



Integrated management systems influencing sustainable business development of Thai real estate companies

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Abstract

The purposes of this research were: (1) To study strategic management, learning organization, and total quality management of Thai real estate companies; (2) To study sustainable business development of Thai real estate companies; (3) To find a relationship between strategic management, learning organization, total quality management and sustainable business development of Thai real estate companies; and (4) To analyze strategic management, learning organization and total quality management influencing sustainable business development of Thai real estate companies. The samples used in this study were 375 participants working in Thai real estate companies in Bangkok Metropolitan Areas. The research questionnaire was used as a tool to collect data. Statistics consisting of percentage, mean, standard deviation, Pearson Correlation and Multiple Regression Analysis were used to analyze the collected data. The research results showed that strategic management, learning organization and total quality management, in total, were perceived at the highest level. The perceptions of participants on sustainable business development of Thai real estate companies, in total, were perceived at a high level. Strategic management was highly related to sustainable business development and had the highest influence on sustainable business development (Beta = .897, $p < .01$), followed by total quality management (Beta = .646, $p < .01$) and learning organization (Beta = .538, $p < .01$) respectively.

Keywords: Learning organization, Strategic management, Total quality management, Sustainable business development

1.Introduction

Thai real estate companies are the corporations focusing on building residences of the people such as houses, condominiums, townhouses, flats and apartments, including selling the land and properties for profits. The purposes of Thai real estate companies are to create profits like other private owned companies, but place great emphasis on providing people with accommodations, utilities and facilities. Thai real estate companies must apply management strategies to increase sustainable growth and development. As Horak et al. (2018) observed, sustainable development requires a solid organizational foundation rooted in ideology, philosophy, vision, strategy, values, and culture. Furthermore, external pressures and unforeseen global events compel organizations to continually adjust and realign their operations to meet the evolving conditions. In today's globalized world, these changes are economic, social, and

environmental—inevitably influence an organization's income, growth trajectory, productivity, and overall profitability. Thai real estate companies must adopt effective management strategies and swiftly adapt to the ever-changing global landscape. To remain competitive and resilient, it is no longer sufficient for these companies to focus solely on profit generation; they must also pursue long-term sustainability. Sustainable business practices encompass economic viability, social responsibility, and environmental stewardship. Brockett and Rezaee (2012), along with Christofi et al. (2012), emphasized the critical role of sustainability in modern business. They argue that aligning business operations with sustainable principles not only enhances profitability but also contributes to societal well-being and environmental conservation. Regardless of the source of disruption, survival in a competitive environment demands readiness, agility, and foresight. For long-term success, companies must strike a delicate balance

between economic advancement and their obligations to the community and the environment. Ultimately, every business must act with accountability and a deep sense of civic duty. Embracing social responsibility fosters trust, garners public support, and strengthens the relationship between the company and the community in which it operates. This ethical commitment forms the cornerstone of enduring business success in the global era.

While profitability remains a core priority for any business, sustainable growth is unattainable without the support of society and the communities in which companies operate. To achieve true sustainability, organizations must commit to environmental protection, promote social equity and fairness, and contribute to economic development through equitable income distribution within the community. In this regard, strategic management must be employed not only to ensure profitability but also to build an enduring, sustainable enterprise. Furthermore, corporate policy should emphasize environmental preservation and the promotion of social well-being, as both are essential for earning public trust and achieving customer satisfaction. Asif et al. (2010) noted that sustainable business development has become an increasingly vital concept across all sectors. The significance grows rapidly in response to the profound influence of economic, social, and environmental factors on long-term business viability.

Strategic management stands as one of the most vital tools for guiding an organization toward long-term success. It empowers executives to define vision of the organization, mission, goals, purpose, and setting a clear direction for future growth. In terms of strategic management, leaders can systematically analyze both internal and external environments. This can assess organizational strengths and weaknesses, and craft strategies that align with current realities and future opportunities. According to Rothaermel (2012), strategic management also serves as a critical mechanism for overseeing organizational operations amidst dynamic and often unpredictable changes. Whether these shifts originate internally or externally, they can significantly influence the path to sustainable business development. By integrating strategic thinking into decision-making processes,

organizations can adapt with agility, mitigate risk, and build a resilient foundation for long-term sustainability.

