



**TOPIC: EVALUATION OF CORPORATE REAL ESTATE
MANAGEMENT ON SUSTAINABILITY OF ORGANISATIONAL
GOALS**

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ABSTRACT

This study is on the evaluation of organisational sustainability goals obtain and Corporate real estate (CRE) which is the integrated management of all economic, environmental and social aspects of an organisation pertaining to its real estate activities and associated investment decision-making. It involves all relevant strategies, processes and organisational structures that support corporate governance and sustainable business and product development. Using simple random technique, primary data were obtained from the sectors under the Nigeria Stock Exchange; consumer goods, oil and gas, services, financial service, health care, ICT, agriculture, industrial goods, construction or real estate, conglomerates and natural resources and corporations registered with the Nigerian Stock Exchange services. 110 questionnaires were distributed and 103 questionnaires were retrieved. From the analysis, 59.2% of the total respondents responded that their corporation has a written overall strategic plan for real estate while 40.8% take no inferably, corporations are aware about the effect of strategic planning. Staff of the firms under study has exposure and understanding of overall organizational strategy on which to base real estate decision but the works still lies on its regularity. Corporate real estate strategies are arranged in an ascending order of effectiveness: promoting sales and selling processes, promote human resource objectives, facilitating

and controlling production, operations and service delivery; facilitating of managerial processes and knowledge work, promoting marketing message, occupancy cost minimization, flexibility and capturing the real estate value creation of business. It was concluded that the strategies described above added value to their real estate and corporation. The values added were rated with the satisfactory level of the corporation and were ranked from 1st to 9th respectively: increases profitability, increases flexibility, increases employee satisfaction, promoting marketing and sales, increases productivity, increases value of asset, cost reduction, increasing workplace innovation and risk control.

Keywords; *Corporate real estate, sustainability, organizational goals, Nigerian stock exchange, Investment*

INTRODUCTION

The development of real estate built for the purpose of accommodating business activities, also known as corporate real estate started approximately since the beginning of the industrial revolution in the mid-1700 Krumm (2001) .Over the past decades, there has been discussion whether CRE regards only real estate that is used for business purpose or that CRE also concerns real estate that is used as a capital investment Schelle & Baltussen (2013).

Krumm, Dewulf & De jonge, (2000) define Corporate Real Estate Management (CREM) as the direction and supervision of a corporation's real estate portfolio by aligning the portfolio and services to the needs of the core business processes, in order to obtain maximum added value for the businesses and to contribute optimally to the overall performance of corporations.

In many corporations, real estate and facility management have evolved over the years from individual transaction based decision about physical spaces. As such they tend to follow traditional approaches of cost minimization and focus on short-term results rather than long term strategy, still not moving from taskmaster to business strategist, Joroff, Louagrand, Lambert & Becker (1993). Many real estate and facility units within corporations have been established from the perspective of managing existing buildings. CREM decisions are therefore based primarily on functions and requirements in relation to structures and not the business that are performed within them. Little attention has been

paid to the added value that CREM can generate from strategically supporting core business processes.

Moreover, Kuijstermans (2012) asserts that various researches highlight benefits such as a “decrease of exploitation costs (energy use and maintenance), extended depreciation periods, higher rental level by decrease of exploitation costs, future proof design, increase let ability, decrease of risk of vacancy, increase of residual value, higher productivity, increase of health of employees, decrease of absence through illness, increase of satisfied employees, and a green image”. These findings are consistent with the theory regarding the CRE strategy support sustainability and presume that a deliberate sustainable real estate strategy has a direct or indirect impact on the performance of almost all other real estate strategies. Implementing a sustainable real estate strategy is known as corporate real estate sustainability management (CRESM).

The aim of this project was to assess the strategies used in corporate real estate management with a view to evaluate the value it adds to organizational growth. This was achieved by examining the activities of CRE in line with organizational developmental goals using the Nigerian stock exchange.

