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SHRI RAM COLLEGE OF COMMERCE

# STRIDES

**A Students' Journal of Shri Ram College of Commerce**

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# **STRIDES - A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE**

**ISSN 2581-4931 (Print)**

Shri Ram College of Commerce is well known for its academic excellence and dedicated approach towards dissemination of knowledge in the academic world. The college appreciates the role of research in education and is committed to developing an inclination towards research in both faculty and students. In this pursuit, the college has taken the initiative to launch a new Journal named 'Strides - A Students' Journal of Shri Ram College of Commerce'.

## **ABOUT THE JOURNAL**

It is a double blind reviewed bi-annual Journal launched exclusively to encourage students to pursue research on the contemporary topics and issues in the area of commerce, economics, management, governance, polices etc. The journal provides an opportunity to the students and faculty of Shri Ram College of Commerce to publish their academic research work.

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## Principal's Message

Strides-A Students' Journal of Shri Ram College of Commerce was launched on the 91st Annual Day of the College, which was held in the year 2017. The Journal was started with the goal of achieving and promoting excellence in research and publishing high-quality academic papers in accordance with the mission statement of the college. Shri Prakash Javadekar, then-Union Minister for Human Resource Development, released the first issue of the journal.



Students have got a great opportunity through this journal to improve their research calibre, present their academic perspectives and to think practically to apply their classroom learning on real world scenarios. Research papers and articles on various aspects of economy, business, finance, society, governance, environment, climate change and sustainability etc. are authored by the undergraduate students of the College under the guidance of faculty members. Selected research papers are published in the journal after undergoing a rigorous review process. The journal has progressed remarkably well and evolved as a standard research publication within a very short time period.

The present issue of the journal covers multi-disciplinary and contemporary topics such as “Analysis of ASEAN-India Trade in the Manufacturing Sector using Revealed Comparative Advantage Index,” “Women and Terrorism in the West Asia,” “From a Dichotomy to a Continuum the case of Rural Development”, “Neo Banks: A Fintech Innovation in the Banking Sector”, and “Rise of Gamification: Its Implications Across Varied Industries”.

I wholeheartedly congratulate the Editor, Strides, Dr. Rajeev Kumar, and the students whose research papers got published in the Volume 6 Issue 1 of the journal. Simultaneously, I encourage more students to contribute their research papers for the successive Issues.

I wish the students of SRCC the best for their future research endeavours!

**Prof. Simrit Kaur**  
**Principal**

## Editor's Message

Shri Ram College of Commerce is known for knowledge enrichment and academic excellence. To further its mission of academic excellence, the college is keen to foster research aptitude among the students and faculty and to develop a heuristic approach towards the dissemination of knowledge. As one of the steps in this direction, five years ago, the College started a bi-annual research journal, Strides, specifically for the undergraduate students of the SRCC. The journal has been enriched by the valuable research papers meticulously authored by the students under the intellectual mentorship of the enlightened faculty members of the College. Over the last five years since its inception, the journal has sparked research spirit in the students. And, the journal, at present, receives an enormous response from the students of Economics and Commerce on diversified fields of research ranging not only from Commerce to Economics but also from Social Science to Environment and Information Technology. The interdisciplinary domain of the journal accommodates innovative ideas fitting into contemporary relevance.



The present issue of the journal is being released with research papers on different themes written with intellectual fervour. A glance at the papers reveals the ardent efforts put forth by the students, their faculty advisers, and reviewers. I am confident that the issue will prove to be a valuable contribution to existing knowledge.

I would like to extend my sincere gratitude to the faculty mentors and faculty reviewers for providing their valuable inputs, suggestions, and comments.

I would like to praise and congratulate the students for their sincere efforts, leading to the publication of enriching research papers in the present issue of the Strides.

Best wishes!

**Dr. Rajeev Kumar**  
**Editor**



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# Analysis of ASEAN-India Trade in the Manufacturing Sector using Revealed Comparative Advantage Index

## Abstract

*The ASEAN-India Free Trade Agreement (AIFTA) came into effect in 2010, and since then, the bilateral trade relations have undergone significant changes. The direction and magnitude of trade can be analysed using various economic indices. With the help of the review of the literature centred around ASEAN-India trade relations, this paper tries to evaluate the trade between India and ASEAN in the Manufacturing sector using the Revealed Comparative Advantage (RCA) index. The analysis revealed that India enjoys a comparative advantage in 4 out of 10 manufacturing industries considered, with Pharmaceutical and Iron & Steel being two industries in which no ASEAN nation has an advantage.*

**Keywords:** India, ASEAN, FTA, Revealed Comparative Advantage , Manufacturing Sector, Look East policy

## 1. Introduction

Trade economists globally have called for India to enter into new Free Trade Agreements (FTAs) and consolidate the existing FTAs with other countries and blocs, particularly those with the ASEAN bloc. However, policymakers in India are cautious about entering into any new FTAs as these agreements hardly benefit India and are more advantageous for the partner countries. There are voices within India that have been calling out for renegotiations of existing FTAs, particularly the ASEAN-India Free Trade Agreement (AIFTA).

India's economic relations with the countries of the Association of Southeast Asian Nations (ASEAN), barring Singapore, were limited and insignificant before the ASEAN-India Free Trade Agreement (AIFTA) came into force. The agreement came into effect on 1 January 2010, and the trade relations between India and ASEAN have changed markedly since then. Post AIFTA, the bilateral trade increased from USD 42 billion in 2009-10 to USD 94 billion in 2018-19 and continues to climb even during the COVID-19 pandemic. India's trade deficit with ASEAN increased over the years from just 0.81% in 2001-02 and 4.77% in 2009-10 to a significant 16.69% in 2018-19 (Fig. 1).



Source: ITC (International Trade Centre)

The PHD Chamber of Commerce, in its 2019 report, highlighted that with an ever-increasing trade deficit with ASEAN countries, India has failed to benefit from the FTAs with ASEAN. The report observed that India's exports to countries without FTAs were marginally lower than those to ASEAN countries. In contrast, India's imports from ASEAN countries were substantially greater than the countries with no FTAs, pushing India into a higher trade deficit with the ASEAN bloc. The reports recommended that India should not consider entering into any FTAs without improving its agriculture and manufacturing sector.

India's exports with Vietnam, the Philippines, Thailand, Myanmar, and Malaysia grew exponentially post-FTA. These countries also enjoyed an increase in their exports to India. However, India's exports with Singapore, Brunei, Laos, Cambodia, and Indonesia increased only marginally during the same period, while imports from these countries increased considerably. Amongst the ASEAN nations, Singapore is the largest importer of Indian goods (37.19% during 2001-18), while Indonesia is the largest exporter to India (31.35% during 2001-18). India enjoys a trade surplus with Cambodia, the Philippines, Singapore, and Vietnam post-FTA (2010-18), while it has a trade deficit with the rest of the ASEAN nations.

**Table 1 : INDIA' S TRADE BALANCE (in USD Billions)**

Years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>ASEAN</b>	-1.03	-0.30	-1.62	-1.00	-0.35	-3.93	-7.21	-7.26	-6.07	-6.68	-5.83	-10.44	-4.42	-13.16	-15.12	-11.9	-9.84	-21.3
<b>Brunei</b>	0.00	0.00	0.00	0.00	0.00	-0.18	-0.23	-0.31	-0.46	-0.19	0.17	-0.91	-0.73	-0.90	-0.58	-0.42	-0.55	-0.37
<b>Cambodia</b>	0.01	0.02	0.02	0.02	0.02	0.05	0.04	0.05	0.04	0.05	0.08	0.10	0.12	0.14	0.10	0.07	0.07	0.13
<b>Indonesia</b>	-0.49	-0.49	-0.84	-1.22	-1.63	-1.74	-2.96	-3.77	-4.60	-5.14	-7.56	-8.05	-9.43	-10.74	-11.00	-9.06	-12.5	-11.3
<b>Laos</b>	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.03	-0.01	-0.06	-0.12	-0.05	0.00	-0.09	-0.15	-0.23	0.02
<b>Malaysia</b>	-0.36	-0.59	-1.10	-1.17	-1.29	-3.32	-3.88	-4.43	-1.47	-2.44	-5.31	-6.70	-3.83	-6.29	-4.68	-4.46	-3.35	-3.87
<b>Myanmar</b>	-0.29	-0.28	-0.28	-0.30	-0.37	-0.58	-0.65	-0.67	-0.97	-0.85	-0.81	-0.82	-0.62	-0.52	-0.16	0.06	0.33	0.79
<b>Philippines</b>	0.15	0.33	0.21	0.18	0.28	0.39	0.40	0.53	0.35	0.41	0.56	0.63	1.06	1.04	0.78	1.00	0.87	1.13
<b>Singapore</b>	-0.43	0.05	-0.17	0.92	2.27	0.94	-0.51	0.55	0.69	1.80	7.47	5.76	7.16	2.61	0.40	0.67	4.37	-3.99
<b>Thailand</b>	0.17	0.38	0.19	0.11	-0.14	-0.20	-0.52	-0.66	-1.07	-1.80	-2.29	-2.05	-1.27	-2.24	-2.55	-2.35	-2.86	-3.28
<b>Vietnam</b>	0.20	0.28	0.35	0.46	0.51	0.71	1.09	1.44	1.39	1.48	1.91	1.71	3.16	3.74	2.65	2.85	3.98	-0.53

Source: ITC (International Trade Centre)

India holds strong and rapidly growing trade ties with the ASEAN nations. The governments of all the member countries work towards sustaining the trade relations achieved post-AIFTA and further strengthening them. From this perspective, we try to analyse the bilateral trade relations focusing on the manufacturing sector. The rest of the paper is structured as follows: Section 2 provides a review of the existing literature on the India-ASEAN trade relations; Section 3 offers data, methodology, and analysis of 10 selected manufacturing industries and the countries which have a revealed comparative advantage over those industries; Section 4 discusses the trade patterns observed during the COVID-19 pandemic; and Section 5 concludes the entire analysis presented.

## 2. Literature Review

The theory of comparative advantage was first developed in 1817 by economist David Ricardo. He stated that international trade occurs due to the variation in relative opportunity costs of producing the same commodity in different countries. Such variation in the opportunity costs itself arises due to differences in labour productivity. He stated that everyone benefits from free trade if each country exports the goods they have a comparative advantage in and imports the others. He argued that they, thus, benefit from international trade without having to impose tariffs and without requiring that exports be higher than imports.

Classical trade theories used pre-trade relative prices (which depended on the relative cost of production, i.e., relative wages to the labour in the Ricardian model) to determine comparative advantage, and hence, the trade patterns. However, such figures are not readily observable in the real world. Thus, economists came up with alternative approaches to calculate comparative advantage. One such index is the Revealed Comparative Index (RCA), introduced by Balassa (1965). This index determines the presence of competitive advantage using the value of exports for the country under study, and of the world. Ballance et al (1987) connected the theoretical and practical aspect of comparative advantage using a simple relationship:

$$EC \rightarrow CA \rightarrow TPC \rightarrow RCA$$



The economic conditions (EC) varying across countries determine the international pattern of comparative advantage (CA) that relies on the global trade pattern, production, and consumption (TPC), which is used to calculate the actual measure of the RCA Index. This pattern of international TPC can be seen with the help of post-trade variables like exports, imports, etc. Modifications of the RCA index have developed over the years, for instance, Relative Trade Advantage, Revealed Competitiveness, etc. that take into account more aspects of competitiveness. However, we stick to the original formula in this paper as it provides helpful information on comparative advantage. There have been several studies conducted that have employed the RCA index to examine the comparative advantage for various economies in diverse sectors/industries. This section provides further a brief overview of selected studies in India's context, focusing more on the manufacturing sector.

Chandran (2010) looked at the trade complementarity and similarity between India and ASEAN countries as he believed that for any Regional Trade Agreement to be successful, the partner countries must have complementary, and not similar, trade structures to be exploited for mutual benefit. He used two indices - Revealed Comparative Advantage (RCA) and Trade Intensity Index (TII) to calculate the competitiveness for a period of seventeen years (1990-2007). The study revealed that India enjoys a comparative advantage in Minerals, Chemicals, Iron & Steel, Gems & Jewellery, and Pharmaceutical, while ASEAN countries are ahead in Crude Oil, Electrical & Electronic Components, and Telecommunication equipment. India faces intense competition in the Textile and Clothing industries as other countries too enjoy a strong comparative advantage in them. A future study (2015) focusing only on the manufacturing sector showed that India has an advantage in Manufactured Products, Iron & Steel, Chemicals, and Pharmaceuticals. However, it has a low RCA in Machinery & Transport Equipment, Telecom equipment, Electronic Data Processing, and Integrated Circuits & Electronic Components. Automotives was one industry in which neither India nor ASEAN countries possessed a comparative advantage. This is mainly because of the dominance of Japanese companies, and Korean too recently.

Jain (2020) studied the RCA index of Indian exports concerning the ASEAN countries for the period 2000-18. At a broader level, the index revealed that India has a comparative advantage with a majority of ASEAN countries in the export of Intermediate goods, and a disadvantage in the export of Capital goods. Out of the 13 industry groups analysed, the study showed that India enjoys Relative Trade Advantage in 9 product groups with Thailand, 9 with the Philippines, 8 with Indonesia, 8 with Malaysia, 6 with Singapore, 5 with Lao PDR, 4 with Brunei, 4 with Cambodia, and 3 with Myanmar. Chemicals was one group in which India enjoyed an advantage over all ASEAN countries except Brunei. She recommended a stricter rule of origin to tackle some of the problems that India is facing.

