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# [Exploring Recent Findings and Future Directions on Corporate Real Estate Investment: A Multidisciplinary Review in Nonfinancial Firms]

#### Dr. Arooj Naz\*

Assistant Professor, College of Commerce, Government College University Faisalabad Pakistan. Corresponding author Email: <a href="mailto:aroojnaz@gcuf.edu.pk">aroojnaz@gcuf.edu.pk</a>

#### Dr. Khalid Latif

Associate Professor, College of Commerce, Government College University Faisalabad Pakistan. khalidlatif@gcuf.edu.pk

#### Sabeen Masood

Lecturer, College of Commerce, Government College University Faisalabad Pakistan. sabeenmasood@gcuf.edu.pk

#### Rabia Javed

MPhil Scholar, College of Commerce, Government College University Faisalabad Pakistan. therabiajaved@gmail.com

**Review Type:** Double Blind Peer Review

#### **ABSTRACT**

The purpose of this review paper is to explore the past findings and future directions on the corporate real estate (CRE) investment in nonfinancial firms. For writing this review paper relevant published papers have been searched from 1995 to 2020 i.e. 72 papers with 13 themes. Review analysis of sample papers show that most papers are based on agency theory, empirical in nature, used secondary data, CRE investment as independent variable and regression analysis technique is applied. Main theme of all papers is to investigate the role of CRE investment on firm performance and demonstrate that investment in CRE decreases corporate performance, though varies sector to sector. Contribution of this review paper is to explore the work of CRE in different dimensions. Exploring the literature from various perspectives has yielded useful findings and opened new possibilities for future researchers. Consequently, research gaps are identified for further analysis.

**Keywords:** Corporate Real Estate Investment, Firm Performance, Management Role, Corporate Governance, Systematic Risk, Diversification

#### 1. Introduction

In this study the term corporate real estate (CRE) describes for properties that non-real estate companies acquire and hold for investment purposes with financial and asset management perspectives (Liow & Ingrid, 2008). The purpose of this review paper is to explore the findings in the context of CRE investment in multidisciplinary dimensions. For writing this review paper, Google scholar have been browsed up for searching of relevant published articles from 1995 to 2020. 13 themes relevant to CRE holdings are extracted and the main theme of most papers is to investigate the role of CRE investment on corporate returns. Other 12 themes are also highly explored in other dimensions and have inconsistent findings in literature.

#### 2. Research Design

Following the methods of Cruz, Kimura, and Sobreiro (2019) and Jabbour (2013) for the literature review, the researchers took a three-step approach to identify suitable and relevant articles for writing this review paper. In first step, browse Google scholar having different academic journals and databases, including Scopus, Science Direct, Wiley, Web of Science (WOS), Academic Search Complete PLUS (Ebsco), JSTOR, Taylor & Francis, Emerald, and Springer. Explored all available published papers on real estate using the keywords "corporate real estate investment" with the motive to analyze its relationship with "firms' return" in multidiscipline from 1995 to 2020. In second step of searching criteria, these key terms in title and abstract are searched. Nature of articles which are included for write up this paper are: theoretical, conceptual, proposal, empirical, qualitative and review. Though chapters of books, conference papers and periodicals are excluded for writing this review paper. A total of 249 articles were found in all journals and databases.

In the third step, the researchers reviewed each article in detail, excluded those articles that are dubbed, reprinted etc. Companies in the real estate and property trust industries (REIT) mostly deal in real estate development and investment, thus articles

related to these fields are also eliminated. Since financial statements for banks and other financial institutions are generated in accordance with financial and regulatory standards that vary from the typical balance sheet format of business sectors, these studies on financial institutions are also not included in this review paper. In the last step, the researchers finally select 72 articles relevant to the objective of this study.

### 3. Main Approaches and Features of Research Papers on CRE Investment

Features and characteristics of 72 papers are coded to the seven different categories in Exhibit 1 and coding is done by review of finally selected papers are shown in Exhibit 2.

