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Examining the Impact of Sri Lanka's Economic Crisis (2022 to 2024) on Condominium Developers: Effects and Responses

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ABSTRACT

Sri Lanka has recently faced one of the most severe economic crises, which is significantly impacting various firms and industries, including the real estate sector. Among the most affected is the condominium development sector, which is significantly interrelated with the countries' economy. Despite this significant relation, there has been limited research on how economic crises influence the real estate sector in developing South Asian countries including Sri Lanka. Especially, there is a lack of context-specific studies on how such crises impact housing markets and what are the responses towards crises. This study aims to address this gap by focusing on two main objectives: (1) to examine the effects of the economic crisis on condominium developers in Sri Lanka, and (2) to explore the strategies these developers adopt in response to the crisis. The findings are expected to contribute valuable insights into the resilience and adaptability of the real estate sector during periods of economic instability. Five (5) condominium developers with varying capacities and portfolios were selected to understand how diverse the impacts and responses could be. In-depth interviews with key informants and document surveys were used as the methods of data collection. Following a qualitative approach, content analysis was used to analyze the data collected. As the findings revealed, the impacts of the economic crisis can be mainly identified as demand-side shocks and supply-side shocks. Regarding developers' responses, the high-income group-focused developers focus on "strategic responses" such as tapping into new market segments and project diversification. Meanwhile, middle-income-focused developers use investment responses to withstand the crisis. The long-term impacts of organizational-level responses on urban development and the housing market particularly in terms of affordable housing supply are yet to be explored in future.

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1. INTRODUCTION

Many countries across the globe have experienced an economic crisis and many industries including the construction industry (Nistorescu and Ploscaru, 2010; Weerakoon et al., 2023). Real estate industries wholesale, retail trade, repair of motor vehicles and motorcycles, and tourism and hospitality industries have suffered from the ramifications of the crisis (Kapiki, 2012; Krivka, 2014). Due to various causes, developed and developing countries in America, Europe and Asia have gone through economic crises at different periods. For example, the financial crisis in Greece (2009 – 2017) (Dudin et al., 2016), The crisis in Venezuela (2010-present) (Bull and Rosales, 2020), the great recession (2008-2009) in the USA (Pontusson and Raess, 2012), Economic downturn in Lithuania in 2008 (Krivka, 2014b).

An economic crisis can be defined as a severe economic downturn which experiences a decline in GDP, sharp fluctuations in inflation or deflation, and drying up of liquidity within financial markets. For example, the decline in GDP was observed in Austria (22% decline between 1929 to 1933), in the USA (28% decline) and Germany (16% decline during the great depression 1929/32). When considering the Greece economic crisis, a 24.8% decline in GDP was reported (Dudin et al., 2016b). During the great recession period, there was a 3.9% contradiction in GDP (USA) (Pontusson and Raess, 2012b).

A crisis in an economy creates a negative spillover on household income, investments, business decisions, public expenditure and numerous sectors. For example, during the 2008 financial crisis in Austria, the unemployment rate reached 25% with employment sinking from 2 million to 1.6 million (-20%). During the great recession periods, many countries faced employment rate changes including 1.3 % in France, 2.4% in Sweden, 2.6% in

the UK and 5% in the USA during the 2007-2010 time period (Pontusson and Raess, 2012c).

Evidences show that there is inevitable interaction between economic recessions and real estate markets. The 2008 global financial crisis which was described as the worst economic crisis, originated from a subprime mortgage crisis and is intimately related to real estate (Kenny and Morgan, 2011). Looking back further to the 1977 financial crisis in the USA, massive inflow of hot money by private lenders without proper risk assessment is discussed as a major reason and the financial collapse took place as a long-term impact of this crisis condition (Kenny and Morgan, 2011b). According to Firman and Winarso (2002), most of the developing countries which were most affected by the financial crisis such as Ukraine, Estonia and Latvia first experienced the collapse of property prices and weakening of the banking systems during the financial crises. Further, U.S. housing investment which is a larger proportion of total gross investment, falls from 20% to 13% (Malpezzi, 2017).

Sri Lanka, a developing country in Asia, faced its worst economic crisis since its independence. It mainly emerges as supply shortages, shortages of gas suppliers, power cuts and the closure of the petroleum refinery. From a macroeconomic perspective, fall of Sri Lanka's GDP from 16.4% to 1.3%, 69.8% higher headline inflation, 101% debt per GDP, 11.1% budget deficit per GDP as well as 44.8% exchange rate was recorded with 2022-2023 period (Central Bank of Sri Lanka, 2023; Khandre, 2022).

