Reconfiguring Workspaces: Adaptations of Corporate Real Estate Design in the Context of the COVID-19 Pandemic and Economic Crisis in Sri Lanka

Abstract

Corporate Real Estate (CRE) pertains to the real estate assets utilized by businesses for their corporate operations. It serves as a conducive environment for accommodating staff, manufacturing and selling goods, and delivering services to customers. The COVID-19 pandemic has precipitated substantial changes in the utilization of office spaces by organizations. Prolonged lockdown measures and the adoption of remote work practices have resulted in the underutilization of office spaces across many organizations. Additionally, the aftermath of the pandemic has severely impacted the Sri Lankan economy, leading to decreased economic activities due to high inflation, import restrictions, and high finance rates. Consequently, organizations are compelled to modify their CRE environments to maximize its utilization which creates mixed views on its impact on financial and non-financial performance of the organization. Against this backdrop, the study examines the impact of modifications and adaptations in corporate real estate design on financial and non-financial performance of organizations. Total of 12 hypotheses were tested, exploring the association between changing organization structure, minimizing space requirement, workplace redesign, downsizing, work from home arrangement, and the utilization of co-working spaces, on financial and non-financial performance of the commercial real estates. The study population comprises executive employees involved in CRE decision-making within commercial real estates. A total of 164 respondents participated in a questionnaire survey, which was distributed online using convenience sampling techniques. The analysis employs Partial Least Squares Structural Equation Modeling (PLS-SEM) and adopts reflective constructs. This approach provides a robust conceptual framework for assessing the overall impact of changes in corporate real estate design on organizational performance. The findings of the study confirmed that changing organization structure, downsizing, work from home arrangements, have a significant positive impact on financial performances of commercial real estate. Moreover, minimizing space requirement, downsizing, work from home arrangements exhibit a positive significant relationship with the non-financial performances. The study's results provide insights into the relationship between decision-making on Corporate Real Estate (CRE) and its influence on the overall financial and non-financial performance of the commercial real estate. These findings assist top management in understanding the alignment required between future CRE strategic decisions and corporate performance.

Key Words: *Corporate Real Estate, Corporate Real Estate Design, Non – Financial performance, Financial performance.*

1. Introduction

In academic discourse, the concepts of population growth, food demand, plague outbreaks, and war risks were first discussed in 1798 with the introduction of T.R. Malthus's theory of "Population Principles" in the field of economic theory (Malthus, 1798). Since then, various outbreaks have occurred in different countries; however, none have proven to be as impactful as the COVID-19 pandemic, which has engendered disparate repercussions across various industries. Impacted by the COVID-19 pandemic, a considerable portion of business operations has been compelled to halt in order to minimize interpersonal interactions in public spaces.

Consequently, work productivity has suffered a decline as a direct outcome. Additionally, both workplace collaboration and community interactions have experienced substantial setbacks. As a result, the management of workplaces during and post the COVID-19 pandemic has emerged as a worldwide challenge.

In this context, it is noted that the usage of real estate for office spaces or commercial real estate, or in other words, Corporate Real Estate, has witnessed significant transformations since early 2020. The emergence of the COVID-19 pandemic has had a profound impact on the utilization of real estate in the office sector. With the implementation of strict lockdown measures and social distancing protocols, many organizations were compelled to adopt remote working arrangements to ensure the safety and well-being of their employees (Hou et al, 2021). Consequently, there was a notable decrease in the demand for physical office spaces as a significant segment of the workforce shifted towards remote work arrangements from their homes. This shift in work dynamics prompted organizations to reevaluate their office space requirements and explore alternative strategies to optimize cost-efficiency. Furthermore, the pandemic highlighted the efficacy and feasibility of remote work, leading to a reassessment of the traditional office setup.

Jones Lang LaSalle (JLL) has identified a series of eight stages in workplace management following the onset of the COVID-19 pandemic (JLL, 2020). These stages encompass the phases of "shock," "awareness," "reaction," "ensuring operational continuity," "returning to the workplace," "rethinking and innovating," "putting plans into action," and "achieving success." The pandemic prompted organizations to realize the potential productivity of remote work arrangements, leading to the adoption of virtual collaboration tools and technologies to ensure operational continuity. Consequently, the purpose of physical office spaces was reimagined, with organizations considering hybrid models that blend remote work with periodic in-person collaboration. Concerns regarding health and safety in shared office environments, particularly in densely populated urban areas, further influenced the reconfiguration of real estate usage.

Organizations prioritized implementing health protocols and adopting flexible office layouts that adhere to social distancing guidelines. In the midst of 2023, the health authorities in Sri Lanka officially declared the country's attainment of a COVID-safe status. Concurrently, a severe economic crisis of the country compelled organizations to contemplate reimagining their real estate settings and implementing downsized layouts

Furthermore, the pandemic-induced economic uncertainties prompted businesses to rationalize costs and optimize their real estate portfolios. Many organizations sought to reduce their physical footprint by subleasing or terminating leases to adapt to the changing work landscape and reduce expenses. Shared office spaces and flexible leasing options were also explored for enhanced agility and cost savings. In conclusion, the popularity of hybrid work models has extended beyond the pandemic, resulting in decreased real estate requirements for companies (Naor et al., 2022). These measures have necessitated a reduction in office density, leading to decreased demand for large workspaces.

