**How Covid Affected the Commercial Real Estate Market**

**Research Problem**

The Coronavirus outbreak in 2019 (COVID-19) was a global crisis that affected public health and disrupted economies worldwide (Allan et al., 2021). The sectors affected were the commercial real estate (CRE) market, finance, transport, and construction (Chong & Phillips, 2022; Wen et al., 2022). Evidence from diverse global economies, including the United States, China, and Denmark, highlights the far-reaching consequences of the pandemic. Aggregate spending plummeted, consumption patterns shifted, and urban demographics faced notable changes (Wen et al., 2022). Major U.S. cities witnessed declines in population and business, while suburban areas had slight growth. There was also a surge in remote work a shift in consumer preferences, production, and supply of goods and services (Chong & Phillips, 2022). In the real estate sector, COVID-19 affected the price and volume of retail, office, and industrial properties. Different studies have only explored the immediate effects of the crisis on the general real estate market, leaving a gap in the commercial segment and transformative effects.

More studies have also explored how the pandemic immediately affected financial assets like REITs, mortgages, and real estate stocks and securities (Gujral et al., 2020). However, there is a research gap on the long-term impacts of COVID-19 on diverse commercial property types (Ling et al., 2020). These include office space demand, the trajectory of retail space utilization, and the ongoing influence of e-commerce on industrial property needs. Such knowledge would be significant to understanding the enduring consequences and recovery patterns post-pandemic. Secondly, a research gap exists in evaluating the impacts of specific policy responses, such as fiscal stimulus packages and rent subsidies, in mitigating the pandemic's negative effects on different property sectors.

Thirdly, there is limited research on the social and environmental implications of COVID-19 on commercial real estate; this pertains to changes in office space utilization, community development, and adaptive urban planning. A study by Wouda and Opdenakker (2019) also recommended further research on the role of emerging technology, including automation and virtual reality, in shaping commercial real estate. The technologies and living patterns influenced by the pandemic have long prolonged effects on real estate. Therefore, this research aims to bridge these gaps by investigating how COVID-19 affected the commercial real estate market.

**Research Questions**

1. How has the demand for varied commercial real estate property types (office, retail, industrial) changed since COVID-19 and the evolving consumer preferences?
2. What recovery patterns are observed in the commercial real estate market in terms of property values, rental rates, occupancy levels, etc.?
3. To what extent have the various economic recovery policies for COVID-19 pandemic impacted the commercial real estate market?
4. What adaptive strategies and technologies have emerged in the commercial real estate market post-COVID-19?

**Review of the Literature**

1. Recent literature on impacts of COVID-19 on CRE sectors

Different existing kinds of literature have explored the impact of the COVID-19 pandemic on the commercial real estate market. Allan et al. (2021) offers a comprehensive analysis of the Asia–Pacific region, highlighting substantial rent declines, especially in retail properties. The retail property sector experienced a staggering drop of over 30%. Importantly, the study emphasizes the positive impact of fiscal stimuli imposed by governments in mitigating the adverse effects of the crisis (Allan et al., 2021). Despite the valuable findings and recommendations, Allan et al. (2021) focused on the Asia–Pacific real estate markets; there is need to replicate the study on the United States CRE market.

A study by Wen, Fang, and Li's (2022) examined the market-specific responses and their implications for post-pandemic urban planning. Focusing on Florida's metropolitan areas and employing a fixed effect regression model, the study found distinct trends across different property types (Wen et al., 2022). Retail properties experienced an immediate decline in sales volumes following the shock of COVID-19 (Wen et al., 2022). Similarly, the growth rate of rent for office properties had a short-term decline but bounced back to around 70% within one quarter. Notably, the industrial properties demonstrated a rise in both the growth rate of sales and rent prices during the pandemic (Wen et al., 2022). These findings align with Deghi et al. (2021) who revealed that overvaluation in CRE prices occurred across major advanced economies in 2020 first quarter.

Deghi et al. (2021) emphasizes the substantial size and interconnectedness of the CRE sector with the broader economy. They projected the recovery to depend on the overall pace of economic recovery and structural shifts induced by the pandemic (Deghi et al., 2021). While easy financial conditions contribute to increased financial vulnerabilities and persistent price misalignment, effective macroeconomic policies were vital to the risks in CRE sector (Deghi et al., 2021). However, Hoesli and Malle (2022) caution against the simplistic interpretation of direct commercial real estate indices, emphasizing the need to consider inherent caveats. They examined both direct and listed real estate, retail and hospitality properties, and office buildings, to get a more comprehensive view. The residential and industrial sectors have shown greater resilience to pandemic (Hoesli & Malle, 2022). The economic changes in other sectors influenced commercial real estate pricing and future trajectory that hinges on asset type and location (Hoesli & Malle, 2022). However, this study was limited to the European CRE market.

A report by Gujral et al. (2020) reveals how the commercial real estate (CRE) sector is navigating the immediate challenges posed by the COVID-19 crisis. The report states that industry leaders are grappling with the balance of capital preservation and competitive differentiation (Gujral et al., 2020). The crisis accelerated the adoption of strategic changes, with a focus on diversification and enhancing tenant experience. The efforts to protect safety and health led to changes in communication practices, emphasizing company-level brand communication and direct engagement with tenants (Gujral et al., 2020). The study underscores the shift toward more centralized cash management to address the uncertainty, with a lean-enterprise mentality gaining importance (Gujral et al., 2020). Tailored, informed decision-making in commercial lease concessions is highlighted, emphasizing the need for fact-based insights to navigate varied economic scenarios. However, this report is limited to occurrences in 2020, which may have changed since the pandemic ended.