Exhibit 1: Categories of Paper

No	Categories	Sub Category
1	Theme of	A— CRE Investment (sector-wise/ country-wise) / Differences
	Study	B— CRE Investment and Firms' performance
		C— CRE Investment and Management decisions
		D— CRE Investment and Corporate governance
		E— CRE Investment and Real estate strategies
		F— CRE Investment and Real estate price
		G— CRE Investment and Diversification
		H— CRE Investment and Leverage
		I— CRE Investment and Real estate Risk
		J— CRE Investment and Product market competition
		K— CRE Investment and R&D Investment
		L— CRE Investment and Cash/ Credit rating
		M— CRE Investment and Property location
2	Nature of	A— Quantitative (Empirical and Mathematical)
	Paper	B— Qualitative
		C— Review Paper
		D— Conceptual/Theoretical
		E— Other
3	Statistical	A—Regression Analysis/ 2SLS/3SLS
	tool/Data	B—Correlation Analysis
	analysis	C— T-Test/Anova/ F-Test
		D—Descriptive Analysis/ Graphical Representation
		E— Content analysis/ Thematic Analysis
4	Position of	A—Dependent variable
	CRE in	B—Independent variable
	Analytical	C—Instrument variable
	model	D— Moderating Variable
		E— Other
5	Measurement	A—PPE/TA or Real estate concentration ratio
	of CRE	B—PPTY% (Investment in properties /Total Assets)
	Holdings	C—(Land+ building)/Total assets
		D—Investment properties/shareholders' equity
		E— Other/ Not Applicable
6	Variable	A—Secondary data for Quantitative analysis

	source B—Primary data for C	Quantit	ative a	inalysis				
	C—Review data							
	D—Primary data for (	Qualitat	ive an	alysis				
	E— Other							
7	Level of A—Published docum	=	-					
	analysis B—Business groups/	Capital	marke	ets				
	C—Individuals							
	D—Business firms/ Se	ectors/i	ndustr	ies				
	E— Other							
	ibit 2: Coding of Papers							
No	Authors	1	2	3	4	5	6	7
1	(Liow, 1995)	В	A	В	В	В	A	D
2	(Rodriguez & Sirmans, 1996)	C	C	E	A	E	C	В
3	(Cheong & Kim, 1997)	F,H	Α	A	В	A	Α	D
4	(Chun & Tjung, 1999)	A	Α	C	A	В	Α	D
5	(Y. Deng & Gyourko, 1999)	В	Α	A	В	A	Α	D
6	(Hiang, 1999)	A	Α	C	A	E	Α	D
7	(Louargand, 1999)	В	Α	В	В	A	Α	D
8	(Hsieh & Peterson, 2000)	В	A	A	В	E	A	D
9	(McDonagh & Hayward, 2000)	A, C A	A	D	A	E	В	C
10	(Laposa & Charlton, 2001)		A	C	A	A	A	D
11	(Kim Hiang, 2001)		A	A	В	В	A	D
12	(Hiang, 2001)	В	A	A	В	В	A	D
13	(Krumm, 2001)	C	C	E	A	E	C	A
14	(Michael, Arjun, & James, 2001)	G	A	A	В	A	A	В
15	(Stephen, 2001)	E	D	E	A	E	C	A
16	(Krumm & de Vries, 2003)	C	C	E	A	E	C	A
17	(Pfnuer, Schaefer, & Armonat, 2004)	C	D	E C	A	E E	C	A
18	(Gibler & Black, 2004)	C B	A		A	В	В	C D
19	(Liow, 2004) (Liow & Ooi, 2004)	В	A A	A,C A	B B	В	A	D
20 21	(Brounen & Eichholtz, 2005)	В, I	A	A	В	A	A A	D
	(Brounen, Colliander, & Eichholtz,	В, 1	A	A	В	A	A	D
22	2005)	Б	^	^	D	^	^	D
23	(Ting Kein Hwa, 2005)	Α	Α	C	Α	C	Α	D
23 24	(A. L. Lindholm & Leväinen, 2006)	E	В	E	A	E	D	C
_	(AL. Lindholm, Gibler, & Leväinen,	E	В	E	A	E	D	C
25	2006)	L	Ь	E.	A	E	D	C
26	(Ting Kien Hwa, 2006)	В	Α	Α	В	C	Α	D
20 27	(Scheffer, Singer, & Van 2006)	E	В	E	A	E	D	C
27 28	(J. Du, Leung, & Chu, 2007)	D	A	A	A,B	A	A	D
29	(Yang, 2007)	D	A	A	A,D	A	A	D
30	(Nappi-Choulet, Missonier-Piera, &	В	A	A	В	В	A	D
	Cancel, 2007)	D	, ,	, ,	D	ט	, \	