The implementation of new real estate strategies, which are in line with the reimagining of post-COVID-19 workplaces and are influenced by the economic crisis, has introduced difficulties in

persuading top management about the productivity of employees. This can be attributed to the significant changes and uncertainties brought about by the pandemic and economic downturn. The traditional workplace norms have been disrupted, and organizations have had to adapt to remote work arrangements, hybrid models, and downsized layouts. As a result, top management may be hesitant to fully embrace these new approaches and may require reassurance regarding the effectiveness and productivity of employees in these modified work settings. It is crucial to provide comprehensive explanations and evidence showcasing the successful implementation of the new strategies, demonstrating how they align with the organization's goals and objectives, and emphasizing the positive outcomes and benefits achieved through the reimagined workplace.

In this context, this study aims to explore how adaptive measures in the design of corporate real estate in Sri Lanka impact company performance during the post-COVID and economic crisis period. The findings of the study offer valuable insights into the efficacy of these adaptations in mitigating the adverse impacts of the crisis on businesses. Furthermore, they provide implications for policymakers, real estate professionals, and corporate decision-makers, serving as a guide for strategic decision-making concerning the design and management of corporate real estate during challenging economic circumstances.

2. Literature Review

The COVID-19 pandemic, which began in late 2019, triggered a worldwide health crisis that quickly turned into an economic disaster, profoundly impacting businesses across the globe. The unprecedented and rapid spread of the pandemic had far-reaching consequences on different aspects of organizational performance, necessitating the identification of new corporate real estate strategies for survival and adaptation. This section of the paper delves into both the financial and non-financial performance of the organization, as well as the corporate real estate strategies adopted to tackle the organization's challenges.

2.1 Organization Performance

In the dynamic and competitive business landscape, maximizing organizational performance is essential for sustained success and growth. Companies across industries are recognizing the critical importance of integrating financial and non-financial performance metrics to gain a comprehensive understanding of their overall health and future prospects.

The financial and operational performance of organizations in various industries has been greatly affected by the COVID-19 pandemic and the subsequent economic crisis. Multiple studies have demonstrated the negative financial outcomes of the pandemic. For instance, Bouri et al. (2021) found that businesses worldwide experienced significant declines in revenue due to reduced consumer spending, disrupted supply chains, and decreased demand for products and services. This decline in revenue directly impacted profitability, as indicated by Rahman et al. (2022), who reported decreased profit margins resulting from increased operating costs and lower sales volumes. Additionally, businesses have faced cash flow constraints, making it difficult to collect receivables and receive timely payments, as highlighted by Bartik et al. (2020). Surveys conducted by Bartik et al. (2020) that a large number of small businesses were expected to close or experienced decreased sales and customer bases.

The non-financial aspects of organizational performance have also been significantly affected by the COVID-19 pandemic and economic crisis. Workforce disruptions, such as the transition to remote work and lockdown measures, have impacted productivity and employee engagement (Sinclair et al., 2020). Supply chain disruptions have been widespread, leading to delays in the delivery of goods and services, affecting production schedules and customer satisfaction (Fernandes et al, 2020). Furthermore, changes in customer behaviour, including shifts in preferences and purchasing habits, have been observed, resulting in decreased demand for certain products and services (Ahmed et al., 2020). Many companies, even those navigating the pandemic successfully, are preparing to reorganize their management teams and service delivery to adapt to the "new normal" (Hou, et al, 2021). Workforce disruptions and remote work transitions have presented significant challenges for organizations (Kniffin et al., 2021). Managing remote teams has proven to be complex, impacting productivity and employee engagement (Burrell et al., 2020; Breuer et al., 2020). Moreover, supply chain disruptions have hindered organizations' ability to deliver products and services on time, leading to customer dissatisfaction (Di Giovanni et al., 2022). The pandemic has also caused changes in consumer behaviour, influencing preferences and purchasing patterns, which have affected the non-financial performance of businesses (Burrell et al., 2020; Kniffin et al, 2021)

Although various measures such as administrative, fiscal, and monetary tools have been implemented to mitigate the decline in employment and demand, it is unlikely that these measures alone will fully counteract the effects. Responding to COVID-19 requires a combination of top-down and bottom-up approaches, involving both government and private initiatives to support productive entrepreneurs rather than declining industries and failing companies.

2.2 Managing Corporate Real Estate during COVID-19 and Economic Crisis

Since the 1980s, CRE has garnered significant research attention, as scholars strive to assess its contribution to large organizations (Gibson et al., 2012). Despite its importance, the value of corporate real estate on financial statements might not be fully recognized by many individuals and organizations (Hartmann et al., 2009). Understanding the role of Corporate Real Estate Management (CREM) within an organization is essential to appreciate its significance (Li et al., 2023).