A learning organization is defined as one in which employees actively adapt to internal and external environmental changes by identifying and correcting recurring mistakes within the organization (Alonazi, 2021). This concept, rooted in organizational development, emphasizes leadership growth and team-based learning as vital components for navigating change and enhancing competitive advantage. Through the sharing of knowledge, experience, and skills, a learning organization fosters a collaborative culture capable of withstanding rapid shifts in the business landscape (Channuwong et al., 2025; Wittayakom & Chuenrattanatraku, 2026; Jam, 2018). As Saadat and Saadat (2016) highlight, this model not only nurtures adaptability but also bridges theory and practice to inspire innovative thinking.

In parallel, Total Quality Management represents a contemporary management strategy designed to elevate customer satisfaction, organizational efficiency, productivity, and profitability. At its core, Total Quality Management focuses on the continuous improvement of processes, aiming to eliminate errors and inefficiencies across all areas of operation. As noted by Channuwong (2014), successful implementation of Total Quality Management requires active employee involvement, decentralized decision-making, leadership development, and a fundamental shift in organizational culture. Together, these principles empower businesses to build a foundation of excellence and resilience.

The researchers believe that strategic management, learning organization and total quality management can be applied to create economic, social and environmental sustainability of Thai real estate companies in Bangkok Metropolitan Areas. Therefore, the researchers are interested in conducting this study.

2. Research purposes

1. To study strategic management, learning organization, total quality of Thai real estate companies
2. To study sustainable business development of Thai real estate companies

3. To find a relationship between strategic management, learning organization, total quality and sustainable business development of Thai real estate companies
4. To analyze strategic management, learning organization and total quality influencing sustainable business development of Thai real estate companies

3. Conceptual framework

Based on the literature survey, the researchers have proposed the conceptual framework for this study consisting of independent and dependent variables. Independent variables are integrated management systems consisting of strategic management, learning organization and total quality management; and dependent variables included sustainable business development of Thai real estate companies consisting of sustainable economic development, sustainable social development and sustainable environmental development (Figure 1).

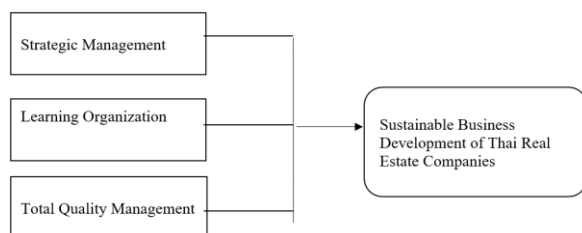


Figure 1. Research conceptual framework

4. Research hypotheses

Ha1: Strategic management, learning organization total quality management have a relationship with sustainable business development of Thai real estate companies

Ha2: Strategic management, learning organization and total quality management have an influence on sustainable business development of Thai real estate companies

5. Literature Review

5.1 Strategic management

Strategic management is the operational approach employed to achieve desired outcomes. The term “strategy” refers to the methods and actions designed

to lead an organization toward its intended goals. It encompasses a comprehensive set of decisions aimed at ensuring long-term success, an overarching strategic plan, and the coordinated execution of initiatives aligned with organizational objectives. As Porter et al. (2016) explained, strategy serves as the guiding framework that drives an organization from its foundational state toward its envisioned future.

Strategic management involves five key processes: 1. Purpose Determination: This step defines the organization's specific goals and objectives, ensuring they align with its mission and overall strategy. These goals should be specific, measurable, realistic, and achievable. 2. Mission Determination: This involves identifying the purpose behind the organization's founding. It answers the question, "Why does the organization exist?" and outlines the reasons and objectives that justify its existence. 3. Strategy Formulation: Based on an analysis conducted at three levels—corporate, business, and operational—this process develops strategies that align across all levels. Each level should work in the same direction, connected by shared goals and methods for achieving the organization's targets. 4. Strategy Implementation: This final step puts the strategies into action through operational processes. It includes assigning tasks, facilitating communication across individuals and departments, and maintaining internal controls. 5. Environmental Scanning: This process involves analyzing both the internal and external environments that could directly or indirectly affect the organization's profitability and long-term sustainability (Bangbon et al., 2023; Phagaphasvivat, 2021; Thomson & Martin, 2010)

