Corporate real estate and corporate strategy alignment in South Africa

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Abstract

Purpose – This paper aims to discuss whether alignment between corporate real estate strategy and corporate strategy exists for non-property companies listed on the Johannesburg Securities Exchange and what effects alignment has on the firms' financial performance.

Design/methodology/approach – The study was both qualitative and quantitative in nature, with a specific focus on non-property firms listed on the Johannesburg Securities Exchange. The qualitative part of the study involved the analysis of the firms' annual reports to determine the presence and use of corporate real estate strategies and their alignment to corporate strategy and the extraction of financial indicator data. The quantitative portion of the study involved the use of multivariate analysis, to distinguish and quantify the relationship, if any, between corporate real estate strategy and the identified financial performance indicators. The independent variables were the CRE strategies employed and the dependent variable was the share price. The methods used in this study have been applied before in European and Asian studies; this assisted in ensuring that validity and reliability was achieved.

Findings – The study finds that the most used strategy by firms (47%) is that which facilitates production, operation and service delivery. The Consumer Goods, Healthcare and Telecommunications sectors appear to demonstrate the highest level of alignment. Return on Shareholder Funds has a strong significant positive correlation with share price. Flexibility as a corporate real estate strategy also has a significant positive coefficient, which indicates a positive relationship with share price.

Research limitations/implications – Although consistent with results of studies conducted in Europe and Asia, the results of this research may not be applicable to privately held non-listed firms, state-owned enterprises, non-profits and educational institutions. This study also ignores the dynamic external environment in which firms operate and the necessity of firms adjusting their corporate real estate strategy to their changing business strategy.

Practical implications – These results suggest that the incorporation of corporate real estate strategy in the firms' corporate strategy formulation has the potential to enhance shareholder value for South African firms. Real estate developers, landlords and owner occupiers would benefit from better understanding the strategic requirements of corporations to ensure that the solutions they provide increase the likelihood of maximizing shareholder return.

Originality/value – The role of corporate real estate strategy in the firms' corporate strategy formulation has the ability to enhance shareholder value. This research adds to the scant literature on corporate real estate management in South Africa.

Keywords South Africa, Corporate real estate management, African real estate markets, Corporate real estate strategy, Real estate strategy alignment, Strategic property management

Paper type Research paper

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Introduction

McDonagh and Nichols (2009) noted that all businesses need property to function, be it a manufacturer who requires large reserves of land mixed with plant and facilities, or a fast food chain. The space requirements may vary from the needs of the manufacturing plant and a company whose activities are mostly online, with the space needs of the latter significantly smaller. Osgood (2004), however found that research conducted on almost 200 Fortune 1000 companies in the USA suggested that only about one third of these companies incorporate real estate (CRE) initiatives into their business strategy.

Veale (1989) found that the buildings and land held by large organization typically represent a quarter of corporate wealth. In addition, the ongoing costs and significant value of buildings and land makes it a significant corporate asset requiring an immense management effort. This figure has not changed much in the past two decades as Glatte (2013) observed that European corporations still retain a high ratio of real estate assets (5 to 20 per cent of fixed assets), with around 68 per cent of these assets being owned by the corporations. Then (2000), argues that the much-needed alignment between an organization's strategic direction and the enabling physical environment requires that the organization's strategic intent clearly recognizes the role its physical environment plays in implementing its strategic corporate plans. Scheffer *et al.* (2006) citing Lindholm *et al.* (2006) similarly argue that for the CRE portfolio to contribute effectively to the firm, the strategic consideration of the firms' facilities must be a consequence of and support business strategy. Matching real estate to the business needs is seen as an obvious requirement in the profit potential of these businesses, but how often and how well is this done? This question is of great importance as Heywood (2011) noted that alignment of all the organization's costs and value creation activities including CRE, is critical to achieving enterprise-wide value. Prior to that Rodriquez and Sirmans (1996) argued that if maximizing firm value is the main goal for the firm, it is critical to have a detailed understanding of how decisions associated with real estate assets affect the corporation's value.

CRE had in the past been too concerned with the facility and insufficiently concerned with the relationship of that facility to the large real estate markets and to corporate strategy (Roulac, 2001). It has been observed that most businesses tend to use an overall strategy, yet it was relatively infrequent for business strategy to include a corporate property real estate strategy (Martin and Black, 2006). McDonagh and Nichols (2009) also inferred that the link between the business strategy and the property strategy was weak or non-existent in some corporations. Ali *et al.* (2006) attribute this to a bias of strategic management research, manifested in its failure to acknowledge the significance of CRE to the firm. They also noted that CRE researchers were also biased toward topics that relate to real estate issues while neglecting issues important to the business itself. These prejudices have consequently undermined attention to the importance of including CRE in corporate strategy development.

