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MARKET ORIENTATION IN THE CONSTRUCTION INDUSTRY IN SOUTH AFRICA

A research report submitted by

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Abstract

This study investigated the prevalence and impact of market orientation and sustainability orientation practices within South African construction firms and their subsequent influence on business performance. Amidst increasing economic volatility, regulatory pressures, and resource constraints, the construction sector in South Africa faces notable challenges, reflected in the rising rate of firm liquidations. Employing a quantitative research design, this research utilised a structured questionnaire to collect data from a sample of construction industry professionals affiliated with the Construction Industry Development Board (CIDB) and the South African Council for the Project and Construction Management Professions (SACPCMP). The study examined three key dimensions of market orientation—customer orientation, competitor orientation, and inter-functional coordination—alongside sustainability orientation and their collective influence on company performance.

The study reveals that, contrary to initial expectations, South African construction firms demonstrate high levels of market orientation, specifically customer orientation, competitor orientation, and inter-functional coordination dimensions. Similarly, significant sustainability orientation practices were observed, including substantial compliance with health and safety regulations and adherence to environmental, social, and governance (ESG) standards however, gaps were observed in CO_2 emissions reduction and environmental certifications. Regression analysis confirmed that both market orientation and sustainability orientation are significant predictors of company performance, with sustainability orientation showing a particularly strong correlation.

This research contributes to the existing literature by elucidating the strategic importance of integrating market and sustainability orientations in the construction industry. The findings provide valuable insights for practitioners, recommending enhanced customer responsiveness, systematic competitor intelligence gathering, strengthened inter-departmental collaboration, and proactive sustainability practices as key strategic drivers for sustainable business success in South Africa’s construction sector.

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1. INTRODUCTION

1.1 Purpose of the study

This research aimed to ascertain the prevalence of market and sustainability orientation practices amongst South African construction firms and their impact on business performance. Market orientation has been the subject of various studies in the South African context (Loubser, 2000; Adonisi, 2005; Van Zyl & Mathur-Helm, 2007); Saini and Mokolobate (2011); (Adonisi & Van Wyk, 2012; Dubihlela, 2012; Mokoena & Dhurup, 2017) however, limited research has been conducted on the status of market orientation within South African construction firms. The recognition of the importance of sustainable practices among these firms has been steadily increasing, yet the industry's commitment to sustainability is still significantly affected by various economic, regulatory, and resource-related factors (Plessis, 2001; Windapo, 2014; Aigbavboa et al., 2017; Olanrewaju et al., 2020; Dosumu & Aigbavboa, 2021; Marsh et al., 2021). No specific research has been conducted to assess the combined impact of market and sustainability orientations on business performance in construction companies operating in South Africa.

1.2 Context of the study

Globally and locally, the construction sector and, specifically, construction firms play a pivotal role in the economy. The immense contribution of the construction industry to the South African economy is indubitable. At the height of the construction boom in 2009, leading to the 2010 FIFA World Cup, the construction industry experienced notable growth, with its real value added increasing by 8.4% compared to previous quarters (Statistics South Africa, 2009). In addition to being a key contributor to GDP, the industry employs over 12.5% of the country's labour force (Statistics South Africa, 2024). According to Statistics South Africa (2024), the construction industry employed approximately 592,000 individuals in the formal sector and an additional 1,322,000 in the informal sector in 2024.

The importance of the construction sector is elucidated when viewed against the backdrop of South Africa’s infrastructural shortcomings. Despite the high levels of importance and responsibility vested in the sector, the performance of South African construction firms has

been steadily deteriorating amidst the challenging economic environment. This is also mirrored in the construction sector's contribution to the Gross Domestic Product (GDP), which has been fluctuating relative to other industries since 2017 (Statistics South Africa, 2023a).

There is consensus that construction firms operate in an increasingly turbulent and competitive business environment. Domestically, the unsettled economic environment is beginning to have a telling impact on construction firms' performance. According to (Statistics South Africa, 2023b) 94 companies and close corporations in the construction industry were liquidated in 2023. These statistics provide further evidence that the highly competitive environment presents seemingly extraordinary challenges for construction firms.

Several remedial strategies have been recommended to enhance the performance of construction businesses (Department of Public Works, 1999; Smallwood, 2000; Oyewobi et al., 2020; Faltein & Sukdeo, 2024). The common thread among these remedial strategies is that they are operational in nature. This highlights a void in both the literature and practice, as while operational solutions have long been promoted, management and/or strategically inclined solutions have largely been neglected. One management concept that has gained prominence in the last few decades is market orientation. Narver and Slater (1990) posited that a business that increases its market orientation will likely improve its performance. Similarly, Verhees and Meulenberg (2004) asserted that a positive relationship exists between customer orientation and firm performance. Against the backdrop of poorly performing construction firms, this report investigated the prevalence of the market orientation practice amongst South African construction firms and its impact on perceived business performance.

1.3 Problem statement

The failure and liquidation rates of South African construction firms have steadily increased (Statistics South Africa, 2023b). Drawing on contingency theory (Donaldson, 2001) and the resource-based view (Barney, 1991), this phenomenon likely arises from a mismatch between internal capabilities (e.g., inter-functional coordination) and external demands (e.g., sustainability pressures). These theories suggest that the strategic alignment of

market and sustainability orientations can build firm-specific advantages that reduce the risk of liquidation. This is primarily because South African construction firms have not inculcated market-oriented and sustainability-oriented practices to generate superior performance and competitive advantage in the current turbulent environment. Several studies (Dikmen, Birgonul, & Kiziltas, 2005) lend credence to this assertion. The foundational philosophical premise of contemporary marketing theory is anchored in the marketing concept, which holds that organisations must identify and fulfil customer needs more adeptly than their competitors to secure long-term success (Kotler, 2024). Firms that embrace and enact this principle are characterised as market-oriented, systematically gathering and responding to market intelligence to align their offerings with evolving customer demands (Rokkan, 2023). The practice of market orientation has been proven to have a positive impact on organisational performance and customer satisfaction for firms operating in highly competitive environments (Narver & Slater, 1990; Deshpandé & Farley, 1998; Kirca et al., 2005; Ellis, 2006; Low, 2006); Narver & Slater, 1990), with many firms proactively aligning multiple orientations in their strategic posture to achieve better outcomes (Beliaeva & Bogatyreva, 2018). Improvements in sustainability practices have become critical for companies' pursuit of a competitive advantage. Empirical evidence in South Africa indicates that construction firms that have not embedded a sustainability orientation continue to underperform and face higher exit rates (Dosumu & Aigbavboa, 2021). Thus, the survival and competitiveness of South African construction firms require the effective implementation of multiple strategies and practices. Consequently, this study sought to evaluate the extent to which South African construction firms utilise market-oriented and sustainability-oriented practices and how this impacts their company performance.

1.4 Research objectives

This research aimed to achieve the following:

a) Measure the level of market orientation within construction firms.
b) Measure the level of sustainability orientation within construction firms.
c) Ascertain the relationship between each market orientation dimension and the performance of construction firms.

d) Assess the relationship between sustainability orientation and the performance of construction firms.
e) Recommend market-orientated and sustainability-orientated approaches that can be adopted to enhance the business performance of construction firms.

1.5 Research questions

This research aimed to address the following questions:

a) To what extent do South African construction firms exhibit customer, competitor, and inter-functional coordination orientations?
b) How do these market orientation dimensions relate to company performance?
c) To what extent do firms demonstrate sustainability orientation (ESG practices, CO_2 reduction, certifications)?
d) What is the impact of sustainability orientation on company performance?
e) How can firms strategically align market and sustainability orientations to improve competitive advantage and operational outcomes?

1.6 Significance of the study

This research has significant practical and theoretical implications for the construction sector in South Africa, as it provides new empirical insights into the strategic approaches that enhance business performance. By illustrating that elevated levels of market orientation, which include customer focus, competitor awareness, and inter-departmental coordination, are positively associated with superior organisational results, the study emphasises key areas that require managerial focus. Companies can utilise these orientations to address customer needs more effectively, strategically respond to competition, and enhance internal collaboration for improved market responsiveness.

Additionally, this research highlights sustainability orientation as a vital factor influencing business performance, revealing it to be an even more significant predictor than market orientation. By demonstrating the real advantages of complying with health and safety regulations and ESG standards, the study encourages construction companies to actively integrate sustainability into their strategic planning. This approach will strengthen their

competitive position and align their operations with growing regulatory and societal demands, fostering long-term resilience and sustainability.

- The results expand the current literature and provide industry professionals with practical strategies for optimising business operations amid challenging economic conditions. By synchronising strategic objectives with both market-oriented and sustainability-driven methods, construction companies can enhance their competitive stance, environmental responsibility, and overall operational efficiency. Ultimately, the research supplies South African construction firms with valuable benchmarks and insights that can aid their success in an increasingly competitive and environmentally aware market environment.

  Theoretical Contribution: Integrates Contingency Theory and the Resource-Based View into empirical research on dual orientations in construction, filling a gap identified by ((Hakala, 2011) and Papasolomou-Doukakis 2002).

1.7 Delimitations, Assumptions, and Limitations

- **Delimitations:** The study focuses on CIDB and SACPCMP registered firms, excluding informal contractors. This boundary enhances measurement consistency but narrows generalizability; future research should include informal contractors to capture sector heterogeneity (Ofori, 2000; Saunders et al., 2003).
- **Assumptions:** Respondents have adequate knowledge of their firms' market and sustainability practices; self-reported performance measures reflect actual outcomes as supported by prior research on upper-echelon perceptions (Groves et al., 2011); (Hambrick & Mason, 1984).
- **Limitations:** Convenience sampling may limit generalizability; reliance on subjective measures may introduce bias despite Cronbach's alpha checks.

2. LITERATURE REVIEW

2.1 Introduction

The literature review has five sections, covering: 1) business orientations; 2) market orientation dimensions; 3) sustainability orientation; 4) the impact of market orientation and sustainability orientation on construction firms' performance; and 5) a summary.

2.2 Overview of business orientations

Pearson (1993) posited that businesses can orient themselves in different ways, such as sales, production, and market orientation. A sales-oriented organisation prioritises sales programme development over customer satisfaction, whereas the production concept focuses on high production efficiencies and low costs ((Papasolomou-Doukakis, 2002; Guenzi, 2003); Kotler and Keller (2009); Papasolomou-Doukakis, 2002 and Sumrall et al. (1991)). The market orientation construct will be discussed extensively in the following section. Table 1 highlights the characteristics of each business orientation to demonstrate their fundamental differences and set the scene for the coming discussion.

Table 1: Business Orientations

Orientation	Customer Behaviour	Managerial Focus
Production	Customers prefer products that are widely available and inexpensive	Production efficiency, low costs
Sales	Customers buy too little if they are not motivated	Sales efforts
Market	Customers buy solutions appropriate to their needs	Understanding customers

Source: (Hedaa & Ritter, 2005)

2.3 Market orientation

2.3.1 Definition of market orientation

Researchers have defined market orientation from a behavioural, cultural, and systems-based perspective ((Kohli & Jaworski, 1990) (Stanley, 2001). Despite the differences in these definitions, creating and delivering superior customer value is fundamental to market orientation. This research adopted Slater and Narver's (1994) conceptualisation of market orientation, which includes customer orientation, competitor orientation, and inter-functional coordination. Recent research by Ali and Park (2016) demonstrated that innovation mediates the relationship between market orientation and firm performance in South African firms and globally, Grinstein (2008) found that market orientation has a positive influence on performance across sectors, although the effect sizes vary by industry maturity.

Research hypothesis 1

H_1: South African construction firms exhibit low levels of market orientation.

2.3.2 Market orientation framework

Slater and Narver (1994) defined market orientation as an organisational culture that enhances long-term profitability and consists of three major components – customer orientation, competitor focus, and cross-functional coordination, which are long-term in vision and profit-driven. The interaction of the different components of market orientation is illustrated in Figure 1 below.

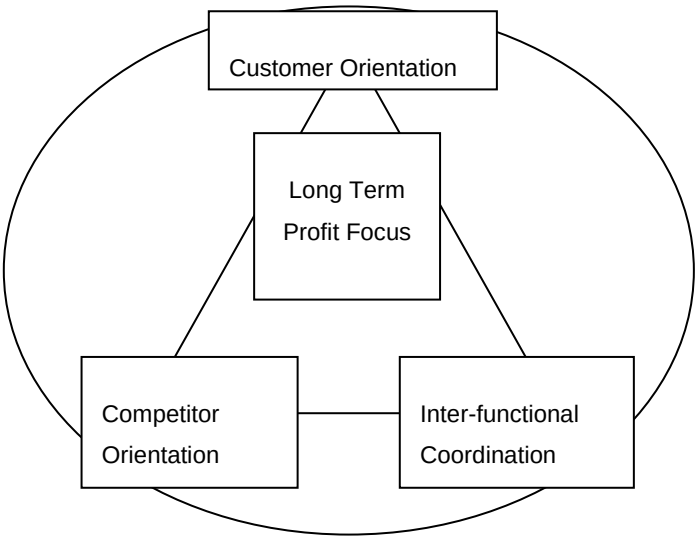


Figure 1: Market Orientation Framework (Dane, 1990; Slater & Narver, 1994)

The key components of market orientation, as illustrated in Figure 1, are explored in the discussion below.

2.3.2.1 Customer orientation

Mohr-Jackson (1991) proposed an extended concept of customer orientation that involves understanding internal customer requirements, obtaining information about external customers, and creating additional final buyer value. Conduit and Mavondo (2001) later suggested that superior value to external customers can only be provided when internal suppliers have an internal customer orientation. Judd (2003), meanwhile, asserted that customer orientation requires an organisation to focus on both external and internal customers. Finally, Jaramillo and Grisaffe (2009) concluded that customer orientation helps firms achieve sustainable sales growth over time. Customer orientation is a critical aspect of market orientation, yet South African construction firms are often perceived to have a limited focus on understanding and responding to customer needs.

