-

reflection, translates into collective confidence and trust within teams, which, in turn, strengthens systemic resilience. Self-awareness plays a foundational role in this process by promoting authenticity, relational transparency, and balanced information processing, all of which underpin effective crisis communication and coordinated response (Avolio et al., 2021; Gardner et al., 2021). Consequently, resilience is as much a behavioural and psychological construct as it is a structural or operational one.

The Zimbabwean construction industry provides a unique empirical landscape for analysing these dynamics. Structural fragility, evident in currency volatility, infrastructural deterioration, and delayed government funding, has made many firms susceptible to operational disruptions (CZI, 2023; ZIMSTATS, 2024). Nevertheless, amidst these challenges, some firms have shown adaptive resilience by innovating in procurement, adopting flexible project delivery methods, and utilising local partnerships to maintain operations. This variation indicates that resilience outcomes are not solely determined by external factors but are significantly shaped by leadership cognition and behaviour. Specifically, self-aware leaders who engage in introspection, recognise personal and organisational limitations, and make ethically grounded decisions are more likely to foster cultures of adaptability and shared purpose (Obuobi et al., 2022; Mutizwa & Marufu, 2023).

From a strategic perspective, the convergence of authentic leadership and resilience highlights a shift from mechanistic, control-based management to relational, values-driven leadership. Contemporary research maintains that in volatile environments, leadership legitimacy comes not only from positional authority but also from authenticity, empathy, and reflective practice (Luthans & Avolio, 2023; Hoch et al., 2023). These qualities improve psychological safety and collective efficacy, which are crucial for resilience (Carmeli & Dutton, 2021). In Zimbabwe's construction firms, where leadership hierarchies tend to be rigid and communication pathways bureaucratic, fostering self-awareness can help overcome inertia, enabling decentralised decision-making and organisational agility.

Resilience in the 21st-century construction landscape, therefore, requires leaders who can integrate emotional intelligence, moral awareness, and strategic foresight. As the literature demonstrates, self-aware leaders are better equipped to navigate paradoxes, balance short-term survival with long-term sustainability, and transform crises into opportunities for renewal (Linnenluecke, 2017; Rahi, 2024). This aligns with Ducheck's (2020) capability-based model, which frames

resilience as a cycle of anticipation, coping, and adaptation. Within Zimbabwe’s volatile economy, such capabilities are indispensable not only for firm survival but also for restoring trust and stability across the broader construction ecosystem.

Appreciating the Context of Study

Zimbabwe’s construction industry is a vital part of national development, supporting infrastructure renewal, housing provision, and job creation. The sector has long been seen as an indicator of macroeconomic stability and overall investment confidence (CIFOZ, 2024; World Bank, 2023). However, from 2020 to 2024, it faced significant fluctuations resulting from global disruptions and domestic structural issues (ZIMSTATS, 2024). Its contribution to GDP grew only slightly, from 1% in 2020 to 3.31% in 2024, despite ambitious government projects like the Emergency Road Rehabilitation Programme (ERRP II) and the National Housing Delivery Strategy. These small increases in output mask deeper systemic vulnerabilities that continue to weaken sector performance.

Table 1: State of revenue from Postal services 2020, 2023 and 2024

Indicator	2020	2023	2024
Contribution to GDP (%)	1.0	2.68	3.31
GDP Growth at Constant Prices (%)	3.2	6.8	3.2
Capacity Utilisation (%)	38.0	53.2	54.7
Company Closures	5	—	—

Source: ZIMSTATS (2024); Construction Industry Federation of Zimbabwe (2020)

Economic turbulence was intensified by the Reserve Bank of Zimbabwe’s (RBZ) 200% interest rate policy in 2022, which severely constrained access to credit and rendered many capital projects financially untenable. The consequent contraction in working capital was compounded by hyperinflationary pressures averaging over 120% in 2022 and by recurrent currency realignments that eroded profit margins and deterred private investment (RBZ, 2023; IMF, 2024). Furthermore, protracted delays in government payments for completed projects weakened liquidity across the value chain, while international sanctions and constrained foreign direct investment curtailed capital inflows (ILO, 2021; UNDP, 2023). These macroeconomic constraints generated a climate of uncertainty, discouraged long-term project financing and reduced the sector’s attractiveness to both domestic and foreign investors.

Beyond financial fragility, the sector faces institutional and operational vulnerabilities. Regulatory inconsistencies, weak contract enforcement, and bureaucratic procurement processes continue to hinder efficiency (Chigara & Maredza, 2023). The Construction Industry Federation of Zimbabwe (CIFZ) (2024) warned that inconsistent tendering procedures and political interference in project allocation undermine fair competition and professional standards. Moreover, skills migration depleted technical capacity, as engineers, architects, and project managers sought more stable opportunities within the region (Makumbe, 2022). These deficiencies have collectively eroded institutional resilience and hindered the sector's contribution to Vision 2030 objectives of infrastructure-led growth.

Despite these challenges, pockets of resilience and innovation appeared. Several construction companies responded to volatility by adopting flexible procurement models, forming joint ventures with foreign partners, and digitising project management workflows to cut operational inefficiencies (Nyatsanza & Dube, 2024; Mutizwa & Marufu, 2023). Some contractors expanded into renewable energy infrastructure and low-cost housing, utilising flexible financing mechanisms such as Build-Operate-Transfer (BOT) and Public-Private Partnerships (PPPs) under the ZIDA Act [Chapter 14:37]. These adaptive strategies demonstrate how organisational learning, thoughtful leadership, and contextual intelligence can turn turbulence into opportunity.