1. Recent literature on Real Estate Market Liquidity

Chong and Phillips (2022) focus on the U.S. commercial real estate market estimating the dollar impact of COVID-19 on aggregate values. Their equity analysis, leveraging traded Real Estate Investment Trusts (REITs), provides statistical estimates of the decline in commercial real estate values (Chong and Phillips, 2022). A key aspect of this research is the use of REITs to assess the impact of the pandemic on commercial real estate. REITs provide a valuable dataset that allows for a quantitative evaluation of the dollar impact on aggregate values. The study also highlights the compounding effects of telecommuting, social distancing, and business closures faced by the sector (Chong and Phillips, 2022). Like Allan et al. (2021), Chong and Phillips (2022) also recognize the role of extreme monetary and fiscal policies in mitigating the effects of the pandemic. Akinsomi's (2020) also revealed a decrease in the value of most REITs, lodging/resort REITs (−45.81%), retail REITs (−41.16%) and office REITs (−22.63%). However, the study uncovers divergent trajectories among REITs, with certain sectors showing resilience.

In another pioneering study, Ling et al., (2020) investigate the transmission of the COVID-19 shock to equity markets through the firm's underlying assets in the CRE market. Utilizing asset-level data and constructing the GeoCOVID measure, the study explores the relationship between abnormal returns and the geographically weighted exposure to COVID-19. The findings reveal a negative relationship, even after accounting for rate of COVID-19 cases, property type, geographic concentrations, and firm characteristics (Ling et al., (2020). While the demand for retail and residential properties exhibited more negative reactions, those of healthcare and technology sectors had a positive reaction (Ling et al., 2020). The pandemic triggered a rise in the demand for commercial real estate properties suitable for healthcare activities like hospitals and quarantine centers.

The MIT Center for Real Estate, in a comprehensive analysis by Van Dijk et al. (2020), reveals the substantial and adverse effects of the COVID-19 pandemic on liquidity in the global real estate market. Focusing particularly on private commercial property, the study reveals a significant decline in liquidity across major U.S. markets. The severity of this liquidity drop is noted to surpass that observed during the Global Financial Crisis (GFC). The first four months of 2020 alone witnessed a considerable fraction of the total liquidity drop seen throughout the GFC (Van Dijk et al., 2020). This finding emphasizes the challenges faced by the real estate sector during the early stages of the pandemic, surpassing even the economic turbulence experienced in the previous financial crisis. Although this study by Van Dijk et al. (2020), used the comparison to the GFC as a benchmark for economic downturns, their liquidity challenges caused by the pandemic did not focus on CRE markets. Thus, it is essential to further research the liquidity implications in the US CRE market.

The Covid-19 pandemic also impacted commercial real estate transactions with the rise of blockchain technology (Wouda & Opdenakker, 2019). The CRE market responded to the cashless transactions move by adopting blockchain application to improve efficiency, transparency, and safety. However, the findings of Wouda and Opdenakker (2019) were only limited to the CRE market in Netherlands and observations made in 2019 when Covid started. A study by Ali et al. (2024) explored the interconnectedness between investors' perceptions of assets and behavioral biases in shaping real estate investment decisions during the COVID-19 pandemic in Pakistan. The findings highlight the significance of perceived asset value (PAV), overconfidence (OC), and herding (HD) in predicting real estate investment decisions during the crisis (Ali et al., 2024). Notably, PAV emerges as the most crucial factor, underscoring its central role in guiding investor choices. In contrast, disposition effect (DE) and risk aversion (RA) are found to have an insignificant impact on real estate investment decisions during pandemic.

**Methods**

The study adopts a qualitative approach that uses structured interviews to investigate the impact of COVID-19 on the commercial real estate market. The rationale for choosing a qualitative design is to capture respondents' in-depth insights, experiences, and perspectives. Similarly, using structured interviews ensures a systematic and consistent data collection process, enabling a focused exploration of key themes related to the effects of COVID-19 on different property types, recovery patterns, policy responses, and adaptive strategies. The purposive sampling strategy is used to select ten respondents with diverse commercial real estate sector expertise. Ethical considerations include participant confidentiality, informed consent, and overall research integrity.

Sampling

This study employed a purposive sampling strategy to select 10 participants with expertise in the selected commercial real estate market. Participants included commercial real estate developers, property managers, industry analysts, and tenants.

Data Collection and Analysis

Data was collected through structured phone call interviews conducted individually with each participant. The interview guide consisted of open-ended questions designed to elicit in-depth perspectives on the research questions. Thematic analysis was employed to analyze the interview transcripts. Codes were developed based on the research questions and key areas of interest. Emerging themes and sub-themes were then identified and interpreted, considering patterns and discrepancies across participants' responses.

Validity and Reliability

To ensure the validity and reliability of the findings, member checking was conducted with participants through follow-up calls to confirm the accuracy of interpretations. Additionally, data triangulation was incorporated by comparing interview findings with relevant secondary sources. Finally, a detailed audit trail documenting the research process and decisions was maintained.

Limitations:

The limitations of this study include the use of a small sample size (10 participants) and the potential for self-selection bias due to the purposive sampling method. The phone call interviews limited the ability to observe non-verbal cues and influenced participant responses. These limitations should be considered when interpreting the findings and applying them to broader contexts.

**Findings**

**Conclusions**

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