In this regard, the way management perceives the importance of CRE to the firm cannot be overlooked. Veale (1989) observed that how CRE was viewed and managed in US firms was more closely linked to the attitudes of top management than with the nature, size, value or function of the properties themselves. In support of this finding, Rodriquez and Sirmans (1996) found that US markets displayed a negative reaction toward the turnover of top management involved in CRE activities within the organization. The main reason for such reactions was linked to the perceived loss of "firm-specific human capital". Later work by Singer *et al.* (2007) found that many firms explicitly adopt a strategic approach to real estate and use the portfolio of buildings as an instrument to communicate and reinforce their competitive position in the market. Not surprisingly, Ramakers (2008) also argued that for real estate strategies to add maximum value to organizations, they have to be aligned with corporate objectives.

Liow and Ooi (2004) proposed that for non-real estate firms with substantial amounts of CRE, shareholder wealth is derived from the profitability of its primary business activities and the value of the firms' real estate portfolio. Since most firms try to maximize shareholders' wealth, to ensure that the value adding attributes of CRE can be realized by the firm, CRE managers should choose the most suitable CRE strategy for the firms' business environment and overall goals (Lindholm and Leväinen, 2014). It is therefore critical that firms are able to align their CRE decisions with their overall business strategy. (Appel-Meulenbroek, 2010; Appel-Meulenbroek and Haynes, 2014). Even though some research has looked into this strategic alignment, the models which are the result of these efforts vary in completeness and appear too difficult to be used in practice (Appel-Meulenbroek, 2010; Haynes, 2014).

Previous studies on the topic have focused on mature markets like the USA (Veale, 1989; Rodriquez and Sirmans, 1996), Europe (Cooke *et al.*, 2019; Appel-Meulenbroek *et al.*, 2010; Beckers *et al.*, 2015; Scheffer *et al.*, 2006). It has not been extensively explored in emerging markets (Oladokun, 2010) even though Ali *et al.* (2006), observed that the percentage of companies not displaying any evidence of CRE strategy was more evident in emerging markets, than in the mature markets. A likely reason could be the level of professionalization of real estate activity in these markets. South Africa regulates only estate agents and professional valuers. CRE is not yet recognized as a profession and entry into CRE management is not restricted by any educational or experience requirements. A consequence of this would be variations in the skill level of real estate decision makers and the resultant differences in the quality of their decisions including alignment of real estate strategy with business strategy.

In addition, the alignment of CRE management goals to corporate strategy has not been explored in South Africa even though the country hosts a sizeable fraction of multinational companies operating on the African continent. The Johannesburg Stock Exchange on which this study is based is largest stock market in Africa and among the best regulated market in the world (Schwab, 2013) and so the role of CRE in supporting business operations could be important. Our paper aims to investigate the attributes of corporate strategy, CRE strategy, their alignment and the impact on the financial performance of non-property firms listed on the Johannesburg Stock Exchange.

The rest of the paper is organized as follows. The next section discusses CRE and its alignment with corporate strategy, followed by a description of the research methodology adopted. The results are then presented and discussed.

Corporate real estate and corporate strategy

Corporate strategy in relation to real estate

The literature related to strategic management has identified several models and ideas about corporate strategy (Nourse and Roulac, 1993). The business strategy of organizations usually addresses issues regarding employees, customers, shareholders, etc. (Roulac, 2001). Such strategies give direction to all the functional units within the organization and these include real estate (Lindholm *et al.*, 2006). That is, strategic direction must specify the dos and don'ts of the organization (Osgood, 2004). According to Acoba and Foster (2003), strategic planning with regards to real estate must have the core business strategy as its starting point.

Park and Glascock (2010) noted that strategy literature has mostly overlooked CRE as a topic of research. This is not surprising because the real contribution of CRE to organizations' overall strategic direction continues to be underestimated in organizations (Allard and Barber, 2003). They add that since physical assets are normally considered as non-specific factors of production, strategy scholars have overlooked CRE as a possible source of sustainable competitive advantage and as a strategic firm resource. There has however been a movement against this treatment from researchers in the field of CRE. The movement has been more toward consideration of CRE as a strategic asset with more than purely operational implications (Park and Glascock, 2010).