Another study by Ahuja (2020) found similar results from the analysis of India and ASEAN countries for the period after the global financial crisis (2009-18). India has a comparative advantage in six out of nine industries including Chemicals, Food & live animals, Minerals & fuels, and Manufactured goods classified chiefly by material. The study concluded that India can leverage its trade potential in the Manufactured goods category as it forms a part of labour-intensive products and India is a labour-abundant economy. Moreover, only Indonesia and Lao PDR have a comparative advantage in this category, thus, there is scope for a possible trade with the other ASEAN countries.

Veeramani & Anum (2018) analysed the India-ASEAN trade patterns for the period from 2012-17. They examined the reasons for the increase in trade deficit despite the high potential for bilateral trade. Their findings suggested that India requires a more liberal and appropriate trade policy with ASEAN countries to take advantage of India's comparative advantage in products like Pharmaceuticals, Iron & Steel, Textiles, Agricultural Products, etc. Further, the heavy dependence on ASEAN nations for Petroleum and edible oils is also a major contributor to the high trade deficit.

There are other studies as well that have explored the India-ASEAN agreement at the general level, or more specifically looking at the agriculture or services sector as well, using RCA and other alternative indices. However, in this paper, we look at 10 industries in the manufacturing sector and try to

determine the comparative advantage of India and each ASEAN country in those using Balassa's index of Revealed Comparative Advantage.

### 3. Data, Methodology, and Analysis

We use the Revealed Comparative Advantage (RCA), which was introduced by Liesner (1958) and later developed by Balassa (1965). It is based on the Ricardian comparative advantage and identifies the sectors and goods/services in which a country has relative advantage or disadvantage by comparing the country's trade flows with the world.

The RCA index is calculated by the formula :

$$RCA_{ij} = \frac{X_{ij}/X_i}{X_{wj}/X_w}$$

Where,

$RCA_{ij}$  = Revealed Comparative Advantage Index for country  $j$  in commodity  $j$

$X_{ij}$  = value of country  $i$ 's export of goods/industry  $j$

$X_i$  = value of country  $i$ 's total exports

$X_{wj}$  = value of world export of goods/industry  $j$

$X_w$  = value of world's total exports

The numerator denotes the share of a country's total exports of a particular commodity to its total exports. Similarly, the denominator denotes the share of the world's total exports of the commodity to the world's total exports. The RCA measures the relative competitiveness of a particular country in a particular class of goods or services using their trade flows as evidence. This index takes values between 0 and infinity.

A country is said to have a revealed comparative advantage over a class of goods or services if the value of the RCA index is more than one, i.e., if  $RCA_{ij} > 1$ , then country  $i$  has a comparative advantage in goods/industry  $j$  and comparative disadvantage if  $RCA_{ij} < 1$ . A commodity with a high RCA can be exported to countries with a low RCA in the same commodity. Countries with similar RCA measures are likely to have high bilateral trade.

The widespread use of the RCA index resulted in the further interpretation of the degree of comparative advantage for values greater than one. Table 2 shows the degree of comparative advantage against different values of RCA.

**Table 2: Interpretation of Degree of RCA**

Values of RCA	Degree of Comparative Advantage
< 1	No comparative advantage
Between interval (1,2)	Weak comparative advantage
Between interval (2,4)	Moderate comparative advantage
> 4	Strong comparative advantage

For our analysis on the trade competitiveness among India and ASEAN nations in the manufacturing sector, we selected 10 industries. We collected data on exports of India and ASEAN countries from the International Trade Centre's (ITC) Trade Map. Most of the policies that were implemented to improve the India-ASEAN trade relations took place from early 2000, thus, the period analysed in this paper is from 2001 to 2018. To maintain uniformity, we collected data based on ITC-HS Codes, and have mentioned the HS-2 code identifying the chapter the goods are classified in.

Table 3 shows the RCA for India and ASEAN states over the average of the period 2001-18. Out of the 10 industries, India enjoys a relative comparative advantage in 4 industries with the index greater than one - Footwear gaiters and the like, Pharmaceutical products, Iron & Steel, and Articles of Leather. In the case of ASEAN nations, Indonesia and Vietnam have a relative comparative advantage in 4 industries, followed by Thailand in 3 industries, Malaysia and Cambodia in 2 industries each, and Laos, Myanmar, and the Philippines in 1 industry each. Brunei and Singapore do not experience a revealed comparative advantage in any of the industries analysed here.

In the Plastic and Rubber industry, Indonesia, Malaysia, and Thailand have a relative comparative advantage over India. This means there is scope for Indonesia, Malaysia, and Thailand to export goods produced in the plastic and rubber industry to India. Similarly, based on this concept of comparative advantage, India would import Vehicles other than railway or tramway from Thailand, Furniture and Furnishings from Indonesia, Malaysia, and Vietnam,

Miscellaneous manufactured articles from Thailand and Vietnam, and Paper, paperboard, and articles thereof from Indonesia. On the other hand, India would export Pharmaceutical products and Iron & Steel, maintaining its trade balance with ASEAN. In some industries like Footwear and Leather, India would have to compete with other ASEAN nations for exports in global markets. Toys, games & sports requisites is one industry in which none of the countries has an edge over others.

**Table 3: RCA for India and ASEAN nations (Average of 2001-18)**

Industries (Product code)	Brunei	Cambodia	Indonesia	Laos*	Malaysia	Myanmar*	Philippines	Singapore	Thailand	Vietnam	India
Footwear, gaiters and the like (64)	0.0027	7.51	3.046	1.21	0.13	1.604	0.12	0.15	0.67	10.69	1.29
Articles of Plastic and Rubber (39 & 40)	0.0043	0.44	1.47	0.504	1.47	0.44	0.36	0.88	2.76	0.93	0.65
Pharmaceutical products (30)	0.0049	0.019	0.087	0.008	0.032	0.0008	0.03	0.55	0.07	0.025	1.29
Toys, games and sports requisites (95)	0.014	0.17	0.44	0.075	0.29	0.09	0.55	0.294	0.71	0.79	0.16
Miscellaneous manufactured articles (96)	0.012	0.23	0.82	0.35	0.602	0.59	0.61	0.34	1.02	1.09	0.74
Iron and steel (72)	0.051	0.005	0.44	0.011	0.36	0.45	0.14	0.22	0.37	0.63	1.33
Articles of Leather (42)	0.016	2.98	0.54	0.054	0.077	0.67	1.44	0.47	0.62	3.56	2.25
Furniture & furnishings (94)	0.0161	0.32	1.11	0.36	1.09	0.037	0.51	0.102	0.606	2.78	0.305
Vehicles other than railway or tramway rolling stock (87)	0.01	0.33	0.31	0.057	0.09	0.005	0.39	0.139	1.24	0.14	0.54
Paper and paperboard, and articles thereof (48)	0.0087	0.056	2.28	0.033	0.39	0.028	0.23	0.33	0.67	0.35	0.35

Source: Authors' calculations based on data from ITC (International Trade Centre)

\*For the countries where there was no trade data for the period 2001-09, the average is calculated from 2010-18.

India has a weak comparative advantage in the Pharmaceutical, Footwear, and Iron and Steel industries, but a moderate comparative advantage in the Leather industry. However, in the Pharmaceutical and Iron & Steel industries, India has a competitive edge over all ASEAN countries, thereby having rising exports. In the Leather and Footwear industries, India has to compete with other ASEAN nations that have a higher RCA. For countries with a strong comparative advantage in the Footwear industry, like Vietnam (10.69) and Cambodia (7.51), it would be better for India to import such goods and, thus, complement the mutual trade gains.

To determine whether India has exploited the gains from trade in industries in which it has a comparative advantage, we look at the changes in its trade balance with ASEAN countries before and after the free trade agreement, i.e. average of 2001-09 vs. the average of 2010-18. Tables 4 and 5 show these averages, along with the comparative advantage of countries in the particular industries being highlighted in green. Increasing trade deficits with Cambodia, Indonesia, and Vietnam in the category of Footwear, gaiters, and the like was expected as these countries enjoy a higher comparative advantage, 7.51, 3.046, and 10.69 respectively, in this industry. However, India is importing products in this category even from Thailand, although Thailand has a comparative disadvantage of 0.67.

There are a few other obvious anomalies that are seen in table 4. For instance, even though India has a comparative advantage in Pharmaceutical products over all the ASEAN countries, its trade deficit with Indonesia has increased manifold over the years. Similarly in the Iron & Steel industry, even though India should be exporting to all ASEAN countries according to the RCA index, India's imports of Iron & Steel products from both Malaysia and Singapore far exceed the exports to these countries. In the Leather industry, India's trade surplus with Myanmar has converted into a trade deficit, even though India enjoys a comparative advantage over Myanmar in Articles of Leather.

One reason for such trade imbalances is the existence of tariffs and non-tariff barriers for certain products in the ASEAN market. For instance, in Indonesia, tariffs still exist under the Free Trade Agreement on 50% of items



which is the highest among other ASEAN nations. This, thus, acts as a constraint for Indian exports and results in India losing out on the competitive edge of its cost-effective Pharmaceutical products. Another possibility for India not being able to increase exports in its competitive industries is that ASEAN nations are already importing those products from established markets in China, Japan, and other ASEAN partner countries. India's Commerce and Industry Minister, Piyush Goyal, said that the elimination of non-tariff barriers and other obstacles would see ASEAN-India trade increase from about USD 80 billion to USD 200 billion.

**Table 4: India's Trade Balance in the industries in which it has  
Comparative Advantage  
(Average 2001-09 : Average 2010-18) in USD Thousands**

	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
Footwear, gaiters & the like	19 : 84	14 : (-)1,997	(-)814 : (-)7,827	7 : 31	855 : 7,616	0 : 1,117	166 : 1,646	1,558 : 9,913	(-)1,289 : (-)5,267	(-)3,245 : (-)46,171
Pharmaceutical products	79 : 55	11,172 : 32,330	(-)2,117 : (-)60,726	493 : 2,387	13,453 : 40,123	28,637 : 140,061	22,443 : 139,806	13,523 : 40,716	18,698 : 75,687	56,233 : 136,580
Iron and Steel	24 : 2	0 : 134	94,800 : 87,166	39 : 53	(-)10,995 : (-)60,308	31,584 : 38,827	39,599 : 38,541	(-)29,479 : (-)137,742	20,988 : 114,629	52,797 : 164,657
Articles of Leather	23 : 43	15 : 128	(-)281 : 85	0.2 : 0.2	1,320 : 5,038	35 : (-)73	142 : 379	1,967 : 2,647	175 : 1,532	(-)512 : (-)1,675

Source: Authors' calculations based on data from ITC (International Trade Centre)

**Table 5: India's Trade Balance in the industries in which it does not  
have Comparative Advantage  
(Average 2001-09 : Average 2010-18) in USD Thousands**

	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
Articles of Plastic and Rubber	36 : 462	521 : (-)936	(-)37,244 : (-)250,896	28 : 337	(-)44,630 : 226,150	7,459 : 17,372	50,541 : 100,061	(-)110,069 : (-)666,579	(-)192,171 : (-)934,866	57,008 : (-)51,224
Toys, games and sports requisites	10 : 15	6 : (-)28	(-)747 : (-)1,132	8 : 3	790 : (-)1,155	7 : (-)3	(-)184 : (-)1,158	(-)595 : (-)2,331	(-)591 : (-)2,328	(-)11 : (-)1,053
Miscellaneous Manufactured articles	10 : 10	382 : 1,059	507 : (-)1,208	23 : 34	1,650 : (-)2,440	1,260 : 5,860	662 : 3,388	84 : (-)4,355	798 : 3,641	767 : 849
Furniture & furnishings	26 : 128	36 : 41	(-)2,349 : (-)10,615	23 : 18	(-)35,155 : (-)75,474	47 : 882	(-)270 : 639	(-)8,914 : (-)13,599	(-)9,048 : (-)22,873	(-)263 : (-)916
Paper, paperboard, and articles thereof	32 : 434	64 : 1,159	(-)30,993 : (-)102,170	4 : 130	(-)327 : (-)12,397	926 : 2,425	(-)12,178 : (-)1,991	(-)4,525 : 2,480	(-)5,024 : (-)11,266	1,867 : 23,553
Vehicles other than railway or tramway	143 : 9,027	645 : 9,723	22,977 : 249,690	55 : 6,005	24,360 : 36,729	4,858 : 38,408	17,350 : 171, 237	24,173 : 95,114	(-)6,701 : (-)112,770	2,118 : 75,890

Source: Authors' calculations based on data from ITC (International Trade Centre)

#### 4. Trade Patterns During Covid-19 Pandemic

The India-ASEAN bilateral trade suffered significantly in 2019-21 when the world faced a severe first wave of the Covid-19 pandemic. India's exports to ASEAN nations saw a fall of 15.82% in 2019-20, while its imports from the ASEAN nations fell by 6.66% in the same year as shown in Table 6. The disruptions in global supply chains, prolonged lockdown, and muted foreign & domestic demand even before the pandemic resulted in the declining India-ASEAN trade figures. This trend continued in the next year. India's imports saw a substantial decline of 14.36% in 2020-21, which could be attributed to growing protectionism sentiments and impetus to Atmanirbar Bharat. India's exports, in turn, fell only marginally from the previous year (0.19%) on account of a less severe second wave, boost to exports of pharmaceutical products, textiles and processed food products, etc., and diversification & expansion of supply chains in the manufacturing sector. This does not mean that exports have recovered to pre-pandemic levels, as the base effect was low in the previous year.

