

REDESIGNING SUPPLYING CHAIN FOR SUSTAINED GROWTH IN A DISRUPTIVE WORLD: THE CASE OF HOUSING AND REAL ESTATE SECTOR IN DIGITAL INDIA

Abstract

Supply Chain (SC) has gained popularity in this globalized era, and is especially relevant today to tide over the slump caused due to Covid pandemic. SC is now a key economic infrastructure too and businesses remodel their SCs to be future-ready. Focusing on housing and real estate sector, this study seeks to design the SC strategy that can quickly recover this sector and hence the whole economy, given its vast linkage effects.

1. INTRODUCTION

Supply chain management (SCM) is the management of all supply chain assets and flows (financial, information and product / materials) with the vital object of creating optimal surplus or total value (Chopra, S. and Meindl, P.,2010)[1]. The growing needs of a supply chain (SC) are sought to be addressed by SCM. Covid-19 pandemic having forced businesses to see beyond the way usually being followed, disrupted SC is now a crucial issue for most businesses. ICT is now a key tool to correct disrupted SCs.

About 94 per cent of the Fortune 1000 companies worldwide have disrupted SCs; and nearly 75 per cent of them face negative effects on their operations, thus forcing 55 per cent of them to cut their growth forecasts as per a report by Accenture. Putting in place a robust SC is vital today as SC itself is a key infrastructure, one that ensures smooth operations at the firm, sectoral and even at the national levels. The world witnessed its crucial need during the Covid pandemic time when agile SCs were a global necessity (eg. food, medicines).

2. SIGNIFICANCE OF THE STUDY

As the global economy struggles to gain normalcy since the shock of Covid-19, setting up robust SCs by solving the SC disruptions is essential today. Setting up SC is not an easy task as it demands spending huge amounts of



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cost and time. It could be a failure too unless due study is done before designing SCs. Building SCs needs a perfect blend of ICT and human resource (HR). Finding such a blend is crucial as too much dependence of either is not advisable. ICT is now a sustainability tool everywhere; from agriculture (Gupta and Gupta, 2002) [7] to banking (Joju et. al) [10-13], and so on.

From a macroeconomic view of Indian economy, housing and real estate sector has key significance, as this sector can kick-start many other sectors due to its vast linkages, a creator of huge employment opportunities (Manoj, 2004) [15]. It is a national priority as 'Affordable Housing for All by 2022' is India's national housing goal, since 2015. As the actual results attained vis-à-vis target being half, the tenor of national housing goal for 2022, has been extended till 2024. SC disruptions in this sector are to be corrected for its sustained growth and also that of the whole economy, since a global recession is looming large. (Word Bank Group, 2022) [3].

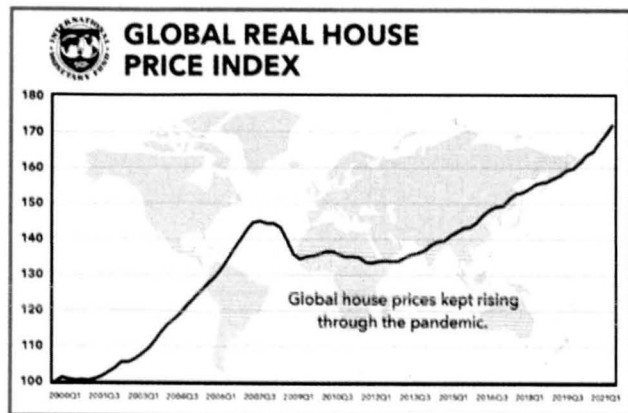
3. OBJECTIVES AND METHODOLOGY

The objectives are: (i) to study the need for promotion housing development in India; (ii) design the SCM strategy for the housing and real estate sector that can ensure its sustainability by correcting SC disruptions. This study is of descriptive-analytical nature and is exploratory too. Data from authentic secondary sources like the IMF, NHB, RBI, etc. were used for analysis and discussion.

4. INDIA IN THE GLOBAL HOUSING SCENARIO

Even in the context of the global pandemic of Covid-19 the global housing scenario has been resilient. IMF data on house prices for 85 Quarters (2000-Q1 to 2021-Q1), show a rising trend. (IMF)[2]. (Figure I). Ability of this sector to resist global shocks like Covid-19 must be duly used; as a global recession is imminent. (World Bank Group, 2022).[3].