5.2 learning organization

At the core of a learning organization lies the integration of five key disciplines, implemented at the individual, team, and organizational levels. These disciplines serve as practical foundations for fostering continuous organizational learning and development: 1. Personal Mastery – This discipline emphasizes individual excellence by encouraging employees to develop their capabilities, pursue personal goals, and cultivate a clear personal vision. 2. Mental Mastery – Focused on the psychological dimension, this discipline aims to enhance employees' mental health, emotional resilience, and overall well-being within the workplace. 3. Shared

Vision – By aligning individual aspirations with collective goals, this discipline promotes a unified vision and strategic collaboration among team members. 4. Team Learning – This discipline involves learning through shared experiences, enabling employees to expand their skills and knowledge through collective reflection and practice. 5. Systems Thinking – Encouraging a holistic approach, this discipline helps employees develop rational, interconnected thinking patterns to better understand the organization's complexity and interdependencies (Christofi et al., 2012; Ricciardi et al., 2021).

Hyunkee and Richard (2018) proposed that the development of a learning organization should be grounded in three key components: (1) Learning Dynamics – Organizations must cultivate a culture of continuous learning, where employees are consistently supported in pursuing lifelong education and training to acquire essential skills and knowledge; (2) Teamwork – A collaborative corporate culture should be prioritized over individual achievements. Emphasizing teamwork fosters unity, harmony, and cooperation among members, leading to increased pride and optimism in fulfilling their responsibilities; (3) Self-Adjustment – Employees must be equipped to adapt to emerging challenges, enhance their knowledge and skills, and actively seek opportunities for both personal and organizational growth. Additionally, Marquardt (2002) emphasized the value of action learning, advocating for experiential learning rooted in the principle of "learning by doing," which enables employees to gain practical insights through real-world problem-solving.

A learning organization empowers both the organization and its employees to develop more effective workflows and foster strong teamwork which are key drivers of increased productivity and profitability. By embracing continuous learning processes, employees can cultivate collaboration and a sense of ownership, fostering a culture of initiative and innovation. This dynamic environment equips organizations to better navigate challenges and adapt to the pressures of intense competition. Moreover, learning organizations play a vital role in strengthening national health systems and enhancing overall well-being. Their influence was particularly evident during the COVID-19 pandemic, where they

significantly shaped organizational culture and contributed to the resilience of healthcare systems (Alonazi, 2021; Horak et al., 2018).

5.3 Total quality management

Total Quality Management is defined as an integrated approach that combines various organizational improvement strategies, including statistical process control, self-managed teams, and active employee participation. The goal of enhancing work efficiency and effectiveness (Channuwong et al., 2025; French & Bell, 1999). Total Quality Management significantly influences work performance. This is structured to align with organizational goals while improving internal operational processes. This is achieved through four key dimensions of techniques and practices: Customer Focus refers to placing customer satisfaction at the core of operations. This dimension recognizes that fulfilling customer needs is essential for organizational success. A strong customer focus can lead to increase market share and profitability. The Continuous Improvement involves a systematic process of self-assessment, benchmarking, and ongoing refinement of practices to ensure that the organization remains agile and responsive to change. Employee Fulfillment emphasizes the importance of human capital by fostering high morale, commitment, and motivation among employees. It is grounded in the belief that empowered and satisfied employees are critical to achieving productivity and sustained success. In terms of Improvement of the Total Organizational System, this dimension advocates for the comprehensive enhancement of all organizational systems to remain competitive in a rapidly evolving global marketplace (Anderson, 2020).