**Table 6: Bilateral Trade Statistics**

<b>India's Trade with ASEAN</b>	<b>2019-20</b>	<b>2020-21</b>
Exports (Bn. USD)	31.55	31.49
% Growth	-15.82	-0.19
Imports (Bn. USD)	55.37	47.42
% Growth	-6.66	-14.36
Total (Bn. USD)	86.92	78.9
Trade Balance (Bn. USD)	-23.82	-15.93

Source: Ministry of Commerce & Industry, GOI

Table 7 shows the country-wide bilateral trade figures between India and each member nation in ASEAN. The share of India's trade with ASEAN is a little over 11% of its trade with the world.

**Table 7: Country-wide Trade Statistics**

	<b>Exports (Bn. USD)</b>		<b>Imports (Bn. USD)</b>		<b>Total Trade (Bn. USD)</b>	
<b>Country</b>	2019-20	2020-21	2019-20	2020-21	2019-20	2020-21
Singapore	8.92	8.68	14.75	13.3	23.67	21.98
Malaysia	6.36	6.06	9.78	8.37	16.15	14.43
Vietnam	5.06	5	7.28	6.12	12.34	11.12
Thailand	4.3	4.24	6.79	5.68	11.09	9.92
Indonesia	4.13	5.03	15.06	12.47	19.19	17.5
Philippines	1.53	1.46	0.52	0.57	2.05	2.02
Myanmar	0.97	0.77	0.55	0.53	1.52	1.3
Cambodia	0.19	0.17	0.05	0.04	0.23	0.21
Brunei	0.06	0.06	0.59	0.33	0.64	0.39
Lao PDR	0.03	0.03	0	0	0.03	0.03
ASEAN	31.55	31.49	55.37	47.42	86.92	78.92
World	313.36	291.81	474.71	394.44	788.07	686.24
India's trade with ASEAN (% of India's trade with World)	10.07	10.79	11.66	12.02	11.03	11.5

Source: Ministry of Commerce & Industry, GOI

Table 8 highlights RCA index values for India in selected industries of the manufacturing sector. Pre-Covid, India enjoyed a revealed comparative advantage in pharmaceutical products, leather, footwear, and iron & steel with the ASEAN nations. During the Covid pandemic, India not only maintained but also increased its RCA in these industries. Furthermore, it improved its RCA in the rest of the industries, though they are still less than 1. With the push for self-reliance and the introduction of the Production-Linked Incentive (PLI) scheme, the government is focusing on substituting imports with domestically-produced goods and improving its RCA in industries it has a comparative disadvantage in, particularly of the manufacturing sector. India's RCA in the paper industry increased from 0.35 to 0.7; while the plastic and rubber industry saw an increase from 0.65 to 0.76. However, some manufacturing industries witnessed a fall in their RCA compared with the pre-pandemic level. Miscellaneous manufactured articles is one such example, with its RCA falling from 0.74 to 0.65. Similarly, the leather industry saw the RCA falling from 2.25 to 1.66 and the RCA in the footwear industry declined from 1.29 to 1.03.

**Table 8: RCA for India (Average of 2019-20)**

<b>Industries (Product code)</b>	<b>RCA Index</b>
Pharmaceutical products (30)	1.61
Articles of Leather (42)	1.66
Iron and steel (72)	1.76
Footwear, gaiters, and the like (64)	1.03
Miscellaneous manufactured articles (96)	0.65
Furniture & furnishings (94)	0.42
Paper and paperboard, and articles thereof (48)	0.7
Articles of Plastic and Rubber (39 & 40)	0.76

Source: Authors' calculations based on data from ITC (International Trade Centre)

## 5. Conclusion

India's Look East policy of 1991, which worked towards developing India's trade relationship with ASEAN nations, culminated with India entering into diverse Free Trade Agreements with ASEAN and its member nations. The deepening of trade ties improved with the introduction of India's Act East policy in 2014. Much of India's trade is directed towards Malaysia, Singapore, Thailand, and Indonesia with whom India shares strong economic relations. The Revealed Comparative Advantage analysis recognised the industries where India could gain from its trade with ASEAN nations. India needs to renegotiate its trade agreements with ASEAN to fully realise the potential of its exports with the ASEAN bloc. The manufacturing sector needs expansion, diversification, transparency, and stimulus to reach its full capacity.

India has already established itself as a chief exporter in pharmaceutical products, textiles, leather, and iron & steel. Post-Covid, these industries look promising in driving growth in the manufacturing sector. The pharmaceutical industry, in particular, could expand more given the reputation of being the 'Pharmacy of the World' in supplying cheap and effective medicinal & pharmaceutical products. The government needs to focus on ensuring an uninterrupted supply of raw materials and active ingredients from China and the US. Often, Chinese manufacturing goods are dumped into India via the ASEAN nations, namely Vietnam. India needs to ensure that the dumping of such cheap goods does not take place, and an improved mechanism to distinguish the country of origin is established.

In the present interlinked and interconnected globalised world, losing a regional bloc trade partner would be detrimental to India's economy. Protectionism, high tariffs, or scrapping of the FTAs would not be beneficial for India and would result in an underutilization of the gains from comparative advantage present in India's manufacturing industries.

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## Women and Terrorism in the West Asia

### Abstract

*The role of women has increased in terrorist organisations and they have increasingly perpetrated open violence over the years. Earlier, women were confined to subservient roles and worked on the periphery through their ability to give birth to fighters as well as giving moral support to men of the family in their actions. This is a major shift in their roles as women as they take up important combat positions in terrorist organisations and armed conflicts across the globe. This paper attempts to study the dynamic role women plays in terrorist organisations and identify some of the motivations and causes for their induction into such organisations. The study focuses on the Middle Eastern region since it is a high conflict zone. However, we argue that the findings of the study hold true in most cases in capturing the imagination of female terrorists from every corner of the world. The legal system is then critically examined to assess its weaknesses and addresses any loopholes that allow female terrorists to evade from the punitive law thereby, deterring women from terrorist groups. Finally, the paper resolves to find and suggest some policy prescriptions to the*

*issue at hand and tries to put forward a feasible and prospective future course of action.*

## **Keywords:**

Terrorism, Violence, Female Terrorists, Law.

## **Introduction:**

The classical Islamic literature does not present a single interpretation of what roles are 'permissible' for women in jihad. However, women who fought in the early years of Islam are mentioned in classical literature. In the battle of Uhud, for example, Umm Umarah defended the prophet (Qazi, Farhana. (2011). *The Mujahidaat: Tracing the early female warriors of Islam. Women, Gender, and Terrorism.* 29-56.). During her lifetime, she fought in at least six battles.

While the prophet Mohammed never ordered these women to fight in battle, it is claimed that he praised them for their sacrifice and bravery in the battlefield. Similarly, today's major jihadist ideologues and theologians are divided on the issue. Women are allowed to play a role in jihad. They revere the past women who had struggled to safeguard Islam and regarded them as iconic heroines. However, they have rarely explicitly urged or called on women to take up combat positions.

In the modern world, women terrorists have been and continue to be a significant member of many terror organisations around the world. Terrorist organisations, regardless of ideology, have started to employ women as suicide bombers, assassins, and frontline combatants, in addition to the conventional, submissive roles of couriers and councillors (Pandith, 2020). Their activities have shifted from secondary roles to more hardcore and frontline roles often involving violent killings.

The 1970s saw women take active roles in conflicts around the world. Recently, there has been an emergence of women suicide bombers around the world with women taking frontline roles as compared to the past. Different organisations like al-Qaeda in Iraq(AQI), Boko Haram, Hamas has recruited women in militant positions, mostly as suicide operatives. This has

been a significant change as women have always been perceived as birth givers. Various jihadist leaders like Yusuf al-Uyayri (1973-2003), the first leader of al-Qaeda in the Arabian Peninsula (AQAP) stated that the success or failure of jihad is determined by women's commitment and support (The Female Jihad: Al Qaeda's Women, 2007). Furthermore, both Osama bin Laden and his successor al- Ayman al-Zawahiri, emphasised the role of women in jihad as mothers and wives (The Female Jihad: Al Qaeda's Women, 2007).

It has been observed that there are several causes which compel women to partake in terrorist activities. It can range from a host of factors like psychological, social, political and ideological, religious reasons among others. To comprehend the elements that push women to become terrorists, we must first understand the role of women and the subsequent shifts that have occurred.

## **Roles of women**

### **Role as creators**

Mother and wife are two of the most frequently mentioned roles for women in jihad by jihadist ideologues. Mothers are responsible for creating the next generation of fighters. Hamas has stated in their charter that women are responsible for protecting their homes. Their main duty is to raise the next generation of fighters. Yasser Arafat, former Chairman of the Palestine Liberation Organization (PLO) referred to the Palestinian woman's womb as "the best weapon of the Palestinian people," praising their roles in preserving the family, producing children who become soldiers fighting Israel, and changing Israel's demographic structure (Berko & Erez, 2007).

The current leader of al-Qaeda, al-Zawahiri also emphasises the importance of the non- military contributions made by women, praising them for their heroic role in watching over the mujahideen's homes and children.

### **Role in militant positions**

As mentioned earlier, there has been a surge in the number of women in militant positions. There are certain strategic advantages in employing

women in combatant positions. Women generally attract less security scrutiny than men. They are often perceived as victims of violence. They can enter crowded areas without raising suspicion, and have a better chance of passing through checkpoints undetected. Groups that have employed women in suicide missions, include Hamas, Palestinian Islamic Jihad, AQI, Chechen separatists, and Boko Haram. After years of pressure and demands from women to participate in martyrdom bombing operations, Hamas leadership was forced to accept (Khaleel, 2019). Rim Al Riyashi carried out a bombing inside Beit Hanoun Checkpoint (Erez), north of the Gaza Strip, on January 15, 2004, killing four Israeli soldiers and injuring ten others (Khaleel, 2019). Al Riyashi's story is similar to that of Fatima Al Najjar, who carried out a bombing attack on November 23, 2006. (Abu Zaydah, 2011).

In July 2021, the Uttar Pradesh Anti-Terrorist Squad (ATS) apprehended two suspected Al Qaeda terrorists namely Maseeruddin and Minhaz Ahmed in Lucknow. According to top officials, an IED explosive, a pistol, and a pressure cooker bomb were also recovered during the raids. India Today in the year 2021 reported that at least a dozen women were being trained to carry out the attacks. Three women living in slum areas of Panki, a Kanpur suburb, have been in contact with terrorists for the past month.

### **Role as online propagators of jihad**

The rise of the internet has allowed women to step out of their boundaries of motherhood and propagate jihadist ideologies through online means. In 2011, the HuffPost reported that Al- Qaeda had launched a ladies magazine known as Al-Shamika. It was allegedly distributed by the Al-Fajr Media Center, an online distributor of al-Qaeda propaganda, and published by the media group "al-Shamikha Media Foundation." According to reports, the magazine covered a range of topics like how to find Mr. Right -- "marrying a mujahideen" -- and how to maintain perfect skin -- by covering your face. Other life advice? "From martyrdom, the believer will gain security, safety and happiness."

The magazine's preamble wrote:

*“Because women constitute half of the population – and one might even say that they are the population since they give birth to the next generation – the enemies of Islam are bent on preventing the Muslim woman from knowing the truth about her religion and her role, since they know all too well what would happen if women entered the field of jihad... The nation of Islam needs women who know the truth about their religion and about the battle and its dimensions and know what is expected of them.”*

### **Role in logistics**

Women have also carried out logistical operations such as smuggling weapons, transporting wounded fighters, raising funds and collecting strategic information. The women of Hezbollah and the Kashmiri Dukhtaran-e-Millat served as couriers, transporting messages, money, and weapons between cells (Al Jazeera; Parashar, 2011).

Women in the al-Qaeda have been known to open bank accounts, translate documents, and perform bookkeeping duties for the organisation (Stone & Pattillo (2011). Al-Shabaab women have also been known to raise funds for the movement. There have been instances where the women of Al-Shadaab have also acted as logisticians, messengers and couriers (Davis, 2017).

### **Role as planners**

Women in recent times have also taken on frontline roles in planning and facilitating attacks. Ahlam al-Tamimi was a key figure in the planning of a Hamas-led suicide attack on the Sbarro pizza restaurant in Jerusalem in 2001, which killed fifteen people and injured 130 others. The US charged Al-Tamimi in 2013 for her involvement in the attack. For her role in the bombing, Israeli authorities arrested and imprisoned Al-Tamimi. She received 16 life sentences after pleading guilty to the attack in 2003. Al-

Tamimi was released by Israel in October 2011 as part of a prisoner exchange agreement between Israel and Hamas.

## **Role in political positions**

In 2021, Jamila al-Shanti, 64, became the first woman to become a member of Hamas' political bureau that is made up of 15 members.

Al-Shanti is the widow of assassinated Hamas leader Abd al-Aziz al-Rantisi, who was killed by Israel during the Second Intifada.

Hamas holds internal elections every four years, and the current round began on Feb. 19, 2021 in three areas far from media coverage — the Gaza Strip, the West Bank, and outside the Palestinian territories.

The Women's Movement in Hamas' media bureau issued a statement on March 14 saying that Shanti's election to Hamas' political bureau "crowns the civilised thought of the movement."