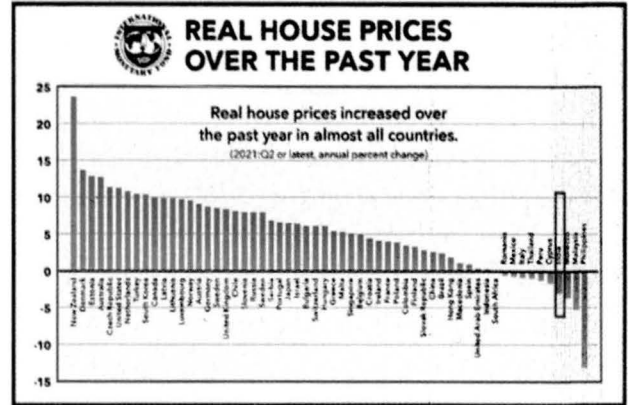
FIGURE I: GLOBAL HOUSE PRICES TILL 2021Q1.



Source: IMF data (www.imf.org) [2]

As of Q1-2021, house prices have been rising at the global level. Only 10 nations (including India) out of the total 58 nations have negative growth rates as of June 2021. The highest rise was that of New Zealand. Philippines had the lowest (negative) rank. India is only in the fourth position from the bottom. So, concerted efforts are needed to makeup Indian housing market. (Figure II).

FIGURE II: HOUSE PRICES OF NATIONS (2021).



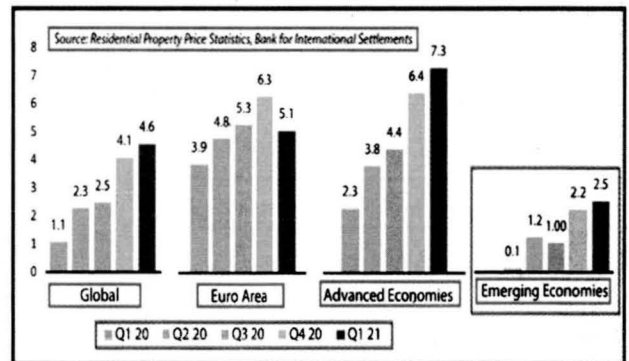
Source: IMF data (www.imf.org) [2]

Despite a rising trend in global house prices (Figure I), its growth rate has fallen now signaling the start of a global recession. House prices grew by 6.2 per cent in 2021, but in Q1-2022 it has grown by 4.7 percent only. (World Bank, Sept. 2022).[3]

5. NEED FOR HOUSING PROMOTION IN INDIA

As already noted, globally house prices were rising even in the pandemic days (Figure I). But, emerging economies (India too) had slow (or even negative) growth as is evident from Figure III. (NHB,2022) [4], p.90

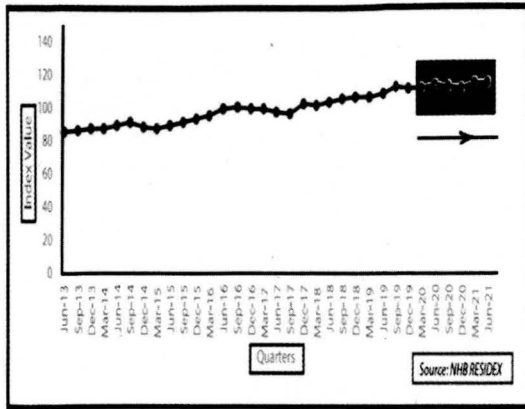
FIGURE III: HOUSE PRICES (Q1-20 TO Q1-21).



Source: NHB, Trend & Progress 2021. [4]

In India, the house prices have been rather stagnant since the pandemic period. This stagnancy needs to be corrected and made positive. (NHB, 2022).[4].(Figure IV).