The coexistence of organisational collapse and survival within the same macroeconomic conditions highlights the main research question guiding this research: why do some construction companies survive systemic shocks while others fail? Previous evidence suggests that the key difference may lie in the behavioural and cognitive traits of leadership rather than in structural or financial resources (Hillmann et al., 2021; Liu et al., 2024). Specifically, leaders with strong self-awareness demonstrate the ability to reflectively adjust strategies, mobilise collective effort, and maintain performance in uncertain situations. Deeper appreciation of these behavioural dynamics within Zimbabwe's construction industry is, therefore, essential for developing evidence-based strategies for organisational resilience and sustainable growth.

Conceptualising Organisational Resilience

Organisational resilience refers to a company's ability to anticipate potential threats, absorb shocks, adapt to changing conditions, and recover while maintaining critical functions (Duchek, 2020). It embodies not only survival but

also the capacity for renewal and transformation following adversity. Ungerer (2019) frames resilience as a dynamic process involving anticipation, coping, and adaptation, a continuum rather than a static outcome. In high-risk sectors such as construction, resilience is fundamental for maintaining productivity amid fluctuating project cycles and resource dependencies.

Current literature situates organisational resilience at the intersection of systems thinking, dynamic capabilities, and behavioural adaptation (Hillmann & Raetzke, 2022; Ruiz-Martin et al., 2022). Rather than merely being reactive, resilience represents an ongoing process of learning, reconfiguration, and innovation that enables organisations to sustain performance under turbulence. Lengnick-Hall and Beck (2021) argue that resilient organisations possess adaptive capacity, an ability to integrate experiences of disruption into strategic renewal. This conceptualisation resonates with Ducheck's (2020) three-stage model, where anticipation, coping, and adaptation co-evolve to reinforce organisational learning. Consequently, resilience must be viewed not as a one-time response to crisis but as an enduring capability embedded in organisational culture, processes, and leadership practice.

The scholarly consensus increasingly recognises leadership behaviour as a key determinant of resilience. Leadership influences how firms interpret crises, mobilise resources, and coordinate collective responses (Carmeli & Dutton, 2021; Newman et al., 2023). Authentic leaders, those guided by self-awareness, transparency, and moral integrity, foster climates of psychological safety and trust, which enable employees to engage openly in problem-solving and innovation (Avolio et al., 2021; Luthans & Avolio, 2023). This behavioural environment becomes a catalyst for resilience by encouraging learning from failure and collective adaptability. The literature thus reframes resilience not only as a structural or operational outcome but as a behavioural and relational phenomenon rooted in the authenticity and reflective competence of leadership.

In developing economies like Zimbabwe, resilience research remains heavily focused on macro-economic and infrastructural factors, often ignoring the micro-behavioural elements that explain why organisations with similar resources face different outcomes (Mutizwa & Marufu, 2023; Obuobi et al., 2022). In the Zimbabwean construction industry, where volatility is constant and institutional trust is fragile, understanding the psychological foundations of resilience becomes essential. Leaders' self-awareness, including their ability to recognise emotions, biases, and limitations, plays a critical role in guiding decision-making and adaptive capacity (Liu et al., 2024). Self-aware leaders

help make sense of situations, promote open dialogue, and align organisational responses to emerging challenges, thus turning adversity into an opportunity for strategic renewal.

Moreover, contemporary scholarship conceptualises organisational resilience as multi-level and cross-temporal (Hillmann et al., 2021; Vogus & Sutcliffe, 2020). At the individual level, resilience is reflected in emotional regulation and cognitive flexibility; at the team level, it manifests through collaboration, trust, and shared mental models; and at the organisational level, it is institutionalised through governance systems and adaptive routines. Leadership self-awareness bridges these levels by linking individual emotional intelligence to collective adaptability and institutional learning. This integrative function foregrounds the proposition that self-aware leadership is not merely an antecedent but a sustaining mechanism of organisational resilience, particularly in complex, project-based environments such as construction.

Thus, organisational resilience in the Zimbabwean construction sector must be reconceptualised as a strategic behavioural capability rather than an incidental outcome. It arises from the interplay between structural robustness and leadership authenticity, in which self-aware leaders cultivate cultures of reflection, innovation, and adaptability. This conceptual framing provides the theoretical basis for empirically examining the predictive relationship between self-awareness and organisational resilience in the subsequent sections of this study.

Self-Awareness (SAA) and Authentic Leadership (AL)

Within the Authentic Leadership Theory (ALT) framework, self-awareness constitutes the foundational dimension upon which balanced processing, relational transparency, and an internalised moral perspective are built (Avolio & Gardner, 2005). It reflects a leader's capacity to recognise their strengths, limitations, and emotional triggers, and to understand how these influence relationships and organisational dynamics (Walumbwa et al., 2008). Cognitively, self-awareness enhances reflective sense-making and adaptive judgement; behaviourally, it promotes emotional regulation, composure, and authenticity, attributes essential for decision integrity and crisis management (Liu et al., 2024; Luthans & Avolio, 2023). Self-aware leaders cultivate psychological safety and mutual trust, thereby fostering collaborative learning and resilience within their organisations (Gardner et al., 2021; Carmeli & Dutton, 2021).