Corporate real estate strategy

Every organization needs a real estate space to operate or perform its activities. Firms therefore acquire real estate to meet their business activities (Brounen and Eichholtz, 2005). For effective CRE strategies to be implemented, there is the need to survey the landscape of CRE involvement (Roulac *et al.*, 2003). Because this critical knowledge is lacking, there will be insufficient capacity for the performance of the corporation to be assessed effectively. In earlier work, Roulac (2001) had identified that the strategic relevance of CRE management had been one of the five CRE areas that had significantly evolved. This evolution was noted to have resulted in a shift beyond concerns of growth, efficiency and effectiveness, to issues of efficacy and contributions that lead to corporate property enabling the achievement of corporate objectives. Roulac (2001) observed corporate property was beginning to be recognized as the means of connection between business and customers.

Because real estate plays an important connecting role in the value chain, knowledge about CRE strategy is very important (Roulac *et al.*, 2003). However, according to Nourse and Roulac (1993), most businesses do not see the link between real estate and corporate strategy and majority of firms do not have any formal CRE strategy. This finding is confirmed by Roulac (2001) who argued that even though every firm uses an overall strategy, it is not well known whether firms use a strategy for their functions and platforms (properties). CRE could support a firm's strategies through the CRE vision, which is the highest-level expression of CRE's objectives (Yontz, 2002).

According to Nourse and Roulac (1993), there are eight real estate strategies that encapsulate how property decisions can be guided. These eight CRE strategies are:

(1) promote human resources objectives;
(2) facilitate managerial process and knowledge work;
(3) minimize occupancy cost;
(4) facilities and control production, operations, service delivery;
(5) flexibility;
(6) promote marketing message;
(7) promotes sales and selling process; and
(8) capture the real estate value creation of business.

After linking these strategies to the corporate driving forces, the authors note that the CRE strategies may work differently for different firms and that strategies that work for one firm may be inappropriate for another firm. It is therefore important to emphasize specific strategies for specific firms rather than to generalize. The generalization may be misleading and can result in sub-optimal real estate decisions that may frustrate rather than promote the execution of corporate goals (Nourse and Roulac, 1993). Based on the strategies developed by Nourse and Roulac (1993), Roulac *et al.* (2003) note that for CRE strategies to be impactful, the strategies should:

- focus on space management and delivery of CRE functions;
- have a flexible lease term so as to match the requirements of the investor and the occupier;
- adopt a more robust approach to the management of the CRE portfolio of assets;
- use of design of CRE to enhance technological change programs; and
- enhance financial performance and shareholder value.

Alignment between corporate strategy and corporate real estate strategy

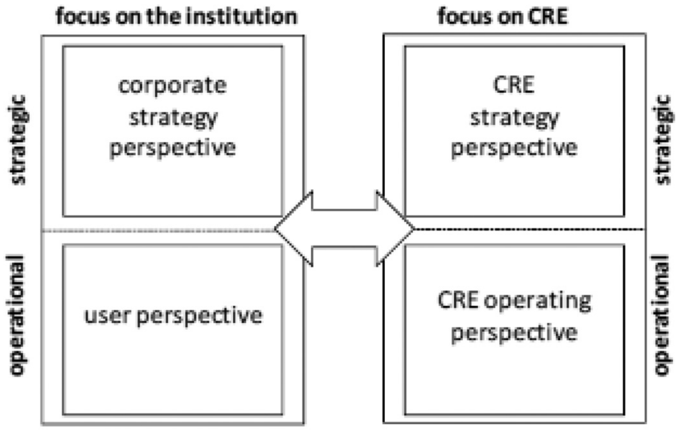
Heywood and Arkesteijn (2017) performed a meta-analysis of CRE alignment. They observed that CRE alignment is a multifaceted concept that defies a single definition. Alignment could manifest itself as a “strategy”, a “process”, a “state” or refer to a set of behaviors of the firm. They further distinguish between the objects being aligned: business and CRE related. Finally, alignment could be internal or external, nested within vertical (in both directions) and horizontal alignment, respectively. For the purposes of this study, alignment should be understood to mean “the process of matching building supply to the strategic objectives of an organization” (Beckers and van der Voordt, 2014). The direction of alignment assumed in this study is vertical, that is between CRE strategy and corporate strategy (Heywood and Arkesteijn, 2017).

Cooke *et al.* (2019) argue that alignment should probably not be seen as a static phenomenon as changing external circumstances, including the temporary nature of competitive advantage under certain conditions demand that businesses adapt and some of that adaptation should consist of ongoing realignment of real estate strategies with changing business strategies. This, in turn, requires flexibility (physical, functional or financial) from an asset that highly inflexible (Gibson, 2000).