Signa   Sign	71	(Ali, McGreal, Adair, & Webb, 2008)	E	D	E	Α		C	Α
33 (Sing & Sirmans, 2008)	31 22	• • • • • • • • • • • • • • • • • • • •							
Phillips & Roper, 2009    B, C   B, C   E   A   E   C, D   A, C					•				
35 (Farzana & Murtaza, 2009) I A D B C A D 36 (Yu & Liow, 2009) B A A B A A B A A D 37 (Park & Glascock, 2010) I A A B A A B A A D 38 (Liow, 2010) I A A A B A A D 38 (Liow, 2010) B A A A B A A D 39 (Tuzel, 2010) B A A B A A D 40 (Wolski & Zaleczna, 2011) B A A B C A D 41 (Dong, Leung, & Cai, 2011) B A A B C A D 42 (Ling, Naranjo, & Ryngaert, 2012) B, I A A B C A D 43 (Marwani & Zaiton, 2012) C B E A E D C 44 (Lee & Jang, 2012) B, I A A B C A D 45 (H. Du & Ma, 2012) H A A B C A D 46 (Diop, 2012) J A A B C A D 47 (Omokolade, Eng, & Faishal, 2013) I A A,B B A A D 48 (Heywood & Kenley, 2013) C B E A E C A 49 (Oladokun, 2013) C B E A E D C 50 (Xuan, Yi-chun, & Guo, 2013) G B D A E D C 51 (Leung, 2013) B, D A A B B A D 52 (Fukushima, Isagawa, Mae, Yarmaguchi, & Yarmaguchi, & Yarmasaki, 2013) 52 (Fukushima, Isagawa, Mae, B A A B C A D 53 (Cvijanović, 2014) F, H A A B C A D 54 (Graham, Galbraith, & Stiles, 2014) B A A B C A D 55 (Rochdi, 2015) F, H A A B C A D 56 (Kumar & Vergara-Alert, 2015) F, H A A B A A D 57 (Haggbom & Åsenius, 2017) I A, B A B A A D 58 (Ambrose, Diop, & Yoshida, 2017) J A A B B A A D 59 (Haggbom & Åsenius, 2017) I A, B B A A D 60 (Morri, Djukic, & Chiavazza, 2017) B A A A B B A A D 61 (Lecat & Ray, 2017) F A A B B A A D 62 (Park, 2017) F A A B B A A D 63 (Kim & Lee, 2018) B, D A A A A, B A A D 64 (Kumar & Vergara-Alert, 2018) B, D A A A A, B A A D 65 (X. Deng, Ong, & Qian, 2018) B, D A A A A, B A A D 66 (Demirer, Madanoglu, & Kizildag, B, I A A B B A A D 68 (Seger, Li, & Pfnuer, 2020) B, L A A B B A A D 69 (J. Deng & Yang, 2020) K A A B B A A D 60 (Ivanov & Faulkner, 2020) B, L A A B B A A D 60 (Ivanov & Faulkner, 2020) B, L A A B B B A D 60 (Ivanov & Faulkner, 2020) B, L A A B B B A D 60 (Ivanov & Faulkner, 2020) B, L A A B B B A D 60 (Ivanov & Faulkner, 2020) B, L A A B B B A D 60 (Ivanov & Faulkner, 2020) B, L A A B B B A D 60 (Ivanov & Faulkner, 2020) B, L A A B B B A D 60 (Ivanov & Faulkner, 2020) B, L A A B B B A D									
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Viswanathan, 2020)

The first category which is related to the theme of CRE investment and most of papers are related to category B. The second one which is associated with the nature of study and most of the articles are found in category A. Third classification which is related to the statistical tool and way of data analysis employed in each paper and approximately 54% of all articles used regression analysis techniques. The fourth category which is related to the position of real CRE holdings in the analytical model and in most of the articles show that corporate real estate investment act as an independent variable. The fifth category is associated with the proxy to the measurement and most of the articles used PPE/TA as proxy for CRE investment and found in category A. The sixth category refers to the variable source of data collection used in the model. Approximately 65% of all articles used secondary data as a source for quantitative studies (category A). The seventh category is associated with the level of analysis adopted for each study. Approximately 64% of all papers found in category D.