5.4 Sustainable business development

The concept of sustainable business development has been widely embraced as a fundamental indicator of long-term business success and represents one of the greatest challenges for contemporary organizational management. Rather than prioritizing profit alone, today's business leaders must emphasize social well-being, public benefit, and environmental stewardship (Damrongsiri et al. 2022; Broniewicz, 2011; Pinta, 2016). Sustainable business development refers to an organization's efforts to generate long-term profitability and competitive advantage by enhancing

quality of life, promoting social welfare, and protecting the environment. This approach fosters customer satisfaction and builds public trust, while also helping organizations mitigate risks arising from economic, social, and environmental volatility (Aras & Crowther, 2009).

The key dimensions used to assess organizational sustainability are social, ecological, and financial outcomes. Accordingly, businesses are expected to take long-term responsibility for advancing social well-being and environmental preservation. Society and business are inherently interconnected: society relies on businesses to supply goods and services, while businesses depend on societal support to thrive (Gupta & Kumar, 2013). Sustainable business development, therefore, entails operating with a deep sense of social responsibility, incorporating economic, social, and environmental progress commonly known as the "Triple Bottom Line," the cornerstone of sustainable development.

To achieve genuine sustainability, organizations must integrate considerations for social, economic, and environmental well-being into their policies, strategic planning, and decision-making processes (Hyunkee & Richard, 2011). Based on a comprehensive review of the literature, it can be concluded that modern management approaches such as strategic management, the learning organization model, and total quality management can effectively support the pursuit of sustainable business development.

6. Research Methodology

This study applied a quantitative research method. The research used a research questionnaire to collect data with the following steps:

6.1 Populations and samples

The population for this study comprised employees working in real estate companies located in the Bangkok Metropolitan Areas, totaling 112,407 individuals. The sample size was determined using Taro Yamane's formula for sample calculation, resulting in a total of 398 respondents selected for the study.

6.2 Variables used in this study: The variables used

in this study consisted of independent and dependent variable. Independent variables are management strategies consisting of Strategic Management (STM), Learning Organization (LEO) and Total Quality Management (TQM); and dependent variable is sustainable business development of Thai real estate companies consisting of Sustainable Economic Development (SED), Sustainable Social Development (SSD), and Sustainable Environmental Development (SEN).

6.3 Instrument used to collect data

A structured questionnaire was employed as the primary data collection tool for this study. To develop the conceptual framework and design the questionnaire, the researchers conducted an in-depth review of relevant literature, including research studies, academic articles, and theoretical texts on sustainable business development, strategic management, learning organization, and total quality management. The questionnaire was organized into three sections: Part one consisted of six items gathering demographic information from respondents, including gender, age, marital status, educational background, monthly income, and work experience. Part two included 14 items focused on modern management strategies, covering aspects of strategic management, the learning organization, and total quality management. Part three comprised 12 items related to sustainable business development, assessing organizational efforts toward long-term sustainability in economic, social, and environmental dimensions.

6.4 Content validity and reliability test

The research questionnaire underwent content validation by a panel of five academic experts in the field. The Item-Objective Congruence (IOC) index was used to assess content validity, resulting in an IOC value of 0.93, indicating a high level of agreement between the items and their intended objectives. To evaluate the reliability of the instrument, the questionnaire was distributed to a pilot group of 30 employees who shared similar demographic characteristics with the study population but were not part of the actual sample. The reliability analysis yielded a Cronbach's alpha coefficient of 0.95, demonstrating excellent internal consistency of the instrument.

6.5 Data collection

The researchers distributed the questionnaire to 398 samples who are working in the selected real estate companies in Bangkok Metropolitan Areas during September 1 to November 30, 2025, and received 375 questionnaires in return which can be calculated as 94 percent.

6.6 Statistics used to analyze data

Descriptive and inferential statistical methods were employed in this study. Descriptive statistics included percentage, frequency, mean and standard deviation. Frequency and percentage were applied to analyze the demographic characteristics of the respondents, while mean and standard deviation were used to assess responses related to strategic management, learning organization, total quality management and sustainable business development. Inferential statistics included Pearson Correlation, which was used to examine the relationship between strategic management, learning organization, total quality management and sustainable business development. Additionally, Stepwise Multiple Regression Analysis was conducted to determine the extent to which strategic management, learning organization, total quality management have an influence on sustainable business development of Thai real estate companies.