H1.1 *South African construction firms exhibit low levels of customer orientation.*

2.3.2.2 Competitor orientation

Zhou et al. (2007) emphasised that competitor orientation is a crucial aspect of strategic management that enables firms to achieve sustainable competitive advantages and long-term success, while Mueller and Georg Gemünden (2009) asserted that competitor

orientation allows firms to gain valuable insights into their competitors' behaviour, capabilities, and strategies. Debruyne et al. (2010) similarly concluded that competitor orientation can lead to cost advantages, differentiated products, and a more vigilant approach towards potential competitors. (Armstrong, 1996); F. (1996)noted that advances in information systems had facilitated the acquisition of competitor data, leading to more effective competitor-oriented approaches. Wright et al. (2002) stated that effective competitor orientation involves understanding the industry, analysing competitors, identifying their strengths and weaknesses, and anticipating their moves. Competitor orientation, a key dimension of market orientation, is essential for firms to remain competitive, yet South African construction firms appear to demonstrate limited awareness and responsiveness to their competitors' strategies and market positions.

H1.2 *South African construction firms exhibit low levels of competitor orientation.*

2.3.2.3 Inter-functional coordination

Collaboration, cooperation, and integration are key concepts of cross-functional coordination, as highlighted by (Ewim et al., 2024). Auh and Menguc (2005) defined cross-functional coordination as the ability of different functional areas to accommodate varying perspectives and navigate conflicting viewpoints by prioritising organisational goals over individual functional interests. Inter-functional coordination has been shown to enhance organisational performance, improve decision-making, and increase customer satisfaction (Kohli & Jaworski, 1990; Narver & Slater, 1990). Additionally, improved interdepartmental connectivity facilitates the early exchange of customer and market information, enabling firms to define product quality requirements at an earlier stage (Song & Montoya-Weiss, 2001; Brettel et al., 2011).

Balas et al. (2012) examined the relationship between the three dimensions of market orientation and asserted that cross-functional coordination integrates the outcomes of customer and competitor orientation, enabling coherent organisational action. This interconnected approach ensures that an organisation can effectively leverage customer and competitor insights to drive strategic decision-making and improve overall performance. Inter-functional coordination, which involves the seamless collaboration of different departments to create value for customers, is a crucial component of market

orientation. However, South African construction firms seem to display low levels of integration and coordination across their internal functions.

> ***H1.3*** *South African construction firms exhibit low levels of inter-functional coordination.*

2.4 Sustainability orientation

Sustainability is becoming increasingly important for construction companies in South Africa due to regulatory requirements, industry initiatives, and the growing awareness of the benefits of sustainable practices. It is now widely recognised that environmental, social, and economic considerations must be integrated into construction practices (Du Plessis, 2007). Sustainability orientation encompasses environmental, social, and governance (ESG) practices. Hart (1995) natural-resource-based view posits that eco-capabilities yield competitive advantage. Kinnunen et al. (2022) link sustainability orientation to business strategies akin to differentiation and cost leadership in the construction sector; Danso et al. (2019) provide empirical evidence that environmental sustainability orientation positively affects financial (operational) performance in South African firms.

Most sustainability orientation research emphasises environmental aspects, while social dimensions such as community impact remain comparatively underexplored (Khizar et al., 2021; Annarelli et al., 2024). From a dynamic-capabilities standpoint, firms' ability to adapt to changing regulations is crucial for sustaining a competitive advantage; yet, longitudinal studies examining how these adaptations evolve over time are scarce (Wu et al., 2012; Cezarino et al., 2019)

Research hypothesis 2

> ***H2*** *South African construction firms exhibit low levels of sustainability orientation.*

2.5 Market orientation and company performance

2.5.1 Company performance

The concept of business performance in construction firms has been widely studied, with scholars emphasising its multidimensional nature that incorporates financial, operational, and strategic outcomes. Traditional measures of performance have focused on financial indicators such as profitability, return on investment (ROI), and revenue growth (Venkatraman & Ramanujam, 1986), however contemporary research highlights the importance of non-financial performance indicators, including customer satisfaction, project efficiency, innovation, and sustainability practices (Eccles et al., 2014). Given the dynamic and often unpredictable nature of the construction industry, performance is also influenced by external factors such as economic conditions, regulatory requirements, and market competition (Horta et al., 2013).

Schendel and Hofer (1979) argued that business performance is the ultimate test of any strategy. In the same vein, Miller and Bromiley (1990) suggested that strategy describes features associated with superior business performance. Therefore, studies on modern management concepts that do not assess their relationship with business performance seem incomplete.

There are three schools of thought on business performance. The first argues that the best-performing companies are customer-led (Whitwell et al., 2003), the second posits that companies that increase their focus on market orientation increase their firm's performance, including market share, profitability, and overall competitive advantage (Narver & Slater, 1990); and the third is that market orientation can be associated with business performance (Ruekert, 1992; Deshpandé & Farley, 1998; Dawes, 2000; Dobni & Luffman, 2000; Cano et al., 2004; Verhees & Meulenberg, 2004; Kirca et al., 2005).

2.5.2 Market orientation and company performance

Day (1994) and Narver and Slater (1990) contended that market-oriented organisations can satisfy customers better by creating superior value through the coordinated employment of resources and, hence, perform at higher levels than their less market-

oriented rivals. Market orientation has proven to be positively related to sales growth, market share, return on assets, new product success, and long-term financial performance (Narver & Slater, 1990; Ruekert, 1992).

On the contrary, Diamantopoulos and Hart (1993) and Greenley (1995) found that any positive correlation between market orientation and business performance is weak because of moderating factors such as market turbulence, technological advances, and market growth rates. Wong and Mavondo (2000) also discovered no correlation between firm performance and market orientation in the Australian construction and building industry, which is highly regulated and structured on competitive tendering. As clients focus on enforcing these standards, market orientation is unsuitable as a source of sustainable competitive advantage.

Notwithstanding the variations in these results, extensive literature indicates a positive relationship between market orientation and overall business performance.

Research hypothesis 3

> ***H3*** *Market orientation is positively related to the company's performance in the construction industry.*

2.5.3 Each dimension of market orientation and company performance

The main success factors for marketing in the construction industry have been identified as company image, customer satisfaction, company experience, target customer audience, marketing department, and marketing activities (Yisa et al., 1996; Dikmen, Birgonul, & Ozcenk, 2005; Yankah et al., 2017). Customer satisfaction was perceived to be the most important factor for marketing success when weighed against the others (Arslan et al., 2009).

Pelham (2000) also argued that customer satisfaction is the most influential market orientation dimension for improving firm performance. However, there is limited research on the association between individual market orientation dimensions and business performance, particularly in the construction sector. Sørensen (2009) later concluded that the individual market orientation components are not equally relevant across different

firms, as their impact depends on firm strategy and environmental factors. Therefore, assessing the correlation between firm performance and specific components of market orientation is crucial for understanding their role in different industries.

> ***H3.1*** *There is a positive relationship between customer orientation and company performance in the construction industry.*
>
> ***H3.2*** *There is a positive relationship between competitor orientation and company performance in the construction industry.*
>
> ***H3.3*** *There is a positive relationship between inter-functional coordination and company performance in the construction industry.*

2.5.4 Sustainability orientation and company performance

The discussion regarding the correlation between sustainability and financial success has persisted. More recent literature highlights the role of sustainability performance, encompassing environmental, social, and governance (ESG) practices, as a crucial driver of long-term resilience and stakeholder trust (Eccles et al., 2014; Friede et al., 2015). Companies prioritising sustainability often enjoy cost savings through resource efficiency measures, minimise risks associated with regulatory compliance and reputational harm, attract socially conscious investors and customers, and promote innovation through sustainable product development and process improvement. Moreover, being perceived as environmentally and socially responsible can enhance a brand's reputation and foster customer loyalty, ultimately increasing market share and revenue.

> ***H4*** *There is a positive relationship between sustainability orientation and company performance in the construction industry.*

2.5.5 Market orientation, sustainability orientation, and company performance

Scholars have investigated the relationship between sustainability orientation and other forms of strategic orientation and found that firms relying on a single orientation are more likely to fail in the long run (Hakala, 2011; Khizar et al., 2021). Hence, companies are now developing a strategic posture based on multiple strategic orientations to create a stronger competitive position and achieve superior organisational performance. In the South African construction industry marked by fluctuating demand, policy shifts, and resource constraints, adopting a dual orientation (integrating both market and sustainability orientations) can enhance firm performance, supporting long-term profitability and industry leadership (Windapo et al.; Kinnunen et al., 2022; Tau et al., 2024).

Empirical studies further emphasise that construction firms adopting multi-orientation strategies tend to outperform their counterparts by fostering innovation, enhancing efficiency, and securing a competitive advantage in fluctuating market conditions (Beliaeva et al., 2018). Given the dynamic nature of the construction industry, companies that align both market and sustainability orientations are more resilient and competitive, benefiting from cost efficiencies, regulatory compliance, and improved stakeholder trust (Liu & Huang, 2020). Integrating both market and sustainability orientations may generate synergistic effects.

The literature highlights that both market orientation and sustainability orientation are critical yet often siloed drivers of firm performance in the construction industry. Empirical integration of market orientation and sustainability orientation remains in its infancy. Existing models often treat orientations in isolation, overlooking interdependencies. Ali and Park (2016) began to address this by modelling dual orientations relying on perceptual measures.

> ***H5*** *Implementing both market-oriented and sustainability-oriented strategies will enhance company performance in the construction industry.*

2.6 Research framework

This study investigated two key relationships, as illustrated in Figure 2 below.

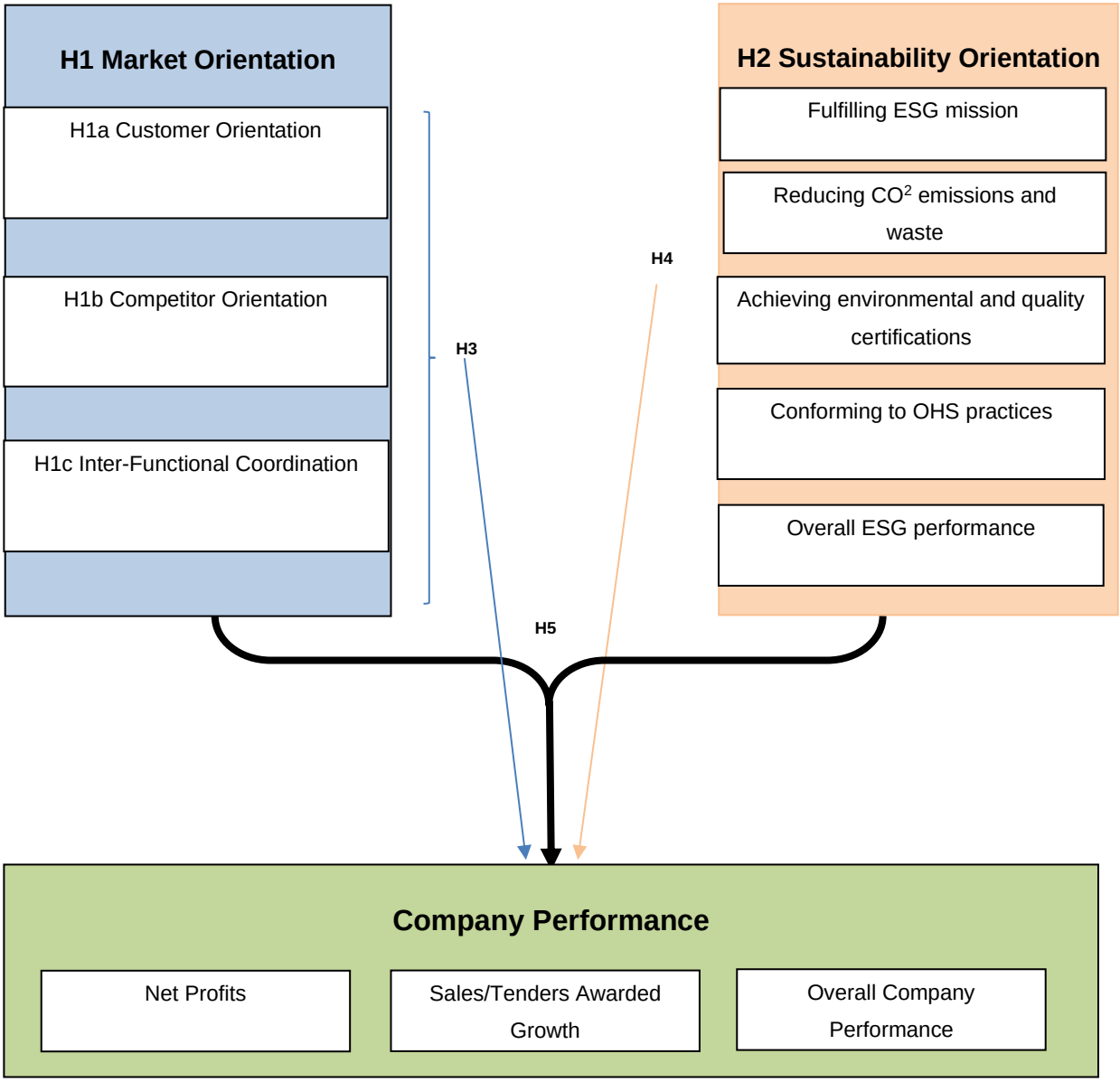


Figure 2: Conceptual Framework

2.7 Conclusion

Business orientations can be classified into production, sales, and market orientations, with the latter including customer orientation, competitor orientation, and inter-functional coordination. Construction firms tend to be production-oriented and hesitate to adopt modern management practices, yet studies suggest that market-oriented companies tend to perform better overall. At the same time, the growing emphasis on

sustainability orientation is important as firms face growing regulatory, environmental, and stakeholder pressures (Friede et al., 2015). Companies that incorporate sustainability strategies tend to achieve cost efficiencies, enhance brand reputation, and secure long-term profitability (Liu & Huang, 2020). However, relying on either market or sustainability orientation alone may not be sufficient in today's complex and competitive business environment. The independent relationship between market orientation and sustainability orientation, and business performance, has been widely studied, with researchers identifying financial and non-financial performance indicators as key outcomes (Eccles et al., 2014).