## **Reasons why women join terrorist organisations**

Women as a gender have always been thought of as being passive or submissive and someone who's more of a caregiver and the nurturing kind. So, violence on their part is thought to be unnatural and absurd. When it comes to the reasons behind women joining these organisations, there are various competing narratives to it. Women face restrictions and hierarchical norms in society. This is truer in the case of the developing countries of the world. Here, we take the examples of the Middle Eastern society in order to narrow down the region for the purpose of our study. But most of these reasons also hold true for all the other terrorist organisations in the World. Most of the Middle Eastern countries are traditional Islamic patriarchal societies. The women in such societies have a very low status and are expected to strictly follow the patriarchal norms. They have extremely limited freedom and are entitled inside their houses. But recent years have seen a rise in the number of female terrorists including suicide bombers associated with various political organisations involved in armed struggles. For example - Wafa Idris, the first of the kind in Palestine, detonated herself in 2002 killing one Israeli and injuring many others (Bennet, 2002).

Thereafter, many women have followed the same path taken by Idris. We need to understand here that many other religious extremist organisations like the ISIS position women at very low strata and did not allow them into combat till 2017.

Here, when we try to analyse the reasons or motivations behind them joining terrorist organisations to the extent of becoming suicide bombers, we will have to understand various alternative narratives just like we had mentioned above.

According to the mainstream narrative, these women have social defects of some sort or they are social outcasts. They believe that women in these societies have a very low place and they are thought of only as birth givers and nurturers. Hence, they are expected to get married at a younger age, serve the husband throughout her life and give birth to healthy children. The failure to do so leads to humiliation and outrage further leading to them being marked as outcasts. This view has been widely propagated by the American media. The American media plays a very influential role in shaping the mindset of people across the globe. Muslim women, in Western media have always been portrayed as someone weak and repressed by religion with most of them always portrayed in veils and burkhas. When these Middle Eastern women suddenly started to assume roles in terrorist organisations, the American media tried to mould the public view into their narrative by trying to explain the female participation in terrorist groups through the lens of a deprived gender. They focused on various personal instances in the lives of these suicide bombers which they believed led to these women seek redemption through killing themselves along with the enemies. According to this particular view, women in these societies are primarily motivated to accept such a violent position because of their personal struggles in a traditional patriarchal society. According to American media, these women are thought to have completely lost their worth and status in society due to things like remaining unmarried, being unable to conceive, infidelity or divorce and so on. These acts are regarded as crimes by these androcentric societies where a woman's worth is judged on very fragile terms. They are made to believe that suicide bombing is the only means to them to attain nirvana and hence to increase the status of the family in the society. For

example - We again take the case of Wafa Idris, which was also explained by American media in the framework of this narrative. Idris was a woman who couldn't bear a child and was thus divorced by her husband and that was the motivation for her to sacrifice herself, as suggested by this view.

There's another narrative that talks about how involvement of women in combat positions lead to gender equality. This narrative focuses on how earlier women were confined to their homes and were thought to be weak and incapable of such violent actions. So, the coming of women into the war and taking important combat roles seems to elevate a woman's position leading to equality in society. According to this narrative, women switching from their burqas into military clothes is a form of liberation, an empowerment of a sort. This is their way out of the repressive norms that dominated women. This can be seen mainly in the case of The Kurdistan Workers' Party or the PKK - a militant organisation involved in fighting the oppression faced by the Turkish Kurds. It is designated as a terrorist organisation by Turkey, the United States, the European Union and some other countries. Although, traditionally the Kurdish society had been patriarchal in nature, this particular militant organisation has worked for gender equality and the inclusion of women in decision making. Under the umbrella of the PKK, there is an all-female unit known as the Women's Defence Units (YPJ) - an arm wing of the Kurdish Democratic Union Party. It actively participates in the fight in Turkey. Abdullah Ocalan, the founder of PKK - the militant organisation, PYD and YPJ, advocated for the liberation of women in the society. He introduced the concept of Jineology which is a form of feminism that looks into things from the women's perspective which was widely advocated by him and hence the Kurdish movement for independence (jineology5).

Although women were allowed in combat positions in organisations like PKK and Hamas, ISIS and Al-Qaeda did not allow their women to take up arms for most periods. It was only around 2017- the time when ISIS started to lose almost all of its territories that it started recruiting women into combat (Chatzitheodorou, 2021). They legitimised it, saying that in times of necessity, women were/are supposed to do everything possible in their fight to defend the caliphate.



Yet another view or narrative is one where these suicide bombers are considered to be Martyrs and social heroines. This narrative, basically stressed upon by the Arab world throws a series of praises towards these women and considers them to be the role models of society. Young women are inspired and motivated through such acts of violence. Political leaders and media, mostly from the Arab region, urge other young and old women to get inspired and be a part of these movements for freedom. They are called upon to give up their lives in the name of Allah as well as their countrymen. For example - the first female suicide bomber of Palestine - Wafa Idris and the suicide bomber of PKK - Zileyn have been hailed as social heroines and have become legends and icons for young girls in these regions to look up to.

Yet another narrative speaks of the convenience of using women as weapons of destruction. This is basically due to the fact that women are not thoroughly searched at security checks before they enter public places due to the mindset that women cannot be associated with crime and killing. Moreover, many women pose as pregnant with the bombs tied to their bellies which give them further advantage to move around freely in the crowd. We can see here that this does not exactly qualify as a separate narrative but this is another important factor why terrorist organisations take women for such tasks. Femininity and motherhood or a life-giver becoming associated with acts of violence captures the attention of the world. Excessive media coverage and attention that female terrorists get also adds up to the advantage of hiring women into the terrorist organisations as such global attention leads to fulfilment of their objective of invoking fears into the minds of people.

Moreover, in ISIS and other organisations, special advertisements are made and propagated to target women to join the forces as mothers and wives to give birth to the upcoming generation of militants. Through this, they further their interests and increase the size and extent of their influence. For example - ISIS, one of the world's most dreaded terrorist organisations, has female recruiters from various countries, including the Western countries to talk to and convince young teenage girls from across the globe to join them. These recruiters target the ones from their native lands so that the young girls can find confidence in them. The girls are also promised marriage allegiance to the jihadist fighters. Under Hezbollah, a militant group of the Shia Muslims

of Lebanon, there is a Women's Organizations Unit to train women on how to raise the future generation of militant fighters and how to provide support to their husbands and sons who serve Hezbollah directly.

Many others say that in many cases, women are coerced or forced by their family members as well as various organisations to take up such drastic actions just to save the name of the family or the woman herself. While another narrative seeks to explain that the reasons and motivations for women joining terrorist organisations are the same as that of men. This view believes that nationalistic feelings and the political want for freedom is what drives women to take up weapons.

At many other times, the women take up arms to take revenge for the death of their loved ones by the enemy party. This has been the case for many suicide bombers across the world. How far these reasons apply for every woman needs more in-depth research because studying about the lives of various female terrorists throws light into the fact that the reason for every woman is different and is somewhere personalised. Hence, we cannot completely generalise the result. Although Islam as a religion has been the target for all the criticism against terrorism as well as involvement of women into it, however religion alone cannot be blamed as being the sole driving factor since in many cases, there were suicide bombings by women attackers from different religions and different socio-economic backgrounds like the Chechen rebels, the suicide bombers of Liberation Tigers of Tamil Eelam (LTTE) and so on (Yaregal, 2011). This is not to say that religion does not have any linkages to these attacks, but rather to state that religion alone cannot be the main driving force. More so because, religion has existed for thousands of years, but the involvement of women in terrorism is a relatively new phenomenon.

Studies have shown that although the above mentioned factors do play a role in pushing women towards such draconic measures, however in most cases, the main motivation is similar to that of their male counterparts - that is, nationalistic sentiments and the desire to give up anything for the nation and its people.

## **The legal system and terrorism:**

This section examines the weakness of the existing legal system that has failed to deter terrorist activities by women. Women play a very important role in extremist groups, be it in the form of the supporter or a martyr and so on. However, the notion that females are weaker and the pitiful section of the society make it easy for them to escape from the grip of penal laws and accountability that their male counterparts go through. Such a gendered discourse can explain how gender position can become an advantage for the terrorist organizations recruiting women and a possible threat to the world community. According to the Global Extremism Monitor, around 100 terrorist attacks were carried out by 181 women in the year 2017 throughout the world (Global Extremism Monitor 2017, n.d.). In this case, failing to record the rise in female extremism is a dangerous event for world peace.

It is always seen that when it comes to female terrorists, they receive differential treatment under the same criminal justice law system. They are mostly thought of as naive and are less likely to be taken as prisoners. Even when they are sent to prison, their sentences are lesser compared to men. Women are always seen as the casualties of terrorism rather than the perpetrators. Women terrorists are often portrayed as angels of vengeance trying to get revenge for something done against someone special to her. It is as if anything a woman does is emotional and cannot be considered as political. Moreover, many female perpetrators get their sentences reduced because they supposedly have young kids to look after. The notion of the care-giver appears here all over again.

Here we need to understand and take into consideration another argument. Most of the counter terrorism laws around the globe have been legislated by men while putting male terrorists in focus. Hence, legislation becomes difficult and biased sometimes when it comes to women and terrorism activities because women's participation in such activities comes with a lot of differences as well as gender stereotypes. We also cannot neglect the fact that many women are coerced into joining such militant groups and many women involved in supporting roles don't have complete information on what they are actually contributing to.

This leads to a confusion and if laws are completely gender neutral, many innocent women might end up getting unfairly punished.

Again, when we talk about the counter terrorism laws of various countries, there are two dimensions to it. Most governments do not consider women as prospective and active perpetrators and hence the punishments are less. This is true in the case of the US, Balkan governments etc. Here, we give an example of Germany. A woman from Germany travelled to the Syrian Arab Republic along with her two young children in the year 2015 to marry a jihadist fighter. There, she was given basic training in weapons and she supported the cause of the jihadist group. However, she came back to Germany after 5 months and was convicted of the two crimes that she had committed - abducting a minor (her two children) and for being involved in terrorist activities. But, the entire charge for the terrorism offence was revoked after she made an appeal. This decision made by the German Supreme Court was based on the fact that she did not directly participate in combat roles and even the weapons training was done mostly for defensive purposes as was alleged by her. (United Nations Office of Drugs and Crimes, 2019)

Whereas in many other countries, the response of the counter terrorism laws for women are exactly the same as for the men while also taking into consideration the gender dimension. This has been the case in Belgium since 2016, France, and Britain and so on. Even India recently did not allow the return of 4 Kerala women who were kept in the Afghanistan prison for marrying jihadist fighters and being involved in terrorism (Vijaita Singh, 2021).

## **Policy Prescription**

As we have seen in the earlier sections, there has been an increasing participation of women not only in the supportive roles but in the facilitative roles as well. In addition to that, women have also played key roles in terrorism through strategic marriages.

In order to prevent women's participation in terrorism, it is important to identify the factors which compel them to partake in terrorist activities. It is

a common practice to consider them as secondary or subordinates to men. It is important to see women as more than just victims. We also need to take into account their active roles as well. Often women are let off the hook easily because they are perceived as non-threatening and docile. In this section, we discuss several policy recommendations to tackle the rising number of women in terrorism.

We discussed in the previous sections that women are often subjected to discrimination and are considered social defects due to a variety of reasons ranging from inability to bear children to getting divorced. This makes them increasingly vulnerable to radicalisation. This is one of the prime motivations for women to join terrorist organisations. There is a need to invest in quality education, for both in-school and out-of-school students, and promote gender equality in educational curricula as well as include education in peace agreements and treaties (CIVIL SOCIETY, 2021). In addition to that, there is a need for developing a strong support system for women to voice their grievances. Authorities should assist women's organisations and activists as they can act as catalysts for effective implementation of programs for women empowerment in conflict-ridden regions.

Women's (sexual) behaviour is directly related to family honour in many Muslim communities. Girls are frequently forbidden from having contact with boys, and problems concerning (female) sexuality are seldom handled inside the family domain. As a result, some of these females get even more alienated and eventually immerse themselves in the jihadi network. We need programmes to increase parental awareness around issues of female sexuality to alleviate the radicalization of females in Muslim communities.

We have discussed earlier in this paper that some women are coerced into joining terrorist organisations. They are often sexually exploited or kidnapped or made sexual slaves by these organisations. In 2017, a UN report highlighted the disproportionately high percentage of women who were coerced into joining terrorist or extremist organizations, including Boko Haram, Al-Shabaab and Islamic State in Iraq and the Levant (ISIL, also known as Da'esh) (Journey To Extremism in Africa, 2017). Often, these women do not have access to justice due to their lower socio-economic status

and lack of education. A strong redressal mechanism has to be developed to provide legal aid, advice and support to female victims and prompt strict punishment of the perpetrators of violence. It is important to ensure accountability for heinous practices propagated by terrorist groups by developing a strong legal system.

Many times, women are subjected to gender stereotypes as a result of which it is easier for them to carry out terrorist activities. As mentioned earlier, women have a better chance of passing checkpoints without raising any suspicions. Since 1 January 2017, Boko Haram has used 83 children as 'human bombs'; 55 were girls, most often under 15 years old; 27 were boys, and one was a baby strapped to a girl (UNICEF, 2017). There is a need to develop more female personnel in the police force in order to carry out extensive screening of female terrorists in crowded places. Often, female victims are more comfortable reporting incidents of sexual abuse or violence to a female officer. Employing more female personnel in law enforcement brings a gender perspective which can be helpful in resolving complicated issues.

The frequency of deplorable prison circumstances with a lack of gender attention is a worldwide issue, and female prisoners frequently encounter conditions that are worse than those experienced by their male counterparts. It is argued that prisons were made with men in mind, and gender-neutral policies can have serious negative consequences for women prisoners (Handbook on Women and Imprisonment, 2014). Gender-sensitive policies should be employed at all stages, including police custody; pretrial detention; allocation and admission to prison; and arrangements for release and post-release support (Handbook for Prison Managers and Policymakers on Women and Imprisonment, 2008). There is also a requirement for rehabilitation programmes to help them deal with the emotional and physical trauma that they have been subjected to as well as facilitate their smooth reintegration into the society.