7. Findings

In this section, the researchers presented the research results in the following five parts:

Part 1: Demographic files of Respondents

The analysis of respondents' general information revealed the following demographic distribution: the majority of respondents were male (60.26%), while females accounted for 39.74%. In terms of age, most respondents were between 36–45 years old (39.74%), followed by those aged 46–55 years (19.87%), 26–35 years (16.56%), over 56 years (13.90%), and under 25 years (9.95%). Work experience was most commonly between 5–15 years (33.11%), followed by less than 5 years (23.18%), 16–25 years (19.87%), 26–35 years (13.25%), and more than 36 years (10.60%). Regarding marital status, nearly half of the respondents were single (49.67%), followed by married individuals (43.05%), widowed (3.97%), and divorced (3.31%). In terms of educational attainment, most respondents held a bachelor's degree (43.05%), followed by those with education below a bachelor's degree (36.42%), a master's degree (13.25%), and a doctoral degree (7.28%).

Part 2: The Results of Analysis on Strategic Management, Learning Organization and Total Quality Management

This section presents the results of analysis on strategic management, learning organization and total quality management implemented by Thai real estate companies in the Bangkok Metropolitan Area. The findings revealed that the overall perceptions of integrated management systems were rated at the highest level ($M = 4.28$, $SD = 0.19$). Among the three components, the learning organization dimension received the highest mean score ($M = 4.36$, $SD = 0.15$), followed by strategic management ($M = 4.27$, $SD = 0.17$), and total quality management ($M = 4.21$, $SD = 0.26$), respectively (shown Table 1).

Table 1. Mean and standard deviation of the integrated management systems of Thai real estate companies

Integrated management systems	<i>M</i>	<i>SD</i>	Level	Ranking
1. Strategic management	4.27	0.15	Highest	2
2. Learning organization	4.36	0.17	Highest	1
3. Total quality management	4.21	0.26	High	3
Total Average	4.28	0.19	Highest	

Part 3: The Results of Analysis on Sustainable Business Development of Thai Real Estate Companies

In this part, the researchers analyzed sustainable business development of Thai real estate companies in Bangkok Metropolitan Areas. The research results

showed that sustainable business development of Thai real estate companies, in total, was perceived at a high level ($M = 4.20$, $SD = 0.17$). In particular, sustainable economic development was perceived at the highest level ($M = 4.25$, $SD = 0.14$), followed by sustainable social development ($M = 4.20$, $SD = 0.16$),

and sustainable environmental development) $M = 4.17$, $SD = 0.18$) respectively (Table 2).

Table 2. Mean and standard deviation of sustainable business development of Thai real estate companies

Sustainable business development	<i>M</i>	<i>SD</i>	Level	Ranking
1. Sustainable economic development	4.24	0.13	Highest	1
2. Sustainable social development	4.20	0.16	Highest	2
3. Sustainable environmental development	4.17	0.18	High	3
Total Average	4.20	0.15	High	

Part 4: The Results of Analysis on the Correlation Coefficient between Strategic Management, Learning Organization and Sustainable Business Development

Ha1: Strategic management, learning organization and total quality management have a relationship with sustainable business development of Thai real estate companies

Table 3. A relationship between strategic management, learning organization and total quality management and sustainable business development of Thai real estate companies

Variables	STM	LEO	TQM	SBD
STM	1	.428**	.639**	.736**
LEO		1	.736**	.676**
TQM			1	.570**
SBD				1

** $p < .01$

In this part, the researchers analyzed a relationship between integrated management systems and sustainable business development of Thai real estate companies. The research results showed that the internal correlation of integrated management systems was positive, which means that each variable had a relationship in the same direction with statistical significance at 0.01, and the correlation value ranged from 0.428 to 0.736. The correlation between integrated management systems and sustainable business development ranged from 0.570 to 0.736, and strategic management (STM) is highly

related to sustainable business development (SBD) (Table 3).