A review of several articles reveals four key gaps: (1) limited construction-specific market orientation scales; (2) underrepresentation of social sustainability metrics; (3) absence of longitudinal designs capturing orientation dynamics; (4) scarce research on organizational structures facilitating integration. This study addresses these by adapting validated scales, incorporating a balanced ESG framework, and employing cross-sectional survey data with retrospective elements

3. RESEARCH METHODOLOGY

This section provides a general overview of the specific methodology used to conduct this research, including the research design and instruments employed. It then examines aspects of data collection and analysis within the context of this study, before discussing validity, reliability, and ethical considerations.

3.1 Introduction

This study adopted a positivist research philosophy, rooted in the belief that objective reality can be measured through empirical observation and statistical analysis (Saunders, Lewis, & Thornhill, 2003). Positivism aligns with the quantitative, cross-sectional survey design by emphasizing hypothesis testing, generalizability, and use of standardized instruments (Creswell, 2003). A quantitative approach was suitable for assessing the utilisation of the market orientation concept and answering the research questions because it eliminated researcher bias and relied on data collected using a predetermined instrument that yielded statistical data (Creswell (2003). Quantitative research is more accurate in determining the strengths of relationships and showing patterns and joint associations of variables (Firestone, 1987). Therefore, it was deemed suitable as this study intended to measure the extent to which market orientation is practiced and assess the correlation between market orientation and business performance. Furthermore, most previous research studies on market orientation adopted a quantitative approach (Adonisi, 2005; Adonisi & Van Wyk, 2012; Dubihlela, 2012; Loubser, 2000; Mokoena & Dhurup, 2017; Saini & Mokolobate, 2011; Van Zyl & Mathur-Helm, 2007).

3.2 Research design

Research design is broadly defined as a plan of how a researcher intends to answer the questions posed by their study (Welford et al. (2012). This research employed the survey method for data collection to answer questions related to the levels of market orientation and sustainability orientation, evaluating the relationships between market orientation, sustainability orientation, and business performance. Surveys are

regarded as appropriate research instruments for exploratory research, which seeks to answer ‘what, ‘who, ‘how much and ‘how many’ questions (Saunders et al., 2012).

3.3 Target population

The target population was individuals working for South African construction firms registered with the Construction Industry Development Board (CIDB) and the South African Council for the Project and Construction Management Professions (SACPCMP). According to the CIDB construction monitor, there are 18,776 registered contractors across the country (Construction Industry Development Board, 2024).

3.4 Sample and sampling method

Convenience sampling was employed due to its ease of accessibility, quick data collection, reduced expenses, and feasibility. Cochran's sample size equation was used to determine the target sample size, resulting in a required sample size of 384 at a 95% confidence level and a ±5% margin of error, with an estimated population proportion of 0.5. The respondents were project managers, site managers, occupational health and safety officers, contract managers, business development professionals, executives, and marketing practitioners.

3.5 Data collection method

The contact details of all the CIDB-registered construction firms were downloaded from the CIDB website on the Internet. A predetermined questionnaire was uploaded to Qualtrics, and a survey link was generated, which was emailed by the SACPCMP to their members. To protect the integrity of the data, all returned questionnaires were individually assessed for correctness, and those completed incorrectly were discarded.

3.6 The research instrument

The research utilised a structured questionnaire employing a 6-point Likert scale to measure the constructs. The questionnaire comprised 25 closed-ended statements

and two open-ended questions. The instrument was divided into five sections, with the first requesting demographic information and the second categorising the construction companies. The third section measured market orientation using the Narver and Slater MKTOR scale, which consisted of 13 items divided into three dimensions: customer orientation (six items), competitor orientation (three items), and inter-functional coordination (four items). The fourth section assessed sustainability orientation using four items adapted from established scales (Montabon et al., 2007; Khizar et al., 2021), and finally, the fifth section evaluated business performance using five subjective items based on previous validated scales (Deshpandé & Farley, 1998; Dawes, 2000; Dobni & Luffman, 2000; Matsuno et al., 2002; Rojšek & Vodlan, 2003; Verhees & Meulenberg, 2004; Jain & Bhatia, 2007). A copy of the questionnaire is attached in Appendix A.

3.7 Data analysis strategies and interpretation

The data were analysed and interpreted using statistical analysis, including descriptive statistics on various company characteristics, inference-making, correlation analysis, and hypothesis testing (Gaddis & Gaddis, 1990).

Descriptive statistics were generated using dichotomisation methods, where the Likert-type scale was converted into a binary variable, and the percentages of respondents who supported each question were subsequently calculated (Harpe, 2015). Specifically, the responses categorised as "0=Not at all" and "1=Very little" were combined to represent the respondents who did not endorse the statement in question. Conversely, the remaining responses, namely "2=Fairly well", "3=Quite well", "4=Very well", and "5=Extremely well" were combined to indicate those expressing agreement with a statement. Exploratory factor analysis was used to process the data from the questionnaire. The principal components analysis approach was then used to consider the total variance in the data (Saunders et al., 2012).

The statistical software SPSS and STATA 14 were used to process the data collected and generate a systematic analysis format. Factor analysis, originally developed by Spearman (1904), was initially applied to identify the most significant factors by examining the highest loadings of statements, which were then used to define key

constructs. The technique has since evolved and is now widely used in modern research for data reduction and identifying latent variables (Field, 2024). The research propositions were subsequently tested based on these derived factors.

3.8 Quality assurance

In construction research, validity refers to the accuracy of a measuring instrument in assessing the intended variables, ensuring that the results truly reflect real-world construction industry dynamics (Leedy & Ormrod, 2014). Validity is categorized into external and internal validity, where external validity determines the generalizability of findings, while internal validity ensures that observed relationships between variables are causally linked rather than coincidental (Saunders et al., 2003; Abowitz & Toole, 2010). A valid measurement instrument is essential in construction management and business studies to accurately assess aspects such as market orientation, sustainability practices, and project performance metrics.

Similarly, reliability refers to the consistency of a measuring instrument in producing stable and repeatable results under similar conditions (Leedy & Ormrod, 2014). Fink (2003) emphasised that a reliable research tool provides consistent results across various construction projects, company sizes, and geographical locations, while a valid tool ensures that the measurement reflects real-world construction performance. Establishing high reliability in construction studies is crucial for comparing the market orientations, sustainability strategies, and financial performance of different firms over time.

Saunders et al. (2003) emphasised the importance of validity and reliability in business research. They highlighted multiple studies that have validated the MKTOR scale, an essential instrument for measuring market orientation in firms, including those in the construction sector. Their research demonstrated that using well-established measurement scales enhances data accuracy and improves research generalisability, ensuring that findings can be effectively applied to construction firms in emerging economies such as South Africa. Given the complexities of the construction industry, applying robust measurement tools is crucial to accurately capture business and market trends.

3.8.1 External validity

Since this study employed a convenience sampling method, the results are not generalisable to all South African construction firms, as the SACPCMP and CIDB databases only include registered professionals and firms, potentially excluding informal, small, or emerging contractors. While convenience sampling has limitations, its use in this study is justified due to practical feasibility, relevance of the target population, quality control, alignment with previous studies, and the ability to mitigate bias through data analysis.

3.8.2 Internal validity

The internal validity of this study is the extent to which the right cause and effect relationships were established from the collected data (Dabengwa, 1992; Malhotra, 1996). The consistency between the research theory that goes with the defined construct and other recognised constructs were verified using the consistency matrix. The questionnaire statements were developed based on prior literature and aligned with the research propositions to ensure content validity and theoretical consistency. To safeguard the validity of the instrument, the following steps were taken:

- All the respondents were supplied with the same questionnaire.
- The questionnaire used simple language and avoided any ambiguities.
- Loaded questions were avoided, with each question focusing on a particular issue.
- The researcher interpreted the data fairly and transparently, taking into account any opposing views that emerged.
- The questionnaire was piloted amongst six built environment professionals prior to release.
- The respondents' response options were mutually exclusive. A Cronbach’s alpha calculation was performed to assess the internal consistency of the scale, indicating the extent to which items reliably measure the same construct. Higher alpha values suggest stronger commonality among items, while lower values may indicate poor internal consistency or high item uniqueness.

3.8.3 Reliability

Reliability is the consistency with which research of a similar nature, conducted at some time in the future, will provide similar findings (Leedy & Ormrod, 2005). Validated scales from previous research were used. To safeguard the reliability of the instrument, the following steps were taken:

- An independent cohort of built environment professionals (engineers and quantity surveyors), excluding contractors registered with SACPCMP and CIDB was selected, and a pilot study was administered to them twice, with a two-week interval.
- An item-total reliability test was conducted on the results to determine the reliability of the individual items of the research instrument
- Clear directions to complete the questionnaire were provided.

3.19 Ethical considerations

The following ethical considerations arise in quantitative research, particularly in online surveys: respondent anonymity, data use and storage, informed consent, confidentiality, privacy, use of incentives, and honesty about the study's intention. To ensure participant safety, individuals were requested to consent before proceeding with the questionnaire. Not collecting personal information in the questionnaire minimised intrusion in the participants' privacy, and they were told to share only publicly available information. Anonymity was maintained to protect confidentiality.

The researcher disclosed the study's academic purpose and stored all research data on the cloud in password-protected files. The online questionnaire was distributed via email using anonymous links. These ethical measures were meant to ensure the safety and privacy of the participants while conducting valuable research.

3.10 Methodological Limitations

This cross-sectional, self-reported study may be susceptible to common-method variance; procedural (anonymity, varied scale formats) and

statistical remedies (Harman’s single-factor test) were employed (Podsakoff et al., 2003). The reliance on registry data poses coverage limitations, and internet-based surveys may introduce sampling bias.

4. PRESENTATION OF RESULTS

This section presents the study's findings, beginning with the characteristics of the respondents and the companies they represented, alongside a discussion regarding the response rate obtained. Subsequently, the results addressing the first research objective are presented, explicitly focusing on evaluating market orientation and sustainability orientation within construction firms. Following this, the findings regarding the relationships between each dimension of market orientation and the performance metrics of construction firms are elucidated. The relationship between sustainability orientation and the performance of construction firms is then discussed, before the relationship between market orientation, sustainability orientation, and business performance are explained.

4.1 Research findings

A summary of the results obtained from the research analysis is presented in this sub-section. The section begins with a description of the demographic profile of the respondents, followed by the results for each proposition. Finally, the section concludes with a summary of the results of this research report.

4.1.1 Questionnaire completion rates

Table 2 below presents the questionnaire completion rates recorded at the close of data collection. The table illustrates the distribution of response progress, detailing the frequency and percentage of participants who completed different portions of the questionnaire.

The "Progress" column indicates the percentage of the questionnaire that was completed by respondents, while the "Frequency" column shows the number of participants who reached each level of completion. The "Valid Percent" column represents the proportion of respondents at each progress level relative to valid responses, and the "Cumulative Percent" column tracks the cumulative percentage of respondents as completion rates increase.

Table 2: Questionnaire Completion Rates as at the Close of Data Collection

Progress					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	1,9	1,9	1,9
	8	15	9,4	9,4	11,3
	23	13	8,2	8,2	19,5
	54	20	12,6	12,6	32,1
	68	2	1,3	1,3	33,3
	72	1	,6	,6	34,0
	77	5	3,1	3,1	37,1
	92	4	2,5	2,5	39,6
	100	96	60,4	60,4	100,0
	Total	159	100,0	100,0	

Table 2 highlights that, out of 159 respondents, 96 (60.4%) completed the entire questionnaire. This high completion rate indicates a strong level of engagement and commitment from the respondents, enhancing the reliability of the data. Additionally, 80.5% of participants answered more than half of the questions, indicating a strong engagement with the survey content. The incomplete questionnaires were excluded from the analysis.

4.1.2 Individual and company characteristics

The following section presents the demographic characteristics of the respondents and their respective organisations. It includes information on the participants' years of

experience in the construction industry, the duration of their company's operations in construction, the organisational structure, and the organisational size based on employee numbers and annual turnover. These data provide an important context for interpreting the findings and understanding the perspectives provided in the research.

Table 3: Respondents and Company Characteristics

Demographics	**Frequency**	**Percent (%)**	**Cum. %**
Number of years the individuals have been involved in the construction industry			
0-5 years	10	10%	10%
5-10 years	25	26%	36%
> 10 years	61	64%	100%
Total	**96**	**100%**	
Number of years the company has been involved in construction			
10 - 50 years	69	72%	72%
< 10 years	20	21%	93%
> 50 years	7	7%	100%
Total	**96**	**100%**	
How the business is organised			
Business segments	50	52%	52%
Geographic locations	16	17%	69%
Other, please specify	5	5%	74%
Regional divisions	25	26%	100%
Total	**96**	**100%**	
Size of organisation			
Large: >200 employees, R26m turnover annually	39	41%	41%
Medium: 200 paid employees, R26m turnover annually	17	18%	58%
Small: 50 paid employees, R6m turnover annually	16	17%	90%
Very small: 20 paid employees, R3m turnover annually	10	10%	100%
Micro: 5 paid employees, R0.20m turnover annually	14	15%	73%
Total	**96**	**100%**	

The demographic data of the respondents indicate a diverse representation of experience, company history, organizational structure, and firm size within the construction industry. Regarding individual experience, 64% of respondents have been involved in the construction industry for more than 10 years, while 26% have 5 to 10 years of experience, and 10% have been in the industry for less than five years.

In terms of company experience, 72% of the firms have been involved in construction for 10 to 50 years, 21% for less than 10 years, and 7% for more than 50 years.