According to Hartmann et al. (2009), the primary objective of CREM is to yield returns from real estate while ensuring the smooth functioning of an organization's core activities and leveraging resources to enhance strength and competitiveness. Some scholars even refer to CRE as the "fifth resource" after traditional resources, highlighting the need for effective management as real estate is the second most expensive business resource after salaries. In the United States, real estate assets account for approximately 25% of total assets, with manufacturing firms representing 40% of the sample (Hwa, 2003). In Europe, Corporate Real Estate Management remains a prominent topic, characterized as the value and success-oriented acquisition, handling, and disposal of properties owned or possessed by corporations (Glatte, 2013).

Considering real estate strategy post-COVID-19, it is vital to view strategies as goal-oriented activities that require foresight and the ability to assess and choose from various possibilities (IFMA, 2020; Pataki-Bittó, and Kapusy, 2021). The connection between an organization and

CRE becomes crucial for cost decision-making and management during crises. Cost reduction becomes a default strategy for CRE and directly impacts the company's financial performance (Gibson & Lizieri, 2001). Effective CRE management during challenging times plays a pivotal role in improving overall organizational performance.

In the face of the unprecedented challenges posed by the COVID-19 pandemic and the accompanying economic crisis, managing Corporate Real Estate (CRE) has emerged as a critical priority for organizations worldwide. The pandemic has forced businesses to adapt swiftly to changing circumstances, altering their operational strategies and reconsidering the utilization of physical workspace.

The study reviewed diverse aspects on CRE transformation, encompassing changes in organizational structures, the introduction of new working practices like coworking spaces, and the implementation of innovative office technology. Notably, larger organizations demonstrated a greater propensity to adopt these management ideas (Sokolic, 2022). A considerable proportion of organizations either executed or sought to implement novel strategies, including re-engineering, workplace restructuring, downsizing, workspace optimization, and outsourcing. Furthermore, the integration of new working practices, such as team collaboration and remote work arrangements, featured prominently (Wong, 2020). The research findings underscore the widespread adoption of several pivotal strategies in the post-pandemic landscape. These include the implementation changing organizational structures, coworking spaces, restructuring workspace, downsizing organization, minimizing space, and the adoption of teamworking and homeworking (Bartik et al. 2020; Hou, et al, 2021). These strategies exemplify organizations' proactive and adaptable response to the evolving business landscape. By embracing these strategies, organizations demonstrate their commitment to remaining flexible and optimizing their operations to address both financial and non-financial aspects of performance during these unprecedented circumstances.

2.3 Corporate Real Estate Setting and Financial and Non-Financial Performance

To achieve desired business outcomes, it is crucial to refocus efforts on aligning CRE with strategic objectives. One way of driving business changes is through restructuring the workplace, which may involve flattening hierarchies or adapting corporate hierarchies to meet evolving needs. It is important to recognize that change encompasses both creation and destruction. The demise of outdated structures and practices may go unnoticed, as organizations often evolve gradually, slowly adopting new approaches while selectively discarding outdated ones (Hou, et al, 2021). In previous studies, the focus of organizational flexibility research has largely been on functional or numerical flexibility. However, some studies have explicitly examined the interaction between these two types of flexibility and sought to explain how certain organizations are capable of achieving seemingly incompatible forms of flexibility simultaneously (Kalleberg, 2003). According to Shahul et al (2022), the organizational structure holds significant influence on organizational performance, especially in the post-COVID-19 era. Furthermore, the presence of strategic thinking within the organization plays a crucial role in shaping its performance outcomes. Thus, changing organizational structure on CRE is identified as one source CRE strategic decision which leads to financial and non-financial performance of the organization.

The concept of minimizing space through changes in real estate design has gained significant attention, primarily focusing on the physical configuration of space and the demand for functional flexibility (Virginia and Colin, 2001). Moreover, it has been acknowledged that team collaboration and flattened organizational hierarchies necessitate increased group space and the ability to reconfigure the area as requirements evolve. Achieving workplace efficiency involves various approaches such as workspace redesign, workspace consolidation, maximizing space utilization through non-territorial offices, and implementing capital improvements that reduce the time and cost associated with reorganizing when forming new product teams (Hou, et al, 2021). During the COVID-19 pandemic, a majority of office spaces remained idle due to mandatory lockdowns and the widespread adoption of work-from-home practices. Consequently, this situation has had a secondary impact on energy consumption across all types of buildings, highlighting the necessity for new energy systems and their management in the post-pandemic period (Tan et al., 2022; Wong et al., 2020; Yang et al., 2023). This has prompted organizations to reassess their minimum space requirements and rationalize their overall space needs, leading to positive effects on both the financial and non-financial performance of the organization.