Part 5: The Results of Analysis on the Influence of Strategic Management, Learning Organization and Total Quality Management on Sustainable Business Development of Thai Real Estate Companies

Ha2: Strategic management, learning organization and total quality management have an influence on sustainable business development of Thai real estate companies in Thailand

In this part, the researchers analyzed strategic management, learning organization and total quality management influencing sustainable business development of Thai real estate companies. The results of Stepwise Multiple Regression Analysis showed that strategic management, learning organization and total quality management had an influence on sustainable business development of Thai real estate companies with statistical significance at 0.01 level. The forecasting equation from Stepwise Multiple Regression Analysis showed that integrated management systems had an influence on sustainable business development at 87.5 percent (Adjusted $R^2 = .865$), whereas 12.5 percent was the result of other variables which were not taken into account in this research. In particular, strategic management had the highest influence on sustainable business development of Thai real estate companies (Beta = .897, $p < .01$), followed by total quality management (Beta = .646, $p < .01$), and learning organization (Beta = .538, $p < .01$) (Table 4).

Table 4. Strategic management, learning organization and total quality management influencing sustainable business development of Thai real estate companies

Independent Variables	Unstandardized Coefficients		Standardized Coefficients	<i>t</i>	<i>p</i>
	<i>b</i>	SE	β		

(Constant) (a)	.307	.036		13.729**	.000
Strategic management (STM)	.866	.017	.897	12.826**	.000
Total quality management (TQM)	.676	.026	.646	15.527**	.000
Learning organization (LEO)	.528	.029	.538	16.519**	.000
	R ² = .877 Adjusted R ² = .875		F = 5.327		
			S E = .735 p = .000		

** $p < .01$

The forecasting equation of strategic management, learning organization and total quality management influencing sustainable business development of Thai real estate companies can be presented in the form of unstandardized and standardized scores as follows:

Unstandardized Score: Sustainable business development (SBD) = .866 Strategic management (STM) + .676 Total quality management (TQM) + .528 Learning organization (LEO)

Standardized Score: Sustainable business development (SBD) = .897 Strategic management (STM) + .646 Total quality management (TQM) + .538 Learning organization (LEO)

8. Discussion

The research results showed that the overall implementation of strategic management, learning organization, total quality management of Thai real estate companies, was perceived at the highest level ($M = 4.28$, $SD = 0.19$). Among the three components, the learning organization dimension received the highest mean score ($M = 4.36$, $SD = 0.15$), followed by strategic management ($M = 4.27$, $SD = 0.17$), and total quality management ($M = 4.21$, $SD = 0.26$) respectively. These findings are consistent with Bangbon et al. (2023) and Choenram (2020) who emphasized that learning organization can enhance learning dynamics, action learning, continuous development, teamwork, systems thinking, knowledge sharing, and self-adjustment—factors that contribute significantly to sustainable organizational growth.

In comparison, total quality management was perceived at a relatively lower level, suggesting that

Thai real estate companies may not widely implement total quality management principles to foster sustainable business development. To address

this gap, the researchers recommend a stronger adoption of Total Quality Management practices to improve customer satisfaction, employee involvement, teamwork and continuous process improvement. These are crucial for reducing operational inefficiencies. Supporting this, Channuwong et al. (2022) and Bangbon et al. (2023) noted that Total Quality Management enhances overall organizational performance through decentralized decision-making, leadership development, employee training, and cultural transformation.

Regarding sustainable business development, the findings indicated a high overall perception among respondents. Among its components, sustainable economic development had the highest mean score, followed by sustainable social development and environmental sustainability respectively. These results align with the study by Tongboonchoo (2014), which found that economic sustainability is a priority for many businesses. Organizations can enhance sustainability by encouraging customer participation, fulfilling social responsibilities, promoting societal well-being, and protecting the environment. In support, Brockett and Rezaee (2012) and Christofi et al. (2012) emphasized the importance of balancing profitability with social responsibility to foster a stable and thriving community—an environment in which businesses can operate smoothly and without disruption.