Gender mainstreaming policies promotes women's human rights and the abolition of gender discrimination. It also helps to ensure that measures to prevent and combat violent extremism and terrorism are more informed and

targeted, making those measures more effective in the long run. The widespread recognition of the need to account for gender considerations throughout the scope of the response to terrorism is a relatively new phenomenon (Garms et al., 2019). Gender mainstreaming ensures that gender perspectives are taken into consideration while forming policies and laws for countering terrorism.

At a global level, UN Women works closely with the UN counter-terrorism entities to develop gender-sensitive and gender-responsive policies and processes (Preventing Violent Extremism and Countering Terrorism, n.d.). In lieu of this, UN Women held a global digital consultation in 2020 to solicit civil society input on the gendered elements of violent extremism and counterterrorism tactics. The Gender Working Group collaborated on this study, which was supported by the United Nations Counter-Terrorism Centre.

Following are some of the key points specified in the public statement

1. Invest in high-quality and inclusive education
2. Invest in a culture of human rights, accountability, respect for diversity and critical thinking
3. Promote gender equality
4. Promote and protect women's human rights
5. Improve rehabilitation and reintegration

## **Conclusion:**

Women as a gender have long been associated with violence and terrorism. However, earlier the roles played by women in such acts were mostly subservient and basically supporting the males in their venture. This started to change from the 1970s with women starting to take up combat roles. Women are being continuously recruited and employed into terrorist organisations and today there's hardly much difference between them and their male counterparts in terms of violence caused. Even then, they are looked at as naive and indecisive and someone who is coerced rather than willing to take up arms. This thought is basically fed upon the notion that

women are birth givers and hence are supposedly kind and compassionate in nature.

Women play various roles in such organisations ranging from supporting roles like that of a mother and a wife to militant roles in the form of suicide bombers, assassins and so on. Other roles played by women are - online propagators of jihad, various political positions in such organisations, roles in logistics and as planners and many more.

In this paper we looked at various motivations that enable and cause women to join the world of terrorist activities. These motivations have been interpreted by different people in different terms. The western world deciphers such acts of violence, especially the suicide bombings, as a form of feminine repression in the patriarchal society. According to this notion, women who have defects like infertility, divorce, infidelity and so on sought to increase their fallen status by sacrificing themselves in the name of the nation. The gender equality approach tries to shift the focus on how engagement of women in such organisations lead to elevation of women's position in society. Another narrative by the Arabs is that they decipher such acts as divine and sacred martyrdom. They associate these women to the ranks of divinity and social heroines and urge other women to be inspired by such acts. While some others believe that women are a good choice of weapon of destruction since they face lesser security checks while some others believe that women take up arms as means for revenge of the killing of their loved ones.

Every notion is different from each other but they also have a similarity in the fact that women are considered to be inferior in some way or the other in each of these views. We have to mention that it is very much a possibility that women join terrorist groups due to reasons similar to that of their male counterparts - like religious sentiments and ideological stances, but these are often ignored. Instead, people decipher the motivations behind female terrorists according to views that suit them the best.

Although we have seen that female suicide is a relatively new phenomenon, it has the capacity to further escalate the violence involved under terrorism and to instil fear and trauma in the minds of the people. We have seen that



although earlier women in most Middle Eastern societies were considered to be completely subservient to a male family member with no right to even go out of their houses alone, things have started to change with the coming of the concept of martyrdom through suicide bombings. Suicide is considered to be a sin in most of the religions, but when it comes to killing oneself in the name of the nation, that becomes known as an act of virtue and is regarded as a supreme act. This rise of womenfolk in the field of terrorism has the capacity to inflict irreversible damage to world peace and hence strict laws become very important in this. But, we often see that there are a lot of loopholes in the legal system due to stereotypical mindsets which lead to female terrorists getting lesser jail terms and other punishments. Here, when we talk about more stringent punishment for women, we are in no way advocating for gender neutral laws. Rather, gender sensitive and inclusive laws are the need of the hour. The legislation needs to take into account all the aspects of a woman's participation in terrorist activities.

In order to tackle the issue of involvement of women in terrorist groups, there is a serious need to focus on investments on girl education and gender equality. Many women join these outfits because of radicalisation that they face due to repression in society. We need to put an end to it by creating an inclusive society of all genders. Terrorism is a dangerous issue which has the prospects of destructing the whole world. Even when women were away from terrorism, there has been so much of destruction and deaths so if we further include and recruit the other half of the population of the world, the situation will obviously be far graver. It is necessary to make sure that women are not coerced into terrorism and mechanisms should be in place for grievance redressal and safety of such women. Proper schemes, rehabilitation and reintegration centres by the Governments and the International Community are extremely necessary to prevent further radicalisation of women.

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## From A Dichotomy to A Continuum: The Case of Rural Development

### Abstract

*Michael Lipton (1977) claimed that the greatest class division today is the Urban-Rural class divide. Through a detailed study of how the world defines 'urban' and 'rural', the paper emphasises on the ambiguity of the classification. Thus, in the 21st century, there exists an urban-rural continuum rather than an urban-rural dichotomy. Evidence to this effect is garnered through a careful study of India's rural realities. Further, it is noted that macroeconomic growth models exhibit an urban bias so much so that rural development has served as a footnote to urban development without adequate access to resources. The paper, therefore, not only elaborates on how this bias has impacted policy formulation, but also suggests policy recommendations for systematically mitigating the rural-urban imbalance.*

**Keywords:** Rural Development, Urban Bias, Economic Growth Models, Structural Growth, Urban-Rural

Dichotomy, Urban-Rural Continuum **JEL Classification:** R38, R23, R28, J61

## 1. Introduction

The urban-rural divide is one of the most contentious developmental issues faced by the world today. In 2020, 43.84% of the population around the globe was considered to be 'rural.' In India, the rural population is 65.074% of the total population, the biggest rural population in the world. (*See Figures 1*)

For a developing country, then, the focus on rural developmental policy forms an important political agenda. However, to determine developmental policies targeted towards the growth of rural India, it is essential to first categorically understand the distinction between 'urban' and 'rural' as defined by institutions.

The urban-rural dichotomy is defined on the basis of different socio-economic indicators, the choice of which differs among institutions as well as countries. Some categorizations rely on population density, whereas others are based on the primary source of employment in the given region. However, due to ambiguity and lack of uniformity in what constitutes 'urban' and 'rural', the reliance on a binary definition must be questioned.

As economies develop in the modern world, benefits of globalisation and modernisation trickle down to rural areas as well. In the complex intermingling of migration, industrialization and mobility of factors of production, these stringent definitions pose contradictions in their classifications. The notion of a "divide" between urban and rural has become a misleading metaphor, *one that oversimplifies and even distorts the realities*. (Tacoli, 2003)

This contradiction has a direct impact on how rural developmental policies are formulated. Many policymakers and researchers rely on this dichotomy while formulating policies, allocating little regard to the importance of urban-rural linkages. They exist through an intricate web of interrelations - through supply of rural labour to urban businesses; provision of non-agricultural goods in rural towns; transfer of technology and resources. Rural India or

‘Bharat’ serves as the case study to understand how different social, cultural, economic and environmental issues have evolved and refute the dichotomous conventional knowledge.

Economic models and development policies reinforce spatial and sectoral divides, classifying policies as strictly urban or rural, assuming a blunt division of industry and agriculture. This leads rural development to be systematically treated as a footnote to urbanisation. Famous economic development models, like the Lewis Model, treat economic growth as the structural change of the economy representing a change in the composition of GDP and source of employment. These models rely on rural migration, and rural development seems to merely play a passive, rather than an active role in the growth process. In the past, such a division may have been a useful simplification; however, now it fails to reflect reality in important ways. Understanding the significance of this continuum is necessary for transformative change with a focus on rural development as an end in itself.

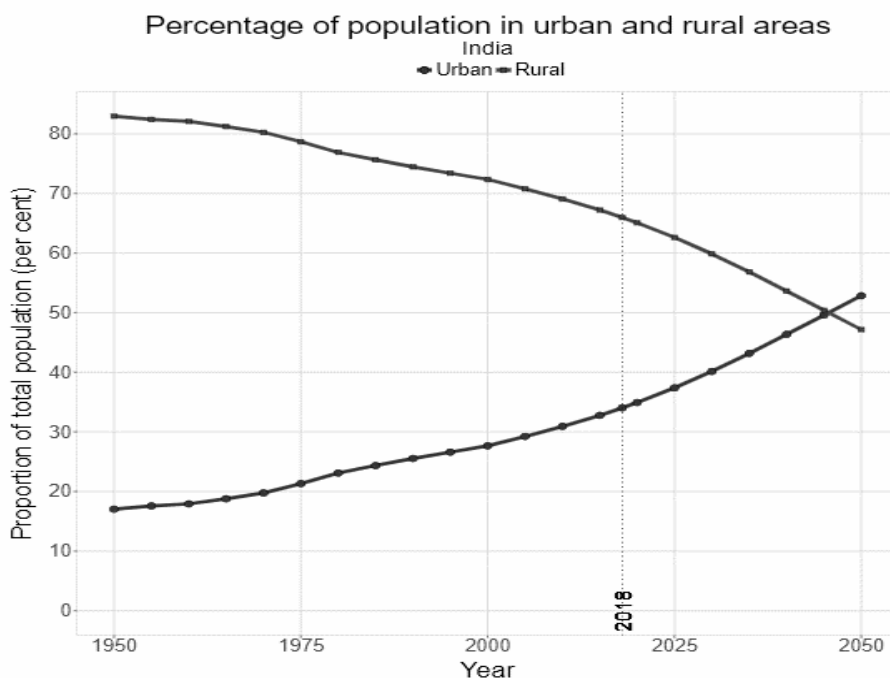


Figure 1: Urban and Rural Population in India (Source: UNDESA, 2018)

## 2. Urban-Rural Dichotomy

The global population is categorised to be living in either urban or rural areas. The moment public policy creates this distinction, a dichotomous understanding of the two phenomena emerge. Consequently, this convenient demarcation allows development policies to rely on stereotypes of the rural lagging behind the urban (Bailey, Jensen, & Ransom, 2014; Loh & Hadden Love, 2020). In this backdrop, it becomes pertinent to analyse and understand the origins of the urban-rural classification in India and around the world.

‘Urban’ and ‘Rural’ are defined in a variety of ways across institutions, within a country and on a global level. Each country currently has its own method of defining what constitutes ‘urban.’ The most common criteria include (1) population size (2) land area (3) population density (4) primary source of occupation/income (5) any other economic or social organisation.

Countries either use only one, or a combination of the above given indicators to define the two regions. In Sweden, an area with 200 inhabitants is considered ‘urban’, while in Nigeria, the population size needs to be as much as 20,000 to attain the ‘urban’ classification (Palen, 2008).

According to United Nations (UN) data, out of 228 countries, 51 distinguish the two populations on the basis of size or density; 39 rely on economic aspects like main source of occupation or income; approximately 114 countries base the classification on administrative reasons; and the rest have no clear definition of what constitutes ‘urban’ (Brockhoff, 2000).

However, within India, there exists disparity even among different government bodies which define ‘urban’. While the Census of India considers three parameters--population size, non-agricultural employment, and population density--the NSSO does not consider minimum population and RBI only considers population size. If India were to change the parameters of the definitions, the numbers would vary significantly. (*See Table 1*). Research has shown that the number of urban households engaged in agriculture and the number of rural households engaged in non-farm activities are far higher than usually thought (Bhooshan, 1986<sup>9</sup>; Bryceson and Jamal, 2019).



Moreover, there exist small, dense regions with large non-agricultural labour forces such as in the union territories, and north-eastern states. Similarly, states like Uttar Pradesh, Bihar, West Bengal, and Madhya Pradesh have large and dense settlements with large agricultural labour force. Thus, there exist contradictions in the technical definitions of the rural and urban areas.

Census	Official	Population	Density	Labour	Population and Density	Population and labour	Density and Labour
<b>2001</b>	27%	43%	69%	34%	40%	29%	31%
<b>2011</b>	31%	47%		36%		31%	

Table 1: How ‘urban’ population percentage in India would change under different parameters

Source: Census of India 2001 and 2011, United Nations Demographic Handbook 2012, IIHS Analysis

These definitions could lead to persistent incorrect classifications of regions-areas which meet rural classification being defined as urban and vice-versa. These errors imply a political economy problem, impacting the resource allocation to these regions, influencing the benefits of welfare programmes like NREGA, JNNURM etc. The fact that the urban-rural dichotomy is ingrained in developmental policy formulation is apparent. Since the process continues to rely on such stringent distinctions, policy makers must strive to ensure an adequate and fair system for doing so. Nonetheless, the very fact that there exists extreme ambiguity with respect to the definition hints at the need to blur the underlying idea of a dichotomy (Champion and Hugo, 2004).

### 3. Urban-Rural Continuum

The existence of a dichotomy would necessitate urban and rural to be defined as binaries without any intersection or overlap. However, due to the reasons discussed above, it is apparent that there is spatial and temporal variability in factors which are traditionally used to measure or classify a given area. “As the relationship between city and countryside becomes ever more entwined,

it is becoming *ever harder to talk of discrete 'rural' and 'urban' worlds*" (Rigg 1998).