Regarding business organization, 52% of companies are structured by business segments, 26% by regional divisions, 17% by geographic locations, and 5% have other forms of organization.

For company size, 41% of firms are classified as large enterprises, while 18% fall under the medium-sized category. Additionally, 17% of firms are classified as small, 10% as very small, and 15% as micro enterprises.

4.1.3 Presentation of market orientation results

Market orientation is conceptualised and evaluated through three primary dimensions: customer orientation, competitor orientation, and inter-functional coordination (Narver & Slater, 1990). Initially, descriptive statistics associated with these dimensions are presented to elucidate the prevailing trends within the dataset. Following this, a detailed analysis and presentation of the findings are provided. The categorical responses of the Likert scale were dichotomised to enhance clarity in the data interpretation.

4.1.4 Customer orientation results

Customer orientation, a key dimension of market orientation, focuses on understanding and responding to customer needs to enhance value creation (Narver & Slater, 1990). In construction, customers extend beyond clients to include suppliers and internal teams, ensuring market alignment and service quality (Kohli & Jaworski, 1990). Firms with strong customer orientation achieve better performance through improved satisfaction and loyalty (Verhees & Meulenberg, 2004). This study thus sought to assess the levels of customer orientation in South African construction firms.

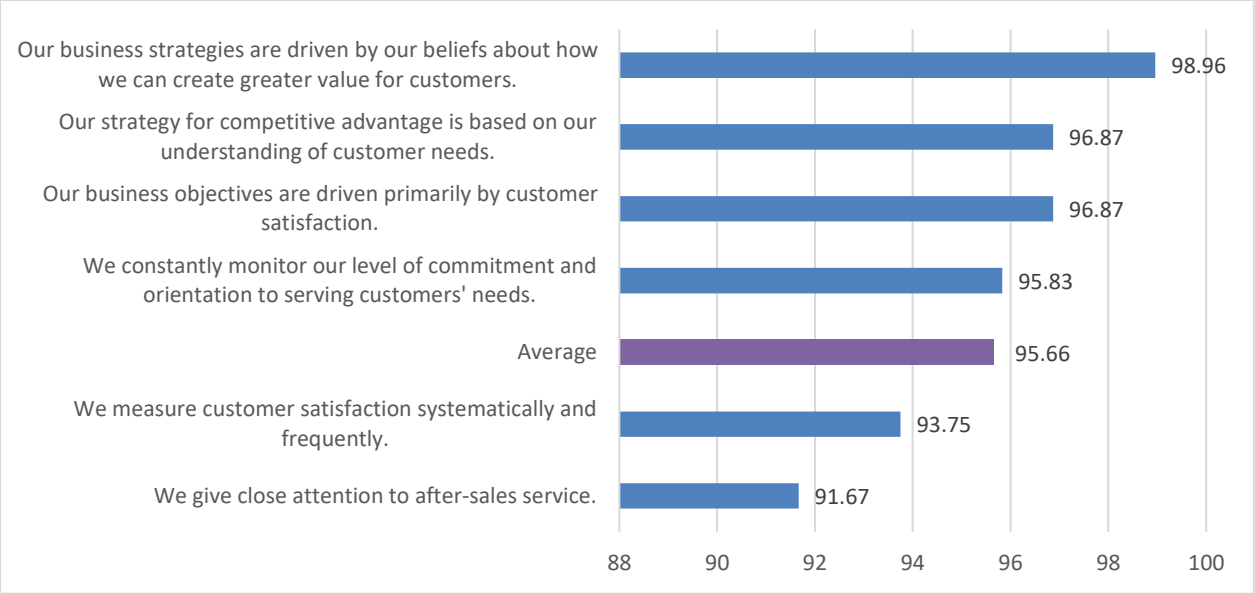


Figure 3: Customer Orientation

Figure 3 indicates a high level of customer orientation among the surveyed organizations. 98.96% of respondents reported that their business strategies are driven by their beliefs about creating greater value for customers. Similarly, 96.87% stated that their strategy for competitive advantage is based on their understanding of customer needs, and an equal percentage indicated that their business objectives are primarily driven by customer satisfaction. Additionally, 95.83% of respondents confirmed that they constantly monitor their level of commitment and orientation to serving customers' needs. The overall average score across all dimensions of customer orientation was 95.66%. Furthermore, 93.75% of respondents reported that they measure customer satisfaction systematically and frequently, while 91.67% indicated that they give close attention to after-sales service.

4.1.5 Competitor orientation results

Competitor orientation refers to a firm's ability to analyse and respond to competitors' strategies to maintain a competitive edge (Narver & Slater, 1990). In construction, it enables firms to differentiate through innovation, cost efficiency, and service quality in a highly competitive market (Dikmen, Birgonul, & Ozcenk, 2005). Under this dimension, the study aimed to assess and understand the level of competitor orientation among construction companies in South Africa.

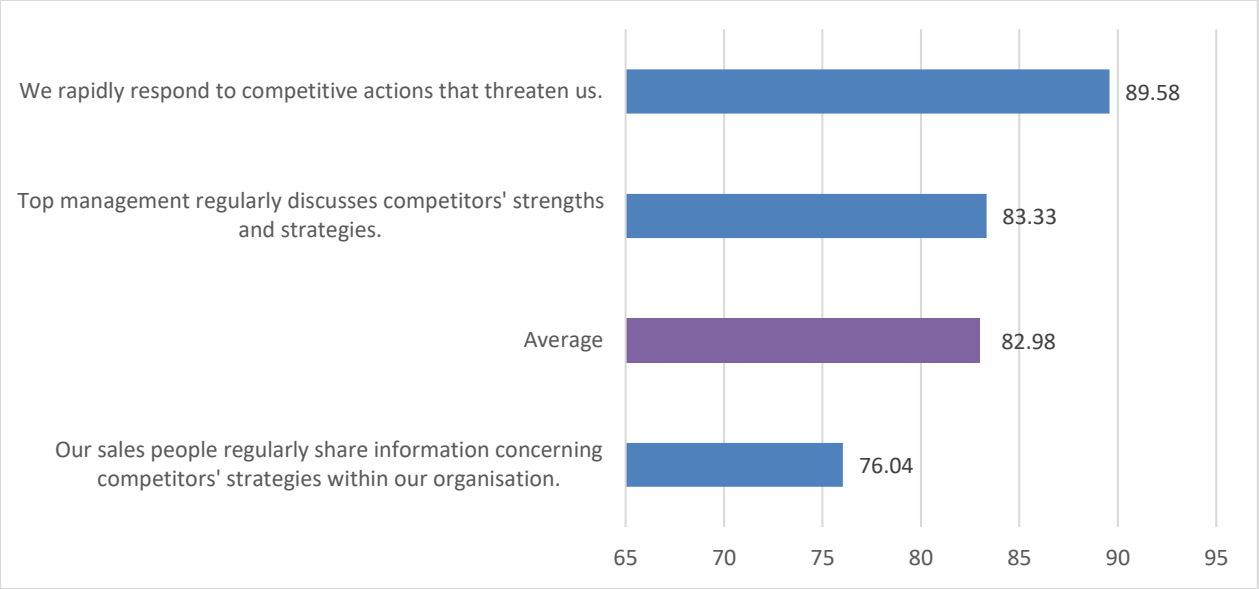


Figure 4: Competitor Orientation

Figure 4 illustrates that 89.58% of respondents indicated that their organization rapidly responds to competitive actions that threaten them. 83.33% of respondents reported that top management regularly discusses competitors' strengths and strategies. Additionally, 76.04% of respondents stated that their salespeople regularly share information concerning competitors' strategies within the organization. The overall average score for competitor orientation was 82.98%.

4.1.6 Inter-functional coordination

Inter-functional coordination is the collaboration between departments to enhance customer value and market responsiveness (Auh & Menguc, 2005). In construction, it improves efficiency, innovation, and project success (Brettel et al., 2011). This study examined the levels of inter-functional coordination in South African construction firms using four statements.

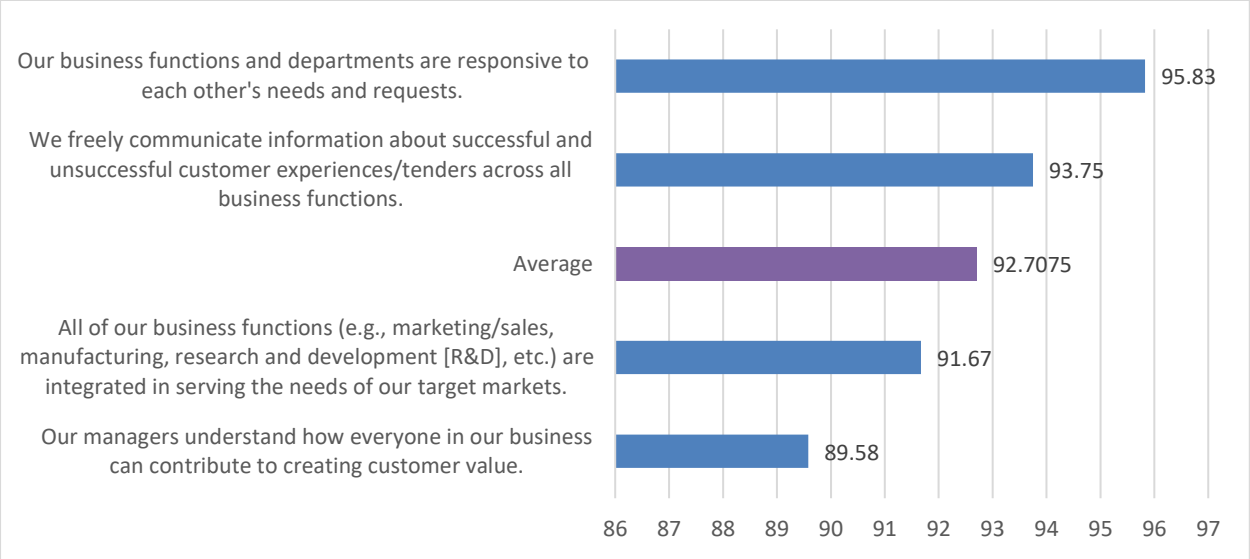


Figure 5: Inter-functional Coordination

Figure 5 above shows that 95.83% of the respondents believe their business functions and departments respond effectively to each other's needs and requirements. This is particularly significant considering the results presented in Figure 2 reveal that most businesses operate in multiple segments. Additionally, a substantial majority of respondents (93.75%) affirmed that there is open communication regarding successes and shortcomings in customer service and tenders across the various business functions. On average, 92.71% of respondents affirmed that there is inter-functional coordination in their companies.

4.1.8 Sustainability orientation

Sustainability orientation refers to a firm's strategic commitment to integrating environmental, social, and economic sustainability into its operations (Chistov et al., 2023). In construction, it involves eco-friendly practices, resource efficiency, regulatory compliance, and social responsibility to enhance competitiveness and long-term growth (Zuo & Zhao, 2014). Firms with a strong sustainability orientation gain cost advantages, improved stakeholder trust, and minimised environmental impact (Eccles et al., 2014; Zuo & Zhao, 2014). This study evaluated the extent of sustainability orientation using five statements.

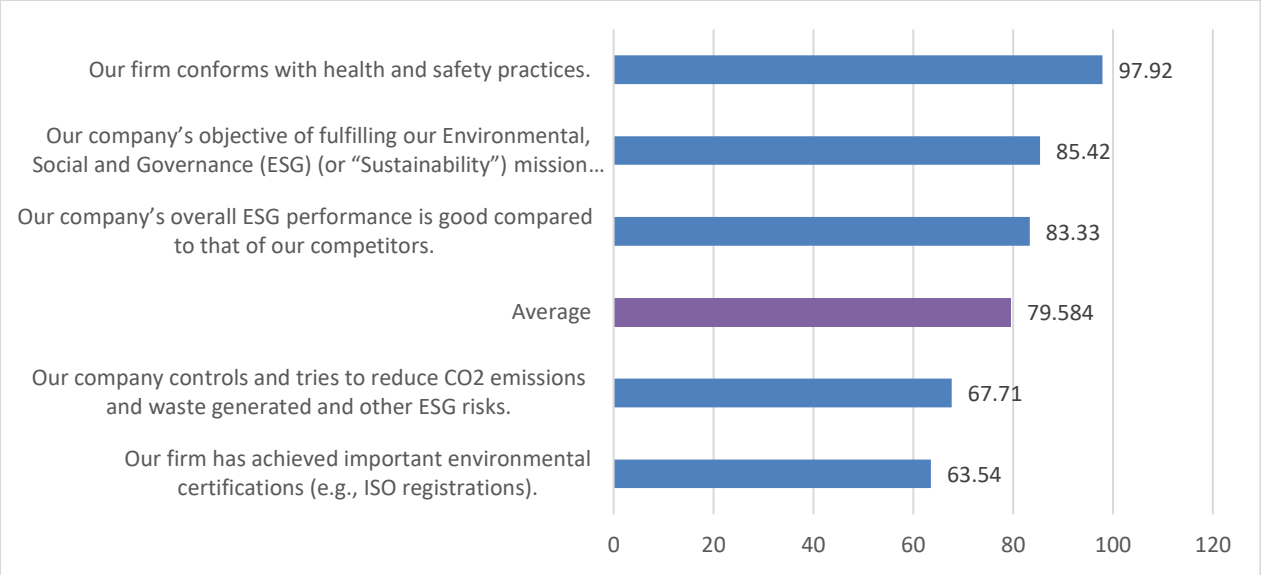


Figure 6: Sustainability Orientation

Figure 6 the survey results on sustainability orientation within the organizations, focusing on Environmental, Social, and Governance (ESG) practices. The responses indicate the extent to which firms integrate sustainability principles into their operations, including health and safety compliance, ESG objectives, CO^2 emissions reduction, and environmental certifications.