Empirical research increasingly emphasises self-awareness as a crucial behavioural precursor to resilience, particularly in unpredictable and resource-constrained environments. It supports balanced information processing, enabling leaders to assess diverse perspectives objectively and minimise bias under pressure (Hannah et al., 2020; Hillmann & Raetze, 2022). In sub-Saharan Africa's construction sector, where institutional instability and fragmented leadership development are common, self-awareness remains underexplored despite its strategic importance (Obuobi et al., 2022; Mutizwa & Marufu, 2023). In Zimbabwe's construction industry, where unpredictability and systemic shocks are widespread, self-aware leaders demonstrate adaptive cognition and emotional intelligence that enhance organisational recovery, learning, and resilience. Their capacity to blend authenticity, reflective insight, and moral clarity elevates self-awareness from a personal virtue to a transformative organisational skill essential for sustainable resilience (Newman et al., 2023; Rahi, 2024).

The Research Gap

Although ALT has been extensively explored across corporate and public-sector domains, its micro-behavioural dimension, specifically, self-awareness, remains conceptually acknowledged but empirically under-investigated as a determinant of organisational resilience. Existing studies on leadership in Zimbabwe's construction industry primarily emphasise technical competence, project management efficiency, or financial control, while neglecting the reflective, cognitive, and emotional dimensions of leadership behaviour that sustain adaptability in volatile environments (Liu et al., 2024; Mutizwa & Marufu, 2023). This neglect is significant because leadership self-awareness, the ability to recognise one's mental states, biases, and emotional responses and align them with organisational goals, anchors decision integrity and adaptive judgement, which are vital under uncertainty (Gardner et al., 2021). In Zimbabwe's construction sector, the lack of empirical evidence linking self-awareness to resilience is a critical research gap and addressing it is imperative to understanding how introspective, authentic leadership behaviour influences organisational learning, resource mobilisation, and sustainability amid systemic turbulence (Hillmann & Raetze, 2022; Obuobi et al., 2022).

Methodology

This study employed a quantitative, cross-sectional research design to examine the predictive relationship between self-awareness and organisational resilience

within Zimbabwe's construction sector. The design was selected because it permitted systematic, standardised data collection from multiple firms at a single point in time, providing an empirical snapshot of leadership behaviour and resilience dynamics (Creswell & Creswell, 2023). A quantitative approach was particularly suitable for hypothesis testing and for quantifying relationships among latent variables through statistical modelling (Bryman, 2021).

The target population consisted of approximately 3,000 registered construction companies listed by the Construction Industry Federation of Zimbabwe (CIFOZ, 2024), encompassing organisations operating in public infrastructure, housing, and commercial projects, domains where leadership resilience is critical. A sample of 353 firms was selected using Fowler's (2014) formula for finite populations, with respondents comprising senior managers, project supervisors, and directors with decision-making authority and at least 5 years' industry experience.

Stratified random sampling was used to ensure balanced representation across small, medium, and large enterprises, thereby reducing sampling bias and enhancing generalisability (Saunders et al., 2019). Data were collected between April and July 2024 using a structured self-administered questionnaire divided into three sections: demographic information, self-awareness measures, and organisational resilience indicators. Self-awareness was measured using the Authentic Leadership Questionnaire (ALQ) (Walumbwa et al., 2008), adapted to the Zimbabwean context, while organisational resilience was assessed using a composite scale derived from Duchek's (2020) capability-based framework and Hillmann and Raetzke's (2022) three-phase model of anticipation, coping, and renewal.

Prior to deployment, the instrument underwent expert validation by three leadership scholars and two industry practitioners to ensure contextual relevance, followed by a pilot test with 30 respondents that confirmed clarity and cultural validity, yielding Cronbach's alpha values above 0.70 (Nunnally & Bernstein, 2019). Reliability and validity were assessed using both classical and modern psychometric tests, with Cronbach's alpha and composite reliability (CR) exceeding 0.80 and average variance extracted (AVE) exceeding 0.50, demonstrating strong internal consistency and convergent validity (Hair et al., 2021). Discriminant validity was verified using the Fornell–Larcker criterion, while Confirmatory Factor Analysis (CFA) conducted in AMOS 27 produced robust fit indices ($\chi^2/\text{df} = 2.31$, CFI = 0.95, TLI = 0.93, RMSEA = 0.05), confirming

factorial stability. Multicollinearity diagnostics yielded variance inflation factors ($VIF < 3.0$), indicating independence among predictors (Kline, 2023).

The data were analysed using Structural Equation Modelling (SEM) with Maximum Likelihood Estimation (MLE) in AMOS 27, chosen for its ability to test simultaneous direct and indirect effects among latent constructs. Descriptive statistics summarised firm demographics, while inferential tests estimated path coefficients (β) to determine the strength and direction of the hypothesised relationship. The model's explanatory power was evaluated using R^2 values and fit indices (CFI, TLI, RMSEA, SRMR), with statistical significance set at $p < 0.05$. Sensitivity analyses confirmed the model's robustness and stability, ensuring methodological rigour and reinforcing the validity of findings supporting the hypothesis that self-awareness significantly predicts organisational resilience in Zimbabwe's construction sector.