#### 4. Objectives and Findings of Papers

Exhibit 3 shows the purposes and findings of 72 papers which have been extracted for write up of this review paper.

Exhibit 3:	Review of Papers
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Exn	ıbit 3: Kevi	ew of Papers	
No	Authors	Purpose/Objective	Conclusion/Findings
1	(Liow, 1995)	Objective is to analyze firm absolute and relative values in relation to real estate investments.	Findings show that organizations' performance are positively affected by real estate investments in the service sectors of UK.
2	(Rodriguez & Sirmans, 1996)	This study aims to ascertain influence of real estate management decisions on organizations' performance.	Findings show that real estate management decisions influence positively on the value of non-financial companies.
3	(Cheong & Kim, 1997)	The aim is to determine effect of changes in real estate price and debt ratio on real estate ownership in Korean firms.	Results demonstrate that less change in the value of firms with growing property prices and CRE holdings decreases as a firm's debt ratio increases
4	(Chun & Tjung, 1999)	Aim is to determine performance in twelve Asia-Pacific Nations in terms of real estate concentration; moreover, compare and contrast CRE holding firms in terms of RE/TA (real estate/total assets).	A greater RE / TA ratio is indicative of a firm with a larger market value (sales). On average, non-Japanese firms hold a little real estate investment than Japanese firms as different nations have different cultures means that differences is found in different countries.
5	(Y. Deng & Gyourko, 1999)	•	

		United States.	
6	(Hiang, 1999)	The goal is to explore nine different sectors of Singapore to find out which sector has the highest CRE investment both in absolute and relative terms.	Findings show that on Singaporean firms from 1987 to 1996, real estate holdings vary significantly among nine industries, while the hotel sector having the highest asset concentration.
7	(Louargand, 1999)	Objective is to find that investors' perceptions for firm performance are affected by the inclusion of real estate on the balance sheet.	Findings of this study show that investors have a favorable and positive impression for the company's performance when real estate assets are shown in the balance sheet.
8	(Hsieh & Peterson, 2000)	Aim is to analyze the correlation between CRE investment &firm performance.	The findings demonstrate that real estate investment is related to the success of businesses.
9	(McDonagh & Hayward, 2000)	The main objective is to find out why New Zealand companies are less involved in investing its resources in real estate as compared to UK and USA.	Results show the reasons for the decline in investment by New Zealand companies are: it has relatively small economy, scarce resources, lacks managerial skills, less working experience as compared to UK and USA.
10	(Laposa & Charlton, 2001)	The aim is to determine and explore why USA companies are less involved in real estate holdings as compared to European companies.	The reasons for the upward trend in real estate investment by European companies are: cultural perspective and view of corporate managers on real estate as long term investment is better.
11	(Kim Hiang, 2001)	Aim is to find relationship between CRE holdings and the firm performance and to examine that Singapore's real estate investment is related to its debt ratio.	Companies in the service, retail, and hotel industries, in particular, benefit from real estate investment. Further analysis show that with increase in real estate investment, the debt ratio is also rises.
12	(Hiang, 2001)	From an asset price perspective, this paper aims to investigate the relationship between firms' market value and real estate investment in Singapore.	The empirical results confirm to efficient market hypothesis that investment in real estate is a factor to create and enhance market value of companies and shareholders' worth with asset price perspective.
13	(Krumm, 2001)	The goal is to determine that real estate is a key	Findings demonstrate that real estate often helps to increase in company