The highest-rated aspect was compliance with health and safety practices (97.92%), followed by a strong commitment to ESG objectives (85.42%) and comparative ESG performance against competitors (83.33%). The overall average sustainability orientation score was 79.58%. However, carbon emissions and waste reduction (67.71%) and achieving environmental certifications (63.54%) received lower ratings, suggesting potential areas for improvement in formal sustainability recognition and CO^2 emissions management.

4.1.9 Company performance

Figure 7 presents the survey results on company performance, highlighting key financial and operational metrics such as overall performance, net profits, and sales/awarded tenders growth.

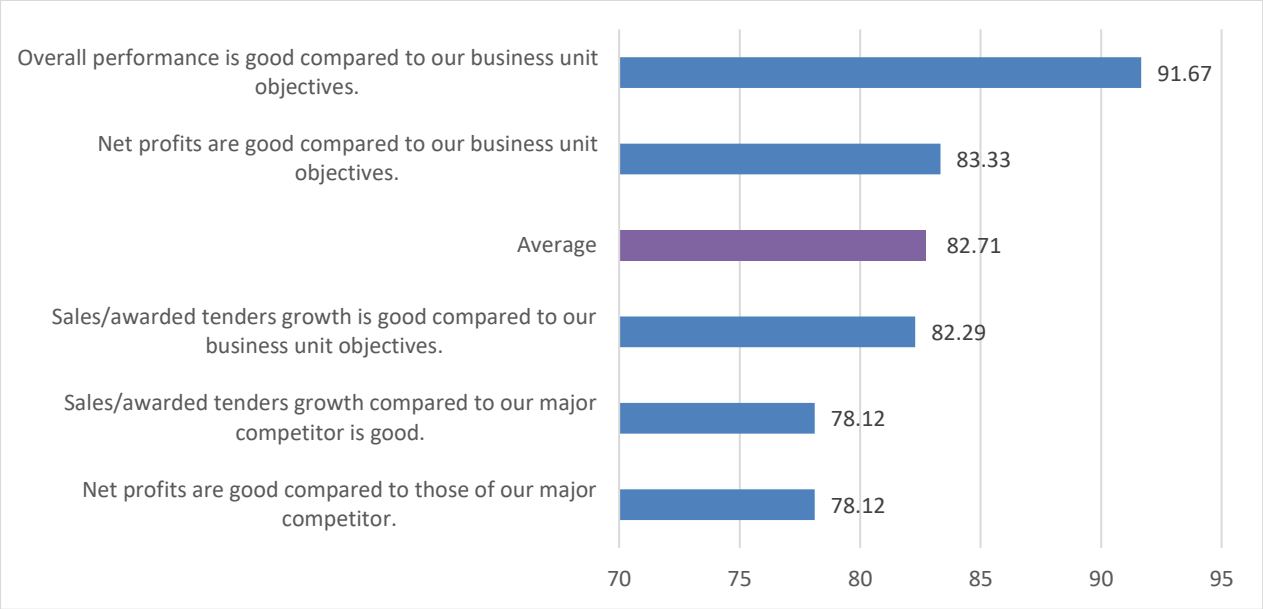


Figure 7: Company Performance

Figure 7 above shows that the highest-rated aspect was overall company performance compared to business unit objectives (91.67%), indicating strong internal performance alignment. This was followed by net profits compared to business unit objectives (83.33%) and sales/awarded tenders growth relative to business unit objectives (82.29%), suggesting a positive growth trend.

The overall average company performance score was 82.71%, reflecting a generally strong performance outlook. However, sales/awarded tenders growth compared to major competitors (78.12%) and net profits compared to major competitors (78.12%) were rated lower, indicating that while firms are meeting their internal targets, there may be competitive challenges in the market.

4.1.7 Factor analysis results for market orientation, sustainability orientation, and company performance

To analyse the data further, factor analysis employing principal component analysis (PCA) was conducted. PCA is a statistical method that identifies underlying relationships between the measured variables, in this case, the dimensions of market orientation, sustainability orientation, and company performance.

4.1.7.1 Factor Analysis Results

Table 4 presents the results of the Principal Component Analysis (PCA), identifying five components: customer orientation (CO), competitor orientation (CompO), inter-functional coordination (IFC), sustainability orientation (SO), and company performance (CP). The Principal Component Analysis (PCA) results indicate that five factors were extracted based on Kaiser's criterion (eigenvalues >1).

Table 4: Principal Component Analysis

Variable	Eigen value	Variance (Unrotated)	Cumulative	Variance (Rotated)	Cumulative
CP	9.58367	43.56	43.56	17.50	17.50
CO	2.16500	9.84	53.40	16.74	34.24
IFC	1.40272	6.38	59.78	12.63	46.87
SO	1.30452	5.93	65.71	12.01	58.88
CompO	1.04301	4.74	70.45	11.57	70.45

Note: *Customer Orientation (CO), Competitor Orientation (CompO), Inter-functional Coordination (IFC), Sustainability Orientation (SO) and Company Performance (CP)*

In the unrotated solution, Company Performance (CP) emerged as the most dominant factor, explaining 43.56% of the variance, followed by Customer Orientation (CO) (9.84%), Inter-functional Coordination (IFC) (6.38%), Sustainability Orientation (SO) (5.93%), and Competitor Orientation (CompO) (4.74%). The total cumulative variance explained by these five factors is 70.45%, indicating that they account for a substantial proportion of the variability in company performance and market orientation.

Following Varimax rotation, the variance was more evenly distributed across the five factors, with CP (17.50%), CO (16.74%), IFC (12.63%), SO (12.01%), and CompO (11.57%). This redistribution enhances the interpretability of the factors, ensuring a more balanced representation of the underlying constructs. The final rotated cumulative variance remains 70.45%, confirming the adequacy of the factor solution.

The Varimax rotation process improved factor interpretability by redistributing variance across the components, reducing the dominance of a single component, ensuring a more balanced representation of the underlying constructs. These results confirm that the five

extracted factors are well-structured and explain a significant portion of the variance in the dataset.

4.1.7.2 Factor Loadings Results

Table 5 presents the factor loadings from the Principal Component Analysis (PCA), illustrating the relationships between observed variables and their respective latent constructs. The table highlights the extent to which each variable contributes to its underlying factor, with loadings above 0.50 considered meaningful and those above 0.70 indicating strong associations. The analysis extracted five factors: Customer Orientation (CO), Competitor Orientation (CompO), Inter-functional Coordination (IFC), Sustainability Orientation (SO), and Company Performance (CP). Each factor's variance contribution is also reported, providing insight into its explanatory power within the dataset.

Table 5: Factor Loadings for Customer Orientation, Competitor Orientation, Inter-functional Coordination, Sustainability Orientation, and Company Performance

Variable	Factor Loadings
Customer orientation	
a) We constantly monitor our level of commitment and orientation to serving customers' needs.	0.6598
b) Our business objectives are driven primarily by customer satisfaction.	0.7449
c) Our strategy for competitive advantage is based on our understanding of customer needs.	0.7787
d) Our business strategies are driven by our beliefs about how we can create greater value for customers.	0.7574
e) We measure customer satisfaction systematically and frequently.	0.6413
f) We give close attention to after-sales service.	0.6562
Variance	**9,84%**
Competitor orientation	
g) We rapidly respond to competitive actions that threaten us.	0.8203
h) Our sales people regularly share information concerning competitors' strategies within our organisation.	0.7056
i) Top management regularly discusses competitors' strengths and strategies.	0.6838
Variance	**4,74%**
Inter-functional coordination	
All of our business functions are integrated in serving the needs of our target markets.	0.6883
Our business functions and departments are responsive to each other's needs and requests.	0.8274
We freely communicate information about successful and unsuccessful customer experiences/tenders across all business functions.	0.6127
Our managers understand how everyone in our business can contribute to creating customer value.	0.6721
Variance	**6,38%**

Sustainability Orientation	
The objective of fulfilling our environmental, social, and governance (ESG) (or sustainability) CO^2 emissions is important for the company.	0.7386
We control and try to reduce CO^2 emissions and waste and other ESG risks.	0.8038
Our firm has achieved important environmental and sustainability certificates (e.g., ISO registrations).	0.6604
Our overall ESG performance is good compared to that of our competitors.	0.5786
Variance	**5,93%**
Company performance	
Net profits are good compared to our business unit objectives.	0.6648
Net profits are good compared to our major competitor.	0.6497
Sales/awarded tenders growth is good compared to our business unit objectives.	0.7901
Sales/awarded tenders growth compared to our major competitor is good.	0.8758
Overall performance is good compared to our business unit objectives.	0.8299
Variance	**43,56%**

Table 5 indicates that the extracted factors have strong loadings on their respective variables. Customer Orientation (CO) demonstrated high factor loadings, with the highest loading observed for "Our strategy for competitive advantage is based on our understanding of customer needs" (0.7787) and "Our business strategies are driven by our beliefs about how we can create greater value for customers" (0.7574). The total variance explained by this factor was 9.84%.

Competitor Orientation (CompO) showed strong factor loadings, particularly for "We rapidly respond to competitive actions that threaten us" (0.8203), followed by "Our salespeople regularly share information concerning competitors' strategies within our organisation" (0.7056). This factor explained 4.74% of the total variance.

Inter-functional Coordination (IFC) had the highest factor loading for "Our business functions and departments are responsive to each other's needs and requests" (0.8274), while "All of our business functions are integrated in serving the needs of our target

markets" (0.6883) also exhibited a strong loading. This factor accounted for 6.38% of the total variance.

Sustainability Orientation (SO) displayed strong loadings, with "We control and try to reduce CO_2 emissions and waste and other ESG risks" (0.8038) as the most significant, followed by "The objective of fulfilling our environmental, social, and governance (ESG) CO_2 emissions is important for the company" (0.7386). This factor contributed 5.93% of the total variance.

Company Performance (CP) emerged as the most dominant factor, explaining 43.56% of the variance. The highest factor loadings were observed for "Sales/Awarded tenders growth compared to our major competitor is good" (0.8758) and "Overall performance is good compared to our business unit objectives" (0.8299).

These results confirm the validity of the extracted factors, with all factor loadings above 0.5786, indicating a good model fit and strong internal consistency within the constructs

4.1.10 The relationship between market orientation, sustainability orientation and company performance

This section assesses the relationship between market orientation, sustainability orientation and construction companies' performance. Market orientation is a composite score for customer orientation, competitor orientation, and inter-functional coordination.

4.1.10.1 Correlation matrix results

Table 6 presents the descriptive statistics and correlation matrix for the key variables in the study, including Company Performance (CP), Customer Orientation (CO), Competitor Orientation (CoO), Inter-Functional Coordination (IFC), Sustainability Orientation (SO), and Market Orientation (MO). The table includes the mean (M) and standard deviation (SD) for each construct, along with correlation coefficients, which indicate the strength and direction of relationships between the variables.

Table 6: Descriptive statistics and correlations

Summary Variable	Descriptive statistics (n =96)		Correlation matrix (n = 96)					
	M	**SD**	**CP**	**CO**	**CompO**	**IFC**	**SO**	**MO**
CP	0.5165	0.2557	1.0000					
CO	0.7727	0.1713	0.4738	1.0000				
CompO	0.6020	0.2494	0.5281	0.5568	1.0000			
IFC	0.6499	0.2412	0.5237	0.6149	0.5916	1.0000		
SO	0.5698	0.2449	0.6210	0.5481	0.4823	0.5894	1.0000	
MO	0.6462	0.2123	0.5892	0.8997	0.7869	0.8493	0.6444	1.0000

The mean scores range from 0.5165 (CP) to 0.7727 (CO), with standard deviations (SD) ranging from 0.1713 (MO) to 0.2557 (CP), suggesting variation in the distribution of responses.

Table 6 above shows Market Orientation (MO) exhibits strong correlations with Customer Orientation (CO) (r=0.8997), Inter-Functional Coordination (IFC) (r=0.8493), and Competitor Orientation (CompO) (r=0.7869), indicating a strong relationship between these constructs.

Company Performance (CP) is positively correlated with all variables, with the highest correlation observed with Sustainability Orientation (SO) (r=0.6210), suggesting that firms with stronger sustainability commitments tend to perform better. Additionally, CP is strongly correlated with Market Orientation (MO) (r=0.5892), emphasizing the role of market-driven strategies in achieving business success.

Overall, the correlation matrix confirms positive and statistically significant relationships among the variables, supporting the validity of the constructs.

4.1.10.2 Regression analysis results

Table 7 depicts the summary of regression analysis, illustrating the relationship between the independent variables—customer Orientation (CO), Competitor Orientation (CompO), Inter-Functional Coordination (IFC), Market Orientation (MO), and Sustainability

Orientation (SO)—and the dependent variable, Company Performance (CP). The table includes the regression coefficients, t-values, F-values, and p-values, which provide insights into the strength, significance, and explanatory power of each predictor in explaining company performance.

Table 7: Regression Analysis

Summary Variable	Coefficient	t-value	F-value	p-value
CO	0,7075	5.22	27,22	0,000
CompO	0,5415	6.03	36,36	0,000
IFC	0,5553	5.96	35,53	0,000
MO	0,7097	7.07	49,98	0,000
SO	0,6486	7.68	59,02	0,000

N = 96

Among the independent variables, Market Orientation (MO) has the highest coefficient (0.7097), with a t-value of 7.07 and an F-value of 49.98, suggesting that MO is a strong and statistically significant predictor of company performance (p = 0.000). Customer Orientation (CO) also demonstrates a strong relationship with company performance (coefficient = 0.7075, t-value = 5.22, F-value = 27.22), indicating that firms that prioritize customer needs tend to perform better.

Sustainability Orientation (SO) (coefficient = 0.6486, t-value = 7.68, F-value = 59.02) is another significant predictor, highlighting the importance of environmental and social responsibility in driving company performance. Competitor Orientation (CompO) (coefficient = 0.5415, t-value = 6.03, F-value = 36.36) and Inter-Functional Coordination

(IFC) (coefficient = 0.5553, t-value = 5.96, F-value = 35.53) also exhibit statistically significant relationships with company performance.