LITERATURE REVIEW

Concept of Corporate Real Estate Management (CREM)

De jonge (1996 in Krumm, 1999) defines CREM as the management of corporate accommodation in order to obtain maximum added value for the business. Krumm et al (2000) complete this definition by describing that CREM is “the management of a corporation’s real estate portfolio by aligning the portfolio and services to the needs of the core business in order to obtain maximum added value for the businesses and to contribute to the overall performance of the corporation”. Also Nourse (1990) emphasizes the importance of the core business by describing CREM as the collection of activities related to acquisition, management and disposal of real estate to achieve user’s objectives instead of focusing on maximizing wealth in real estate investments, the corporate real estate manager’s opportunities to maximize the return on investment is controlled by and must conform to the business of the corporation (Nourse 1990).

Corporate real estate sustainability management

Real estate and sustainability are highly intertwined and recognition of the importance of sustainable real estate has increased over the years (Eichholtz,

Kok & Quigley, 2013). The built environment is responsible for an estimated 40% of the global energy use and sustainable strategies related to CRE are therefore growing in importance (Taylor, 2013; and Eichholtz et al., 2013). Within the Netherlands, the built environment takes 36% of the national CO2 emission into account (NOS, 2015). Although this emphasizes the importance of sustainable real estate, there is relatively little theory concerning the implementation of sustainability as a real estate strategy (Jensen et al., 2014). Implementing sustainability within the CRE portfolio is a relatively new real estate strategy that is only recently added to CRE theory by Gibler and Lindholm (2011). In addition, based on real estate alignment theory, Haynes (2012) identified ten components of CREM, which are planet, position, purpose, procurement, place, paradigm, processes, people, performance and productivity. Optimal alignment of the CRE strategy with the organizational strategy is achieved when all these elements are aligned with one another. Notable is that Haynes (2012) is one of the first that identified planet as one of the CREM components and argues that the CRE portfolio should be aligned with issues relating to sustainability.

According to the UNEP (2014, p19), CRESM is defined as “The integrated management of all economic, environmental and social aspects of an organization its property (real estate) activities and associated investment decision-making. It involves all relevant strategies, processes and organizational structures that support corporate governance and sustainable business and product development.”

Moreover, CRESM is a proactive process of measurement, analysis and response based on the real estate sustainability performance set against CRE performance requirements and organizational performance requirements.

Masalskyte, Andelin, Sarasoja and Ventovuori (2014) found that various benefits might be achieved with CRESM for all three aspects. An overview of the mentioned benefits is presented in table 2.1

Table 2.1: Possible benefits of CRESM (Masalskyte et al., 2014)

Environmental benefits	Social benefits	Economic benefits
➤ Efficient use of resources	➤ Healthy and comfortable working environment	➤ Increase real estate market value

<ul style="list-style-type: none"> ➤ Lower life cycle impact ➤ Sustainable workplaces ➤ Other issues related to physical building features 	<ul style="list-style-type: none"> ➤ Employee management ➤ Employee satisfaction ➤ Employee productivity 	<ul style="list-style-type: none"> ➤ Cost reduction
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To manage the CRE sustainability performance, there is need to identify the core and support activities of both CREM and CRESM.

Corporate Real Estate Management Activities

CREM activities are not limited to the core portfolio management activities. Based on the management model of St. Gallen, CRE management tasks can be differentiated into core, support and management activities (Ruegg-strumm 2002; in Kampf-Dern & Pfnur, 2014).