This leads to the conclusion that 'urban-ness' or 'rural-ness' of a region can be measured in terms of its degree, which represents a continuum or a gradient. The position of a particular region on this gradient could be a determining factor of its social and economic development. Consequently, multiple measures have been developed to express the gradation in rurality (Brown, Cromartie, & Kulcsar, 2004, Waldorf & Kim, 2015) or urbanicity (Cyril, Oldroyd, & Renzaho, 2013) to define the specific investment and developmental needs of a particular region.

As this paper argues for the existence of a continuum, it is necessary to highlight the urban-rural linkages in terms of flows of goods, people, information, finance, and social relations across spaces. This facilitates visualisation of a landscape that can neither be "urban" nor "rural". Understanding the intermingling of economic and social agents across this space, then, becomes important for policymakers to consider while allocating resources and formulating schemes.

Urbanisation has had a significant impact on the growth of neighbouring rural areas. The most significant is the supply of agricultural products along with other natural resources, from rural areas to urban areas. There exists a flow of information between rural and urban areas expanding the understanding of consumer preferences and prevailing price conditions. Subsequently, farmers tend to respond to urban demands for high value products such as fruits, fresh vegetables and dairy. Several farmers in neighbouring rural areas participate in urban markets on a periodic basis to sell their produce. The growth in infrastructure with respect to transport links, road connectivity, communications and trading networks has allowed rural areas to grow with urban areas. A study of the farmers' markets in Tamil Nadu, South India, has shown increased benefits of supporting these strong links between rural producers and urban consumers. These farmers' markets have provided benefits for a number of small and marginal farmers, as well as for mobile vendors and low-income consumers. However, there is a greater need to

focus and encourage more active involvement of stakeholders themselves, in planning and implementing.

In the Indian case study of Bihar, it is found that there are advantages of rural-urban linkages in real time through infrastructure improvements, fueling demand for goods, services and jobs. The factors influencing market linkages include sourcing of inputs, catering to rural consumers, and access to public services.

The flow of manufactured and imported goods from urban centres to rural settlements is also an important benefit of urban-rural linkages. This, in turn, helps to sustain tertiary services such as general stores, vendors, repair shops in the rural regions. In fact, in the Bihar case study, most products sold in Jhanjharpur, including bangles, mobiles, clothes and vehicles, were not produced locally. The connectivity has developed to the national urban markets such that there is an abundant supply of consumer goods such as biscuits, chips, chocolates, beverages, bottled water, packaged noodles, detergents, etc. Thus, the provision of adequate infrastructure has played a central role in the growth of rural areas and small towns and cities, which form small urban centres. Rural population relies on urban centres for access to secondary schools, postal services, credit banks, hospitals, government services, etc. People travel to urban centres on a regular basis to purchase farm equipment, agricultural services, inputs for other non-farm activities, etc.

Additionally, there is a considerable increase in income diversification among rural livelihoods. This is why economic growth models which rely on employment distribution for classification of regions should be considered insufficient to explain the current social realities. The dependence of rural incomes solely on agriculture is reducing. There is an increase in local non-farm activities such as food-processing, transportation, warehousing, etc., which supplement income. From a policy perspective, schemes that focus on developing opportunities of economic diversification in rural areas strengthen the role of rural economies in the growth process.

Moreover, rural household income is often complemented by urban-rural migration, with members of families shifting to urban centres for better

income opportunities. For example, urban to rural migration serves to strengthen the linkages between urban and rural places rather than separating them, since most rural in-movers retain their urban job and commute to the city on a daily basis (Champion, Coombes, & Brown, 2009). The flow of information is a significant advantage of strong linkages, making rural individuals aware of employment opportunities for potential migrants. Financial flows primarily include remittances from migrants to relatives and communities back in villages, transfers such as pensions to migrants returning to their rural homes, along with investments and credit from urban-based institutions. With investments and opportunities concentrated in a few places (most likely cities), massive rural-urban migration is necessitated as stemming from rural-push and urban-pull factors (Berliner, 1977).

Increased awareness has also led to significant changes in consumption patterns of Rural India. The rising level of financial literacy has improved the credit availability and changes in saving habits. The advent of rapid technological growth is changing the fundamentals of the present rural-urban divide. The benefits of technological growth have been effectively reaped by the rural populations. In Rural India, consumption of online content is tremendous, with music/audio at 69%; news at 49% and gaming at 33%. Usage of video/OTT apps are driven by YouTube at 87% (most in Rajasthan, AP/Telangana, TN and Bihar) followed by Disney+ Hotstar at 30% (highest usage in UP, Tamil Nadu, Gujarat, and Kerala). WhatsApp and Facebook are the most used social media/ messenger platforms at 87% (most in Rajasthan, AP/Telangana, Karnataka) and 66% (most in Odisha, UP, Gujarat and West Bengal) usage respectively. Besides entertainment, “Bharat”, as Rural India is often referred to, utilises digital financial services and payment wallets. Phone Pe boasts 19% rural consumers, with Karnataka at 46% followed by Rajasthan at 38%.

There exist structural overlaps with the interlinkages between the core sectors dominant in urban and rural areas. This refers to the backward and forward linkages between agriculture, manufacturing and services, such as production inputs and the processing of agricultural raw materials, which sustain local economies. Overall, synergy between agricultural production and urban-based industries and services is often significant to the development of more

vibrant local economies, as well as for the growth of a sustained regional economy.

Apart from distinct urban-rural areas, there exist peri-urban areas which have features of both, and are usually situated in the areas around urban centres or along the roads out of such centres . These areas signify even greater intersections of ecosystems, making it impossible to distinguish them as either one of the two.

Beyond the economic interactions, the urban-rural continuum provides an interface for social and cultural interactions and exchange. These connections are not new, but they do seem to be gaining increasing importance. There are still conflicts between rural and urban interests. Yet, there exist significant synergies between rural and urban interests which must be nurtured for future economic growth.

Unfortunately, perceptions and policies do not seem to be keeping up with the realities that are reckoned with here. In the process, policymakers do not fully appreciate the importance of rural demand for urban businesses, the significance of income from non-agricultural production activities to rural households, or how, through remittances from seasonal or permanent migrants, rural households use links with cities to diversify their income sources.

#### **4. Economic Growth Models**

As the paper analyzes the status quo, it becomes pertinent to address why such deep rooted distinctions came into existence in the political economy. Macroeconomic growth theories postulate the trajectory of a country's economic growth. They take into account the interplay of economic forces such as labour, capital and technology. The hoary Lewis Model had introduced the idea of a structural transition of the economy, according to which development could be witnessed in a country through the rapid decline of the share of agriculture in the economy and rise in the share of industry and services. Simon Kuznets provided a similar pattern of a paradigm shift. The structural change paradigm is propagated since aggregate labour productivity in the economy rises from the primary sector to the secondary

and then to the tertiary. Agriculture is considered to be the 'traditional sector' attributed to the usage of traditional technologies and low labour productivity, while manufacturing is considered to be 'modern.' Development in these models exists as a function of urbanisation and modernisation. Thus, the mechanics of such a transition entails migration from the rural underdeveloped regions to the developed urban centres. The foundation of this theory lies in the proposition that rural labour productivity increases over time, since excess labour moves on to the other sectors.

However, in the era of rampant industrialisation and mechanisation of every sector of the economy, agriculture has evolved to become more productive per effective worker. When agriculture itself is being 'industrialised', then it calls into question the validity of applying pre-industrialisation models to the modern economy. Yet, this conventional understanding continues to guide developmental policy formulation in developing countries.

Besides, such models were developed in the 1950s and 1960s, in a closed economy context. This assumption, again, cannot be uniformly applied during current policy formulations, since sectors, especially agriculture, are not constrained by domestic production capacities. Instead, economies today can and do actively reap the benefits of achieving high aggregate productivity through comparative advantages of global trade. Thus, the premise that agriculture or 'rural' is synonymous with low labour productivity no longer holds good in the 21st century.

Furthermore, if development is measured through increased urbanisation, then rural productivity occurs as a byproduct of large-scale rural migration. This would lead us to conclude that rural development is a consequence of urban development, and not an end in itself. In which case, policies targeted towards rural development are treated as footnotes to the main agenda of urban development. This so-called 'urban bias' with respect to reallocation of resources towards the development of urban centres was formally theorised by Lipton (1977).

His theory posits that, due to inherently biased growth models, countries have systematically focused more on industrialisation rather than progressive agricultural development. In consequence, the rural economies have suffered

and lagged behind their urban counterparts. This unbalanced investment allocation has impacted development over the decades, bringing forth the recurring argument of an entrenched urban-rural divide. This is visible in terms of building economic and social infrastructure, organised industry and a civilised society. This is not to suggest that rural areas have not grown, but that their rate of growth is not justified when compared to the overall growth rates witnessed by countries all over the world. Given that growth models themselves rely on the transition from rural to urban areas through migration, for better employment, income and standard of living prospects, naturally, policies focused on development are targeted towards urban development rather than rural upliftment.

The existence of an urban bias has far-reaching consequences when it comes to the livelihoods of the rural populations. It impacts discussions of abject poverty and implementations of much needed reforms in these areas. This bias in economic development is not just a function of growth models, but also of a lack of political will to aid their development (Lipton, 1977). Therefore, in the discussion of rural growth, along with a systematic inconsistency in defining areas, there exists an uneven distribution in projects like quality education, healthcare, amenities, essential goods and services (Bates, 1981).

## **5. Policy Implications**

This paper has addressed several key issues that are fundamental from the perspective of developmental policy formulation. In spite of clear arguments against the existence of a dichotomy as the paper has established, this binary is sustained in government, academic and administrative structures. The urban bias has been persistent in several countries. In 2011, when the Socio Economic and Caste Census (SECC) was released for Rural India, it was heavily cited for representing the dismal impact of a consistent urban bias in policy making. That farmers and general masses of the countryside have, thus, been ignored and neglected since long has been upheld.

Nigeria, for example, had a policy for systematic development of its capital cities. The indigenous Niger Delta people cry foul over the growth of cities like Lagos and Abuja at the expense of their resources (Bodo and David,

2018). This pattern is not limited to developing nations, but has also been observed in the developed world. This necessitates a call for governments to consciously work towards holistic growth strategies. Over the years, policymaking has had the tendency to be concerned only with one of two regions, without adequate attention to the interdependence. A study by the United Nations Development Programme in Nepal has illustrated that urban planners have only focused on urban infrastructure while rural planners have ignored ties to domestic policies.

The policy implication of providing a secondary role to rural development agendas is huge. Rural areas considerably suffer from challenges of poverty and inequality. On a comparative note, they have less access to basic amenities and needs of life. The widening urban-rural gap is not just a policy concern, given that disparities have often led to rising rural discontent and grievances, polarisation and unrest.

Such examples serve as cautionary tales against skewed national development strategies that heavily base urban industrial growth as a solution to rural poverty through mass urban-rural migration. Even with the current migration rates, the condition of rural areas remains dire, and continues to severely increase the population of urban poor. Indeed, one of the main reasons for lagging rural growth is that policies were based on assumptions and definitions which did not necessarily reflect the true circumstances of people's lives and livelihoods.

Therefore, the right question is: What kind of strategies are necessary to serve as an engine of comprehensive development? How will an urban-focused strategy consider industrial growth in rural regions? Or, how can rural policies focus on agricultural development while providing infrastructure to connect supply of rural goods to urban markets?

## **6. Policy Recommendations**

This paper has addressed the definitional challenges faced by policy makers when strict binaries of urban and rural are drawn. The categorisation of a particular area as either of them could have a considerable impact on the resource allocation and transfer of government benefits. The



recommendation, therefore, is to conduct a settlement level analysis of the Indian geography for a more legitimate classification. Technological advancement allows the collection of remotely-sensed data as proxies for locational attributes. For example, the concentration of lighted buildings as captured through satellite imagery may represent urban centres.

The advantages of acknowledging urban-rural linkages and incorporating them to create targeted environmental, social, economic and institutional research have been hailed by several scholars. From a policy perspective, territorial development through decentralisation, i.e. emphasising on the positive advantages of urban-rural linkages while mitigating the negative impacts, is a key recommendation. This refers to a dire need for policies that find middle ground between national and sectoral growth interests, while simultaneously catering to context specific needs and challenges. Carrying out these recommendations at an institutional level would necessitate access to better data, autonomy and accountability of local governments, and consistent participation of stakeholders in planning and implementation of policies.

This is not all. In order to address biased economic models, the foundation of policy making must shift to acknowledge a 'Transformative Change' growth path. This subsumes the initial principles of the structural growth models while emphasising on the need to focus attention on within-sector diversification. It allows policymakers to develop dynamic comparative advantages overall for the sake of efficient global division of labour, rather than concentration of resources in a particular sector of the GDP. In the era of rapid technological progress, it is evidently possible to reduce the class-divide between urban and rural areas in a meaningful manner. Evidence now proves that the steady decline of contribution of agriculture to GDP, or decline of rural population, are not the sole pathways for a country to transition into a highly productive economy. Instead, it is very much possible to achieve economic growth, even with these shares remaining high.

Beyond these recommendations is the realisation that the relationship between urban and rural is changing fundamentally. Not only is there a need to recognize a continuum in general, but also that as economic systems diversify, they have given rise to what is being referred to as mixed economic "desakota" systems.

These regions, much like peri-urban regions, lie at the intersection of urban and rural. Over the coming decades, these interacting forces will define and redefine the interaction of economic ecosystems to determine lives and livelihoods in these regions. Through technological and economic growth, ecological protection and recognition of social systems, these changes will prove critical for developing nations. Thus, there is a need to actively recognize such regions, develop tools to evaluate development concerns and investigate complex relations that interlink the rural with the urban.