In contrast Manning and Roulac (2001) had earlier argued that the more closely linked the CRE function is to long term overall corporate goals, the greater the likely impact on the operations of the firm (Manning and Roulac, 2001). That is, an alignment of CRE strategies with the overall goal of the firm is necessary for the role of CRE in organizations to be legitimized. Since senior executives and management are the ones who see to the implementation of the strategic goals of the organization, any alignment of CRE must involve them (Manning and Roulac, 2001) as the primary stakeholders. Earlier work by Veale (1989) also noted that at the senior management level, the real estate decision is most likely based upon or influenced by operational factors derived from the mission of the corporation as a whole. However, the arguments of Cooke *et al.* (2019) above imply that CRE strategies must also be linked with short term goals to ensure the companies continuous adaptation to the external environment includes equally dynamic real estate decisions.

It used to be very rare for organization strategies to include a CRE strategy (Roulac, 2001). The reason was that many real estate practitioners and management of organizations underestimated the role that real estate could play in the organization (Nourse, 1996). When corporate strategies are linked to real estate strategies, real estate decisions or actions will be connected directly to the overall goals of the organization (Lindholm *et al.*, 2006). According to Beckers and van der Voordt (2014), there are four ways that CRE management alignment could be illustrated. These perspectives are those that concern the institution as a source of space demand or CRE (supply) on the one hand and the strategic or operational level on the other hand. Figure 1 shows these four perspectives.

The arrow between the two sides is a representation of the alignment process between CRE and the firm. This alignment process is designed to analyze the corporate goals and the



Source: Beckers and van der Voordt (2014)

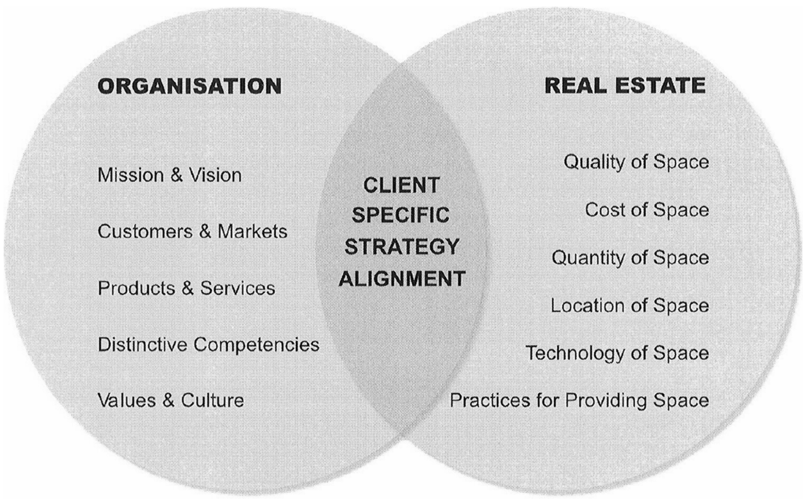
Figure 1.
Four perspectives on CRE alignment

resulting operational decisions to determine if CRE strategy and the resulting operational decisions concerning space use are supportive of the business (Beckers and van der Voordt, 2014).

Osgood (2004) also developed a *Strategy Alignment Map* that seeks to address the lack of alignment that was identified in his consulting activities. This model is illustrated by Figure 2.

The left-hand side of the model shows the core elements of a firm's business strategy consisting of:

- current mission and future vision;
- the customers and markets served by the firm;



Source: Osgood (2004)

Figure 2.
Strategy alignment model

- the organization's products and services;
- the firm's unique competencies; and
- organisational values and culture.

The right-hand side of the model entails an interpretation of the ways in which real estate decisions can facilitate and reinforce each strategy. This is done by defining "the quantity, quality, cost, location, technology and practices for providing space essential to supporting the core business strategy" (Osgood, 2004, p. 108).

Beckers and van der Voordt (2014) observe that the Osgood model illustrates requirement that CRE alignment becomes a continuous process of matching the infrastructure supply to the strategic objectives of the firm. The alignment of CRE and the overall strategy of the firm is therefore necessary since it identifies the value that CRE adds to the organization (Glatte, 2013).

Financial performance and corporate real estate strategies

Würdemann (2012) noted that "the first theoretical research on the effect of corporate real estate performance on shareholder value management" was conducted in the late 80's and early 90's. The authors add that these studies were carried out in the US market, and therefore only captured a specific context. Kaplan and Norton (2005) suggested that, financial metrics indicate whether the company's strategy and its implementation are contributing to improving the bottom-line. These metrics typically relate to profitability, growth and shareholder value.