Management activities involve developing the organizations structure and its management to implement the corporate strategy. However, corporate real estate can be seen as a support function like finance, human resources, information technology and communication (Ribon et al., 2007). Therefore, CRE management activities involves implementing a CRE strategy aligned with both the corporate real estate core activities and support activities involving interaction with the corporate core business besides the support functions (Kämpf-Dern & Pfnür, 2014). The core activities of CREM are activities regarding the management of the real estate portfolio (Ploumen, 2014). Real estate activities concerning real estate portfolio management are listed along the real estate life cycle. Figure 2.3 illustrates that these activities can be separated in provision of space, operation and disposition. Provision of space involves all activities concerning the acquisition or lease of new CRE and can be divided into four main activities; space planning, acquisition, lease and lease administration and project development. Operation involves all activities necessary for occupying real estate and consists of three main activities. Technical facilities management involves all activities regarding building maintenance. Infrastructural facilities management concerns activities that facilitate workplace design and functional flexibility. Commercial facilities

management involves activities regarding facilitating extra services and optimization of occupancy rates. Support activities involve enabling and facilitating the core activities through e.g. technology, human resources and procurement, but are not involved directly with generating the product or service. The portfolio management activities defined by Hartmann et al. (2010) are integrated in this model as CRE core activities. In addition, Bontekoning (2015) analyzed eight different studies concerning CREM skills and activities.

Corporate real estate management in the corporate environment

To get a better understanding of CREM related to corporate strategy, the position of CREM in the external corporate environment is further examined in this paragraph. Existing literature covers respective issues of the corporate environment, but only a few studies combine multiple aspects in order to determine the position of CREM in its environment. Kämpf-Dern et al. (2012) developed the CREM map by analyzing existing literature and combine their findings with broadly accepted structures of general management frameworks to place CREM in the internal and external environment of interaction. Kämpf-Dern and Pfnür (2014) state that targets are derived from the corporate objectives as well as the corporate mission and vision. Therefore, they guide management processes and thus lead to corporate action. According to Steinmann and Schreyögg (2005, in Kämpf-Dern & Pfnür, 2014) the major management processes are strategy development, organization and controlling which contain the domains (spheres of activity) CREM targets, CREM strategies, CREM organization and CREM controlling systems derived from the major management processes.

The nature of the added value in the context of CREM

According to the definitions of CREM presented in the previous subchapter, the success of corporate real estate management could refer to the CREM ability to create added value for the core business. But what does the added value actually mean? The phrase added value is nowadays commonly used, but it is also understood in various ways. This subchapter concentrates on discussing how the term “added value” is understood in the context of corporate real estate management and how the previous studies have covered the added value issues.

CREM Performance measurement

Monitoring company performance has traditionally been associated with accounting, and the purpose has been to determine a company's financial success. Success has been judged via comparison to the previous years' results and various key indicators, such as return on investment, turnover and net profit. This has also been the case in the context of corporate real estate management (CREM). Historically, corporate real estate managers have tended to measure performance from an operational efficiency perspective –factors such as operating costs, costs per square foot and maintenance cost (Arthur Anderson & Co., 1993; Duckworth, 1993; Nourse, 1994; Bdeir, 2003).

A control system concentrating only on such indicators has shortcomings. Short-term goals lead to short-term actions, and a consequence of striving for short-term profits is cutbacks on activities that could lead to long-term profitability (Laitinen, 1998; Olve *et al.*, 1999). In addition, the financial data do not illuminate the potential of using real estate to create a competitive advantage for the business. Whilst these conventional measurements allow the corporate real estate managers to assess outlay against budget, and even to compare this with the industry norm, they do not make clear whether the organisation is spending the right amount for its needs, or whether it is maximizing its results (Hinks 2004).

In the context of CREM, performance could be seen as the ability of CREM to support the organisational objectives, strategies and at the end: business success. To determine whether CREM is achieving its strategic goals, relevant performance measures are needed to compute. In order to demonstrate how CREM contributes to the core business of the organisation, these performance measures should derive from the firm's strategy and the organisational success factors (Ghalayini and Noble 1996; Keegan *et al.*, 1989). Strategic performance measurement is then the process whereby the strategy of an organisation is translated into concrete objectives and the achievement of those objectives is evaluated. However, the choice of strategy for reaching the vision of the firm is likely to be closely tied to the nature of the organisation. Every organisation is individual in respect to the strategies for implementing its ultimate goals. This creates a challenge for identifying the generic added value of CREM as performance is very difficult to measure across a range of differently structured

and focused organisations. Consequently, there is not one right CREM measure or even a method, which suit to all organisations.