This situation is discussed in the literature from different perspectives. An example is a health catastrophe stemming from economic and political crises (Jayasinghe and Matthias, 2022). In addition to that, the possible hidden causes for the crisis are discussed as the adoption of liberalization

policies disregarding national economic value addition requirements and the necessity to overcome excessive and conspicuous consumption of imported goods and services. The main trigger of the Sri Lankan economic crisis is identified as the inability to import suppliers due to foreign exchange shortages (Gunaruwan and Liyanage, 2023). This finding further confirms with predictions by Gunaruwan and Wickremaratne (2018) that, the impending crisis in the Sri Lankan economy is largely based on heavy foreign indebtedness and the growing factor of payments abroad as a ratio of GDP.

In terms of its impact, the housing market of Sri Lanka, especially the condominium market, is considered as a drastically evolving sector before the Economic Crisis (Prathapasinghe et al., 2018). The current economic crisis has made a significant impact on this profit-driven housing segment by increasing inflation rates, changes in interest rates, and the mortgage market (Yeung, 2022). Price appreciation of condominium properties and inflation have shown a significant correlation (Gomes and Yathushan, 2020). According to the central bank report, declining new condominium sales by 91% were reported in the 2023 Q1 period. The overall price of condominium developments has increased by 24% in the 2022-2023 time period. At the same time, a 91% decline in new condominium sales has been reported in the 1st quarter of 2023 (Central Bank of Sri Lanka, 2023b).

In the Sri Lankan context, there is only limited literature available on the economic crisis and housing market. None of the research focuses on understanding private condominium developers' behavior in in-depth understanding. Recently few studies have examined the impacts of the economic crisis of Sri Lanka on the construction industry (Weerakoon et al., 2023b). Another recent study investigates private condominium developers' firm-level responses to the crisis by applying Mitroff's five stages of crisis management

model. (Nawodi and Perera, 2023). However, the magnitude of the crisis impacts and the coping strategies adopted can be significantly influenced by various firm-specific characteristics, such as target income group, company size, and the number of projects undertaken. Previous studies have paid limited attention to these firm-level differences, often overlooking how impacts and responses may vary across developers depending on such characteristics.

In order to fill this knowledge gap, this paper intends to offer an in-depth investigation of how private condominium developers are affected by and respond to the current economic crisis in Sri Lanka. Thus, this research has twofold objectives; 1) to examine how the condominium developers are affected by the economic crisis, and 2) to investigate how the developers respond to the impacts. Following an actor-based approach, this study aims to understand the diversity across different market actors (firms) involved in a very specific segment of the property market (condominium) during the crisis.

The article is structured as follows. First, it reviews the existing literature and defines the concepts of economic crisis, condominium developers, and the existing understanding of crisis impacts on condominium developers and their crisis-management responses. Next, the research methodology is elaborated, and then it presents the empirical results regarding crisis impacts and responses towards them. Thirdly, the results are elaborated through content analysis, identifying several categories derived both from existing literature and from patterns emerging in the new data. Lastly, major findings and concluding remarks including future research areas and limitations of the study are discussed.

2. LITERATURE REVIEW

2.1 *Economic Crisis*

Every economy goes through different phases particularly upswings and downswings due to various internal and external forces. Such fluctuations of an economy are recognized by the concept of an ‘economic cycle’ that recognizes four distinct stages which are 1) expansion 2) peak 3) contraction 4) trough. The crisis stage of this economic cycle is placed in the stage of contraction (Mankiw, 2010). A crisis is identified as a period of abrupt changes that are marked by a great deal of risk, uncertainty, threat, conflict, accident, and instability (Clair and Pearson, 1998). Also, a crisis could be explained in terms of GDP, interest rates, total employment, and consumer spending (Mankiw, 2010).

2.2 *Real estate market dynamics*

Real estate dynamics are considered a defining factor that shapes the economic and spatial structure of cities and urban regions. The actors and institutions involved in real estate development are considered ‘active contributors’ to the urban space, rather than considered ‘passive adapters’ in conventional disciplines (D’Arcy and Keogh, 1997). From this perspective, the business strategies adopted by condominium developers’ impact ‘space,’ by affecting the spatial growth of housing and urban agglomeration, and ‘money,’ by influencing the distribution of employment (Peungchuer and Vanichvatana, 2009b).