Results and Analysis

Demographic Characteristics

The demographic configuration of respondents provides a critical lens through which to interpret the human and intellectual architecture of Zimbabwe's construction sector. The sample comprised 61% male and 39% female participants, a ratio consistent with global patterns in construction yet indicative of gradual gender diversification in leadership roles (ILO, 2021; CIFOZ, 2024). This gender distribution, though still asymmetrical, suggests incremental progress towards inclusive leadership, a trend associated with improved innovation and collective decision-making under volatile conditions (Hillmann & Raetze, 2022).

Respondents reported an average managerial tenure of 11.6 years, signalling a leadership cadre with deep experiential capital and tacit sectoral knowledge. Such experience is empirically linked to heightened cognitive adaptability and reflective competence, attributes essential to organisational learning and crisis navigation (Lengnick-Hall & Beck, 2021).

Educationally, the sample demonstrated strong academic grounding: 58% held tertiary qualifications, and 32% held postgraduate degrees. This high level of formal education underpins analytical reasoning, ethical judgement, and meta-cognitive awareness, all of which reinforce authentic leadership and resilience capacities (Luthans & Avolio, 2023; Gardner et al., 2021). The combination of advanced education and extensive managerial experience thus enhances the

internal validity of the dataset and the interpretive reliability of subsequent analyses.

The composition of the participating organisations further strengthens representativeness and analytical breadth. Firms were drawn from small (41 per cent), medium (37 per cent), and large-scale enterprises (22%), closely mirroring the structural heterogeneity of Zimbabwe’s construction industry (ZIMSTATS, 2024). This diversity allowed for comparative assessment across organisational scales, capturing variations in leadership behaviour and resilience strategies between agile, resource-constrained SMEs and bureaucratically structured large firms.

Geographically, participants operated in the principal construction hubs, Harare, Bulawayo, Gweru, Mutare, and Masvingo, ensuring spatial and contextual balance. Urban-based firms tended to manage high-value, multi-stakeholder projects that demanded advanced strategic coordination, while regional enterprises engaged in infrastructure and public works contracts characterised by fluctuating resource availability. Collectively, these demographic patterns reveal a leadership landscape that is both heterogeneous and professionally sophisticated, offering a credible empirical platform for analysing how self-awareness functions as a behavioural lever of organisational resilience in Zimbabwe’s complex, turbulence-prone construction environment.

Descriptive Statistics

Descriptive statistics were computed to summarise central tendencies, dispersion, and overall data distribution for the two key constructs, Self-Awareness and Organisational Resilience, measured on a five-point Likert scale. The results, presented in Table 2 and Figure 1, indicate generally high levels of both constructs among respondents.

Table 2. Descriptive Statistics for Key Variables (n = 353)

Variable	Mean (M)	Standard Deviation (SD)	Minimum	Maximum	Skewness	Kurtosis
Self-Awareness	4.21	0.68	2.00	5.00	-0.43	0.12
Organisational Resilience	4.08	0.74	1.90	5.00	-0.37	0.25

Source: Author’s computation (AMOS/SPSS output, 2024)

As shown in Table 2, self-awareness recorded a mean of 4.21 (SD = 0.68), signifying that most respondents rated themselves positively on reflective capacity, emotional regulation, and value congruence. The slightly negative skewness (-0.43) suggests that responses were concentrated towards the higher end of the scale, implying widespread self-perceived authenticity and confidence among leaders in the sector. Similarly, organisational resilience recorded a mean of 4.08 (SD = 0.74), reflecting a strong collective perception of adaptability, crisis management capability, and operational continuity. The distributional symmetry and acceptable kurtosis values (close to zero) confirm the normality of both datasets, supporting their suitability for parametric analysis (Hair et al., 2021).