CREM performance measurement is also complex because many real estate decisions have an indirect and lagged effect on the firm's financial success that is going unmeasured. Financial performance is correlated with creation of value and delivery of quality products and services (Heskett *et al.*, 1997). These, in turn, are related to employee morale, productivity and both employee and customer satisfaction. Employee morale, productivity, and satisfaction are partially a function of the workplace environment, which is determined by corporate real estate decisions. Customer satisfaction is partially a function of convenient and functional product and service delivery locations. Although researchers may have difficulty in developing reliable measures of such important factors as employee productivity (Kaplan and Aronoff, 1996), the importance of measuring the lagged effect of decisions affecting these conditions is evident.

RESEARCH METHOD

The executives of the corporate real estate department of various companies under each sector of the Nigeria Stock Exchange were given questionnaires. Using simple random technique, primary data were obtained from the sectors under the Nigeria Stock Exchange; consumer goods, oil and gas, services, financial service, health care, ICT, agriculture, industrial goods, construction or real estate, conglomerates and natural resources and corporations registered with the Nigerian Stock Exchange services. 110 questionnaires were distributed and 103 questionnaires were retrieved.

DATA PRESENTATION, ANALYSIS AND FINDINGS

This chapter is concerned with the presentation, analysis and interpretation of the data collected from the field survey. This would invariably lead to the appraisal of performance measures on sustainable corporate real estate management. A total of 110 questionnaires were administered to the respective corporations out of which 103 questionnaires were successfully retrieved. The rate of response to the questionnaire was aimed at assessing the performance measures on sustainable corporate real estate management. Hence, the data is been analyzed based on the 103 questionnaires retrieved.

Table 1 Effectiveness of corporate real estate strategies in corporation

Indices	Not effective	Rarely effective	Partially effective	Averagely effective	Highly effective	TR	TWV	RPI	Rank
Occupancy cost minimization	-	5(10)	20(60)	45(180)	33(165)	103	415	4.02	6 th
Flexibility	-	3(6)	19(57)	57(228)	24(120)	103	411	3.99	7 th
Promoting human resources objectives	-	2(4)	16(48)	35(140)	50(250)	103	442	4.29	2 ^{nds}
promoting marketing message	-	6(12)	14(42)	45(180)	38(190)	103	424	4.11	5 th
Promoting of sales and selling processes	-	4(8)	8(24)	44(176)	47(235)	103	443	4.30	1 st
Facilitating and controlling production, operations and service delivery	-	2(4)	21(63)	38(152)	42(210)	103	429	4.16	3 rd
Facilitating of managerial processes and knowledge work	-	4(8)	20(60)	38(152)	41(205)	103	425	4.12	4 rd
Capturing the real estate value creation of business		7(14)	21(63)	50(200)	25(125)	103	402	3.90	8 th

Source: Field Survey, 2019

*Note: The closer the RPI of an assessment to five, the higher its effectiveness in corporations.

Table 1 shows the rating of the effectiveness of corporate real estate strategies in corporations from the Total Respondents (TR), Total Weight Value (TWV) and Respondents' Perception Index (RPI). Likert's scale of (highly effective, averagely effective, partially effective, rarely effective and not effective) was used and the data collection was ranked. During the analysis the rating were

assigned weight value of 1, 2, 3, 4 and 5 respectively. The total weight value (TWV) for each perception rating was computed by summing the product of the number of responses for each rating to the respective weight value. The RPI to each variable was arrived at by dividing the TWV by the summation of the respondents to each of the five ratings of perception.

