UNIVERSITI TEKNOLOGI MARA

CORPORATE REAL ESTATE SUSTAINABLE MANAGEMENT (CRESM) MODEL FOR OFFICE BUILDINGS

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Thesis submitted in fulfillment of the requirements for the degree of **Doctor of Philosophy** (Design and Built Environment)

Faculty of Architecture, Planning and Surveying

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

The emergence of corporations dabbling in sustainable real estate investment has caused a shift in the corporate real estate management (CREM) field from the conventional methods of managing property to a more systematic approach involving advance technology. Many studies have mentioned that efficiently corporate real estate sustainable management (CRESM) are capable of improving business performance. However, most of these studies did not specify which elements of CRESM significantly contributed to business objectives particularly on corporate sustainable (CS) objectives. Further, lack guide sustainable strategy particularly for CRE was found whereby the common practice of CREM did not considered on sustainable strategy. Several components have been identified in relation to sustainability; however, these were found outside Malaysia. The data collected were highly heterogeneous, and therefore requires a focus on specific areas to make it more relevant. Different types of property and business industries provide different opinions and findings, which can cause some information to be left out and sometimes not directly related to specific CRESM. Moreover, lack model was discussed related to CRESM especially that linked with CS objectives. Due to the lack strategies and model was developed covering sustainable strategies that linking CRESM elements and CS objectives particularly for specific type of property, therefore, this research was conducted to develop a comprehensive CRESM model in order to determine the most significant element influencing desired CS objectives. The research will focus CRESM for office building as it is recorded the most concern by corporation and was reported increasing time to time. A sustainable triple bottom line theory was adopted as a guide. This fundamental research applied a mixed method qualitative-quantitative (qual-QUAN) approach, with twelve participants selected for interview sessions, followed by questionnaire involving a combination of 117 corporate real estate managers, property managers, facility managers, and building managers, that directly involved in managing sustainable corporate real estate. Data were then analysed using Atlast ti for the interviews, IBMSPSS and Smart PLS for the questionnaires. The model developed indicates six out of nine elements of CRESM significantly affect CS objectives. Corporations that aim to achieve environment sustainability are required to pay more attention to the CRESM elements of energy management and innovation management. While to realize the social sustainability objective, more focus should be given to four CRESM elements; namely, workspace management, innovation management, workplace management, and human satisfaction management. Further, corporations need to seriously consider energy management and internal green management, because these two elements will help to reduce expenses and achieve economic cost minimization. CRESM elements of innovation management, workplace management, and human satisfaction management are required to strategically develop economic value maximization. This model hopes to encourage more corporations to involve with sustainability and guiding the management to efficiently manage their sustainable corporate real estate.

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TABLE OF CONTENTS

			Page
CON	FIRMAT	TON BY PANEL OF EXAMINERS	ii
AUT	HOR'S D	DECLARATION	iii
ABS	FRACT		iv
ACK	NOWLE	DGEMENT	v
TAB	LE OF C	ONTENTS	vi
LIST	OF TAB	BLES	xi
LIST	OF FIG	URES	xiv
LIST	OF PLA	TES	xvi
LIST	OF ABB	REVIATIONS	xvii
СНА	PTER O	NE INTRODUCTION	1
1.1	Researc	h Background	1
1.2	Previou	s Researches	3
1.3	Problem	Statement	4
	1.3.1	Low Awareness of the Importance of CRE and Sustainability	5
	1.3.2	Lack of Sustainable StrategyParticularly for Office Buildings	7
	1.3.3	Lack of Models and Elements Involved in Sustainable Official	ce
		CRE Management Relating to Business Performance	8
1.4	Researc	h Questions	11
1.5	Researc	h Aim and Objectives	11
1.6	Scope a	nd Limitations of the Research	12
1.7	Significance of the Research		
1.8	Research Methodology		
1.9	Thesis (Dutline	20
СНА	PTER TV	WO LITERATURE REVIEW	21
2.1	Introduc	ction	21
2.2	Corpora	te Real Estate	21