2.3 *Economic crisis and real estate market dynamics*

During an economic crisis, every action is crucial for any business because it would impact long-term sustainability of the economy (Peungchuer and Vanichvatana, 2009). According to Flammer and Ioannou (2021), the early responses of businesses to an economic crisis are important to determine the extent of the ultimate outcome on the individuals’ livelihoods.

When it comes to the real estate market, failures in the market could cause many problems in regional and national economies. As an example, failures in real estate markets may cause problems in housing quality and affordability, unemployment, increased inequality, the distribution of wealth, homelessness, and decline in regional and national economic productivity (Bramley et al., 1996). Therefore, it is pivotal to guide the dynamics of the real estate market through urban and regional policies (Khurami and Sari, 2022).

2.4 *Impacts of economic crisis on condominium developers*

As key actors who both shape and respond to real estate market dynamics, private condominium development companies require further scholarly attention. Impacts from the economic crisis towards private real estate organizations are discussed in literature based on diverse classifications and different case studies.

According to Weerakoon et al., 2023c, real estate development firms are bankrupt due to financial difficulties. Condominium developers are assessed in the “business management perspective” based on impact COVID-19 pandemic (Koonkaduwa and Sandanayake, 2022). The study further highlighted those various aspects related to both the demand and supply sides of apartment projects in Sri Lanka were significantly affected.

For this study two main categories including demand-side shocks and supply-side shocks were considered. This framework is utilized for creating follow-up questions and categorizing respondents’ responses more logically (The World Bank Group, 2020).

Table 1: Demand – side Shocks and Supply – side Shocks

Demand-side Shocks	Supply-side Shocks
Downturn in demand for imports.	Companies which are heavily reliant on bank lending are more exposed.
Uncertainty in demand.	Difficulty in obtain labor for the construction of housing units.
Late payment by clients.	Negative impact on productivity of the employers.
Volume of the real estate sales continuously fall.	Decrease the number of issued permits for construction.
Households are postponing investments.	Difficult to make business decisions by forecasting demands.
Constantly fluctuate the prices of housing units.	Deterioration of credit facilities.
	Lack of Working capital
	Increase the cost of construction
	Decreasing the availability of a number of materials and an increase in fuel prices.

Sources: (Bond *et al.* (2006); Chin *et al.* (2004); Karamustafa & Okumus (2005); Lehavi (2016); Mach (2019); Nawodi & Perera (2023) Nistorescu & Ploscaru (2010) b; Tennant (2011); Vlamis (2014)

2.5 Responses of condominium developers towards the crisis

Developers implement different strategies to manage and face economic crises and not necessarily the condominium market, but organizations in the Real Property market are considered for this discussion. Using a study of Singapore Construction companies' strategies during the 1997 Asian financial crisis, different organizational responses are captured. Implemented efficiency measures to control costs, and a rationalization strategy of bidding for projects that were within their firms' resources and capabilities, freezing or cutting salaries, laying off staff and setting aside contingency funds (See & Tan, 2004). In a survey on sub-contractors GFC, adopted strategies of reducing staff, employing staff through fixed-term contracts and seeking projects overseas. According to Abdul-Aziz & Chan (2017), a comprehensive analysis of 35 property development companies in the Kuala Lumpur Stock Exchange identified defensive and offensive strategies. Three 'defensive strategies' are explained as cost reduction, focus on core activities and downsizing; and three 'offensive strategies' strengthen internal organization, increase turnover and margins and exploit opportunities, to survive and thrive in a crisis. Other literature explains defensive strategy adoption including reducing costs and salaries, renegotiating loan agreements and acquiring overdraft facilities to improve cash flow. The developer chose to focus its marketing strategy on the development of retirement villages during the GFC increasing the firm's market share over the recession. Regarding the German economic downturn (2008- 2010), Companies affected by the crisis have applied several adjustment policies, ranging from the exploration of new markets to wage reductions to redundancies (Sedlacek, 2013). The importance of maintaining good credit with

the project stakeholders, sources of additional finance and liquidity and a better investment plan are identified as crucial factors for a real property organization to face an economic crisis (Peunghuer & Vanichvatana, 2009c).