From the table; promoting sales and selling processes ranked 1st, promoting human resources objectives ranked 2nd, facilitating and controlling production, operations and service delivery ranked 3rd, facilitating managerial processes and work knowledge work ranked 4th, promoting marketing message ranked 5th, occupancy cost minimization ranked 6th, flexibility ranked 7th and capturing the real estate value creation of business ranked 8th.

ADDED VALUE

Table 2 satisfaction level of the added value

Indices	Not satisfied	Rarely satisfied	Partially satisfied	Average satisfied	Highly satisfied	T R	TW V	R PI	Ra nk
Increasing productivity	-	1(2)	5(15)	46(184)	51(255)	103	426	4.13	5 th
Cost reduction	-	4(8)	20(60)	53(212)	26(130)	103	410	3.98	7 th
Risk control	-	4(8)	33(99)	38(152)	28(140)	103	399	3.87	9 th
Increase profitability	-	2(4)	8(24)	29(116)	64(320)	103	464	4.5	1 st
Increase flexibility	-	2(4)	14(42)	43(172)	44(220)	103	438	4.25	2 nd
Introducing	-	8(16)	25(75)	31(124)	39(195)	103	410	3.98	7 th

workpla ce innovati on									
Promoti ng marketi ng and sale	-	3(6)	9(27)	59(236)	32(160)	103	429	4.16	4 th
Increase value of asset	-	3(6)	19(57)	46(184)	35(175)	103	422	4.09	6 th
Increase s employe e satisfacti on	-	3(6)	14(42)	44(176)	42(210)	103	434	4.21	3 rd

Source: Field Survey, 2019

*Note: The closer the RPI of an assessment to five, the higher its satisfactory level of the added value

Table 2 shows the satisfactory level of added value in corporations from the Total Respondents (TR), Total Weight Value (TWV) and Respondents' Perception Index (RPI). Likert's scale of (not satisfied, rarely satisfied, partially satisfied, averagely satisfied and highly satisfied) was used and the data collection was ranked. During the analysis the levels were assigned weight value of 1, 2, 3, 4 and 5 respectively. The total weight value (TWV) for each perception level was computed by summing the product of the number of responses for each level to the respective weight value. The RPI to each variable was arrived at by dividing the TWV by the summation of the respondents to each of the five levels of perception.

From the table; increases profitability ranked 1st, increases flexibility ranked 2nd, increases employee satisfaction ranked 3rd, promoting marketing and sales

ranked 4th, increasing productivity ranked 5th, increases value of asset ranked 6th, cost reduction and introducing workplace innovation ranked 7th and risk control ranked 9th.

PERFORMANCES MEASURES AND PERFORMANCE INDICATORS

***Measures of indicators for performance assessment**

Table 3 corporate real estate unit efficiency

Indices	Poor	Fair	Good	Very good	Excellent	TR	TWV	RPI	Rank
Cost per corporate real estate employee	18(18)	31(62)	34(102)	14(56)	6(30)	103	268	2.6	2 nd
Actual extra occupancy cost versus predicted cost	9(9)	37(74)	37(111)	14(56)	6(30)	103	280	2.7	1 st

Source: Field Survey, 2019

*Note: The closer the RPI of an assessment to five, the higher the accuracy of performance measures indicators.

Table 3 shows the accuracy of indicators used in measuring the corporate unit efficiency performance from the Total Respondents (TR), Total Weight Value (TWV) and Respondents' Perception Index (RPI). Likert's scale of (poor, fair, good, very good and excellent) was used and the data collection was ranked. During the analysis the levels of accuracy were assigned weight value of 1, 2, 3, 4 and 5 respectively. The total weight value (TWV) for each perception level of accuracy was computed by summing the product of the number of responses for each level to the respective weight value. The RPI to each variable was

arrived at by dividing the TWV by the summation of the respondents to each of the five levels of perception.