		component in a company's ability to expand and effective management of real estate leads to desirable outcomes.	performance. Moreover, effective administration of these portfolios and the supporting departments are responsible for this success.
14	(Michael et al., 2001)	The purpose is to analyze the effect of CRE holdings on risk-adjusted return with diversification.	The results show that real estate holdings may not offer a diversification advantage because the company's economic risk is attached to returns.
15	(Stephen, 2001)	Examining the results of integrating real estate strategies with business strategies is the objective of this study.	Findings show that linking real estate strategies with business strategies support firms' innovation, performance, production and profitability.
16	(Krumm & de Vries, 2003)	The aim is to examine the role of management in real estate decisions to support the business growth.	Findings of this review paper show that real estate often supports business growth via indirect participation of management decisions.
17	(Pfnuer et al., 2004)	This paper's goal is to assess the best strategies for real estate investment in order to increase business value.	This article presents a formal management decision model for better aligning corporate real estate and real estate investment operations.
18	(Gibler & Black, 2004)	This survey-based research aims to find out the differences if real estate service providers' perspectives and intentions align with those of real estate managers.	Findings show that the perspectives of real estate service providers and managers are more likely to be subject to agency risk. Consequently, a company should pick the lowest agency risk when taking investment decision.
19	(Liow, 2004)	The aim is to analyze the impact of real estate investment on stock market performance in firms of Singapore that are property-intensive.	Findings show that as having more investment in real estate, there is negative and significant impact of investment in real estate on the performance of the stock market.
20	(Liow & Ooi, 2004)	The aim is to investigate the impact of CRE ownership on corporate wealth of Singapore using the profitability measures, i.e., EVA and MVA.	The results show that the coefficients of EVA and MVA (Economic/ Market value added) are negative and significant, indicating that high real estate ownership correlate with low wealth.

21	(Brounen & Eichholtz, 2005)	The goal is to assess the risk-return relationship with CRE ownership in nine countries: US, Australia, Hong Kong, Japan, France, Germany, the Netherlands, UK, and Canada.	A company's systemic risk is shown to be negatively correlated with its real estate holdings. Findings also reveal that the firms in each category with largest real estate assets also has the lowest firms' returns.
22	(Brounen et al., 2005)	The aim is to analyze the correlation between corporate real estate ownership and stock market performance.	Evidence indicates a positive relationship between corporate real estate investment and corporate performance.
23	(Ting Kein Hwa, 2005)	The objective is to analyze the disparities in corporate real estate assets among diverse firms listed on Bursa Malaysia.	The results show that the intensities of real estate holdings vary sector to sector. Though plantation and hotel industries have high real estate ownership.
24	(A. L. Lindholm & Leväinen, 2006)	The paper aims to evaluate the application of the real estate model and seven real estate strategies enhances business development.	Interviews of 26 corporate real estate executives in Finland determined that real estate model and seven real estate strategies if properly applied in businesses adds value to performance.
25	(AL. Lindholm et al., 2006)	The purpose is to analyze how businesses in the US, the UK, the Netherlands, and Finland that is formed using the BSC framework in various sectors have benefited by using real	It is discovered through conducting interviews and collecting surveys from CRE executives that the real estate model and strategies may be put in the established BSC framework, ensures that decisions about real estate support fundamental organizational goals.
26	(Ting Kien Hwa, 2006)	The purpose is to explore whether CRE holdings by companies in Malaysia affect equity performance.	The findings demonstrate that CRE does not significantly affect stock returns when the two-stage Fama-MacBeth model is used.
27	(Scheffer et al., 2006)	This study aims to determine effect of different real estate strategies on firm performance.	Findings show that by introducing CRE strategies to corporate strategy have positive outcomes.
28	(J. Du et al., 2007)	The objective is to determine that CRE investment and firm performance in US are affected by corporate	The results indicate that CRE holdings tend to rise in line with weak corporate governance and reduce firm performance.