Flammer and Ioannou (2021), explained it as a “two-pronged” approach that was adversely followed by real estate companies during crisis periods. Investment responses explain how development companies curtail their workforces and capital expenditure in order to manage the cost of the company. In addition to that research and development as well as employing corporate social responsibilities are identified as investment responses. For example, Campello and Chen (2010) reported that financially constrained firms reduced expenditure on employment, technology and capital investments, and marketing, and reduced dividend payments.

Some companies go beyond transforming the internal environment of the company, by introducing new apartment segments as well as focusing on new income segments. It is called strategic responses (Flammer and Ioannou, 2021b). As an example, the coping strategies of Nigerian manufacturers are discussed as rationalization of production and input use, change the managerial strategies and relations, change in marketing, economic diversification and export promotion and procurement and financial arrangements (Olukoshi, 1996b). Recent empirical studies on firm-level strategies of condominium developers during the COVID-19 economic crisis have highlighted that crisis management can often be categorized into five sequential stages: (1) prediction, (2) prevention and preparation, (3) property determination and control, (4) recovery, and (5) learning. These models typically conceptualize crisis management as a linear process, where organizations address one stage at a time

in a step-by-step manner. However, this linear perspective has been critiqued in the literature. Jacques (2007), for example, challenged this traditional view by arguing that critical crisis management processes frequently overlap and occur simultaneously, rather than following a fixed sequence. This suggests that a rigid stage-based model may not fully capture the complexities and contextual nuances of how firms respond to crises in real time.

Despite these insights, existing research often lacks context-specific analysis, particularly in the real estate sector. There remains a gap in understanding how economic crises affect condominium developers across diverse contexts and how their strategic responses may differ based on situational variables. Addressing this gap, the present study seeks to explore the impacts of economic crisis and corresponding strategic responses by focusing on five distinct contextual settings, thereby offering a more nuanced and comprehensive understanding of crisis management in this industry.

3. METHODOLOGY

The study adopts a qualitative research approach, aligning with (Hennink et al., 2008) assertion that qualitative methodologies are essential for capturing the multidimensional and non-linear nature of phenomena that vary across contexts. Given the diverse impacts of Sri Lanka's economic crisis on various market segments and industries, this approach is particularly well-suited to the study's objectives. Content analysis was employed in this study to examine categories of impacts and responses derived from the literature, with the aim of identifying how these vary according to the characteristics of different developers.

As this study explores how condominium developers are impacted by the crisis and how they respond to these impacts, content

analysis is considered a more suitable method for systematically identifying patterns and variations in the data (Elo and Kyngas, 2007). Private Condominium developers are considered as units of analysis and five condominium developers who are different in terms of income segments of housing and condominium developments are subjected to the study. In terms of spatial concentration of the development projects, the Colombo 1-15 core area and its Suburbs are considered the focus.

3.1 Content analysis

A deductive content analysis is adapted for this study, and five developers who focus on different income groups and have diverse focus groups and portfolios of projects are selected for this study. (Table 2) When an understanding of the context is seen as being important in understanding the success or failure of the intervention. Those selected actors significantly contributed to the condominium market even in the 2022- 2024 period. (Purposive sampling method.) New project establishments are also announced within this time frame by the selected developers.

3.2 Data Collection: - Document review and Key informant interviews

This study requires both primary and secondary data. Primary data as the impacts of the economic crisis on real estate development firms and their responsive strategies were collected through key-informant interviews. These interviews are semi-structured, which consist of predetermined main topic areas and focus on comparing the researcher's goal to the participant's responses (Barlow, 2020). It generates a large quantity and variety of data that can be acquired over a relatively short period. The interview guide that is utilized in this study is topic-based. It consists of areas and issues the interviewer requires to know in an outline format (Guevara & Morgan 2008).

Secondary data that are required are the background of selected developers, financial statistics, their published perception of current condition, stakeholder networking, and spatial orientation. This information is obtained from reputable newspapers and reports, online portals and blogs, and their annual report publications. For this 'document analysis', validated sources are selected considering the authenticity of the chosen documents (Olson, 2010). These data were collected between January and April 2024.

The overall methodology consists of three major steps. Firstly, a preliminary survey was conducted, selecting a few leading condominium developers to obtain a broader understanding of the function of the housing market in Sri Lanka amidst the economic crisis. In addition to that, as a pilot study for validating the interview guide. Based on the insights gained from the preliminary study, five developers were selected for in-depth studies. As the second step, the impacts of the economic crisis are discussed mainly considering impacts on demand and supply. In addition to that, their strategic responses to those impacts are discussed more descriptively with pros and cons of them. At the final stage, the data collected via key informant interviews and document review were analyzed using content analysis (Table 2& 3).