Policymakers must focus more on “systems” rather than on “regions” or “sectors”. There is a need to refocus attention towards the integration of urban-rural interests to boost economic activity. Targeted thinking and development of these systems will not only enhance the lives of rural populations, but also strengthen the growth of their urban counterparts. This, in turn, through feedback loops, helps policymakers to transform themselves to consider development strategies in a more holistic way.

## **Conclusion**

This paper aimed to establish the following arguments (1) The complex and inadequate mechanism of defining urban-rural does not hold good within the current dynamic social environment.. The existence of a universal criteria is not only unfeasible, but also insufficient to explain the complex interactions between the two areas; (2) There is a dire need for policy makers to acknowledge the existence of an urban-rural continuum instead of a dichotomy. The paper has elaborated on the problematic nature of a dichotomy and emphasized on the need to adopt an urban-rural continuum that is both accurate and all-encompassing; (3) The interdependence of urban-rural economies as it exists in the status quo emphasises the deep-rooted urban-rural linkages, which are integral for both the areas to survive and thrive; and (4) There is a persistent and systematic bias against rural development in resource allocation that is syphoned off to urban areas. This is not only a function of political bias, but also of historic growth models which treat rural development as an ancillary goal.

Finally, the main objective of this paper was to draw focus back to targeted rural development policy, as an end in itself. Formulation of better rural

developmental policies will have a long-term impact, not only on national indicators, but also for fulfilling global development goals. The paper has, for these purposes, undertaken a detailed study of the policy implications of sustained ignorance of policymakers towards rural development. And on this basis, it has proposed constructive recommendations to address the problems persistent in the status quo.

While acknowledging that the inequalities between urban and rural areas in India are persistent, by using Rural India—Bharat--as a case study, this paper has sought to highlight the future growth potential of the hinterland. Thus, in the coming decade, economic development policies focused on enhancing rural livelihoods would define India's integrated growth trajectory.

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## Neo Banks: A Fintech Innovation in the Banking Sector

### Abstract

*With evolution of the Fourth Industrial Revolution and emergence of COVID-19 pandemic, technology has become increasingly vital in our daily lives. To keep up with ever-increasing technological advancements, the banking sector needs to adapt and evolve. The fintech business has caused significant disruption in the banking industry by utilizing breakthrough innovation to supply financial services previously offered by conventional banks. New banking business models such as neo banks are progressively extending their presence in the financial markets, posing a threat to traditional banks. Through this paper, we seek to understand the importance of neo banks in the minds of consumers as well as its awareness in India. We have delved deeper to understand the working of neo banks, their growth and the fundamental differences between the neo banking model and the traditional banking model through rigorous literature review. Further, using descriptive analysis, based on 87 responses received from a self-constructed*

*questionnaire, we have demonstrated the awareness of neo banks, its feasibility in a country like India as well as the challenges neo banks face. The research concludes by highlighting the current failure of neo banks in making a significant influence and their enormous future potential given they overcome the major concerns such as regulatory issues, security concerns, digital divide and psychological challenges.*

## **Keywords:**

Neo Banks; Technological Revolution, Embedded Finance; Banking Industry; Regulatory Concerns.

## **Introduction**

The banking sector underwent significant changes during the aftermath of the financial crisis. Following the 2008 financial crisis, the public's faith in banks plummeted, with banks being among the least trusted entities. While different countries were affected in multiple ways and dealt with the challenges that arose in their own manner, it is widely assumed that the financial crisis and its ramifications profoundly altered how banking is done and controlled. These underlying reasons, together with advances in digital technologies, cleared the path for FinTechs – organizations with new business models and advanced financial technology that can offer, improve, or even disrupt financial services (EY, 2016).

Digitization of the whole banking and transactions journey, upgrading legacy systems and ways of serving customers, and being the enablers of transactions at source are leading to the large-scale development and adoption of embedded finance (PwC, 2021). The financial industry, like the rest of the world, is now heavily reliant on digital services in almost every aspect of its operations. Customers of financial institutions and banks are increasingly reliant on digital services. Profitability and ease of operation are the key benefits for banks when using digital services while convenience, cheap prices, and anywhere transactions are the main benefits for clients.

Neo banking is a digital service which has been in the limelight in the past couple of years for taking over the fintech industry on a global level. But



what is a Neo Bank? Neo banks are financial technology companies with no physical branches that provide internet-only financial services. Neo banks have the advantage of not having a complex legacy technology burden, with data that is hard to exploit through being organized into silos, and the cost-saving that comes from not having a physical distribution network when compared to traditional banks (BBVA, 2016). They are well-positioned to grow swiftly in new markets due to their modernism and simple technology systems, as well as their lack of need for a physical network. Thus, neo banks implement innovative technology not only just to be on the forefront but also to save money on banking costs by eliminating physical branches and moving everything online. This allows them to lower fees and reach out to the unbanked. Another important feature of neo banks is that they are customer-focused, offering personalized services to their customers that are enabled by technology. A neo bank's decision-making process is driven by data-driven decisions. Because their platforms are modernized, collecting and analyzing data and understanding how their customers behave in the neo banking ecosystem becomes easier for them. Rather than sticking to one or two data points, they create a group of customers based on their actions based on these observations. This type of agility and efficiency, as well as a better understanding of the needs of digital consumers, offers them an advantage over traditional banks.

Due to the gradual shift towards digitalization and especially after the onset of the COVID-19 pandemic, which has forced people to stay at home, neo banks have finally caught up to traditional banking, as both are primarily limited to phone applications or websites due to mobility constraints. There has been a steady rise in the number of new accounts opened. For instance, Neo bank Chime, which was founded in 2013, is the global industry leader and is expected to have 13.1 million US account holders in 2021, up 30.7 percent from the previous year (The Financial Brand, 2021).

## **Emergence of Neo Banks**

According to the PWC report on 'Challenger banks and the future of digital banking' (2021), traditional banks were lacking in mainly four dimensions namely, complex, and non-customized financial products, connectivity and

reach, customer experience and awareness and engagement. In terms of the wide range of products that such banks were offering, the products and services offered were limited to mass produced, 'everyone fits one' types of goods and services. This deterred the traditional banking model, as customers desired personalized content to fulfill very specific, individual-dependent goals. As traditional models failed to give personalization the importance it deserved, other models, like the neo bank model which catered to these customer specific requirements. Similarly, in terms of connectivity and reach, the cost structure associated with traditional banks were heavily dependent on physical touchpoints and manual processes, which served as a problem when it comes to expansion and serving a larger client base. During such times, it becomes uneconomical. Most tech companies provide superior user experience and interface as compared to the products and services of traditional banks. Despite banks being at the forefront of technology disruption, they are still playing catch up and moving from manual to technically automated processes. Technological advancement has been continuously affecting how customers expect their experiences to be. It has resulted in the need for traditional banks to provide experiences that are instant, frictionless, contextual, and holistic. Thus, defining the expected customer experience which forms the basis of the working of a neo bank model.

Furthermore, recent global trends have made traditional banking systems understand the power, potential and importance of disruption by technology advancements. With the COVID-19 pandemic fueling the possibility of technology and making people understand the growing importance of digitization and convenience, it has helped push neo banks as challengers to the current banking system in place.

## **Global Growth of Neo Banks**

The neo banking industry has grown rapidly in North and South America, the United Kingdom, Europe, and Asia-Pacific (APAC). The Neo banking revolution began in Europe six years ago, with some of the first mobile-centric and user-experience-focused examples appearing in the United Kingdom, France, Finland, Germany, and Russia. They were governed by

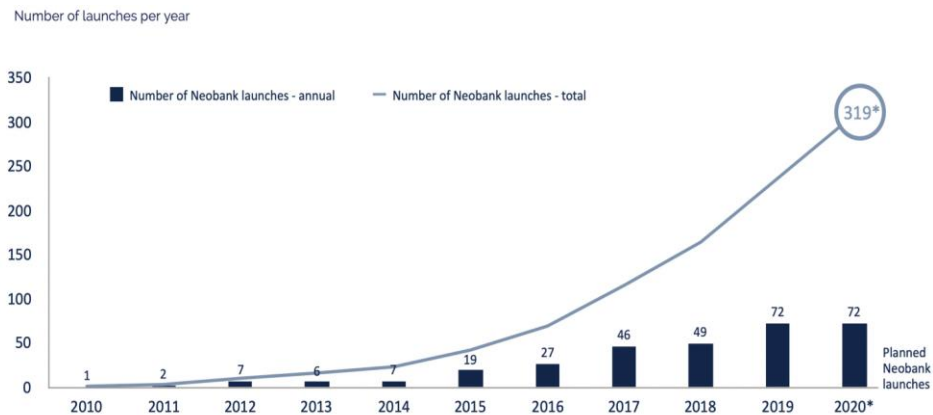
the original Payment Services Legislation (PSD), an EU directive that aimed to regulate payments services and service providers and helped boost industry transparency while also making new entrants more accessible. PSD2 was then implemented, requiring third-party access to bank APIs. Because they were able to safely access client account data and establish digital-only banks, neo-banking FinTech firms grew as a result of the open data-sharing ecosystem. Due to the early establishment of unified banking norms for the entire European Union, the United Kingdom enjoyed a head start in neo banking (EU). APIs were utilized by FinTechs to create open banking systems that were specifically designed to form relationships with banks to service niche consumer segments. This accelerated the rise of neo banks in the United Kingdom, and they went on an acquisition binge while remaining compliant with rules.

Even though initially neo banks were concentrated in Europe, Neo banking is now a truly global phenomena, with a growing number of companies covering a wide range of categories and banking models in major markets throughout Asia-Pacific and the Americas. Latin America, for example, has experienced a rapid growth, with around 50 Neo banks already operational, following in the footsteps of the Nubank's big success in Brazil (Exton Consulting, 2021). In the United States, Simple and Moven were two of the first neo banks to open. They catered to customers who were dissatisfied with traditional banks by offering fee-free accounts that were simple to open and personal financial management services such as budgeting, spending tracking, and automated savings tied to daily actions. Today, there are more than 30 neo banks, many of which have just been around for a few years, and the features supplied by the early entrants are already considered standard (Bradford, 2020). Furthermore, the emergence of the "sharing economy" has given neo banks the opportunity to deliver innovative banking products. In terms of Asia-Pacific, a few Asian countries have implemented licensing legislation to bring neo banks under regulatory frameworks over time. Regulators in developing Asian economies have recently begun to investigate ways to regulate digital and neo banks. The Monetary Authority of Singapore (MAS), the Financial Supervisory Commission of Taiwan (FSC Taiwan), Bank Negara Malaysia (BNM), the Bangko Sentral ng Pilipinas (BSP), and the Hong Kong Monetary Authority (HKMA) are the regulators who have

issued digital banking frameworks and begun granting digital banking licenses. The Bank of Thailand (BoT), on the other hand, is leaning toward regulating the digital banking market, while Bank Indonesia has released digital banking guidelines. This has led to a rise in the number of neo banks in Asian countries. For instance, China has seen a unique development with the explosive growth of financial ecosystems such as Ant Financial and WeBank, which have successfully expanded into consumer lending and other products in addition to attracting hundreds of millions of customers and gaining a dominant position in payments.

Thus, even though three of the five most advanced neo banking markets are located in Europe: the UK is the Neo banking powerhouse, followed by Sweden and France, at the same time, other global markets, most notably China, and Brazil, but also the United States, are rapidly catching up.

**Figure 1: Neo banks worldwide launches from 2010**



Source: Exton Consulting (2021), Report Neo banks 2021: Shifting from growth to profitability

## Neo Banking in India

Over the last two years, the Indian neo banking environment has exploded. Even though many players are fighting to expand their operations, factors such as unique product offerings and target consumer categories ensure that each neo bank has significant development potential in the next few years.

With enhanced banking infrastructure, new banks, and regulatory obligations, and technologically advanced FinTechs, India's financial services journey is transforming, with a greater focus on client needs. In addition, factors such as incumbent banks seeking strategic alliances with neo banks and private equity interest are contributing to India's neo banking growth narrative.

Indian neo banks aren't regulated directly by the Reserve Bank of India (RBI). They provide financial services through their digital platforms in collaboration with licensed banks, NBFCs, and other financial institutions. Because of the nature of their business model and the lack of legal restrictions, neo banks in India do not have a physical presence. Customers are typically interacted with through digital media. Customers can, however, still visit physical branches of partner banks and financial institutions. Because there is no existing licensing structure in India for neo banks, the RBI's Outsourcing Regulations, Business Correspondent Guidelines, and Master Directions on Digital Payment Security Controls, which apply to the partnering regulated firms, govern most partnerships with regulated entities (PwC, 2021). Thus, the type of services provided by neo banks determines the applicability of these standards. Neo banks collaborate with other regulated organizations to offer a variety of financial services. Opening bank accounts, loan/credit facilities, prepaid card services, investment advising services, insurance services, and so on are examples of these services. White-label products such as expenditure management, invoice preparation, and vendor payment management are provided by several neo banks that target and service MSMEs and other non-retail segments. For instance, Finin, an Indian neo bank, was founded in 2019 by Suman Gandham and Sudheer Maram. The Bengaluru-based start-up Finin has a tie-up with the State Bank of Mauritius (SBM) for their operations (Pius-Velmurugan, 2021). They are offering instant savings accounts and debit card services.