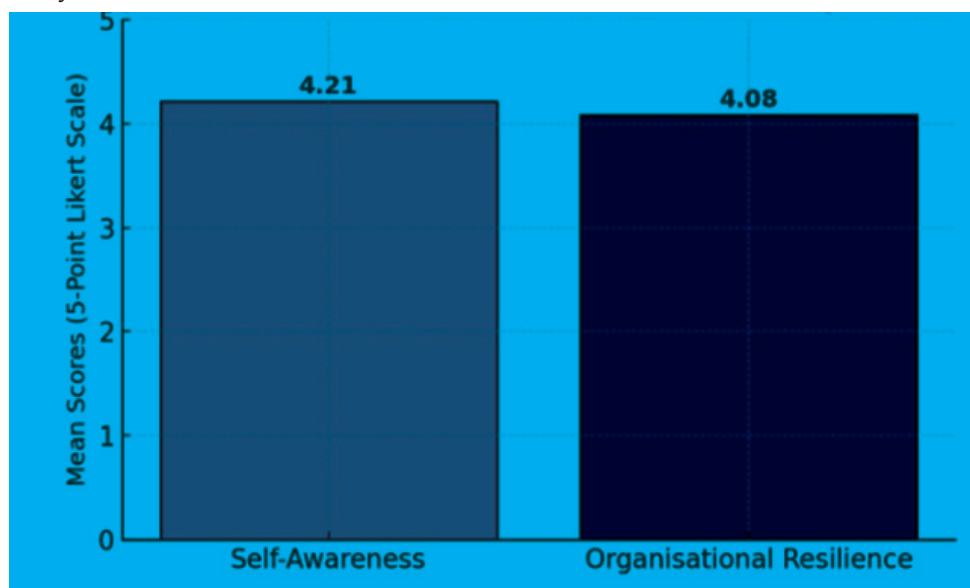


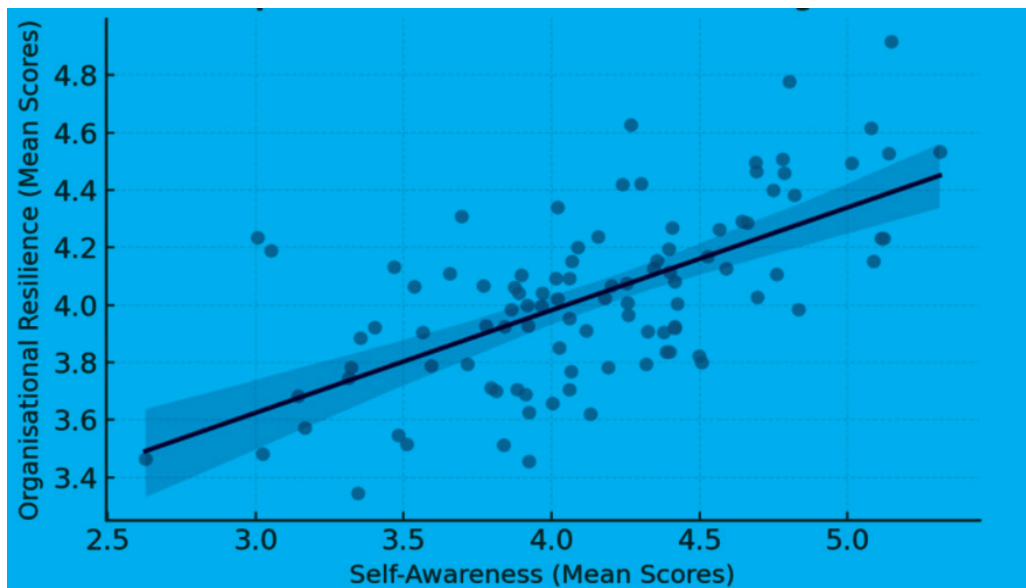
Figure 1. Comparative Mean Scores of Self-Awareness and Organisational Resilience

The proximity of the two mean scores ($\Delta M = 0.13$) suggests a positive alignment between leaders' self-perception and their organisations' resilience capacity, lending preliminary support to the study's hypothesis. The modest variability ($SD < 1$) across both constructs implies homogeneity of leadership experiences, typical of firms operating under shared macroeconomic and regulatory constraints (Hillmann & Raetzke, 2022). These findings indicate that Zimbabwe's construction-sector leaders generally perceive themselves as self-aware and adaptive, qualities that, as subsequent inferential analyses demonstrate, significantly enhance organisational resilience.

Correlation and Regression Analysis

A Pearson product–moment correlation was computed to determine the strength and direction of the relationship between self-awareness and organisational resilience. The results indicated a strong, positive, and statistically significant association between the two variables ($r = 0.51$, $p < 0.01$), indicating that higher levels of self-awareness among construction-sector leaders are associated with stronger organisational resilience capacities.

Further analysis using simple linear regression confirmed the predictive relationship between self-awareness and organisational resilience. The model yielded a significant regression coefficient ($\beta = 0.417$, $t = 7.63$, $p < 0.05$), indicating that self-awareness positively and meaningfully influences resilience outcomes. The coefficient of determination ($R^2 = 0.63$) revealed that approximately 63% of the variance in organisational resilience can be explained by variations in self-awareness levels.



SEM Results

The Structural Equation Modelling (SEM) analysis was conducted to test the hypothesised predictive relationship between self-awareness and organisational resilience while accounting for measurement error and latent construct interactions. The estimated path coefficient ($\beta = 0.417$) was positive and statistically significant ($p < 0.05$), confirming that higher levels of self-awareness among leaders significantly enhance the resilience capacity of their

organisations. The magnitude of this coefficient demonstrates a moderate-to-strong predictive effect, consistent with prior studies linking leadership authenticity to adaptive organisational performance (Liu et al., 2024; Gardner et al., 2021).

The model exhibited satisfactory fit indices, $\chi^2/df = 1.96$, Comparative Fit Index (CFI) = 0.94, and Root Mean Square Error of Approximation (RMSEA) = 0.06, all within thresholds recommended by Hair et al. (2021) and Kline (2023). These indicators collectively confirm that the hypothesised model aligns closely with the empirical data and meets international standards for model adequacy.

The Standardised Root Mean Square Residual (SRMR = 0.047) and Tucker–Lewis Index (TLI = 0.92) further corroborated the robustness of model specification, indicating low residual variance and high explanatory strength. The results lend strong empirical support to Hypothesis H₁, affirming that self-awareness, as a core dimension of authentic leadership, significantly predicts organisational resilience. In practical terms, this finding implies that construction-sector leaders who engage in reflective self-evaluation, emotional regulation, and authentic interpersonal conduct foster cultures that are better equipped to anticipate, absorb, and adapt to shocks. This aligns with Duchek’s (2020) conceptualisation of resilience as a dynamic process of anticipation, coping, and renewal, and confirms that the cognitive and affective processes underpinning self-awareness function as triggers for organisational learning and adaptive capability.