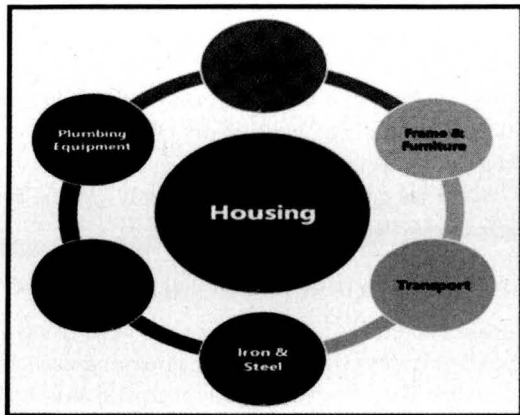
FIGURE IV: HOUSE PRICES-INDIA (2013-2021)



Source: NHB, *Trend & Progress 2021*. [4]

As housing sector has wide linkage, both forward and backward, with about 350 other industries, especially 21 closely linked ones, like, Cement, Steel etc. (Figure V) [5]

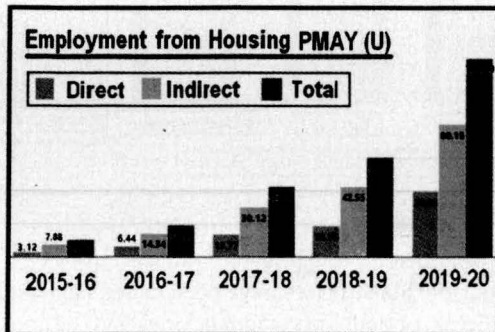
FIGURE V: LINKAGES OF HOUSING.



Source: GOI (2021), MHUA. [5]

Close linkage effects of housing with 21 key sectors enables housing investments to create substantial and growing levels of direct and indirect employment every year. The case of PMAY(U) is as in Figure VI.[4]

FIGURE VI: EMPLOYMENT IN HOUSING SECTOR



Source: GOI (2021), MHUA. [5]

The policy of promoting housing by the GOI still continues, its Budget 2022-2023 (Feb. 2022) is no exception. The progress of housing development being slow in India; more focus is needed for housing promotion. SCM redesign is a vital requisite to this end.

6. SC REDESIGN IN INDIAN HOUSING SECTOR

As already noted a redesign of the SCs in Indian housing and real estate sector is vital due to its slow growth, attaining the national housing goal 2022 at least belatedly by 2024 etc. The pandemic has taught the businesses about the utmost need for efficiency and agility for their survival and growth. To attain this, they may proceed as follows:

- ⊙ Businesses must ensure effective and continuous communication at every SC level. Coordination and cooperation from the suppliers (e.g. materials for the construction of houses, flats etc.) and customers (e.g. home loan borrowers), so as to enhance their competitiveness.
- ⊙ For better risk management and greater flexibility of SCs, a ‘Scenario’ approach be used so as to streamline the processes and to optimise the returns. Also, localising the SC would help to shorten it and to enhance efficiency, like, sourcing the housing inputs from the locality. It is more eco-friendly too.
- ⊙ Use of technology, like, ICT integration is crucial for competitiveness in terms of cost, customer service, and quality. It enables evaluation of performance as well as real time tracking and visibility.
- ⊙ A skilled and agile human resource (work force) is essential in housing and allied sectors like real estate. They must exactly fit into the SCM framework of the respective housing developer.

A robust SCM can ensure a smoother, flexible and competitive business model for housing development business as follows: (i) managing the properties and assets (like, housing units completed and also those under construction, plant and equipment etc. (ii) forecasting and planning, (iii) management of files and documentation, (iv) sourcing and procurement including vendor management, (v) managing partners, franchises, sites etc., (vi) development of projects and property, (vii) Logistics and Warehousing, and lastly (viii) regulatory compliances (like, RERA and such other Acts relating to housing).

7. CONCLUDING REMARKS

The global pandemic has taught businesses worldwide to be more vigilant and to redesign their SCs for better sustainability. Adoption of ICT and modern technologies like artificial intelligence (AI) and machine learning (ML) makes SCs well equipped to face exceptions and enhances transparency. As suggested, localisation of SC is vital to respond to and communicate efficiently to the stakeholders

Housing and real estate sector has key significance, as this sector can kick-start many other sectors due to its vast linkages

across the SC. The complex and uncertain environment demands utmost flexibility for the SCs, constant monitoring and evaluation. SC itself is a key infrastructure today. Its future lies in building a low asset network through careful research. Digitalization and also continuous innovation of business models form the key to SC redesign. The need for ICT adoption in today's *Digital India* gives another dimension to this. For the housing sector, Government should provide more incentives considering its macro-economic benefits. **MA**

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