Concurrently, corporate real estate plays a crucial role as a key asset within a company and can be restructured to drive changes in organizational design. Workplace redesign or restructuring stands as a vital CREM strategy, allowing for adjustments in the physical environment to align with business needs, work processes, and employee requirements (Hou, et al, 2021). Empirical research indicates that altering real estate portfolios through acquisitions, disposals, spin-offs, or joint ventures can reduce systematic risk and enhance corporate value. Consequently, the reorganization and restructuring of corporate real estate have been shown to generate shareholder wealth, leading to improvements in both financial and non-financial performance. Workplace management has emerged as a global concern during and post the COVID-19 pandemic (Hou, et al, 2021). Business reorganization serves as another option for real estate design transformation. However, as companies adopt new work practices, it can significantly impact the demand for business facilities. Although many businesses may lack a clear office redesign strategy, it is anticipated that long-term safety and health measures related to the COVID-19 pandemic will necessitate further modifications to office spaces in the future (Hou, Remøy, and Jylhä, 2021). Thus, it is evident that restructuring or redesigning workplace is a solution for improved financial and non-financial performance of the organization.

Amidst the post-COVID-19 period, downsizing of organizational assets has emerged as a coping approach to address both financial and non-financial burdens. Although not a new concept, office workplace management has undergone significant transformations over the past decade to adapt to various business challenges, encompassing globalization, consolidation, downsizing, restructuring, streamlining, and technological advancements (Hou, et al, 2021). As a result, this approach has been identified as a supportive measure to enhance the financial and non-financial performance of organizations during the post-pandemic period.

Organizations have undertaken various changes in their office environment to align with COVID-19 requirements and adapt to new working practices in the post-pandemic era. Surveys and interviews with employees have been conducted to gauge the impact of "working from home" policies on their quality of work and productivity. The feedback from employees indicates that their work is not significantly affected while working remotely, as they have

adjusted to the new mode of working, and their workload remains consistent, with occasional increases observed (Hou, et al, 2021). Moreover, organizations that previously relied on physical office spaces for core or supporting business activities have either embraced technology to extend their workplace virtually or are preparing to return to the physical workspace (Hou, et al, 2021). In interviews, participants pointed out that "working from home" has resulted in reduced workplace overhead costs, particularly related to electricity consumption (Hou, et al, 2021).

The concept of co-working spaces has emerged as a recent and rapidly expanding trend in the global office market, proving to be an effective approach for work environments. Organizations that have embraced co-working spaces aim to foster creativity, teamwork, and productivity by establishing a close correlation between collaboration, performance, and innovation (Arora, 2019). Brad Neuberg, a northern Californian, is widely regarded as the unofficial "founder" of modern coworking, as he devised a solution to his need for structure, community, and independence (Yang, et al 2019). With the advancement of technology giving rise to agile working styles, businesses providing co-working spaces have sprung up to meet the growing demand (Hou, et al, 2021). Consequently, co-working spaces are gaining prevalence in real estate markets worldwide, presenting both investment opportunities and competition for traditional corporate offices. This trend is in tandem with the growth of prominent brands capitalizing on the demand for second- and third-tier locations (Yang, et al, 2019). During their grassroots inception, co-working spaces were born out of the need for workspace and a desire to offer an alternative to conventional models (Yang, et al, 2019). In this context, co-wording is also identified as major solution for minimize real estate cost which leads to financial and non-financial performance of the organization.

Considering the emerging trends in the corporate real estate setting during COVID-19 and the aftermath of economic crises in Sri Lanka, as well as their impact on the office market, the conceptual framework as depicted in Fig 01 and the established hypotheses are presented below.

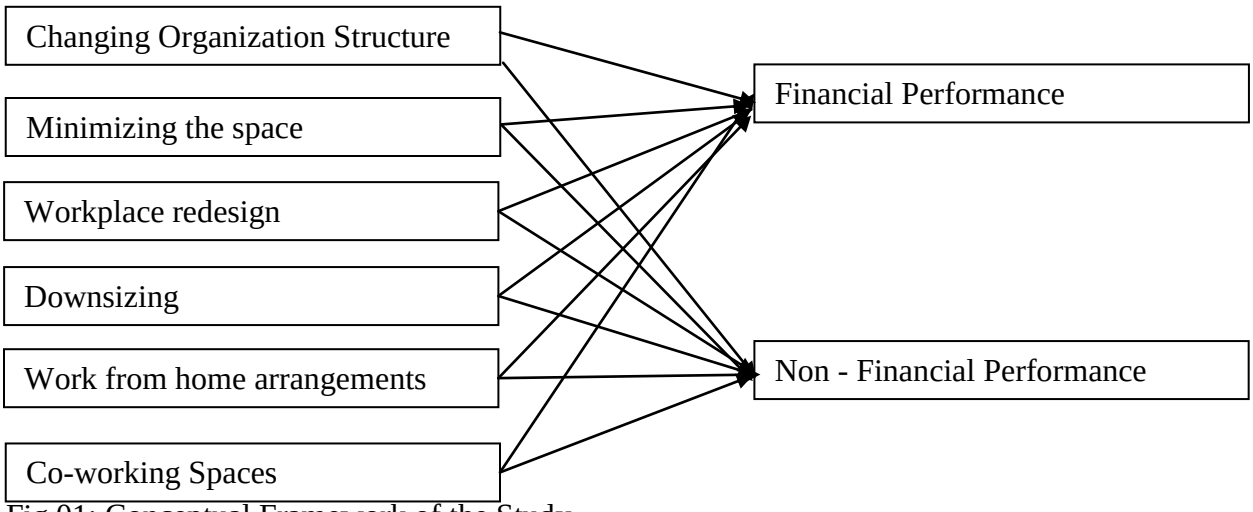

Fig 01: Conceptual Framework of the Study

H_1: There is a relationship between changing the organizational structure in the workplace and the financial performance of the organization.