The results of correlation analysis showed that strategic management, learning organization and total quality management were positively associated with each other at the 0.01 level. The correlation between strategic management, learning organization and total quality management and sustainable business development ranged from 0.569 to 0.735, with strategic management showing the strongest association with sustainable development. This finding corresponds with the study by Porter et al. (2016), which highlighted strategic management

as a key technique for analyzing both internal and external environments, formulating strategic and operational plans, and driving long-term growth and profitability.

The results from Stepwise Multiple Regression Analysis further confirmed that strategic management, learning organization, total quality management significantly influenced sustainable business development in Thai real estate companies in the Bangkok Metropolitan Area, with statistical significance at the 0.01 level. The analysis showed that strategic management, learning organization and total quality management collectively accounted for 86.5% of the variance in sustainable business development (Adjusted $R^2 = .865$), while the remaining 13.5% was attributed to other factors not examined in this study. Among the predictors, strategic management exerted the greatest influence, followed by total quality management, and learning organization. These findings are consistent with the research of Phagaphasvivat (2021), Wongmajarapinya et al. (2024) and Thomson and Martin (2010) who found that strategic management—encompassing mission formulation, environmental scanning, goal setting, and strategic planning—directly influences an organization's sustainable growth and success. Rothaermel (2012) also affirmed that strategic management enables executives to set vision, mission, and goals, assess both internal and external contexts, and craft actionable strategies that drive sustainable development.

9. Conclusion

The research findings showed that the overall perceptions of participants on strategic management, learning organization and total quality management were rated at the highest level. Among the three components, the learning organization dimension received the highest mean score, followed by strategic management and total quality management respectively. The research results showed that sustainable business development of Thai real estate companies, in total, was perceived at high level. In particular, sustainable economic development was perceived at the highest level, followed by sustainable social development, and sustainable environmental development respectively. With regard to a relationship between strategic management, learning

organization and total quality management and sustainable business development of Thai real estate companies in Bangkok Metropolitan Areas, the research results showed that the internal correlation among strategic management, learning organization and total quality management was positive, which means that each variable had a relationship in the same direction with statistical significance at 0.01, and the correlation value ranged from 0.428 to 0.736. The correlation between strategic management, learning organization and total quality management and sustainable business development ranged from 0.570 to 0.736. Strategic management (STM) is highly related to sustainable business development (SBD). With regard to the influence of integrated management systems on sustainable business development of Thai real estate companies in Bangkok Metropolitan Areas, the research results of Stepwise Multiple Regression Analysis showed that strategic management, learning organization and total quality management had an influence on sustainable business development of Thai real estate companies in Bangkok Metropolitan Areas with statistical significance at 0.01 level. The forecasting equation from Stepwise Multiple Regression Analysis showed that the three components of independent variables had an influence on sustainable business development at 87.5 percent (Adjusted $R^2 = .865$), whereas the rest 12.5 percent was the result of other variables which were not taken into account in this research. In particular, strategic management had the highest influence on sustainable business development of Thai real estate companies in Bangkok Metropolitan Areas, followed by total quality management, and learning organization respectively.

Recommendations

1. This study was limited to employees of Thai real estate companies operating within the Bangkok Metropolitan Areas; therefore, the findings may not be fully generalizable to organizations located in other regions of Thailand. To enhance the applicability of future research, it is recommended that subsequent studies include participants from real estate companies in other geographic regions of the country.
2. This study focused only on strategic management, learning organization and total quality management.

Future research should consider exploring alternative management approaches such as the Balanced Scorecard, Benchmarking, organizational culture, and leadership styles because these factors may have a great impact on sustainable business development of the real estate companies.

3. There should be future study on state policy and economic situation of the country which may have a great impact on business of the real estate companies in Thailand.

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Conflict of interest

The authors declare that they have no conflict of interest

Author contributions

Sukhumpong Channuwong: Writing-review & editing, Writing Original Draft, Methodology; Maya Khan: Formal Analysis, Data Curation, Conceptualization; Prapas Siripap: Writing-review & editing, Data Collection; Nitikan Dhammahansakul: Formal Analysis, Visualization, Supervision, Conceptualization; Kirati Wongwisutthirat: Data Analysis, Conceptualization; Md Mafiful Islam: Investigation, Validation, Formal Analysis.

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