Table 2: Information of Key Informants

No.	Company	Designation	Years of Experience in the field
01	Case 01	Head of Asset Management	20 years
02	Case 02	Head of Risk Management	18 years

03	Case 03	Head of Condominium Development	10 years
04	Case 04	Chairman	8 years
05	Case 05	CEO/ Managing Director	15 years

Source: Prepared by the Author (2024)

Table 3: Background of information of five (5 cases)

Cases	Major services	Target Market	Geographical focus	Revenue (2022/2023)	Organizational structure
Case 01	Property Development Commercial Property Management Leisure Activity Management	Luxury-High Income Housing	Colombo 02 Colombo 03	Rs. 41, 476 Mn. (From Apartment sales)	Total employees =200 C-Level = 1 Director = 5 Manager = 9
Case 02	Property Development Engineering and Construction	Luxury-High Income housing	Dehiwala, Mount Lavinia Rajagiriya Kotte Colombo 3 Colombo 5	Rs. 19,798 Mn	Total employees= 720 C-Level = 5 Director = 7 Manager = 33 Non-Manager = 63
Case 03	Property Development	High-income to Higher-middle income Housing	Range from Colombo to Suburban areas	Rs. 9,337.3 million	Total employees= 643 C-level = 1 Manager = 9 Non-Manager = 13
Case 04	Property Development	High-income to Middle-income Housing	Colombo, Negombo, and Wattala.	Rs. 1968.67 Mn	Total employees = 74 C-level =4 VP – level= 1 Manager = 2 Non-manager =5
Case 05	Property Development	Middle-income housing	Maharagama, Kottawa, Homagama	Rs. 1491.6 million	Total employees = 25 Non manager= 1

Source: Prepared by the Author (2024)

4. RESULTS AND DISCUSSION

The impacts of the country's economic crisis, coupled with political instability, can be primarily discussed in terms of Demand-side shocks and Supply-side shocks. Demand-side shocks include reducing the demand for apartments due to diminishing purchasing power. Customers are delaying payments and can also be identified as a significant impact for the housing market. According to Khurami and Sari (2022), this could happen due to increased unemployment in the economy. This situation provides further evidence on how the consumer behavior and aggregate

consumption patterns in the housing market affect the economic contraction (Duca, et al.2021). Further, overseas migrations have also contributed to the same and hence, a tendency for re-selling of apartment units was observed. This is a new trend emerging along with the Crisis situations. Developers got affected from payment delays of customers and at the same time difficulty in paying pre-determined construction costs. As a result, developers are experiencing a drastic drop in sales.

4.1 Impacts of Economic Crisis

Table 4: Effects of the Economic Crisis on Condominium Developers

	Case 01	Case 02	Case 03	Case 04	Case 05
01. Demand-Side shocks					
1.1. Reducing the demand for apartments owing to low purchasing power.	√	√	√	√	√
1.2. Risk of investing in apartment units		√	√		
1.3. Customers tend to re-sale apartment units.			√		
02. Supply-Side Shocks					
2.1. Increasing the cost of construction due to increasing cost of materials.	√	√	√	√	√
2.2. Difficulty in obtaining materials due to import restrictions.	√	√	√		
2.3. Impact of imposing VAT (Value added tax)			√	√	
2.4. Issues in supply-chain management.		√		√	
2.5. Cost-over runs				√	√
2.6. Time-over runs				√	
2.7. Difficulty in obtaining and managing mortgage loans.				√	
2.8. Difficulty in attracting investors due to political uncertainty		√		√	√

Source: Prepared by the Author (2024)

The findings indicate that developers are significantly more affected by supply-side shocks than by demand-side shocks, thereby validating existing literature on the challenges inherent in the development process. This supports prior research suggesting that the supply side of the property development sector exhibits inelastic behavior due to its slow response in adjusting to demand. As the reasons for that, market inefficiencies, including limited transparency, inadequate regulatory frameworks, and the inherently time-consuming nature of development processes is discussed (De Wit and Van Dijk, 2003).