The SEM results further revealed that the structural path from self-awareness to organisational resilience accounted for a substantial proportion of variance ($R^2 = 0.63$), indicating that self-awareness alone explains 63% of the variability in resilience outcomes across Zimbabwean construction firms. This level of explained variance is notably high for behavioural constructs and demonstrates the robustness of the self-awareness–resilience nexus. Theoretically, the finding strengthens ALT by empirically validating self-awareness as a distinct psychological capability that enhances organisational adaptability through self-reflection, ethical alignment, and value-driven leadership (Avolio & Gardner, 2005; Luthans & Avolio, 2023). It also complements ORT by establishing that behavioural antecedents, rather than structural or financial factors alone, play a decisive role in determining organisational longevity in volatile environments (Hillmann & Raetze, 2022; Linnenluecke, 2017).

From a comparative perspective, these findings mirror global empirical trends. For example, Hoch et al. (2023) found similar predictive patterns in European engineering firms, where self-aware leaders demonstrated superior crisis navigation and strategic agility. Likewise, Newman et al. (2023) reported that leadership authenticity predicts employee trust and collective resilience across cultures. In developing economies, where institutional instability and policy inconsistency heighten organisational vulnerability, the effect of self-awareness becomes even more pronounced. In Zimbabwe’s construction sector, this behavioural attribute appeared to act as a stabilising mechanism, moderating the negative impact of environmental volatility by enhancing reflective learning and emotional composure (Mutizwa & Marufu, 2023). The SEM findings therefore suggest that cultivating leader self-awareness can yield both psychological and operational dividends, reducing crisis susceptibility while promoting proactive adaptation.

Figure 1 presents the structural model and standardised path estimates between self-awareness and organisational resilience. The diagram visually captures the strength and significance of the hypothesised linkage, illustrating the alignment between empirical data and theoretical assumptions.

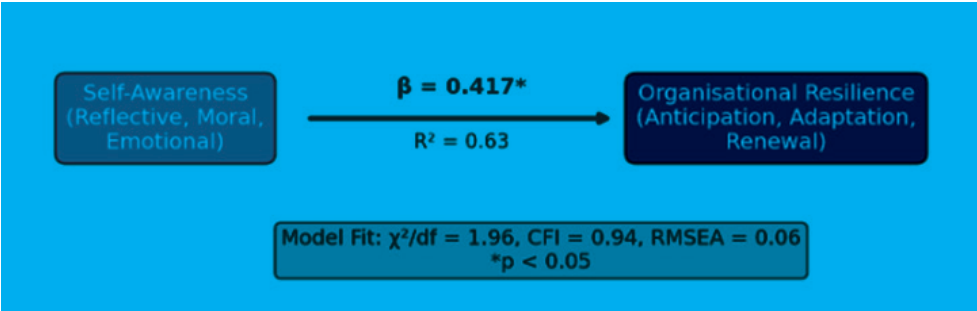


Figure 1: Structural Equation Model Showing the Relationship Between Self-Awareness and Organisational Resilience

Beyond statistical validation, the SEM outcomes have significant theoretical and practical implications. Theoretically, they expand the discussion on authentic leadership by incorporating self-awareness as a measurable prerequisite of resilience, thus linking psychological and organisational viewpoints. Practically, the findings highlight the necessity for leadership development programmes in Zimbabwe’s construction sector to include self-awareness training as a key strategic skill. Practices such as structured reflection, emotional intelligence workshops, and feedback-driven learning can foster the introspective ability that supports adaptive decision-making and organisational renewal.

Considering that resilience is increasingly seen as a critical factor for competitive advantage (Hillmann et al., 2021; Rahi, 2024), improving leadership self-awareness is not just developmental but a strategic necessity to maintain viability in environments marked by persistent uncertainty.

Discussion

The findings corroborate an expanding body of global evidence demonstrating that leadership self-awareness constitutes a foundational behavioural resource for organisational adaptability and crisis responsiveness (Liu et al., 2024; Gardner et al., 2021; Hillmann & Raetze, 2022). Leaders who engage in deliberate reflection and accurate self-appraisal are better positioned to regulate emotions, interpret situational complexity, and make ethically consistent decisions under pressure, behaviours that translate directly into organisational stability during turbulence (Luthans & Avolio, 2023).

In Zimbabwe's construction sector, the positive and significant association between self-awareness and resilience underline that self-reflective leaders cultivate climates of psychological safety, openness, and mutual trust, enabling teams to experiment, learn, and adapt in the face of volatility. Such leader model authenticity and moral consistency, which reinforces institutional credibility and strengthens stakeholder confidence, essential for project continuity amid resource scarcity and policy unpredictability (Newman et al., 2023; Mutizwa & Marufu, 2023). The results, therefore, affirm that self-awareness is not merely an intrapersonal trait but a strategic capability that enhances the sector's capacity for anticipatory learning, transparent communication, and collective adaptation, attributes increasingly recognised as the behavioural bedrock of sustainable organisational resilience (Rahi, 2024; Ducheck, 2020).

5.1 Theoretical Implications

The study enriches Authentic Leadership Theory by empirically validating self-awareness as a stand-alone behavioural antecedent of resilience, extending ALT's applicability to volatile developing-country settings. It also contributes to Organisational Resilience Theory by illustrating how cognitive–emotional leadership capacities translate into structural and cultural resilience mechanisms.