In later work, Lindholm *et al.* (2006, citing Keskett *et al.*, 1997) added that financial outcomes are associated with value creation and the delivery of quality products and services They further note that firms need to compute a relevant metric that should be extracted from the corporations strategy and these measures should be used to ensure that the firm is achieving its strategic aims and objectives. This aligns with earlier work of Roulac (2001) who argued that the design and implementation of CRE strategies have direct, significant consequences for shareholder wealth.

Lindholm *et al.* (2006) found that in the strategic management field, researchers have struggled to identify and quantify how specific policies and decisions help the firm achieve its financial goals, especially with respect to decisions and policies related to CRE. Manning and Roulac (2001) as cited by Tay and Liow (2006) also found a "narrow financial corporate real estate perspective" in the literature at the time. The two earlier claims are substantiated by Ali *et al.* (2008a, 2008b) who found that due to the main focus in CRE research being on links between the value of the firm and previously identified CRE strategies, there has been a lack of research conducted that, on an empirical basis, models the linkages between the CRE strategy used and the effects on the firms' financial performance. Krumm and de Vries (2003) added that regardless of the growing interest and acknowledgement of the difficulties and challenges faced in the management of CRE portfolios, "the financial perspective of the real estate academy remains very traditional". The authors note that this mismatch is somewhat strange because the "amount of corporate real estate is much bigger than the real estate investment portfolios".

Simpson and Kohers (2002) found that previous studies had mainly focused on accounting measures to define financial performance. The main measures identified included, but were not limited to: return on equity, return on assets, return on sales and return on investment. This use of multiple measure of financial performance is supported by the work of Griffin and Mahon (1997) as cited by Simpson and Kohers (2002), who noted that previous studies only used single measures. The authors suggest that market derived measures are inappropriate as they pick up other measures unlike accounting measures which only pick up financial performance.

Krumm and de Vries (2003) noted that traditional financial performance measures were formed in the "industrial era" and were appropriate for the time, but now firms are looking at performance from a more holistic point of view. This holistic approach involves looking at the firm from both a financial and operational perspective. In the search of these holistic perspectives, Krumm and de Vries (2003) found that the consistency required by accounting principles made net earnings the most used proxy for shareholder value creation, although creating some form of uniformity the number of different valuation techniques used from the accounting principles create a level of confusion.

Krumm and de Vries (2003) and Liow and Ooi (2004) identified and reintroduce economic value added (EVA). Their combined research suggests that this measure of financial performance comes closest to capturing the "true economic profit of an enterprise". The financial analysis technique used in the EVA measure determines the extent to which the company is creating value over and above the cost of capital for assets used (Krumm and de Vries, 2003). Würdemann (2012) noted that although the research conducted by Liow and Ooi (2004) concluded that CRE impacted negatively on the corporations' EVA, firms were still unsure of whether "their RE assets [were] creating value or destroying value within their business portfolio".

Finally, Würdemann (2012) cited the work of Brounen and Eichholtz (2005) who explored the effects of CRE ownership on the stock performance of companies not in the real estate business. Although the general findings pointed to a relatively insignificant but negative relationship between the two, it must be noted that ownership does not speak to the strategic consideration of the owned real estate and performance is also driven by sector affiliation.

The views of the above authors indicate that the phenomenon of the effects of the decisions, policies and strategic consideration taken in relation to CRE and the effects on the firms' financial performance is one that still requires attention from both an academic and practical perspective. As noted earlier, for the purposes of this study, the share price (SP) proxy applied by Ali *et al.* (2008a, 2008b) for financial performance will be applied. Ali *et al.* (2008a, 2008b) noted that SP is most applicable due to its inter-relationships with the various financial ratios applied by the firm. However, it is acknowledged that SPs are susceptible to the variations in market sentiment toward a specific industry, company or the management of a company all of which might be unrelated to the actual financial performance in terms of profits/losses and returns.

Research methodology

Research design

The aim of this study as already stated in Section 1 are of twofold; to establish the presence of CRE strategies for non-property companies listed on the JSE, and to determine the effects of specific CRE strategies on the firms' financial performance. In pursuing these objectives, the study adopted the sequential mixed-method approach which is both descriptive and analytical in nature. Cameron (2009) described complementary mixed method as one where one dominant method is clarified by results from another method type.

Mixed-method research is an attempt to find a method of integrating qualitative and quantitative viewpoints to solve problems (Johnson *et al.*, 2007). The mixed-method approach helps in counteracting the limitations of either method (Creswell, 2003). The structure varies in different studies, and it provides a better understanding of the research problem (Johnson *et al.*, 2007).