H_2: There is a relationship between changing the organizational structure in the workplace and the non-financial performance of the organization.
H_3: There is a relationship between minimizing space requirement in the workplace and the financial performance of the organization.
H_4: There is a relationship between minimizing space requirement in the workplace and the non-financial performance of the organization.
H_5: There is a relationship between workplace redesign and the financial performance of the organization.
H_6: There is a relationship between workplace redesign and the non-financial performance of the organization
H_7: There is a relationship between downsizing the organization and the financial performance of the organization
H_8: There is a relationship between downsizing the organization and the non-financial performance of the organization
H_9: There is a relationship between work from home arrangement and the financial performance of the organization
H_{10}: There is a relationship between work from home arrangement and the non-financial performance of the organization
H_{11}: There is a relationship between co-working arrangement in the workplace and the financial performance of the organization.
H_{12}: There is a relationship between co-working arrangement and the non-financial performance of the organization

3. Methodology

The study utilized a quantitative research model and employed Partial Least Squares Structural Equation Modelling (PLS-SEM) with reflective constructs for analysis. In summary, PLS-SEM computes partial regression relationships in the measurement and structural models through distinct simple least squares regressions (Hair et al., 2018). PLS-SEM is favoured due to its ability to assess intricate models involving multiple constructs, indicator variables, and structural routes without making assumptions about data distribution, as advocated by Hair et al., (2019). Additionally, PLS-SEM is a causal predictive approach to SEM, emphasizing forecasting in statistical model estimation and offering causal explanations. Mateos-Aparicio (2011) explains that PLS-SEM integrates main processing unit analysis and ordinary least squares regressions to calculate partial model structures defined in a path model. In this particular study, SmartPLS version 4 was used to analyze the data and conceptualize the measurement and structural models.

This study focuses on corporate real estate in the office sector or commercial real estate sector, specifically in the Colombo district. To gather data, the convenient sampling method was employed. The sample size of 160 was determined using G-power F tests with a linear multiple regression fixed model and R^2 increase. To reach this target, a Google form questionnaire was designed and distributed to employees working in the Colombo district office sector through email, LinkedIn, Facebook, and WhatsApp. A total of 164 responses were collected. According to the G-Power analysis with an error probability of 0.05, the sample size exceeds the required amount. Additionally, Chin, Marcolin, and Newsted (1996), along with Wong (2013), recommend following the ten-time thumb rule of PLS-SEM analysis when determining the sample size.

The questionnaire design for this study utilizes reflective statements to assess the latent variable. The latent constructs considered in the study include Changing Organization Structure (COS), Minimizing the space requirement (MS), Workplace Redesign (RW), Downsized (DO), work from home arrangements (TWHW), Co-working Spaces (CWS), Financial Performance (FP), and Non-financial Performance (NFP). The questionnaire is divided into ten sections. The first section gathers general information about the respondents, such as gender, age, marital status, current working organization, the organization located DSD division, and type of organization, to establish a comprehensive understanding of the research sample. The subsequent sections consist of reflective statements for each predictor in the research model. The questionnaire adheres to the standards of the Partial Least Square Structural Equation Model (PLS-SEM) in its preparation. The measurement scale employed is a five-point Likert scale, ranging from "strongly agree" to "strongly disagree".

3.1 Decision Rule

In Smart PLS, internal consistency is traditionally measured using "Cronbach's Alpha," but this method may yield conservative results. In reflective models, an alternative measure called "Composite Reliability" has been used in previous literature (Wong, 2013). A Cronbach's Alpha value above 0.06 indicates higher internal consistency reliability among the latent variables, while Composite Reliability should be equal to or higher than 0.5 to establish internal reliability (Hair et al., 2018).

Convergent validity is assessed based on the Average Variance Extracted (AVE) for each latent variable. For confirmed convergent validity, AVE values should be equal to or greater than 0.5 (Wong, 2013). Additionally, Hair et al. recommend using the HTMT ratio for reliable discriminant validity, regardless of Fornell Larcker and Cross Loading methods. The suggested value for the HTMT ratio is 0.85.

The PLS-SEM structural model analysis is conducted to assess the reliability of the constructs and the relationships between them. The algorithm's execution calculates the research model relationships, representing the predicted links between the constructs. Bootstrapping is used to calculate t and p-values for all constructed route coefficients. In a two-tailed test, the critical value is 1.96 at a significance level of 5%, with the threshold for the p-value expected to be less than 0.05.

The bootstrapping standard error is employed to compute empirical t and p-values for all constructed route coefficients. For endogenous structures, R2 values of 0.75, 0.5, or 0.25 are classified as considerable, moderate, or weak, respectively. The study also considers the Stone-Geisser Q2 value in addition to the R2 estimation. If Q2 values are greater than zero in the structural model for a given reflective endogenous latent variable, it indicates predictive validity of the path model for that particular dependent construct (Hair et al., 2018).