5.2 Practical Implications

The results demonstrate that self-awareness, as a dimension of authentic leadership, exerts a significant and positive influence on organisational resilience ($\beta = 0.417, p < 0.05$), accounting for approximately 63% of the variance

in resilience outcomes, as earlier indicated. This high explanatory power affirms that reflective and emotionally intelligent leadership behaviours enhance adaptive capacity in volatile environments. As revealed through the SEM model ($\chi^2/\text{df} = 2.245$; CFI = 0.923; RMSEA = 0.038), the data fitted the hypothesised structural relationships well, underscoring methodological robustness. These outcomes resonate with Duchek's (2020) three-phase conceptualisation of resilience, anticipation, coping, and renewal, suggesting that self-aware leaders in Zimbabwe's construction sector not only respond to crises but also use them as learning opportunities to reconfigure resources and strategies. In essence, the study substantiates the ALT postulate that leaders who understand and regulate their cognitive and affective states can influence organisational systems toward sustained renewal and recovery.

A deeper interpretation of the results suggests that self-awareness acts as a behavioural and psychological catalyst for collective resilience. Leaders who engage in self-reflection, balanced information processing, and transparent communication cultivate environments of trust and psychological safety, which are crucial for learning and adaptability (Gardner et al., 2021; Liu et al., 2024). In the Zimbabwean construction sector, such leaders promote open dialogue, ethical decision-making, and inclusive participation, thereby collectively strengthening organisational preparedness and continuity. Conversely, firms led by individuals lacking self-awareness exhibit weaker resilience, often relying on reactive rather than anticipatory responses to disruptions. This contrast highlights the strategic importance of self-awareness as a driver of proactive resilience, aligning with Hillmann and Raetzke's (2022) assertion that leadership authenticity transforms resilience from a static trait into a dynamic learning process embedded within organisational culture.

Furthermore, the model fit indices and factor loadings derived from CFA and SEM confirm the structural coherence of the relationship between authentic leadership and resilience. The reliability indices (Cronbach's $\alpha > 0.80$; CR > 0.70; AVE > 0.50) and discriminant validity statistics, as evidenced by HTMT ratios (<0.90), demonstrate that self-awareness and resilience are empirically distinct yet conceptually intertwined constructs. These results are consistent with international findings, such as those by Newman et al. (2023), who reported that self-aware leaders inspire team efficacy and strengthen collective problem-solving in crisis-prone sectors.

The Zimbabwean evidence extends these insights to developing-economy contexts, revealing that behavioural authenticity can offset structural deficiencies,

such as limited capital inflows, policy inconsistency, and institutional fragility, by enabling leaders to anchor organisational sense-making in reflective practice and ethical foresight. The behavioural grounding positions leadership self-awareness as a strategic asset that can bridge governance deficits and promote long-term organisational viability.

Finally, the findings contribute both theoretically and practically to leadership and resilience scholarship. Theoretically, they advance ORT by empirically demonstrating that self-awareness serves as a microfoundation of resilience. This individual-level competency scales up to organisational adaptability through relational and cognitive mechanisms (Hillmann et al., 2021).

Practically, the results imply that enhancing resilience in Zimbabwe's construction sector requires institutionalising leadership development programmes centred on emotional intelligence, reflexivity, and authentic communication. Training interventions, mentorship structures, and continuous feedback systems could cultivate self-aware leaders capable of transforming crises into learning opportunities, ensuring not merely survival but sustainable competitiveness. As construction firms continue to confront economic shocks, supply-chain fragility, and regulatory uncertainty, self-awareness emerges not as an optional leadership quality but as a strategic resilience driver, the behavioural glue holding together innovation, integrity, and adaptive continuity.

Contextual Relevance

Zimbabwe's construction sector operates within one of the most volatile and structurally constrained economic environments in sub-Saharan Africa. Chronic fiscal fragility, persistent inflationary cycles, currency instability, and policy inconsistency have collectively eroded investor confidence and disrupted project financing (ZIMSTATS, 2024; CZI, 2023). Infrastructure deterioration, as evidenced by delayed projects, obsolete machinery, and fragmented supply chains, has further weakened the industry's operational backbone. Within such conditions, organisational resilience cannot be secured through technical competence or resource mobilisation alone. Rather, it requires *behaviourally grounded leadership* capable of navigating uncertainty through reflection, ethical awareness, and emotional regulation (Hillmann & Raetze, 2022). The empirical results of this study, therefore, highlight that self-aware leadership constitutes a critical non-material resource, a form of cognitive and affective capital that enables companies to remain functional and future-oriented amidst turbulence.

Self-aware leaders, due to their increased introspection and balanced judgment, play a stabilising role that goes beyond managerial efficiency. They exemplify what Luthans and Avolio (2023) describe as psychological capital, the combination of hope, efficacy, resilience, and optimism, that encourages persistence amid adversity. In Zimbabwe's hyperinflationary economy, where material incentives are often unsustainable, leaders who embody organisational values and communicate sincerely provide a stabilising force, preserving morale and a shared sense of purpose among staff. This alignment between personal conviction and organisational vision enhances both the symbolic and practical aspects of resilience (Gardner et al., 2021). The results thus indicate that leadership self-awareness supports moral consistency and emotional resilience, which act as buffers against systemic uncertainty and external shocks that frequently undermine project-based organisations.