From the table; actual extra occupancy cost versus predicted cost was ranked 1st and cost per corporate real estate employee was ranked 2nd. This indicates that actual cost versus predicted cost is the more prominent way of measuring performance

Table 4 Satisfaction

Indices	Poor	Fair	Good	Very good	Excellent	TR	TWV	RPI	Rank
Customer satisfaction	3(3)	12(24)	39(117)	35(140)	14(70)	103	354	3.43	2 nd
Employee satisfaction with work environment	5(5)	13(26)	34(102)	33(132)	18(90)	103	355	3.44	1 st
Provision of amenities	5(5)	16(32)	38(114)	30(120)	14(70)	103	341	3.31	3 rd
Absentee rates by building	4(4)	39(78)	38(114)	20(80)	2(10)	103	286	2.77	4 th

Source: Field Survey, 2019

*Note: The closer the RPI of an assessment to five, the higher the accuracy of performance measures indicators

Table 4 shows the accuracy of indicators used in measuring the satisfaction performance from the Total Respondents (TR), Total Weight Value (TWV) and Respondents' Perception Index (RPI). Likert's scale of (poor, fair, good, very good and excellent) was used and the data collection was ranked. During the analysis the levels of accuracy were assigned weight value of 1, 2, 3, 4 and 5 respectively. The total weight value (TWV) for each perception level of accuracy was computed by summing the product of the number of responses for each level to the respective weight value. The RPI to each variable was arrived at by dividing the TWV by the summation of the respondents to each of the five levels of perception.

From the table; employee satisfaction with work environment was ranked 1st, customer satisfaction ranked 2nd, provision of amenities ranked 3rd and absentee rates by building ranked 4th.

Table 5 Portfolio management

Indices	Poor	Fair	Good	Very good	Excellent	TR	TWV	RPI	Rank
Cost of acquisition versus return	7(7)	14(28)	45(135)	30(120)	7(35)	103	325	3.1	1 st

Holding costs per year	15(15)	31(62)	35(105)	18(72)	4(20)	103	274	2.6	2 nd
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Source: Field Survey, 2019

*Note: The closer the RPI of an assessment to five, the higher the accuracy of performance measures indicators

Table 5 shows the accuracy of indicators used in measuring the portfolio management performance from the Total Respondents (TR), Total Weight Value (TWV) and Respondents' Perception Index (RPI). Likert's scale (poor, fair, good, very good and excellent) was used and the data collection was ranked. During the analysis the levels of accuracy were assigned weight value of 1, 2, 3, 4 and 5 respectively. The total weight value (TWV) for each perception level of accuracy was computed by summing the product of the number of responses for each level to the respective weight value. The RPI to each variable was arrived at by dividing the TWV by the summation of the respondents to each of the five levels of perception.

From the table; cost of acquisition versus returns was ranked 1st and holding costs per year was ranked 2nd.

Table 6 Financial performance

Indices	Poor	Fair	Good	Very good	Excellent	TR	TWV	RPI	Rank
Ratio of expenses to revenue	7(7)	14(28)	46(138)	29(116)	7(35)	103	324	3.14	2 nd
Capital expenditure	10(10)	22(44)	40(120)	25(100)	6(30)	103	304	2.95	3 rd
Value of property plant and equipment	3(3)	22(44)	38(114)	26(104)	14(70)	103	335	3.25	1 st

Source: Field Survey, 2019

*Note: The closer the RPI of an assessment to five, the higher the accuracy of performance measures indicators

Table 6 shows the accuracy of indicators used in measuring the financial performance from the Total Respondents (TR), Total Weight Value (TWV) and Respondents' Perception Index (RPI). Likert's scale of (poor, fair, good, very good and excellent) was used and the data collection was ranked. During the analysis the levels of accuracy were assigned weight value of 1, 2, 3, 4 and 5 respectively. The total weight value (TWV) for each perception level of

accuracy was computed by summing the product of the number of responses for each level to the respective weight value. The RPI to each variable was arrived at by dividing the TWV by the summation of the respondents to each of the five levels of perception.