4. Results

4.1 Profile of the Respondents

The study's participants consist of employees working in the office sector located in the Colombo district. The profile of the respondents concerning demographic factors is presented in Table No. 01.

Table No 01: Profile of the Respondents

	Demographic Profile	Frequency	Percentage
Gender	Male	74	45.1
	Female	89	54.3
Age	20 - 30	105	64.0
	31- 40	41	25.0
	41- 50	15	9.1
	50 - 60	2	1.2
Organization Located DSD Division	Colombo	68	41.5
	Dehiwala	28	17.1
	Homagama	3	1.8
	Kaduwela	7	4.3
	Maharagama	4	2.4
	Moratuwa	1	.6
	Ratmalana	9	5.5
	Sri Jayewardenepura Kotte	43	26.2
Type of the Organization	Government	45	27.4
	Private	85	51.8
	Semi - Government	33	20.1

Source: Survey Data (2022)

4.2 Results of the Measurement Model

To assess the model's reliability, the researchers calculated the outer loading of each indicator on its associated latent variables (LV), as suggested by Hair et al. (2017). The acceptable threshold for outer loading is set at 0.7 or higher (Hair, 2017). Table 2 shows that all the outer loading values exceed this threshold, indicating a satisfactory level of indicator reliability.

To establish internal consistency, the composite reliability (CR) coefficient was used, with a criterion of 0.7 or higher (Hair, 2017; Chin et al, 1996). The analysis confirmed that all reflective LVs in the PLS path model had CR values greater than 0.7, demonstrating acceptable reliability across all groups. Additionally, Cronbach's Alpha value also supported the reliability of the measures, being higher than 0.7.

The convergent validity of the reflective LVs was evaluated using the Average Variance Extracted (AVE), which should be greater than 0.5 (Hair et al., 2017). The AVE values in the study ranged from 0.740 to 0.860, further substantiating the reliability and validity of the construct. The relevant data is presented in Table No 02.

Table No 02: Construct Reliability and Validity

Construct	Loading	AVE	Composite	Cronbach's

				Reliability	Alpha
Changing Organization Structure			0.812	0.945	0.923
	COS1	0.885			
	COS2	0.889			
	COS3	0.912			
	COS4	0.918			
Co-working Space			0.826	0.950	0.930
	CWS1	0.913			
	CWS2	0.874			
	CWS3	0.916			
	CWS4	0.931			
Downsizing Organization			0.856	0.960	0.944
	DO1	0.920			
	DO2	0.928			
	DO3	0.939			
	DO3	0.913			
Financial Performance			0.833	0.952	0.933
	FP1	0.926			
	FP2	0.875			
	FP3	0.930			
	FP4	0.919			
Minimizing Space			0.740	0.919	0.884
	MS1	0.845			
	MS2	0.799			
	MS3	0.898			
	MS4	0.895			
Non-Financial Performance			0.860	0.961	0.946
	NFP1	0.941			
	NFP2	0.927			
	NFP3	0.935			
	NFP4	0.907			
Restructuring Workplace			0.782	0.935	0.907
	RW1	0.900			
	RW2	0.877			
	RW3	0.889			
	RW4	0.870			
Team Working and Home Working			0.753	0.924	0.890
	TWHW1	0.902			
	TWHW2	0.899			
	TWHW3	0.842			
	TWHW4	0.823			

Source: Survey Data (2022)

The assessment of model validity involves evaluating discriminant validity using the Fornell-Larcker Criterion (Hair et al., 2018). Ideally, the threshold level for discriminant validity should be between 0.65 and 0.85. To meet this criterion, the AVE values of all other constructs in the structural model should not exceed the AVE of the construct under investigation. The findings, displayed in Table 03, confirm that the data meets the threshold level, thereby satisfying the requirement for discriminant validity.

Table No 03: Discriminant Validity

	COS	CWS	DO	FP	MS	NFP	RW	TWHW
COS	0.901							
CWS	0.763	0.909						
DO	0.914	0.720	0.925					
FP	0.907	0.732	0.915	0.913				
MS	0.883	0.808	0.854	0.850	0.860			
NFP	0.880	0.698	0.904	0.922	0.869	0.928		
RW	0.878	0.901	0.814	0.824	0.857	0.781	0.884	
TWHW	0.896	0.847	0.884	0.886	0.880	0.870	0.866	0.868

Source: Survey Data (2022)

4.3 Results of the structural model

Once the reliability and validity of the construct measures have been confirmed, the study proceeds to evaluate the structural model. This involves examining the model's predictive capability and exploring the relationships between different constructs. The model's representation is depicted Fig 02.