When considering the supply-side shocks, increasing the cost of construction due to the increasing cost of materials is highlighted by all developers as the major impact on their organization. (The cost of construction materials had increased significantly; reinforcement steel by 104%, cement prices by 215.8% in 2022 compared to the same building materials in 2021.) (Thilakshan et al., 2023). Secondly, difficulty in obtaining materials due to import restrictions is the most commonly felt impact. Since the Sri Lankan economy is majorly dependent on imports, this became a major shock. This further proves the statement that restrictions on imports have negatively affected the property developer's profitability and caused delays in constructions. (Hamid and Huam, 2020). All the respondents particularly mentioned that tiles, cement and many other construction materials were not available in the market. Respondent 3 mentioned that taxes imposed by the government on imported construction materials led to making the materials more expensive. In addition to that, the social security levy (SSCL) was imposed at the range of 2.5% and a 15% value added tax (VAT) was imposed on condominium residential projects by the government in 2022. (Case 02 & 03). Apart from that, supply chain

disruptions and labour shortages occurred due to fluctuations in prices and eventually project timelines were delayed. Particularly, small-scale developers have been experiencing cost over-runs, time over-runs and difficulty in obtaining and managing mortgage loans during the crisis. As explained by Bohingamuwa et al. (2020), a crisis can lead to the suspension of construction activities in several projects, resulting in cash flow constraints for developers. Also, they specifically had a risk of degradation in client expectations of the quality of condominium projects due to the cost overruns and time-over runs.

Studying these cases comparatively reveals key differences in how various types of developers are affected by economic crises. Notably, condominium developers targeting high-income customer segments (luxury and upper-middle income) are predominantly impacted by supply-side shocks rather than demand-side pressures. Conversely, developers serving middle-income customer groups are primarily affected by demand-side shocks, which often lead to significant cost overruns and project delays.

Table 5: Condominium Developers' Responses to the Impact

	01	02	03	04	05
01. New payment plans					
Rupee pricing model	√				
Changing the payment structure	√		√		
02. Marketing strategies					
Digital marketing campaigns		√			√
One-to-one marketing campaigns			√		

03. New market orientation					
Focus on sub-urban apartment market	√				
Conversion of housing development into land development projects			√	√	
Focus on the higher-middle income group as the customer base.				√	
04. Cost adjustments strategies					
Project cost was revisited according to price escalations	√				
Follow out-sourcing methods	√				
Substitute local materials instead of imported materials.	√				

Bulk stocking materials			√		
Provide facilities for re-selling apartments.			√		
05. Adjustments of employee number/ capital expenditure					
Reduce number of employers in the company		√			√
Tend to complete the ongoing construction projects with additional loans and other income ways.				√	
Settle liabilities through giving company assets				√	
06. Other					
Follow work from home strategies to reduce the costs.	√			√	√

Source: Prepared by the Author (2024)

4.2 Organizational-level Responses towards Crisis Impacts

Although there are commonalities in the impacts experienced, the responses adopted by different developers are notably distinct.

Organizational-level responses are identified mainly under six categories 1) Payment-related, 2) Marketing, 3) Market orientation, 4) Cost adjustments and 5) Investment strategies. Having identified the financial challenges faced by the customers in making payments some developers (Case 01 & 03) are focused on introducing *flexible payment plans* for their customers. Such as the Rupee Pricing

model, pay a 25% down payment and settle the remaining 75% at the handover stage of the process followed by case 01. Case 03 introduced a new payment structure which facilitates customers. This plan includes paying 20% as reserves paying 1% installments spread over 40 months, with the balance 40% payable upon handover. As Case 04 reveals, condominium developers who focus on the middle-income segment have to provide releases for customer payments even at their “Break-even point.” It will affect the company’s long-term sustainability and developers who represent middle-income residents will leave the market.

Additions to *Marketing Strategies* adopted by many developers (cases 02,03 & 04) as a responsive strategy, where digital marketing campaigns, as well as one-to-one marketing, had been used in the covid-19 pandemic period. According to Tennant (2013), business coping strategies such as changing marketing and economic diversification could be seen in Sri Lankan context as well. In terms of *New Market orientation*, one of the key players in the condominium market (Case 01) focused on product diversification strategies by introducing apartment projects in suburban areas as well as introducing 'affordable living solutions' with proposed developments such as the TRI-ZEN apartment project. As this developer revealed, they have decided to change the geographical locations of apartment projects which used to concentrate in the city core before. The key reason underlying this decision is the land availability and high land value. Suburban areas provide access to more land at a comparatively lower market price and hence, product diversification has been taking place with an emphasis on apartment developments with more green environments in the suburbs. Case 04 specifically mentioned their plans to focus on higher-middle income groups in future condominium developments.