The p-values for all variables are 0.000, confirming that each predictor is highly significant in explaining company performance. These results indicate that market-oriented and sustainability-driven strategies contribute positively to a firm's overall success.

4.1.10.3 Model fit and predictive strength results

Table 8 This table presents the model summary statistics for the regression analysis examining the relationship between Market Orientation (MO), Sustainability Orientation (SO), and Company Performance (CP). It includes key model fit indicators such as the F-statistic, p-value (Prob > F), R-squared, adjusted R-squared, and Root Mean Squared Error (RMSE), which assess the explanatory power and predictive accuracy of the model.

Table 8: Model Fit Statistics for Market Orientation and Sustainability Orientation Predicting Company Performance

Variable	N	F (2,93)	Prob>F	R-Squared	Adj R-squared	Root MSE
Market orientation and sustainability orientation	96	37.55	0.0000	0.4467	0.4348	0.1923

The F-statistic (F(2,93) = 37.55, p = 0.0000) indicates that the overall model is statistically significant, meaning that Market Orientation and Sustainability Orientation jointly explain a significant proportion of the variance in Company Performance. The R-squared value (0.4467) suggests that 44.67% of the variation in Company Performance is explained by these two independent variables, while the adjusted R-squared (0.4348) accounts for model complexity and confirms a strong explanatory fit.

The Root Mean Squared Error (RMSE) of 0.1923 represents the model's prediction accuracy, with lower values indicating better fit. These results confirm that while both Market Orientation and Sustainability Orientation are significant predictors of Company Performance, other unaccounted factors may influence company performance.

5. DISCUSSIONS OF FINDINGS

This section provides an in-depth analysis of the study's key results, i.e., whether South African construction firms exhibit market and sustainability orientations and their impact on business performance. A critical evaluation of each research hypothesis is presented, where the empirical data collected are compared with findings from previous literature. The section elaborates on significant relationships, including the influence of customer orientation, competitor orientation, inter-functional coordination, and sustainability orientation, on company performance. This discussion offers insights into how strategic orientations affect the operational and strategic outcomes within the construction industry in South Africa.

5.1. H1: Market orientation in the South African construction industry

Market orientation is critical in achieving competitive advantage, particularly in industries characterised by high competition and demand uncertainty (Kohli & Jaworski, 1990; Narver & Slater, 1990). The findings of this study contradict the hypothesis that South African construction firms exhibit low levels of market orientation. Instead, the data indicates that these firms are highly market-oriented. The overall market orientation score was 95.66%, suggesting that firms strongly emphasize customer needs, competitor awareness, and inter-functional coordination. The results suggest that South African construction firms have inculcated market-oriented and sustainability-oriented practices to generate superior performance and competitive advantage in the current turbulent environment. This aligns with Neneh (2016) study, which found that market orientation positively influences SME performance in South Africa thus, the hypothesis is rejected.

5.2. H1.1: Customer Orientation among South African Construction Firms

Customer orientation involves understanding and responding to customer needs to create value (Narver & Slater, 1990). The study found that customer orientation is high, with an average score of 95.66%. The majority of respondents (98.96%) indicated that their business strategies are driven by their beliefs about creating greater value for customers. Similarly, 96.87% of firms base their competitive strategies on understanding customer needs, and 93.75% systematically measure customer satisfaction. These results suggest

that customer orientation is a key strategic focus in the industry. These results contradict the hypothesis and suggest that South African construction firms actively align their business strategies with customer needs. Consequently, the hypothesis is rejected, as the data indicate a high level of customer orientation among construction firms.

5.3. H1.2: Competitor orientation among South African construction firms

Competitor orientation refers to a firm's ability to analyse and respond to competitors' strategies (Narver & Slater, 1990). The findings indicate that competitor orientation is strong, with an average score of 82.98%. A large proportion of respondents (89.58%) reported that their firms respond rapidly to competitive actions, while 83.33% of top management regularly discuss competitors' strengths and strategies. The results suggest that firms actively monitor and react to market competition. This aligns with research by (Madureira et al., 2021), which highlighted the importance of competitor orientation in sustaining competitive advantage. Given these findings, the hypothesis is rejected, as South African construction firms exhibit strong competitor orientation.

5.4. H1.3: Inter-functional coordination among South African construction firms

Inter-functional coordination refers to the collaboration of business functions to enhance market responsiveness (Auh & Menguc, 2005). Inter-functional coordination was found to be high, with an average score of 92.71%. The majority of respondents (95.83%) indicated that their business functions and departments respond effectively to each other's needs, and 93.75% confirmed open communication regarding customer experiences across business functions. These results support previous research by Brettel et al. (2011), who argued that inter-functional coordination improves efficiency and innovation. Given the strong evidence of inter-functional coordination, the hypothesis is rejected.

5.5. H2: Sustainability orientation within the South African construction industry

Sustainability orientation reflects a firm's commitment to integrating environmental, social, and governance sustainability into its operations (Wang et al., 2024). The results indicate moderate sustainability orientation, with an overall score of 79.58%. Firms scored highest in health and safety compliance (97.92%) and commitment to environmental, social, and governance (ESG) objectives (85.42%). However, lower scores were observed in CO2

emissions and waste reduction (67.71%) and environmental certifications (63.54%), suggesting areas for improvement. While sustainability orientation is not low, it is comparatively weaker than market orientation. These findings contradict the hypothesis, suggesting South African construction firms actively engage in sustainability initiatives. Previous research by Han et al. (2022) emphasised the competitive advantages associated with sustainability orientation, such as cost efficiency and improved stakeholder trust. The hypothesis is thus rejected.

5.6. H3: Market orientation and company performance within the South African construction industry

The regression analysis results indicate a statistically significant relationship between market orientation and business performance, with market orientation explaining 6.36% of the variation in company performance. This finding aligns with previous studies by Narver and Slater (1990), which demonstrated that market-oriented firms achieve superior performance through customer satisfaction, competitive responsiveness, and internal collaboration. Thus, the hypothesis is accepted, confirming that firms with higher market orientation scores reported better net profits, sales growth, and overall performance.

5.7. H3.1: Customer orientation and company performance within the South African construction industry

A correlation analysis revealed a strong positive relationship between customer orientation and company performance. This supports Neneh (2018) assertion that customer orientation is a significant driver of firm performance. As a result, the hypothesis is accepted, reinforcing the role of customer orientation in driving business success.

5.8. H3.2: Competitor orientation and company performance within the South African construction industry

The study found a significant positive correlation between competitor orientation and company performance. These findings align with those of Dikmen, Birgonul and Ozcenk (2005), who emphasized the role of competitive intelligence in strategic decision-making. The hypothesis is thus accepted.

5.8.1. H3.3: Inter-functional coordination and company performance within the South African construction industry

The results indicate a strong correlation between inter-functional coordination and company performance. This underscores the importance of inter-functional coordination as highlighted by Narver and Slater (1990). Given the empirical evidence, the hypothesis is accepted.

5.9. H4. Sustainability orientation and company performance within the South African construction industry

The findings revealed a strong positive relationship between sustainability orientation and the business performance of construction firms. This is consistent with Han et al. (2022), who found that sustainability orientation positively impacts corporate performance in the construction industry. The substantial evidence presented in this study thus confirms the hypothesis (H4) that there is a positive relationship between sustainability orientation and company performance within the construction industry, thereby supporting the acceptance of the hypothesis.

5.10. H5. Combined market and sustainability orientations and company performance within the South African construction industry

The findings indicated that the combination of both market orientation and sustainability orientation strategies has a statistically significant positive relationship with business performance. This result aligns with prior research by Beliaeva et al. (2018) who suggested that adopting multiple strategic orientations could enhance overall performance. Consequently, the hypothesis (H5) that proposed that the implementation of both market and sustainability oriented strategies enhances company performance is supported.

5.11. Conclusion

The findings of this study provide substantial evidence that South African construction firms exhibit high levels of market orientation and sustainability orientation. Contrary to the initial hypothesis, these firms demonstrate a strong customer and competitor

orientation, as well as a significant commitment to sustainability practices. Additionally, the study confirms that market orientation has a positive influence on company performance, with customer orientation, competitor orientation, and inter-functional coordination each contributing to firm success. These results align with existing literature highlighting the importance of adopting customer-focused, competitor-aware, and sustainability-driven strategies to achieve long-term success in the South African construction industry.

5.12. Implications for practice

The study's findings have significant implications for South African construction firms. Importantly, firms should continue to strengthen their market orientation by fostering a culture of customer and competitor awareness. Investment in sustainability initiatives should also be prioritised to enhance long-term business viability and compliance with regulatory standards. Finally, enhancing inter-functional coordination can lead to more effective strategy implementation and operational efficiency, further contributing to business success. The importance of market orientation and sustainability orientation as key drivers of company performance for construction firms is reinforced. Policymakers and industry leaders should support these efforts by providing incentives and frameworks that encourage a market-driven and sustainability-conscious construction sector.

6. CONCLUSIONS, RECOMMENDATIONS AND FUTURE RESEARCH

6.1. Conclusion

This study examined the extent of market orientation and sustainability orientation in the South African construction industry, as well as their impact on business performance. The research provided substantial evidence highlighting the significance of market orientation, specifically customer orientation, competitor orientation, inter-functional coordination, and sustainability orientation in driving business performance within the South African construction industry. Contrary to initial expectations, South African construction firms demonstrate relatively high levels of market and sustainability orientations, which directly correlate with improved business outcomes. These results reinforce the importance of these strategic approaches in navigating the highly competitive and dynamic construction sector.

6.2. Practical implications and recommendations

This research provides several practical insights for construction companies within each market orientation dimension. Construction firms should strengthen customer orientation by implementing systematic customer feedback mechanisms and improving client relationship management. Training programs focused on customer engagement and service quality will ensure employees are well-equipped to maintain high customer satisfaction levels. This will foster long-term relationships with clients and enhance customer retention, ultimately driving sustained business growth.

To enhance competitor orientation, firms should invest in competitive intelligence tools to track and analyse competitors' strategies effectively. By adopting industry benchmarking practices, firms can assess their performance relative to competitors and identify areas for differentiation. This approach will help firms proactively respond to market changes and maintain a competitive edge in the construction sector.

For improved inter-functional coordination, organizations should establish cross-departmental teams and collaborative decision-making structures to ensure seamless

information sharing. Digital transformation should be leveraged by integrating data-sharing platforms and communication tools, allowing departments to align their activities and increase operational efficiency. This will result in more cohesive strategies and better execution of market-oriented initiatives.

By validating that these three dimensions hold empirical weight in construction, the research contributes to the theory by showing that market orientation is a cross-industry concept, not confined to fast-moving consumer goods or pure services, but equally relevant for sectors with long project cycles and heavy regulatory oversight.

In terms of sustainability orientation, firms should commit to setting clear environmental, social, and governance (ESG) objectives and implementing green building initiatives. Carbon footprint reduction strategies, efficient waste management, and obtaining environmental certifications (e.g., ISO 14001) should be prioritized. These actions will not only enhance regulatory compliance but also improve brand reputation and attract environmentally conscious investors and clients.

Encouraging market and sustainability integration is crucial for long-term business success. Firms should develop a strategic approach that aligns market-oriented strategies with sustainability initiatives. By integrating sustainable practices into their market differentiation strategies, firms can enhance their value proposition while contributing to environmental conservation. Additionally, construction firms should engage with policymakers to advocate for financial incentives that support sustainable construction practices.

Industry and policy support are necessary to create an enabling environment for market and sustainability-driven practices. Government bodies should introduce financial incentives, tax benefits, and grants for firms adopting sustainable construction techniques. Furthermore, capacity-building programs and industry workshops should be organized to educate construction firms on best practices in market and sustainability orientation. This will create a more informed and competitive industry landscape.

The study shows how a dual strategic posture (market plus sustainability) can be theorised as both a contingency “fit” and an RBV “resource bundle,” thereby filling a gap identified

by Hakala (2011) and Papasolomou-Doukakis (2002), who noted that previous research often treated these orientations in isolation.

6.3. Future research

Although this study provides valuable insights into market orientation and sustainability orientation in the South African construction industry, future research should focus on longitudinal studies to track construction firms over time and assess the long-term effects of market and sustainability orientations on business performance. Examining the role of digital technologies, such as artificial intelligence, big data, and digital marketing, in shaping market orientation strategies will also provide valuable insights.

A comparative analysis between the construction sector and other industries could help determine whether market and sustainability orientations influence performance differently across business environments. Additionally, exploring the impact of regulatory policies on the adoption and effectiveness of these orientations will provide a clearer picture of how governmental frameworks support or hinder business performance.

Finally, in-depth case studies of high-performing firms that successfully integrate market orientation and sustainability strategies should be conducted. These case studies will provide practical insights and best practices for industry-wide adoption, helping other firms replicate successful strategies.

Future research can address these areas and contribute to a more comprehensive understanding of strategic orientation and business performance in the construction sector. Embracing market and sustainability orientations will strengthen a company's competitive advantage and enhance business performance, ensuring sustainable growth in an increasingly complex and competitive market landscape.

6.4. Limitations

This study is limited to construction industry firms domiciled in South Africa and registered with SACPCMP and CIDB, thus restricting the generalisability of findings to other geographical contexts or industries. Future research should expand the sample size and include firms from diverse geographical locations to improve generalizability.

Another limitation is the study's cross-sectional nature, which captures only a snapshot of market and sustainability orientations at a single point in time. As a result, it does not account for changes and trends over time. Conducting longitudinal studies would provide deeper insights into the long-term impact of these orientations on business performance.

The study also relies on self-reported data, which may introduce response bias, as participants could overstate their firms' level of market and sustainability orientation. To mitigate this issue, future research could incorporate objective performance indicators, external assessments, or triangulate survey data with qualitative interviews to improve data reliability.