The methodology applied by Ali *et al.* (2008a, 2008b) was adopted. This methodology is in three stages and uses both qualitative and quantitative processes. Stage one is company selection. The selected companies are the non-property companies listed on the main board of the Johannesburg Securities Exchange. The second stage is the "systematic interpretation" of the selected firms' annual reports. This step is designed to delineate the companies on the following basis; whether or not the company has a CRE strategy, whether the CRE strategy could be mapped onto the Nourse and Roulac (1993) framework or whether the company has a CRE strategy different from the Nourse and Roulac framework. Lastly, the third stage involved multivariate analysis. To undertake the regression analysis, the results obtained from the initial annual report analysis were applied to distinguish and quantify the magnitude of the links between the CRE strategy and the relevant financial metrics. In the formulation of the model, the independent variables were the strategies used and the dependent variable was the SP.

Data collection techniques

Secondary data sourced from the annual reports of the different non-property listed companies on the JSE were the major sources of information for the regression model. Collection of secondary data was conducted by way rigorous systematic interpretation of annual reports of the firms on the Johannesburg Securities Exchange. Since each of the firms that are part of the study are listed on the JSE, they are required to make public their audited financial statements and annual reports. The annual financial statements and annual reports were downloaded from each firms' official website where they store all the firm related documentation. As at January 15, 2018, there were 321 non-property and non-financial companies listed on the JSE. Out of these, only 140 qualified to be included into the sample for the quantitative analysis. These 140 companies report their financials in South African Rands; they have their registered offices in South Africa; and they had all the financial data needed to calculate the different variables.

Data analysis

The empirical analysis as described by Ali *et al.* (2008a, 2008b) was applied to classify and assess the relationship between CRE strategies and financial performance, in the form of SP. To achieve this aim, the multiple regression analysis is used with CRE strategies and financial indicators representing the predictor variables, while the log of the SP represents the dependent variable. Consistent with Ali *et al.* (2008a, 2008b), the financial variables considered included profitability, liquidity and investment ratios[1]. Due to the ordinal nature of the CRE strategies, dummy variables are used to represent them. The financial indicators are used as control variables to support the analysis. These financial indicators are profitability, gearing, liquidity and investment ratios. The selection of these financial ratios is based on their known inter-relationship with SP (Ali *et al.*, 2008a, 2008b). The strategies that are mostly used in the literature include the following: No strategy (CRE0); Occupation to cost minimization (CRE1); Flexibility (CRE2); Promote Human Resources Objectives (CRE3); Promote Marketing Message (CRE4); Promote Sales and Selling Process (CRE5); Facilitate Production, Operation and Service Delivery (CRE6); Facilitate Managerial Process and Knowledge Framework (CRE7); Capture Real Estate Value Creation of the Business (CRE8); and Sustainability (CRE9). The other independent variables that were used for this study are: Return on shareholder funds (ROSF); Profit margin (PM); Current ratio (CR); Liquidity ratio (LR); Gearing ratio (GR); Interest cover ratio (ICR); and Dividend payout ratio (DPOR).

The model used is in the form:

$$Y_j = \alpha + \sum_{j=1}^{J} \beta X_j + \sum_{j=1}^{J} \gamma D_j + \varepsilon_j \tag{1}$$

Where:

Y_j = represents the dependent variable, the natural logarithm of the SP

α = is the constant term which measures SP of a company assuming all the variables are set to zero;

β = represents the regression coefficients associated with the exogenous independent variables (the financial variables), X of company j;

D = is a matrix of dummy variables, which represents the various CRE straregies of company i; and

The stochastic or error term, ε, represents all relevant determinants of company i financial performance that are not captured by the matrixes X and D. This means that no omitted variable bias problem exists.

Presentation and analysis of results

The main focal point of this study is the CRE strategies, their alignment to corporate strategy and linkages to financial performance of South African JSE listed companies. As already indicated, 140 companies satisfied the conditions of being included in the final sample to be used to conduct the quantitative section of the study. These companies are split into seven different industries, namely: Basic Material, Industrials, Consumer Goods, Health Care, Consumer Services, Telecommunications; and Technology. As at January 15, 2018, these companies had a market capitalization ranging from R0,06bn to R1214bn, with an average of R29bn. 19 per cent of the companies had market capitalization above the average.

Corporate real estate strategies

The annual reports for each of the companies is analyzed to identify the strategy used by each company. The research uses the framework developed by Nourse and Roulac (1993) to examine the linkage between real estate operating decisions and corporate strategies. This is to ensure consistency in how the annual reports are interpreted (Ali *et al.*, 2008a, 2008b). The analysis of the companies was based on their dominant CRE strategy.