Further, Cases 03 & 04 mentioned that, as quick responses to shocks, they converted 63 housing developments of a total 88-unit project to a land development project as the estimated cost of the project increased significantly with the supply-side shocks. Owing to that, developers decided to change their plans by developing land projects to match the available financial capacity.

Cost-adjustment strategies are mainly followed by cases 01,02 & 03 which are large-scale developers and focus on higher & middle-income customer base. Case 01 adopted several methods as project cost revisions, out-sourcing materials from

suppliers for profitable prices and substituting local construction materials in the development projects, which is specific to that case. Case 03 adopted a 'bulk stocking' strategy, procuring materials such as aluminum and tiles in advance for a period of 2 to 3 years to support upcoming apartment unit constructions. As explained by Barney (1999), physical capital—including workforce and capital expenditure—is a key resource for sustaining a company during a crisis. This is further elaborated by the 'two-pronged' approach proposed by Flammer (2015), wherein development companies reduce their workforce and capital expenditures (i.e., physical capital) while continuing to invest in R&D and CSR.

Specifically, *Adjustments of employee number and capital expenditure* were found to be followed only by relatively small-scale developers (Case 04 and Case 05). These findings further ensure that financially constrained firms reduced expenditure on employment, technology capital investments and marketing, and reduced dividend payments (Campello and Chen, 2010). Case 04 completes the ongoing projects through loans and settles liabilities by giving company assets which are not evident from other cases.

Overall, the organizational response of different developers displays a significant variation in their scale of development and target market. (Focusing on the sub-urban condominium market, condominium prices were suppressed in the market and developers terminated their projects and left the market.)

There's a significant diversity among different cases when considering the different strategic measures and responses of developers. Regarding developers' responses, the high-income group-focused developers focus on "Strategic responses" such as tapping into new market segments and project diversification. Whereas middle-income-focused developers tend to

adjust capital expenditures and employee numbers to withstand the crisis.

5. CONCLUSION

This study has produced several conclusions regarding Sri Lankan condominium developers' behavior in Economic crises. First, the major impacts of the Economic crisis on developers' behavior are identified, demand-side shocks and supply-side shocks.

Under demand-side shocks, reducing the demand for apartments owing to low purchasing power and customers tend to re-sale their apartment units. Condominium developers' responses (organizational-level responses) towards crisis impacts are identified through diverse categorization as payment-related responses such as, rupee pricing model and changing the payment structure. In addition to that, changing marketing strategies, new market orientations, cost adjustment strategies and strategies related to adjustments of employee numbers and capital expenditure are observed from the discussions with condominium developers.

It's important to note that condominium developers targeting high-income customer segments (luxury and upper-middle income) are predominantly impacted by supply-side shocks rather than demand-side pressures. Conversely, developers serving middle-income customer groups are primarily affected by demand-side shocks, which often lead to significant cost overruns and project delays. Also, there's a significant variation between strategic responses among condominium developers

towards economic crises. The high-income group-focused developers focus on "Strategic responses" such as tapping into new market segments and project diversification. Whereas middle-income-focused developers tend to adjust capital expenditures and employee numbers to withstand the crisis.

Investigating the different categories of real estate developers' development process during a crisis is crucial to identify complexity in the market functions. These findings explain how macroeconomic conditions tend to change the city economy through developers' decisions.

The findings of this study are valuable not only for private sector stakeholders but also highlight the need for policymakers to address the impacts on housing supply. Since the private sector plays a pivotal role in meeting the city's housing needs, its challenges could have significant long-term implications for the overall housing market. To elaborate further, following a crisis, there is a significant risk of an inadequate supply of affordable housing in the market. This is particularly evident as developers catering to the middle-income segment are often heavily impacted by such crises. Moreover, as Sri Lanka continues to navigate its ongoing economic crisis, it remains too early to fully assess the long-term impacts. However, it is crucial to evaluate how the responsive strategies adopted by developers might influence the long-term structure and dynamics of cities. Moreover, future research could explore the impacts and responses of developers through a broader market survey, potentially enriching the insights and findings of this study.

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