Additionally, this study focuses solely on the construction industry, lacking a comparative analysis with other sectors. Future research could conduct cross-industry studies to examine whether market and sustainability orientations have different impacts on performance across various business environments. Such comparisons could help identify industry-specific factors that drive success.

Lastly, external influences such as government policies, economic fluctuations, and industry regulations may significantly impact market and sustainability orientation. Future studies should investigate how these external factors influence firm strategies and impact long-term sustainability and competitiveness. Addressing these limitations will enhance the robustness and applicability of future research findings.

REFERENCES

Abowitz, D. A., & Toole, T. M. (2010). Mixed method research: Fundamental issues of design, validity, and reliability in construction research. *Journal of Construction engineering and Management*, *136*(1), 108-116.

Adonisi, M. (2005). *The relationship between corporate entrepreneurship, market orientation, organisational flexibility and job satisfaction* University of Pretoria].

Adonisi, M., & Van Wyk, R. (2012). The influence of market orientation, flexibility and job satisfaction on corporate entrepreneurship. *International Business and Economics Research Journal*, *11*(5).

Aigbavboa, C., Ohiomah, I., & Zwane, T. (2017). Sustainable construction practices:"a lazy view" of construction professionals in the South Africa construction industry. *Energy Procedia*, *105*, 3003-3010.

Ali, M., & Park, K. (2016). The mediating role of an innovative culture in the relationship between absorptive capacity and technical and non-technical innovation. *Journal of Business Research*, *69*(5), 1669-1675.

Annarelli, A., Catarci, T., & Palagi, L. (2024). The forgotten pillar of sustainability: development of the S-assessment tool to evaluate Organizational Social Sustainability. *arXiv preprint arXiv:2404.04077*.

Armstrong, J. S. a. C., F. (1996). Competitor Orientation: Effects of Objectives and Information on Managerial Decisions and Profitability. *Journal of Marketing Research*, *33(2)*, 188-199.

Arslan, G., Kivrak, S., & Tankisi, M. (2009). Factors affecting marketing success for construction companies in the housing sector. Fifth International Conference on Construction in the 21st Century,

Auh, S., & Menguc, B. (2005). Top management team diversity and innovativeness: The moderating role of interfunctional coordination [Article]. *Industrial Marketing Management*, *34*(3), 249-261. https://doi.org/10.1016/j.indmarman.2004.09.005

Balas, A. N., Colakoglu, S. N., & Gokus, O. (2012). EXAMINING THE RELATIONSHIP BETWEEN THE THREE COMPONENTS OF MARKET ORIENTATION AND INNOVATIVENESS IN EXPORT VENTURES. *International Journal of Entrepreneurship*, *16*.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of management*, *17*(1), 99-120.

Beliaeva, T. V., & Bogatyreva, K. A. (2018). National culture and entrepreneurship: Literature review and further research directions.

Brettel, M., Heinemann, F., Engelen, A., & Neubauer, S. (2011). Cross-Functional Integration of R&D, Marketing, and Manufacturing in Radical and Incremental

Product Innovations and Its Effects on Project Effectiveness and Efficiency [Article]. *Journal of Product Innovation Management*, *28*(2), 251-269. https://doi.org/10.1111/j.1540-5885.2011.00795.x

Cano, C. R., Carrillat, F. A., & Jaramillo, F. (2004). A meta-analysis of the relationship between market orientation and business performance: evidence from five continents. *International Journal of Research in Marketing*, *21*(2), 179-200.

Cezarino, L. O., Alves, M. F. R., Caldana, A. C. F., & Liboni, L. B. (2019). Dynamic capabilities for sustainability: Revealing the systemic key factors. *Systemic Practice and Action Research*, *32*(1), 93-112.

Chistov, V., Aramburu, N., Florit, M. E. F., Peña-Legazkue, I., & Weritz, P. (2023). Sustainability orientation and firm growth as ventures mature. *Business Strategy and the Environment*, *32*(8), 5314-5331.

Conduit, J., & Mavondo, F. T. (2001). How critical is internal customer orientation to market orientation? [Article]. *Journal of Business Research*, *51*(1), 11-24. http://0-search.ebscohost.com.innopac.wits.ac.za/login.aspx?direct=true&db=bth&AN=12133791&site=ehost-live&scope=site

Construction Industry Development Board. (2024). *CIDB Construction Monitor: Supply and Demand, April 2024*. CIDB.

Creswell, J. (2003). Research design: qualitative, quantitative, and mixed methods approaches.

Dabengwa, R. S. (1992). *Determinants of Relationship Quality in the Consulting Engineering Profession* University of Witwatersrand]. Johannesburg.

Dane, F. C. (1990). Research Methods, Brooks. *Cole Pacific Grove, CaUfomia*.

Danso, A., Adomako, S., Amankwah-Amoah, J., Owusu-Agyei, S., & Konadu, R. (2019). Environmental sustainability orientation, competitive strategy and financial performance. *Business Strategy and the Environment*, *28*(5), 885-895.

Dawes, J. (2000). Market orientation and company profitability: further evidence incorporating longitudinal data. *Australian journal of management*, *25*(2), 173-199.

Day, G. S. (1994). The capabilities of market-driven organizations. *Journal of Marketing*, *58*(4), 37-52.

Debruyne, M., Frambach, R. T., & Moenaert, R. (2010). Using the Weapons You Have: The Role of Resources and Competitor Orientation as Enablers and Inhibitors of Competitive Reaction to New Products [Article]. *Journal of Product Innovation Management*, *27*(2), 161-178. https://doi.org/10.1111/j.1540-5885.2010.00708.x

Department of Public Works. (1999). *White Paper: Creating an Enabling Environment for Reconstruction, Growth and Development in the Construction Industry*. South Africa: Government Printer, South Africa

Deshpandé, R., & Farley, J. U. (1998). The market orientation construct: correlations, culture, and comprehensiveness. *Journal of Market-Focused Management*, *2*(3), 237-239.

Diamantopoulos, A., & Hart, S. (1993). Linking market orientation and company performance: preliminary evidence on Kohli and Jaworski's framework. *Journal of strategic marketing*, *1*(2), 93-121.

Dikmen, I., Birgonul, M. T., & Kiziltas, S. (2005). Prediction of organizational effectiveness in construction companies. *Journal of Construction engineering and Management*, *131*(2), 252-261.

Dikmen, I., Birgonul, M. T., & Ozcenk, I. (2005). Marketing orientation in construction firms: evidence from Turkish contractors. *Building and environment*, *40*(2), 257-265.

Dobni, C. B., & Luffman, G. (2000). Market orientation and market strategy profiling: an empirical test of environment-behaviour-action coalignment and its performance implications. *Management Decision*, *38*(8), 503-522.

Donaldson, L. (2001). *The contingency theory of organizations*. Sage.

Dosumu, O., & Aigbavboa, C. (2021). Drivers and effects of sustainable construction in the South African construction industry. *Acta Structilia*, *28*(2), 78-107.

Du Plessis, C. (2007). A strategic framework for sustainable construction in developing countries. *Construction management and economics*, *25*(1), 67-76.

Dubihlela, J. (2012). *Barriers, determinants and enablers of market orientation: impact on business performance for small to medium enterprises in South Africa* North-West University].

Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The impact of corporate sustainability on organizational processes and performance. *Management Science*, *60*(11), 2835-2857.

Ellis, P. D. (2006). Market orientation and performance: A meta-analysis and cross-national comparisons. *Journal of Management Studies*, *43*(5), 1089-1107.

Ewim, C. P.-M., Achumie, G. O., Adeleke, A. G., Okeke, I. C., & Mokogwu, C. (2024). Developing a cross-functional team coordination framework: A model for optimizing business operations. *International Journal of Frontline Research in Multidisciplinary Studies*, *4*(1).

F., A. J. S. a. C. (1996). Competitor Orientation: Effects of Objectives and Information on Managerial Decisions and Profitability. *Journal of Marketing Research*, *33(2)*, 188-199.

Faltein, S. A., & Sukdeo, N. I. (2024). Culture-driven quality enhancement: Uncovering the impact of robotics integration in the South African construction sector. *Ain Shams Engineering Journal*, 102728.

Field, A. (2024). *Discovering statistics using IBM SPSS statistics*. Sage publications limited.

Fink, A. (2003). *The survey handbook*. Sage.

Firestone, W. A. (1987). Meaning in method: The rhetoric of quantitative and qualitative research. *Educational researcher*, *16*(7), 16-21.

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of sustainable finance & investment*, *5*(4), 210-233.

Gaddis, G. M., & Gaddis, M. L. (1990). Introduction to biostatistics: Part 2, descriptive statistics. *Annals of Emergency Medicine*, *19*(3), 309-315.

Greenley, G. E. (1995). Forms of market orientation in UK companies. *Journal of Management Studies*, *32*(1), 47-66.

Grinstein, A. (2008). The relationships between market orientation and alternative strategic orientations: A meta-analysis. *European Journal of Marketing*, *42*(1/2), 115-134.

Groves, R. M., Fowler Jr, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2011). *Survey methodology*. John Wiley & Sons.

Guenzi, P. (2003). Antecedents and consequences of a firm's selling orientation [Article]. *European Journal of Marketing*, *37*(5/6), 706-727. http://0-search.ebscohost.com.innopac.wits.ac.za/login.aspx?direct=true&db=bth&AN=10028235&site=ehost-live&scope=site

Hakala, H. (2011). Strategic orientations in management literature: Three approaches to understanding the interaction between market, technology, entrepreneurial and learning orientations. *International journal of management reviews*, *13*(2), 199-217.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of management review*, *9*(2), 193-206.

Han, W., Zhou, Y., & Lu, R. (2022). Strategic orientation, business model innovation and corporate performance—Evidence from construction industry. *Frontiers in Psychology*, *13*, 971654.

Harpe, S. E. (2015). How to analyze Likert and other rating scale data. *Currents in pharmacy teaching and learning*, *7*(6), 836-850.

Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of management review*, *20*(4), 986-1014.

Hedaa, L., & Ritter, T. (2005). Business relationships on different waves: Paradigm shift and marketing orientation revisited [Article]. *Industrial Marketing Management*, *34*(7), 714-721. https://doi.org/10.1016/j.indmarman.2005.05.012

Horta, I., Camanho, A., Johnes, J., & Johnes, G. (2013). Performance trends in the construction industry worldwide: an overview of the turn of the century. *Journal of productivity analysis*, *39*, 89-99.

Jain, S. K., & Bhatia, M. (2007). Market orientation and business performance: The case of Indian manufacturing firms. *Vision*, *11*(1), 15-33.

Jaramillo, F., & Grisaffe, D. B. (2009). Does customer orientation impact objective sales performance? Insights from a longitudinal model in direct selling. *Journal of Personal Selling & Sales Management*, *29*(2), 167-178.

Judd, V. C. (2003). Achieving a customer orientation using "people-power," the "5th P." [Article]. *European Journal of Marketing*, *37*(10), 1301-1313. https://doi.org/10.1108/03090560310487112

Khizar, H. M. U., Iqbal, M. J., & Rasheed, M. I. (2021). Business orientation and sustainable development: A systematic review of sustainability orientation literature and future research avenues. *Sustainable Development*, *29*(5), 1001-1017.

Kinnunen, J., Saunila, M., Ukko, J., & Rantanen, H. (2022). Strategic sustainability in the construction industry: Impacts on sustainability performance and brand. *Journal of Cleaner Production*, *368*, 133063.

Kirca, A. H., Jayachandran, S., & Bearden, W. O. (2005). Market orientation: A meta-analytic review and assessment of its antecedents and impact on performance. *Journal of Marketing*, *69*(2), 24-41.

Kohli, A. K., & Jaworski, B. J. (1990). Market Orientation: The Construct, Research Propositions, and Managerial Implications [Article]. *Journal of Marketing*, *54*(2), 1-18. http://0-search.ebscohost.com.innopac.wits.ac.za/login.aspx?direct=true&db=bth&AN=9602205182&site=ehost-live&scope=site

Kotler, P., & Keller, K. L. (2009). Marketing Management 13th Edition, New Jersey: Person Education. In: Inc.

Leedy, P. D., & Ormrod, J. E. (2005). *Practical Research: Planning and Design* (8th Edition ed.). Pearson Merill Prentice Hall.

Leedy, P. D., & Ormrod, J. E. (2014). *Practical Research: Planning and Design. 10th*. New Jersey: Pearson Education Limited.

Loubser, S. (2000). The relationship between a market orientation and financial performance in South African organisations. *South African Journal of Business Management*, *31*(2), 84-90.

Low, D. R. (2006). Inside market orientation: a report on a qualitative study of market orientation within Australian manufacturing SMEs. *ANZMAC 2006 Proceedings: Brisbane, Queensland 4-6 December 2006: Advancing Theory, Maintaining Relevance*.

Madureira, L., Popovič, A., & Castelli, M. (2021). Competitive intelligence: A unified view and modular definition. *Technological Forecasting and Social Change*, *173*, 121086.

Malhotra, N. K. (1996). Chapter 19:Factor Analysis. In 2nd (Ed.), *Marketing Research: An Applied Orientation* (2 ed., pp. 643-669). Prentice Hall.

Marsh, R., Brent, A., & De Kock, I. (2021). Understanding the barriers and drivers of sustainable construction adoption and implementation in South Africa: A quantitative study using the Theoretical Domains Framework and COM-B model. *Journal of the South African Institution of Civil Engineering= Joernaal van die Suid-Afrikaanse Instituut van Siviele Ingenieurswese*, *63*(4), 11-23.

Matsuno, K., Mentzer, J. T., & Özsomer, A. (2002). The effects of entrepreneurial proclivity and market orientation on business performance. *Journal of Marketing*, *66*(3), 18-32.

Miller, K. D., & Bromiley, P. (1990). Strategic risk and corporate performance: An analysis of alternative risk measures. *Academy of Management journal*, *33*(4), 756-779.