Figure 3 shows the number and percentage of companies that use these CRE strategies. The figure shows that about 47 per cent of the companies use the *facilitate production*,

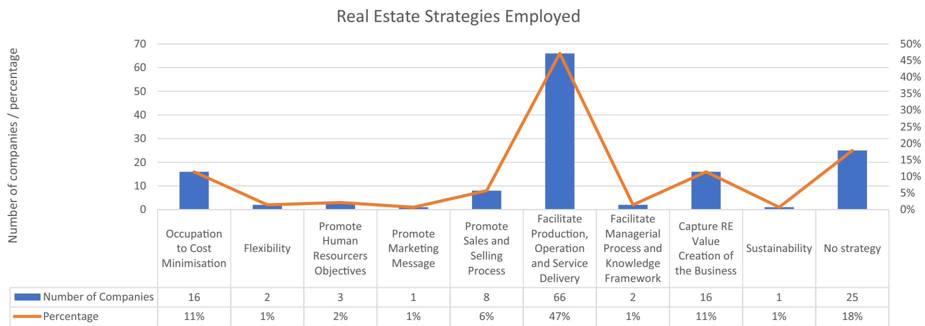


Figure 3.
Real estate strategies used

operation and service delivery strategies. The firms that use this strategy tend to look for or design premises that facilitate manufacturing or service delivery. These firms also favor locations that are convenient for customers and ensure that these locations are convenient to suppliers as well. 11 per cent of the companies operate with the occupation to cost minimization strategy and 11 per cent also use the capture real estate value creation of the business strategy. The results also show that about 18 per cent of the companies do not use any strategy. Since, 82 per cent of the companies have a CRE strategy it is interesting to examine whether these strategies affect the financial performance of the companies. It is also clear from Figure 3 that all the strategies identified were used by at least one of the companies.

Indicators of the presence of alignment

With respect to the indicators of the presence of alignment, the study has chosen to use the firm's explicit mention or the ability to deduce a CRE strategy from the firm's annual review as a proxy for the presence of alignment. From the above results we note that 82 per cent of the firms have a CRE strategy that has either been directly communicated or inferred from the firms operating decisions. Figure 4 shows how the CRE strategies are aligned with the overall strategy of the firms.

From Figure 4, we can see that the Consumer Goods, Healthcare and Telecommunications sectors appear to show 100 per cent alignment, while the sector with the lowest level of alignment is the Industrial sector at 64 per cent. These results appear consistent with results of Nourse and Roulac (1993) and Singer *et al.* (2007) who noted that aligned firms explicitly mention or consider real estate in their corporate strategies. That is, the level of CRE alignment with corporate strategy is strong.

Corporate real estate strategy and firm performance

To identify and evaluate the relationship between CRE strategies and SP, as a proxy for financial performance, empirical analysis in the form of multiple regression analysis with SP as the dependent variable was done using the CRE strategies and financial indicators representing the predictor variables as already discussed in the methodology section. Table I presents the results obtained from the regression model.

Table I shows that all the variables are not significant apart from return on shareholder funds (ROSF) which has a significant positive coefficient of 3.76. This means that all things being equal, when the return on shareholder funds increase by 1 per cent, SP increase by 3.76 Rand. This positive relationship is expected, because an increase in shareholder return will increase the demand for the firm's stock and hence its SP. Except for the flexibility

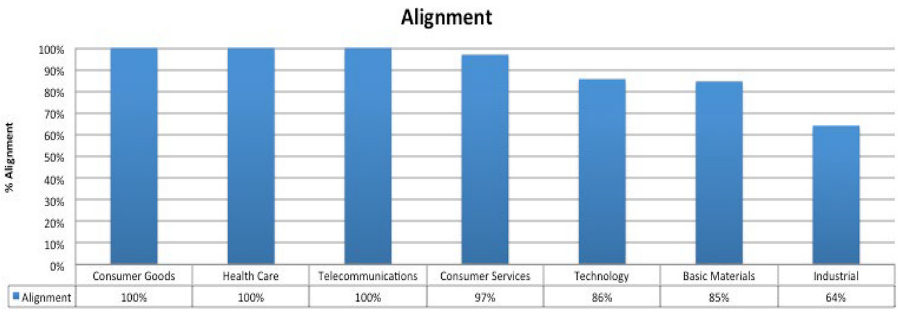


Figure 4.
Indicators of alignment

Variables	Coefficient	*T*-value
SP_{-1}	0.047	0.58
DPOR	0.244	1.65
GR	−0.090	−0.39
ICR	0.000	0.49
LR	0.001	1.71
PM	−0.81	−0.56
ROSF	3.760	4.02
CR	−0.032	−0.40
CRE1	0.573	1.27
CRE2	2.760	2.55
CRE3	0.883	0.96
CRE4	2.442	1.67
CRE5	0.887	1.49
CRE6	0.099	0.29
CRE7	0.486	0.46
CRE8	0.105	0.22
CRE9	0.174	0.12
Constant	2.117	5.32
Adjusted R^2	0.2715	
F-statistics	2.78	
Prob (*F* stat)	0.0006	