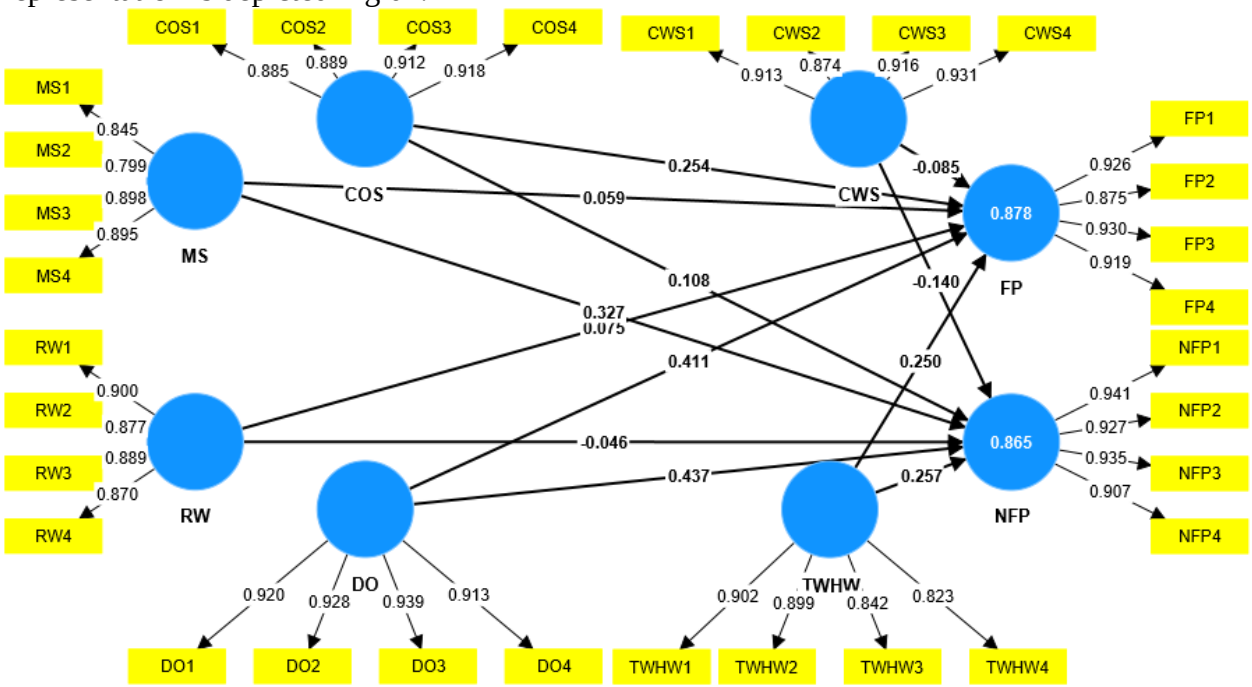

Fig 02: PLS-SEM Model of the structure

Table No 4 presents the results of the PLS-SEM algorithm, evaluating the path coefficient values. By employing bootstrapping, SmartPLS generates T-statistics for significance testing of both the inner and outer models. This technique involves drawing a large number of subsamples (5000) with replacement from the original sample to calculate bootstrap standard errors, providing approximate T-values for testing the significance of structural paths. The bootstrap results approximate data normality (Wong, 2013).

The Table No 4 shows that the path coefficients for Changing Organizational Structure (COS) on Financial Performance (FP), Downsizing (DO) on Financial Performance (FP), Downsizing Organization (DO) on Non-Financial Performance (NFP), Minimizing Space (MS) on Non-Financial Performance (NFP), Work from Home (HWTW) on Financial Performance (FP), and Work from Home (HWTW) on Non-Financial Performance (NFP) all satisfy the threshold level for both p-value and t-value. Moreover, the confidence intervals also fulfil the threshold level, indicating that there are no zeros within the interval values.

Table No 04: Results of the Path coeficincies, T and P values of the hypothesis

Hypothesis	**Path Co-efficient**	**T value**	**Confidence Interval**		**P value**	**Decision**
			2.50	**97.50**		
COS -> FP	0.254	2.488	0.039	0.441	0.013	Supported
COS -> NFP	0.108	0.899	-0.134	0.343	0.369	Not Supported
CWS -> FP	-0.085	0.658	-0.330	0.175	0.511	Not Supported
CWS -> NFP	-0.140	0.964	-0.409	0.155	0.335	Not Supported
DO -> FP	0.411	4.005	0.200	0.601	0.000	Supported
DO -> NFP	0.437	4.465	0.239	0.627	0.000	Supported
MS -> FP	0.059	0.475	-0.172	0.315	0.635	Not Supported
MS -> NFP	0.327	2.463	0.051	0.574	0.014	Supported
RW -> FP	0.075	0.720	-0.126	0.286	0.472	Not Supported
RW -> NFP	-0.046	0.373	-0.279	0.205	0.709	Not Supported
TWHW -> FP	0.250	2.211	0.029	0.470	0.027	Supported
TWHW -> NFP	0.257	2.028	0.017	0.517	0.043	Supported

Source: Survey Data (2022)

Out of the 12 hypotheses examined based on the path coefficient table, only six hypotheses were accepted. There is no significant relationship found between Changing Organizational Structure (COS) and Non-Financial Performance (NFP), Co-Working Space (CWS) and Financial Performance (FP), Co-Working Space (CWS) and Non-Financial Performance (NFP), Minimizing Space (MS) and Financial Performance (FP), Workplace Redesign (RW) and Financial Performance (FP), and Workplace Redesign (RW) and Non-Financial Performance (NFP).