Moreover, the relational transparency characteristic of self-aware leaders promotes trust and open dialogue—two conditions that are especially scarce in contexts marked by policy volatility and regulatory opacity (Mutizwa & Marufu, 2023). In many Zimbabwean firms, hierarchical structures and patronage-driven leadership cultures have historically inhibited communication flow and inhibited adaptive learning. The presence of self-aware leaders disrupts these patterns by modelling authenticity and inclusivity, thereby enhancing employee engagement and collective problem-solving. This behavioural transformation aligns with ALT, which posits that transparent, morally grounded leadership generates a climate conducive to innovation and resilience (Avolio & Gardner, 2005; Liu et al., 2024). In this regard, self-awareness is not simply a personal virtue but a context-sensitive leadership strategy that bridges the gap between individual cognition and organisational adaptation.

Finally, the Zimbabwean context amplifies the urgency of embedding self-awareness within leadership development frameworks. Construction firms continue to face multidimensional risks, including fluctuating exchange rates, material shortages, political uncertainty, and environmental disruptions. Under such pressure, leaders who fail to engage in self-reflection and value alignment are more likely to succumb to reactive decision-making, moral disengagement, or burnout.

Conversely, self-aware leaders cultivate resilience through sense-making, the capacity to interpret ambiguity, extract learning from failure, and reframe adversity as a catalyst for renewal (Duchek, 2020; Rahi, 2024). As the nation

pursues Vision 2030 and infrastructure-led growth, investing in leadership programmes that enhance self-awareness, ethical intelligence, and reflective practice will be instrumental in ensuring organisational sustainability. The contextual evidence from this study thus reinforces a pivotal insight: in high-volatility economies like Zimbabwe, leadership authenticity and self-awareness are not merely desirable traits, they are survival imperatives that determine whether organisations collapse or evolve.

Conclusions

This study empirically established a statistically significant positive relationship between self-awareness and organisational resilience in Zimbabwe's construction sector, confirming that leaders with heightened self-reflective capacity are better able to guide their organisations through turbulence and uncertainty. The results demonstrated that self-awareness ($\beta = 0.417$, $p < 0.05$) accounted for a substantial proportion of variance in resilience ($R^2 = 0.63$), indicating that introspective and emotionally intelligent leadership behaviours directly enhance an organisation's ability to anticipate threats, absorb shocks, and recover from disruptions. These findings validate the propositions of Authentic Leadership Theory (Avolio & Gardner, 2005), which conceptualises self-awareness as the cognitive and affective foundation of authentic behaviour, and Organisational Resilience Theory (Duchek, 2020), which frames resilience as a dynamic process of anticipation, adaptation, and renewal. By linking these theoretical perspectives to empirical evidence from a developing economy, the study contributes a novel contextual lens to the global discourse on leadership and resilience.

The findings reveal that self-aware leaders cultivate psychological safety, ethical coherence, and adaptive learning cultures, which are essential for organisational survival in volatile environments. In the Zimbabwean construction context, characterised by fiscal instability, inflationary pressures, and policy inconsistency, such leaders provide the moral and emotional stability required to sustain productivity. They model transparency and trustworthiness, fostering environments where employees feel empowered to voice concerns, engage in shared problem-solving, and innovate under pressure. Consequently, self-awareness emerges as both a behavioural capability and a strategic asset that enables organisations to convert adversity into opportunity. This behavioural orientation transforms resilience from a reactive survival mechanism into a proactive, continuous capability, aligning with recent empirical studies that

emphasise leadership authenticity as a determinant of crisis navigation and renewal (Hillmann & Raetze, 2022; Liu et al., 2024).

From a theoretical standpoint, the study advances existing leadership scholarship by empirically demonstrating that self-awareness serves as a microfoundation of organisational resilience, bridging individual cognition and collective adaptability. It extends the Authentic Leadership Theory by providing empirical support for the behavioural-to-organisational transmission mechanism, in which leaders' introspective awareness cascades through relational transparency and balanced information processing to influence team and organisational outcomes (Gardner et al., 2021). The results further contextualise the Organisational Resilience Theory by demonstrating that, in resource-constrained economies, resilience is not solely contingent on financial capital or infrastructural robustness but also on psychological capital embodied in leadership self-awareness (Luthans & Avolio, 2023). Thus, resilience must be reconceptualised as both a structural and behavioural construct, dependent on leadership cognition and reflective action.

In essence, resilience within Zimbabwe's construction industry is contingent not only on structural robustness and financial solvency but also on the self-awareness of its leaders. Self-aware leaders transform crises from existential threats into catalysts for organisational renewal, anchoring continuity through reflective insight, emotional balance, and ethical authenticity. For construction companies operating in volatile economies, cultivating such leadership is no longer optional; it is the decisive capability that determines long-term survival and sustainable competitiveness.

Recommendations

Recommendations derived from these findings emphasise the need for systemic investment in leadership development within Zimbabwe's construction industry. First, industry regulators, such as the Construction Industry Federation of Zimbabwe (CIFOZ) and the Ministry of National Housing and Infrastructure Development, should institutionalise leadership capacity-building programmes focusing on self-awareness, emotional intelligence, and reflective practice. These initiatives should form part of executive education curricula, mentoring schemes, and professional certification frameworks.

Second, construction companies should embed feedback and coaching mechanisms into their organisational culture to nurture continuous self-reflection among leaders. Third, national policy frameworks should recognise

leadership behaviour as a key determinant of industrial resilience and integrate leadership psychology into broader infrastructure development strategies.

Finally, future research should explore the mediating effects of emotional intelligence, trust, and communication transparency in the self-awareness–resilience nexus across other sectors, such as manufacturing and telecommunications, to generalise and extend these findings.

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