Note: The table presents the regression results obtained from the regression model with the dependent variable as the natural logarithm of the SP. The independent variables are the various CRE strategies identified in the methodology

Table I.
Regression results

strategy, all the other strategies are not statistically significant. Flexibility has a positive significant coefficient indicating a positive relationship with SP consistent with Nourse and Roulac (1993). Therefore, the results suggest that firms with flexibility as a strategy increase SP compared to firms using no strategy. The results are based on and also seem consistent with a similar model used by Ali *et al.* (2008a, 2008b).

Conclusions

Our paper set out to investigate possible linkages between business strategy and CRE strategy, and the impact of these linkages on the financial performance of non-property firms listed on the Johannesburg Stock Exchange. Our findings indicate the favorite strategy by respondent firms is to enable production, operation and service delivery. Consumer Goods, Healthcare and Telecommunications sectors appear to demonstrate the highest level of consistency between business goals and strategies on the use of space. Return on Shareholder Funds is strongly and positively associated with SP. Flexibility as a CRE strategy also has a significant positive influence on SP.

The analysis suggests that CRE strategy, which considers the requirements and needs of the firms, has the strong potential to improve shareholder wealth. The results and outcomes of this study support the idea that a firm that strategically manages its CRE holdings in relation to the broader firm strategy could enhance shareholders' wealth. The outcome from this study is vital as it provides the point of departure for South African firms to examine the application of their CRE strategies when incorporated within the broader corporate strategy. It provides firms with a tool to test if they have a CRE strategy and if that strategy speaks to maximizing shareholder return, and if it affects the performance of the firm. This behavior by the firm's management will be of interest to owners and developers of real estate as well. Landlords are also required to understand the corporate strategy of the firms which they are looking to attract so that CRE could be developed to suit their needs and maximize the shareholder return and enhance the performance of the firm. Landlords who fail in this regard could thus find themselves losing corporate tenants as they look to develop, occupy and own their own real estate as they could be better placed to understand how to match strategic CRE decisions to their own strategy, rather than entrusting the implementation of this CRE strategy to third party landlords and developers.

Importantly, CRE strategies should always align to corporate strategy for maximum effect. Alignment should act as a co-contributor to company strategies designed to enhance shareholder value, as opposed to reactionary measures designed to limit the damage done by misaligned strategy formulation processes. CRE is still a substantial contributor to the asset base of corporations and should be treated with the same attention as the human resource, information technology and economic considerations taken into account by companies when developing their strategies.

The alignment analysis adopted in this study captures only a snapshot of the process. It ignores the fact that corporations operate in a dynamic environment and have to constantly adapt their business strategies which, in turn, requires that strategic decisions on space use must also be adaptive (Cooke *et al.*, 2019). Since this study was conducted, South Africa has undergone significant economic uncertainty and a study that incorporates how business strategy and CRE strategy has been adapting would paint a better picture of the state of alignment among respondent firms.

The qualitative evidence of alignment could also be considered as not definitive as additional evidence of alignment could have been sought beyond what was gleaned from the annual reports. The study also excludes non-listed firms, state-owned enterprises and educational institutions. Their context might differ from those of firms listed on the Stock Exchange and the results might not be applicable. A follow-up study would be necessary to see if institutional context matters and in which way.

Note

1. Return on shareholder funds = Net profit after tax ÷ shareholders equity; Operating profit margin = net operating profit ÷ revenue; Current ratio = current assets ÷ current liabilities ; Liquidity ratio = cash and cash equivalents ÷ short term borrowings; Basic earnings per share = net income (attributable to equity holders) ÷ # outstanding shares; Solvency ratio = (profit after tax + depreciation and amortization) ÷ (short term liabilities + long term liabilities);

   Gearing ratio = total debt ÷ shareholders equity; Interest cover ratio = earnings before interest tax depreciation and amortization ÷ interest expense; and Dividend payout ratio = dividend ÷ net income.

   Return on shareholder funds are the profitability ratios; current, liquidity and interest cover ratios are the liquidity ratios; basic earnings per share, and dividend payout ratios are the investment ratios.

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