		governance.	
29	(Yang, 2007)	The aim is to analyze the impact of strong and weak corporate governance on the real estate investment.	The findings indicate that real estate holdings have negative relationship with strong corporate governance and vice versa.
30	(Nappi- Choulet et al., 2007)	The aim is to examine the potential impact of CRE ownership on shareholder wealth in French firms within the industrial and service sectors, using EVA and MVA profitability metrics.	The results show that when the proportion of real estate assets rises, there is a negative and significant impact on EVA and MVA in industrial sectors. Though positive and significant influence on EVA and MVA metrics in service sectors.
31	(Ali et al., 2008)	The objective is to define real estate, its roles, contributions and strategy development.	This study defines CRE and examine its functions, contributions, and role of management in firms.
32	(Liow & Ingrid, 2008)	This article presents an overview of real estate from different perspective. It additionally presents some possible difficulties that have been addressed in this study.	The review's focus on publicly traded retail firms in the United States, Europe, and Asia makes it clear that CRE performance is evaluated from three different perspectives: the business, financial, and capital market dimensions.
33	(Sing & Sirmans, 2008)	The objective is to examine relationship between the corporate real estate assets and the implementation of corporate governance.	The findings indicate that real estate ownership generates agency issues, appropriate corporate governance measures must be implemented to alleviate these concerns.
34	(Phillips & Roper, 2009)		Findings show that talented
35	(Farzana & Murtaza, 2009)	The paper aims to analyze how hotel companies in Singapore are affected by systemic risk due to real estate ownership.	CRE holdings have impact on systematic risk. Due to the limited data resources, it cannot be assessed whether these effects are positive or negative in this study.
36	(Yu & Liow, 2009)	The goal is to examine the effect of real estate investments on corporate wealth in North America, Europe, and Asia.	Findings indicates a strong correlation between real estate investment and retail stock market performance

37	(Park & Glascock, 2010)	The aim is to analyze the impact of CRE ownership on the risk-return profiles of franchise companies.	Findings show that franchise firms benefit from CRE ownership in terms of excess returns of publicly traded franchise businesses in the United States
38	(Liow, 2010)	Purpose is to examine whether systematic risk is affected by the level of CRE investment.	Findings show a positive relationship between CRE investment and systemic risk.
39	(Tuzel, 2010)	This article explores the relationship between a company's capital composition and stock returns.	Higher real estate holdings make a company more vulnerable to negative productivity shocks and reduces its return on investment.
40	(Wolski & Zaleczna, 2011)	This study aims to examine the impact of real estate investments on the profitability of insurance firms in Poland.	Lack of an established market or an insufficient length of time show decrease in firm performance as a result of CRE investments.
41	(Dong et al., 2011)	The main objective of this paper is to investigate the impact of corporate real estate ownership on riskadjusted returns for Chinese firms.	The results show that a higher proportion of fixed assets is associated with lower levels of Jensen's Alpha, shows that CRE may not improve a company's performance.
42	(Ling et al., 2012)	This research aims to analyze the relationship between stock risk-return and the intensity of their real estate ownership of retail companies.	In retail companies, real estate betas shows that have a higher proportion of their assets in real estate are more vulnerable to the real estate risk factor and have worse returns.
43	(Marwani & Zaiton, 2012)	A primary objective of the research is to determine what motivates senior executives and managers to include CRE strategies in their company's long-term strategy.	The common factors influencing the minds of managers to introduce CRE strategies in their business strategy are: type of their job, knowledge, experience, level of involvement in real estate matters, and their beliefs.
44	(Lee & Jang, 2012)	This study aims to analyze effect of the real estate risk factor on CRE investment in US hospitality companies	Results show that real estate risk is a factor for 88% of the hospitality organizations and real estate beta depends on the financial situation.
45	(H. Du & Ma, 2012)	The purpose of this research is to analyze the DR-CRER	Findings show a positive impact of DR on CRER for the whole sample. There