From the table; value of property plant and equipment ranked 1st, ratio of expenses to revenue ranked 2nd and capital expenditure ranked 3rd.

Table 7 Employee satisfaction

Indices	Poor	Fair	Good	Very good	Excellent	T R	TW V	RP I	Ran k
Quality indoor environment	8(8)	12(24)	43(129)	34(136)	6(30)	103	327	3.1	3 rd
Noise level	14(14)	30(60)	32(96)	22(88)	5(25)	103	283	2.7	4 th
Location success factors	2(2)	16(32)	40(120)	32(128)	13(65)	103	347	3.3	1 st
Ratio of offices in common area	1(1)	20(40)	37(111)	39(156)	6(30)	103	338	3.2	2 nd

Source: Field Survey, 2019

*Note: The closer the RPI of an assessment to five, the higher the accuracy of performance measures indicators

Table 7 shows the accuracy of indicators used in measuring the employee satisfaction from the Total Respondents (TR), Total Weight Value (TWV) and Respondents' Perception Index (RPI). Likert's scale of (poor, fair, good, very good and excellent) was used and the data collection was ranked. During the analysis the levels of accuracy were assigned weight value of 1, 2, 3, 4 and 5 respectively. The total weight value (TWV) for each perception level of accuracy was computed by summing the product of the number of responses for each level to the respective weight value. The RPI to each variable was

arrived at by dividing the TWV by the summation of the respondents to each of the five levels of perception.

From the table; location success factors ranked 1st, ratio of offices in common areas ranked 2nd, quality indoor environment ranked 3rd and noise level ranked 4th

Table 8 Strategic involvement

Indices	Poor	Fair	Good	Very good	Excellent	TR	TWV	RPI	Rank
CRE involved in corporate strategic planning	14(14)	24(48)	40(120)	18(72)	7(35)	103	289	2.80	2 nd
CRE integrated with HR strategies	9(9)	33(66)	40(120)	17(68)	4(20)	103	283	2.7	3 rd
CRE actively involved in firm-wide initiatives	13(13)	26(52)	36(108)	21(84)	7(35)	103	292	2.83	1 st

Source: Field Survey, 2019

*Note: The closer the RPI of an assessment to five, the higher the accuracy of performance measures indicators

Table 8 shows the accuracy of indicators used in measuring the strategic involvement performance from the Total Respondents (TR), Total Weight Value (TWV) and Respondents' Perception Index (RPI). Likert's scale of (poor, fair, good, very good and excellent) was used and the data collection was ranked. During the analysis the levels of accuracy were assigned weight value of 1, 2, 3, 4 and 5 respectively. The total weight value (TWV) for each perception level of accuracy was computed by summing the product of the number of responses for each level to the respective weight value. The RPI to each variable was arrived at by dividing the TWV by the summation of the respondents to each of the five levels of perception.

From the table; CRE actively involved in firm-wide initiatives ranked 1st, CRE involved in corporate strategic planning ranked 2nd and CRE integrated with HR strategies ranked 3rd.

CONCLUSION

This research provided both the academic field of corporate real estate management and daily practice with valuable new information in relation to sustainable corporate real estate management. In addition to existing theory, this research provided new insights in real estate sustainability decisions, various areas of performance and mutual relations between these areas, useful as an input for further research. It provided insight in a method to capture tacit knowledge, which proved to be valuable for establishing new relations between variables. Corporate real estate managers can use the proposed management framework based on scientific based evidence and best practices as a guidance to successfully implement and manage sustainability within the real estate portfolio and to make deliberate and strategic real estate sustainability decisions. Hence, this research adds value to the academic field of corporate real estate management and daily practice.

Thus far it found that number of performance measures are being used by CREM, further research should be regarding the causal relation between sustainability performance, real estate performance and organizational performance to make parts of this frame work qualitative

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