Mohr-Jackson, I. (1991). Broadening the Market Orientation: An Added Focus on Internal Customers [Article]. *Human Resource Management*, *30*(4), 455-467. http://0-search.ebscohost.com.innopac.wits.ac.za/login.aspx?direct=true&db=bth&AN=7224323&site=ehost-live&scope=site

Mokoena, B. A., & Dhurup, M. R. (2017). Effects of market orientation and barriers to market orientation on university performance: A study of universities of technology in South Africa. *The International Business Economics Research Journal*, *16*(1), 17.

Montabon, F., Sroufe, R., & Narasimhan, R. (2007). An examination of corporate reporting, environmental management practices and firm performance. *Journal of operations management*, *25*(5), 998-1014.

Mueller, T. A., & Georg Gemünden, H. (2009). Founder team interaction, customer and competitor orientation in software ventures. *Management Research News*, *32*(6), 539-554.

Narver, J. C., & Slater, S. F. (1990). The effect of a market orientation on business profitability. *Journal of Marketing*, *54*(4), 20-35.

Neneh, B. N. (2016). Market orientation and performance: the contingency role of external environment. *Environmental Economics*(7, Iss. 2), 130-137.

Neneh, B. N. (2018). Customer orientation and SME performance: the role of networking ties. *African Journal of Economic and Management Studies*, *9*(2), 178-196.

Ofori, G. (2000). Globalization and construction industry development: research opportunities. *Construction Management & Economics*, *18*(3), 257-262.

Olanrewaju, A., Min, C. S., Sanmargaraja, S., & Ponniah, V. (2020). What is stopping the adoption of sustainable residential buildings in Malaysia? *Green Building in Developing Countries: Policy, Strategy and Technology*, 181-198.

Oyewobi, L., Windapo, A., Rotimi, J., Rotimi, B., & Jimoh, R. (2020). Analysis of the South African construction industry business environment. *Journal of Facilities Management*, *18*. https://doi.org/10.1108/JFM-05-2020-0033

Papasolomou-Doukakis, I. (2002). Internal marketing: a means for creating a sales or marketing orientation? The case of UK retail banks. *Journal of Marketing Communications*, *8*(2), 87-100.

Pearson, G. J. (1993). Business Orientation: Cliché or Substance? [Article]. *Journal of Marketing Management*, *9*(3), 233-243. http://0-search.ebscohost.com.innopac.wits.ac.za/login.aspx?direct=true&db=bth&AN=4967085&site=ehost-live&scope=site

Pelham, A. M. (2000). Market orientation and other potential influences on performance in small and medium-sized manufacturing firms. *Journal of small business management*, *38*(1), 48-67.

Plessis, C. d. (2001). Sustainability and sustainable construction: the African context. *Building Research & Information*, *29*(5), 374-380.

Rojšek, I., & Vodlan, M. (2003). Linking market orientation to business performance: an empirical study. 5th International Conference on Enterprise in Transition,

Rokkan, A. I. (2023). Market orientation (once again): Challenges and a suggested solution. *AMS Review*, *13*(1), 71-91.

Ruekert, R. W. (1992). Developing a market orientation: an organizational strategy perspective. *International Journal of Research in Marketing*, *9*(3), 225-245.

Saini, Y. K., & Mokolobate, K. N. (2011). An empirical study of market orientation in the life insurance industry in South Africa. *Journal of Business Case Studies*, *7*(4), 61-72.

Saunders, M., Lewis, P., & Thornhill, A. (2003). Research methods forbusiness students. *Essex: Prentice Hall: Financial Times*.

Saunders, M., Lewis, P., & Thornhill, A. (2012). Research methods for business students (6. utg.). *Harlow: Pearson*.

Schendel, D., & Hofer, C. W. (1979). *Strategic management: A new view of business policy and planning*. Little, Brown.

Slater, S. F., & Narver, J. C. (1994). Market orientation, customer value, and superior performance. *Business horizons*, *37*(2), 22-28.

Smallwood. (2000). Contractor performance: clients' perceptions. Proceedings of the 2 nd,

Song, M., & Montoya-Weiss, M. M. (2001). The effect of perceived technological uncertainty on Japanese new product development. *Academy of Management journal*, *44*(1), 61-80.

Stanley, F. S. (2001). Market orientation at the beginning of a new millennium. *Managing Service Quality: An International Journal*, *11*(4), 230-233. https://doi.org/10.1108/EUM0000000005609

Statistics South Africa. (2009). Gross Domestic Product, Third quarter 2009 (P0441) In S. S. Africa (Ed.). Pretoria, South Africa: Statistics South Africa.

Statistics South Africa. (2023a). *Gross Domestic Product, Fourth Quarter 2023 (P0441)*. https://www.statssa.gov.za/publications/P0441/P04414thQuarter2023.pdf

Statistics South Africa. (2023b). *Liquidations and insolvencies report: January 2023 (P0043). Statistics South*. https://www.statssa.gov.za/publications/P0043/P0043January2023.pdf

Statistics South Africa. (2024). *Quarterly Labour Force Survey: Quarter 3, 2024 (P0211)*. https://www.statssa.gov.za/publications/P0211/Presentation%20QLFS%20Q3%202024.pdf

Sumrall, D. A., Eyuboglu, N., & Ahlawat, S. S. (1991). Developing a Scale to Measure Hospital Sales Orientation [Article]. *Journal of Health Care Marketing*, *11*(4), 39-50. http://0-search.ebscohost.com.innopac.wits.ac.za/login.aspx?direct=true&db=bth&AN=9603100077&site=ehost-live&scope=site

Tau, L. J., Ogunbayo, B. F., & Aigbavboa, C. O. (2024). Inhibiting Factors to the Implementation of Preferential Procurement Policy in the South African Construction Industry. *Buildings*, *14*(8), 2392.

Van Zyl, H. J., & Mathur-Helm, B. (2007). Exploring a conceptual model, based on the combined effects of entrepreneurial leadership, market orientation and relationship marketing orientation on South Africa's small tourism business performance. *South African Journal of Business Management*, *38*(2), 17-24.

Venkatraman, N., & Ramanujam, V. (1986). Measurement of business performance in strategy research: A comparison of approaches. *Academy of management review*, *11*(4), 801-814.

Verhees, F. J., & Meulenberg, M. T. J. J. o. s. b. m. (2004). Market orientation, innovativeness, product innovation, and performance in small firms. *42*(2), 134-154.

Wang, S., Hu, H., & Wang, X. (2024). Green entrepreneurship orientation and environmental, social, and governance performance: Do contractual strategic alliances matter? *Corporate Social Responsibility and Environmental Management*, *31*(6), 5275-5295.

Welford, C., Murphy, K., & Casey, D. (2012). Demystifying nursing research terminology: Part 2. *nurse researcher*, *19*(2).

Whitwell, G., Doyle, P., & Lukas, B. A. (2003). *Marketing management: A strategic, value-based approach*. Wiley Pub. Australia.

Windapo, A., Cattell, K., & Oyewobi, L. Business diversification and performance: evidence from South African construction firms.

Windapo, A. O. (2014). Examination of green building drivers in the South African construction industry: Economics versus ecology. *Sustainability*, *6*(9), 6088-6106.

Wong, E., & Mavondo, F. (2000). When market orientation and learning orientation do not pay: evidence from the Australian building and construction industry. Proceedings of the Australian and New Zealand Marketing Academy Conference,

Wu, Q., He, Q., Duan, Y., & O'Regan, N. (2012). Implementing dynamic capabilities for corporate strategic change toward sustainability. *Strategic Change*, *21*(5), 231.

Yankah, J., Aigbavboa, C., & Thwala, W. (2017). Human factor related challenges of marketing construction business enterprise. Advances in Human Factors, Business Management, Training and Education: Proceedings of the AHFE 2016 International Conference on Human Factors, Business Management and Society, July 27-31, 2016, Walt Disney World®, Florida, USA,

Yisa, S. B., Ndekugri, I., & Ambrose, B. (1996). A review of changes in the UK construction industry: their implications for the marketing of construction services. *European Journal of Marketing*, *30*(3), 47-64.

Zhou, K. Z., Brown, J. R., Dev, C. S., & Agarwal, S. (2007). The effects of customer and competitor orientations on performance in global markets: a contingency analysis. *Journal of International Business Studies*, *38*(2), 303-319.

Zuo, J., & Zhao, Z.-Y. (2014). Green building research–current status and future agenda: A review. *Renewable and sustainable energy reviews*, *30*, 271-281.

APPENDIX 1: RESEARCH INSTRUMENT

Research Questionnaire

Section I: Personal

1. How long have you been involved in the construction industry?

☐ < 5 years ☐ 5 – 10 years ☐ > 10 years

2. Please indicate your position in your organisation.

☐ Managing Director ☐ Director / Senior Executive

☐ Strategist ☐ Other, please specify……

Section II: Organizational

1. How long has your organisation been involved in the construction industry?

☐ < 10 years ☐ 10 – 50 years ☐ >50 years

2. Please select the business segments in which your business operates.

☐ Building ☐ Mechanical ☐ Manufacturing

☐ Civil ☐ Power ☐ Real Estate

☐ Mining ☐ Oil and Gas ☐ Industrial

☐ Other, please specify……

3. How is your business organised?

☐ Business segments ☐ Geographic Location

☐ Regional divisions ☐ other, please specify……

Section III: Market Orientation

Adapted from Narver and Slater (1990).

Questions A to O require that you respond with an answer on a scale of 1 to 6. The numbers in the scale correspond to the following definitions.

1. The concept is not applied at all.

2. Some aspects of the concepts are applied

3. The concepts have been developed and applied

4. The concepts have been developed, applied and somewhat understood

5. The concepts have been developed, applied and fully understood

6. to an extreme extent

<u>Customer Orientation</u>

In comparison with our competitors:

Item	Not at all	Very little	Fairly well	Quite well	Very well	Extrem well
a) We constantly monitor our level of commitment and orientation to serving customers' needs.	1	2	3	4	5	6
b) Our business objectives are driven primarily by customer satisfaction.	1	2	3	4	5	6
c) Our strategy for competitive advantage is based on our understanding of customer needs.	1	2	3	4	5	6

d) Our business strategies are driven by our beliefs about how we can create greater value for customers.	1	2	3	4	5	6
e) We measure customer satisfaction systematically and frequently.	1	2	3	4	5	6
f) We give close attention to after-sales service.	1	2	3	4	5	6

Competitor Orientation (coefficient alpha = .64)

In comparison with our competitors:

Item	Not at all	Very little	Fairly well	Quite well	Very well	Extrem well
g) We rapidly respond to competitive actions that threaten us.	1	2	3	4	5	6
h) Our salespeople regularly share information concerning competitors' strategies within our organisation.	1	2	3	4	5	6
i) Top management regularly discusses competitors' strengths and strategies.	1	2	3	4	5	6

Inter-functional Coordination

Item	Not at all	Very little	Fairly well	Quite well	Very well	Extrem well
j) All of our business functions (e.g., marketing/sales, manufacturing, research and development [R&D], etc.) are integrated in serving the needs of our target markets.	1	2	3	4	5	6
k) our business functions and departments are responsive to each other's needs and requests.	1	2	3	4	5	6
l) We freely communicate information about successful and unsuccessful customer experiences/tenders across all business functions.	1	2	3	4	5	6
m) Our managers understand how everyone in our business can contribute to creating customer value.	1	2	3	4	5	6

Section IV: Business Performance

In the last five years, our company's:

Item	Not at all	Very little	Fairly well	Quite well	Very well	Extrem well

n) Net profits are good compared to our business unit objectives.	1	2	3	4	5	6
o) Net profits are good compared to those of our major competitor.	1	2	3	4	5	6
p) Sales/awarded tenders growth is good compared to our business unit objectives.	1	2	3	4	5	6
q) Sales/awarded tenders growth compared to our major competitor is good.	1	2	3	4	5	6
r) Overall performance is good compared to our business unit objectives.	1	2	3	4	5	6
s) Overall performance is good compared to that of our competitors.	1	2	3	4	5	6

Is there anything specific that your organisation's performance improvement can be attributed to?

Please provide an explanation……

Sustainability Orientation adapted from (Montabon et al., 2007; Yu et al., 2017)

Item	Not at all	Very little	Fairly well	Quite well	Very well	Extrem well
t) The objective of fulfilling our social, cultural and environmental	1	2	3	4	5	6

t) The objective of fulfilling our social, cultural and environmental mission is important for the company.	1	2	3	4	5	6
u) We control CO2 emissions and our generated waste and try to reduce them	1	2	3	4	5	6
v) Our firm has achieved important environmental certifications (e.g., ISO registrations).	1	2	3	4	5	6
x) Our firm conforms with health and safety practices.	1	2	3	4	5	6

APPENDIX 2: ETHICS CLEARANCE

Graduate School of Business Administration
University of the Witwatersrand, Johannesburg

Wits Business School Ethics Committee
Constituted under the University Human Research Ethics Committee (Non-Medical)

Ethics Clearance Certificate

Ethics protocol number: **WBS/BA0010306F/301**

This certificate is only valid with a legitimate ethics protocol number and signed by the Researcher (below).

This certificate is only valid if accompanied by formal permission from the relevant stakeholder(s).

Project title	**Market orientation in the construction industry in South Africa**
Investigator / Researcher	**Ms NOKUTHULA SIBIYA**
Nature of Project	**MBA (Research Article)**
Decision of the Committee	**Approved, provided stakeholders and participants are guaranteed anonymity and confidentiality.**
Issue Date of Certificate	**29/07/2024**
Expiry date	**Date of submission of the project / research report**
Chairperson	**Dr Ayanda Magida** ☎ **+27 11 717 3953** ✉ **ayanda.magida@wits.ac.za**

Declaration by Researcher

One copy must be signed by the Researcher and returned to the Chairperson of the Wits Business School Ethics Committee.

I fully understand the conditions under which I am authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I undertake to resubmit the protocol to the Committee.

NSibiya
Signature

14/08/2024
Date