		(debt ratio-corporate real estate ratio) relationship in both directions.	is no evidence of improvement of CRER in the return of highly leveraged stocks.
46	(Diop, 2012)	Aim is to examine the impact of CRE holdings on company performance in competitive and concentrated industries.	In competitive sectors, CRE ownership is positively related, and is negatively related with stock returns concentrated industries.
47	(Omokolade et al., 2013)	The goal is to explain effect of real estate ownership on systemic risk and return in US Sharia-compliant corporations.	There is a negative relationship between systemic risk and CRE ownership of Shariah compliant companies and return is unaffected by real estate ownership.
48	(Heywood & Kenley, 2013)	The purpose of this article is to review and examine the key roles and functions of corporate real estate management (CREM) in companies.	Findings explored from a review of the literature that CREM plays five key roles for companies in: i.e. a factor of production, company assets, investment, goods, and public infrastructure.
49	(Oladokun, 2013)	Aim is to determine the attitude of business executives of insurance companies towards the CRE investment.	When compared to more developed nations, Nigerian businesses have a less proactive approach to real estate investment.
50	(Xuan et al., 2013)	The goal is to examine that real estate investment increases return as a diverse portfolio in Chinese listed firms.	As a diverse portfolio, the findings reveal that the nature of the association between firms and their market performance varies between sectors and locations.
51	(Leung, 2013)	This article analyze the impact of strong and weak corporate governance on the return on real estate investment.	The results show that weak corporate governance is positively related to CRE holdings and negatively related firm performance.
52	(Fukushima et al., 2013)	The purpose of this study is to analyze the impact of CRE in boom in 1980s and subsequent collapse in 1990s on retail sector market performance.	There was an inverse relationship between companies' retail stock market performance and growth in CRE assets during the real estate boom in the 1980s and subsequent collapse in 1990s.
53	(Cvijanović, 2014)	The objective is to examine the effect of rise and fall of property values on decisions of debt and capital structure.	Findings show that businesses substantially alter debt and other forms of capital structure in reaction to the rise and fall of property values.
54	(Graham et	The objective is to examine	Findings show that small, closely-held

	al., 2014)	the effect of real estate	firms in the US show a negative
		ownership on value of	relationship between real estate
		smaller and closely-held US	ownership and market value.
		firms.	
55	(Rochdi,	This study aims to analyze	The findings indicate that the real-
	2015)	the effects of CRE on the	estate risk and return component
		equity returns and risk of	shows counter-cyclical patterns and is
		listed German firms.	related to corporate success.
56	(Kumar &	This article examines the	The results demonstrate that when
	Vergara-	impact of property prices on	CRE asset values are positively
	Alert, 2015)	dividend payout policy,	shocked, it causes the company to
	, -,	stocks repurchased by	increase their dividend payout, raise
		companies and leverage.	their leverage, and buy back more
			shares.
57	(Chen et al.,	This research aims to analyze	The results show that companies with
	2016)	how corporations'	high real estate holdings' value can
		investment and financial	borrow and invest more when the
		strategies in China's real	real estate market is in boom
		estate market are impacted	condition, and borrowing and
		by fluctuations in property	investing less when the real estate
		values.	market collapses.
58	(Ambrose	Examines the influence of	This study finds that the investments
	et al., 2017)	CRE ownership on the	in real estate has a negative
		performance of monopoly	correlation with the return in
		industries.	monopolistic sectors.
59	(Haggbom	The objective is to use	Findings show high liquidity risks
	& Åsenius,	quantitative and qualitative	discourage CRE
	2017)	methods to investigate the	investment. Compared to
		effect of liquidity risk on	quantitative risk metrics, the
		CRE investments in Sweden.	respondents' understanding of
			liquidity risk is more conclusive.
60	(Morri et al.,	The purpose is to analyze the	CRE ownership is inversely related to
	2017)	impact of CRE ownership on	financial success. Better financial
		company performance of	results are seen by businesses with a
		Italian companies.	lower real estate ownership level.
61	(Lecat &	This research aims to analyze	The results show that there is a
	Ray, 2017)	the impact of property prices	positive relationship between the
		on investments in real	property price and the level of CRE
		estate.	investment.
62	(Park, 2017)	The goal is to find out	The results show that CRE holdings
		whether CRE, by using	have a positive impact on the
		awareness and motivating	performance of restaurant firms in
		risk strategies, improves the	the United States with the utilization
		performance of US	of awareness and motivational risk