The LV prediction summary given in Table No 05 gives the Q^2 values, which should be positive and above zero to indicate good predictive power at the inner model structural level. There is no absolute cut-off for Root Mean Square Error (RMSE) or Mean Absolute Error (MAE), and these values should be minimized. A positive and above-zero Q^2 predict value implies good predictive performance. The Q^2 predict values are highest at the exogenous latent construct level, drawing attention to their predictive ability.

Table No 05: Results of the Q^2 Predict

	Q2 Predict	RMSE	MAE
FP	0.850	0.397	0.246
NFP	0.838	0.411	0.260

Source: Survey Data (2022)

5. Discussion

The findings of this study contribute significant insights into the relationship between corporate real estate design and organizational performance within the office sector in Colombo, Sri Lanka. The research explored the implications of adaptations in corporate real estate on both financial and non-financial performance metrics.

The hypothesis testing results revealed noteworthy patterns in the relationship between corporate real estate design and organizational performance. Specifically, the study found a statistically significant association between Co-Working Space and Financial Performance and Downsizing and Financial Performance. The outcomes further demonstrated that downsizing the organization significantly impacts non-financial performance, and minimizing space also exerts a substantial influence on non-financial performance. Additionally, the investigation underscored a significant relationship between working from home and both financial and non-financial performance of the organization. Consequently, these variables, namely Downsizing Organization, Co-Working Space, and Working from Home, emerged as pivotal drivers affecting the financial performance of the organization. Similarly, Downsizing Organization, Minimizing Space, and Working from Home demonstrated noteworthy correlations with the organization's non-financial performance. These discernible linkages emphasize the salience of these factors in shaping the overall organizational performance.

Conversely, the research results did not ascertain statistically significant relationships between Changing Organizational Structure and Non-Financial Performance, Co-Working Space and Financial Performance, Co-Working Space and Non-Financial Performance, Minimizing Space and Financial Performance, Restructuring Workplace and Financial Performance, and Restructuring Workplace and Non-Financial Performance. Consequently, it is evident that Restructuring Workplace and Co-Working Space are not substantially associated with the financial and non-financial performance of the organization.

In light of these findings, prudent decision-making with regard to corporate real estate design is paramount for organizational success. Organizations must carefully consider the potential implications on performance when effecting changes or modifications to their corporate real estate infrastructure. The identified influential factors, namely Downsizing, Co-Working Space, Work from home, and Minimizing space, should be accorded careful consideration during the decision-making process. Such informed decision-making is essential for navigating the complexities of corporate real estate design and optimizing organizational performance.

This study contributes to the academic discourse surrounding corporate real estate design factors and their impact on organizational performance in the office sector, specifically within the context of economic crises. The comprehensive insights generated by this research equip practitioners with valuable knowledge to effectively manage corporate real estate in the office

sector and devise proactive strategies to mitigate the adverse consequences of crisis situations. Future research endeavors could explore additional variables and their potential influence on organizational performance across diverse contexts, further enriching our scholarly comprehension of the intricate dynamics between corporate real estate design and organizational excellence.

6. Conclusion

The relationship between corporate real estate design and the financial and non-financial performance of organizations has assumed immense significance in the wake of the COVID-19 pandemic and the ongoing economic crisis in Sri Lanka. As organizations grapple with the depths of this crisis, effective strategies are imperative to navigate and manage the current challenging situation. This study identifies six viable alternatives that office complexes have utilized in their corporate real estate during this critical period, including minimizing office space, changing organizational structure, restructuring the workplace, downsizing the workforce, implementing team working and home working arrangements, and establishing co-working spaces. The findings of this research provide valuable guidance for organizations employing corporate real estate to implement mitigation measures during this crisis era, fostering a positive outlook towards managing corporate real estate.

The practical implications of the study's results are significant for decision-makers involved in corporate real estate, such as asset managers, among others. The confirmed effectiveness of these strategies and their impact on organizational performance underscores the potential benefits of prioritizing corporate real estate design in the office space. Furthermore, decision-makers should strive to mitigate the adverse effects of the crisis by adopting such strategies.

Corporate real estate emerges as a vital contributing factor to organizational performance. The study establishes a significant relationship between Downsizing, Co-Working Space, working from home, Minimizing space, and overall organizational performance. However, no significant relationship is found between Restructuring Workplace and Co-Working Space and the Financial and Non-Financial Performance of the organization. This comprehensive assessment offers valuable insights for effectively managing corporate real estate in the office sector and implementing necessary precautionary measures to mitigate the negative impact of crisis situations.

In conclusion, this study highlights the crucial role of corporate real estate in shaping organizational performance during challenging times. The identified strategies provide organizations with valuable tools to adapt and thrive amidst the ongoing crisis, ultimately contributing to enhanced performance and resilience. By focusing on corporate real estate design and making informed decisions, organizations can effectively navigate the complexities of the current economic landscape and emerge stronger and more prepared for the future.

Competing Interest

Authors have declared that no competing interests exist

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