		restaurant firms.	strategies.
63	(Kim & Lee, 2018)	This study investigates the relationship among corporate governance, corporate real estate assets, and business value.	Findings show that dictatorship portfolios with weak corporate governance, contain a large concentration of corporate real estate assets.
64	(Kumar & Vergara- Alert, 2018)	The impact of changes in the value of CRE on the performance of US company is investigated in this research.	Findings show that US businesses' stock performance is positively impacted by the favorable appreciation of their real estate assets value.
65	(X. Deng et al., 2018)	The objective is to examine how real estate risk influences organizations' investment and financing decisions.	Companies' long-term investment decisions and long-term stock and debt financing decisions are inversely associated to real estate risk
66	(Demirer et al., 2018)	This research examines the impact of CRE ownership on the risk and return of restaurant companies in the United States.	Results demonstrate that CRE holdings boost market performance over the long run. However, CRE does not considerably affect the systemic risk.
67	(Diop, 2018)	This study examines the impact of CRE investments on stock returns within oligopolistic competitive industries.	In oligopolistic businesses, where there are a limited number of buyers and sellers, the findings demonstrate a favorable relationship.
68	(Seger et al., 2020)	The objective is to examine the impact of real estate assets on corporate performance in the context of diversification.	The findings indicate that equity returns and systematic risks for firms listed on the German stock market diminish as CRE assets increase in size.
69	(J. Deng & Yang, 2020)	This research examines the impact of real estate investment on R&D spending.	The findings show with more real estate holdings restricts their ability to spend in R&D.
70	(Ivanov & Faulkner, 2020)	The objective is to analyze the correlation between real estate ownership, cash ownership, and credit ratings.	There would be less cash available for innovations if companies hold more CRE and Companies with more CRE holdings tend to have better credit ratings.
71	(Ning et al., 2020)	Aim is to examine relationship between CRE investment and R&D intensity in Malaysia.	Findings identifies a negative association between the intensity of CRE ownership and the intensity of R&D spending.

72	(Fisher	et	The	objective	is	to	Findings show that higher net income
	al., 2020)		invest	investigate the impact of real			growth and risk-adjusted returns are
			estate property location on			on	generated by real estate property
			the ri	sk and retu	rn of	US	placed in high intensity places.
			portfo	olios.			

#### 5. Conclusion

This review paper in multidisciplinary dimensions explores the recent trends and future scope of corporate real estate investment. The study uses a final sample of 72 research papers browsed at Google Scholar during 1995-2020. Reviewing the literature on real estate investment, it becomes clear that the most of studies based on agency-theory uses quantitative approach, relied on secondary sources of data, and employed regression analysis. The main findings indicate that CRE investment has negative impact on firm performance, while the exact nature of this impact differs between sectors. Hence, the real estate intensity must reach a certain limit that is suitable for the company to invest the amount in real estate. There are also no consistent findings relevant to other themes.

### 6. Suggestions for Future Research on CRE Holdings

By assembling the existing literature on CRE investment, we are able to suggest future directions and potential avenues to academics, researchers and practitioners. It is find by review of studies that there exist differences among countries and among sectors. The differences in CRE investment can be explored among developing, emerging and developed nations. The literature shows that investment in real estate is beneficial with efficient investment decisions and detrimental for firms' performance with inefficient investment decisions with agency conflicts. These agency conflicts have been resolved to some extent but still there is a gap to resolve the issue of overinvestment. To achieve this goal, evidence has shown that having institutional investors on board may boost a company's worth by actively reducing the diversification discount and keeping an eye on operations (Malpezzi & Shilling, 2000). High managerial ability of managers behave efficiently in decisions. Managers with high ability select those projects with positive NPV, such ability of managers is associated with investment efficiency for firms (Koester, Shevlin, & Wangerin, 2017). Brokers may provide accurate information to sellers and buyers by symmetric information (Benjamin, Jud, & Sirmans, 2000). Females have more monitoring power, can discipline the management, better use of resources, reduce agency risks and due to having symmetric information can take better decisions (Mirza, Majeed, & Ahsan, 2019). The corporate governance act as mediating variable in the relationship between CRE holdings and firms' value. Hence, there is lack of studies in which institutional investors, managerial ability, role of brokers, role of gender diversity and moderating role of corporate governance is investigated. Hence, these variables with context to real estate investment and firms' performance is suggested as the gap in literature for future researchers.

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