**Table 1: List of some Neo Banks facilities offered in India.**

Neo Bank	Partner Bank	Services Offered
Razorpay X	RBL	Current accounts, Payment gateway, Cash advance, Working capital loan, Pay out
Open	ICICI, SBI, AXIS Bank	Current account, Business loan, Payment gateway, Cash advance, Payout
NIYO	IDBI, Yes Bank	Savings accounts, Wealth management, Foreign-exchange
Finin	SBM	Savings account, Payment gateway, Investment
Instant Pay	ICICI, HDFC	Savings accounts, Wealth management, Foreign exchange
PAYZELLO	Yes Bank	Virtual debit card, Money transfer
Aceware	ICICI	Micro ATM, Money transfer, FASTag
YeLo	ICICI	Credit payment, Banking

Source: Pius-Velmurugan (2021), A Study on the Growth and Operational Mechanism of Neo Banks in India

## Traditional Banks and Neo Banks

Neo banks have recently emerged in the FinTech industry, they have recently been gaining popularity as the possible future of the banking industry. The main difference between a traditional bank and a neo bank lies in the essence of what a neo bank is. Neo-banks are those banks which are considered 100% digital, that is, as opposed to traditional banks which have physical branches across states and countries, neo-banks solely function online; they have no physical presence. They are also sometimes referred to as ‘challenger banks’ because they challenge traditional banks in terms of convenience and customer-centric services. The differences between traditional and neo-banks come to light based on various basis

According to Galazova and Magomaeva (2019), unlike traditional banks that have been operating for multiple decades, neo-banks have been a more recent development in the banking industry. Having been brought to picture around 5 years ago, neo-banks have managed to take the Fintech world by storm in this short amount of time. The advancement in technology during recent times has helped skyrocket neo-banks as the possible future of the banking industry. This recent phenomenon has further been shot to fame with the

current pandemic that has fueled digitization and the acceptance of technology.

Furthermore, traditional banks must compulsorily have full bank licenses in order to operate. Neo-banks, however, can obtain licenses through multiple stages, depending on the services that such banks choose to offer. For example, some neo-banks offer deposit insurance, only these banks need licenses for the same, if the bank chooses not to offer such services, they do not need to obtain this license. Therefore, while neo-banks require none, partial or full banking license, traditional banks require full or complete banking license to operate at any level.

By definition, neo banks have a complete online presence, that is they operate solely on a digital platform. All their branches are online, or in-app; they do not have any physical branches. Traditional banks, on the other hand, have a physical banking institution, these banks can operate both offline and online. As per Temelkov (2021), as neo banks function online, customers are served almost instantaneously as these banks save time, unlike traditional banks that work within a properly defined organizational structure.

As neo banks operate online only, the relationship such banks share with their customers is often flexible, virtual with no long contracts. Neo-banks generally attract short to medium term customers. Even the support given to customers is done online, in-app or through telephone conversations. Traditional banks have a longer relationship with customers which can also be attributed to the fact that they have been on the scene longer, allowing them to create awareness and a certain amount of trust among the people. In terms of support, traditional banks have such provisions online and the option for customers to visit the bank and obtain personalized help, often creating more personal contact between customers and the bank.

The major advantage of neo-banks is that they are customer-friendly and very convenient, this is reflected in the fees charged for services provided. Most of their charges are transparent and fairly cheaper as neo-banks have lower operational costs since they don't have a physical presence. Traditional banks have more complicated, ongoing costs that need to be met by customers.

Traditional banks also operate on a larger, wider scale which also drives up their costs.

**Table 2: Traditional Banking Model and the Neo Bank Model**

<b>Basis</b>	<b>Traditional Banking System</b>	<b>Neo Bank Model</b>
Approach	Product centric approach	Platform centric approach
Network	Large network of branches (physical)	Open banking through the online mode only
Customer Acquisition Cost	High customer acquisition costs	Online mode allows lower (cheaper) customer acquisition costs
Scalability	Limited scalability in terms of modular architecture	Dependency on third party providers in terms of technology is low
Flexibility	Rigid platforms that have been used for ages	Flexible, with a good ability to provide the latest and most convenient services in a fast pace
Organizational Design	Organizational design is product centric	Organizational design is consumer centric
Mode of services provided	Mix of offline and online services	Provision of only online services

Source: Finnovate (2018), Neo - Banks: Performance and New Ideas, Finnovate Research - Ideas for financial innovation

From the features presented in the above table, it is found that traditional banking models have a higher level of costs mainly because of their need to maintain a large network of (physical) branches. In contrast, however, the neo bank model, which is fully online, eliminates any need for maintenance and employee costs. Even when it comes to customer acquisition, traditional

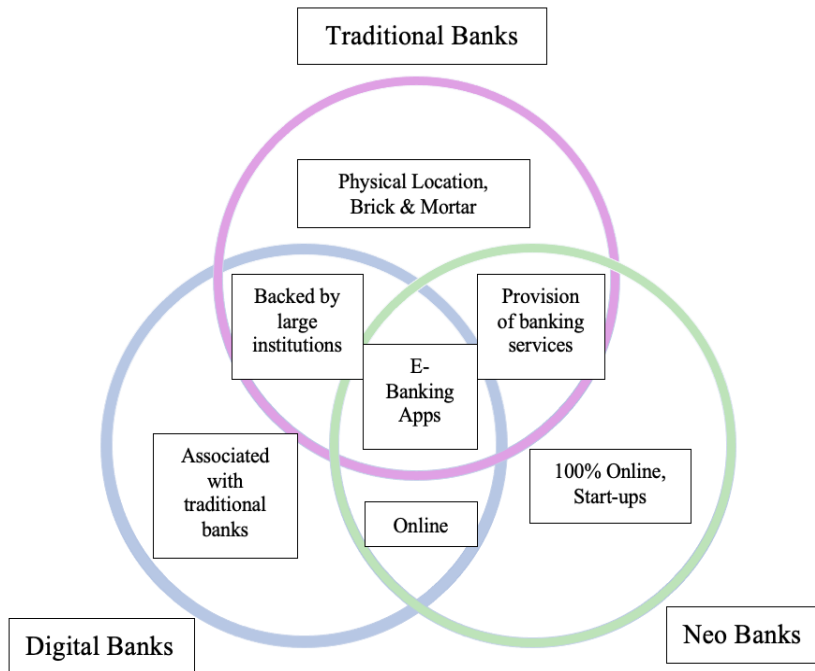


banking models have higher costs as opposed to the customer acquisition costs related to neo banks. Moreover, the technology utilized by both models is vastly different as well; neo banks require and use latest technological developments while traditional banks can afford to use outdated or outsourced technology, since their entire model does not heavily depend on this technology.

The way each model's organizational design utilizes data also brings about differences in these two types of banks. Neo banks, on the one hand, employ the data in a manner such that it will enable them to understand customer needs better and adapt to their existing products or to create new products and services that will benefit their customers. They are also defined as customer-centric banks. On the other hand, traditional banks lack the capability to explore their data fully and are mostly product-driven. This helps them explore economies of scale and fully utilize their infrastructure and capacity.

The models of digital banks and neo banks are very similar, but it is important to note the difference between the two terms. These two terms, neo bank and digital bank look very similar to each other in their activities, that is, they both give online services to their customers. While neo-banks and digital banks are very similar in functioning and presence, the key difference between the two lies in the fact that neo-banks are independent while digital banks are associated with traditional banks. Digital banks act as the digital branch of traditional banks (large), allowing traditional banks to not only operate physically but digitally as well. Neo banks are completely based on IT and Artificial Intelligence.

**Figure 2: Venn Diagram representing features of Neo Banks, Digital Banks & Traditional Banks**



Source: Author's compilation

### **Advantages of Neo Banks over traditional Banks**

Neo banks have various advantages over and above traditional banks which make them the future of the Indian Banking System. While analyzing the gap between the advantages and disadvantages of Neo banks and traditional banks, the following points can be observed.

1. As compared to traditional banks, the mode of operation of neo banks is very cost effective. There are no operational or logistical costs attached.
2. Since neo banks are fully technology oriented, it removes the need for face-to-face interaction with customers which facilitates various

innovative product ideas as well. Thereby, increasing the scope of creativity within the banking sector.

3. As neo banks work on a complete online set up, that is an online interface only, it can provide 24\*7 access to its customers, which also increases convenience.
4. The main advantage of neo banks over traditional banks is the ability for neo banks to adapt to any situation. In this fast-paced technology world, it works right up neo banks' alley as it is possible for them to survive any tech-based revolution. The adaptability of neo banks to every possible situation, puts them at a highly advantageous position as compared to traditional banks.

Furthermore, venture capital and private equity investors have been keeping a keen eye on the market opportunities for such banks and are taking an increasing interest in them. In 2020, India's neo banks have raised more than \$230 million, according to a report by a fintech research firm. According to the PwC report (September 2021), as of 2020, India had a smartphone penetration rate of 54%, which is estimated to increase to 96% by 2040, thereby increasing the accessibility of neo banks to potential customers. Therefore, the future of the Indian banking system lies in neo banks.

## **Research Methodology**

This section delves into the methodology utilized to answer the following questions:

1. What are neo banks? How have they grown in the last decade?
2. What are the differences between a neo bank and a traditional bank?
3. What is the acceptance of neo banks in India?
4. What are the challenges that neo banks suffer from?

Through literature review, it has been observed that neo banks are those banks which offer services solely online as they have no physical presence. While they differ from traditional banks on multiple bases, they have grown to be challengers to the traditional system of banking. The next two questions

were investigated with the help of a survey that tried to understand awareness, acceptance and challenges of neo banks. The survey drew inspiration from the paper by Koen Meijer titled 'Customer Acceptance of Neo Banks: What Role Does National Culture Play?'(2021).

### **Data Collection:**

The respondents of the survey consisted of both students and working professionals, with or without any prior knowledge about neo banks. We circulated a google form which received 87 responses and was used as a basis for our study. Of the responses, approximately 85% of the responses belonged to the 18-30 years age bracket, 7% belonged to the 'below 18 years' and 31-45 years age bracket each. 55% of the respondents identified as females and 45% as males. In terms of occupation, approximately 87.5% of the responses were from college or university going students. Around 82% of the respondents belonged to the 'below Rs. 500000' income bracket given that most of the respondents are students.

As most of the responses were received from students in the 18-30 category from urban areas, the results obtained may be skewed to that demographic.

The survey's questions were divided into the following categories:

- a. General questions – questions about the person's age, location, income bracket, etc.
- b. Specific questions – these questions were further subdivided into:
  - Feasibility and Awareness of neo banks
  - Characteristics of neo banks
  - Challenges faced by neo banks

The questionnaire consisted of 22 questions over 3 sections and most of the specific questions were captured using a 5-point Likert scale. The data so collected was analyzed using descriptive analysis.

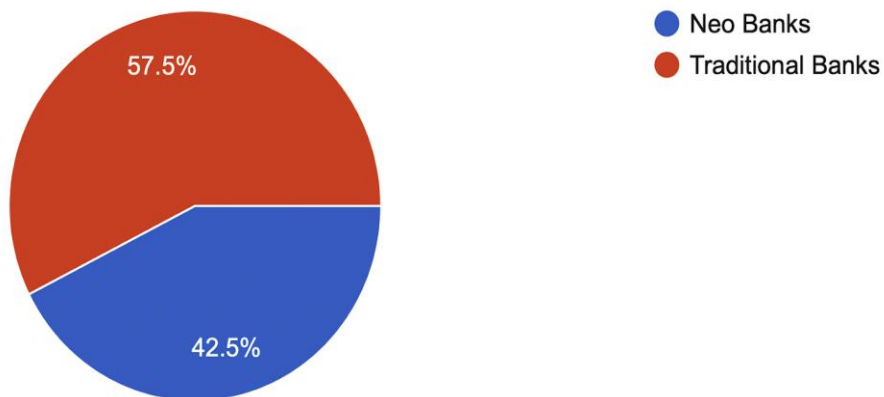
## Findings and Discussion

Descriptive analysis was conducted as a method to understand the most frequently chosen answers for questions circulated in the survey. As a 5-point Likert scale was utilized in the survey the responses range from ‘Strongly Disagree’ to ‘Strongly agree’ and are used to decide the degree of understanding and awareness of neo banks among the general population.

### Feasibility and Awareness of Neo Banks

In this section, the population was questioned on their internet connectivity and their general knowledge in terms of neo banks and the services they offer. Over 98% of the respondents had a stable internet connection, with over 72% willing to undertake banking services online only. Approximately only 28% of the population had availed services of a neo bank and 42.5% of the respondents preferred neo banks over traditional banks.

**Figure 3: Alternative People Prefer to Avail Banking Services**



Source: Author's compilation

### Characteristics of Neo Banks

This section sought to understand the most important features of neo banks from the perspective of current consumers and potential customers.

The research survey indicated that the most attractive feature of a neo bank is that it is faster and quicker than traditional banks. Over 75% of the respondents agree/ strongly agree to this characteristic, while the remaining 25% are neutral. Approximately 70% of the responses agreed with the statement that neo banks are flexible to use, which makes this the second most important characteristic in the minds of the survey population. Flexibility is followed by the feature of 'ease of use' which has received the support of 65% of the respondents. While 55% of the population believe that neo banks are customer friendly, a large population (35%) is quite neutral to the statement and 10% do not agree with the feature. The other two features of neo banks, which include the fact that they help save money and that they are trustworthy and safe, have a relatively smaller percentage of responses who think that this is a viable and acceptable feature of neo banks (44.3% and 40% respectively). These features have an equal percentage of the population who are neutral to the feature and approximately 11% each who do not believe in these characteristics.

From the survey and the analysis drawn so far, it was observed that according to the people, the most redeeming characteristic of neo banks is that they are quicker than traditional banks. Furthermore, the popularity of neo banks can be improved if they can prove to people that they are trustworthy and help save money, since most of the respondents were hesitant in these aspects.

## **Miscellaneous Questions**

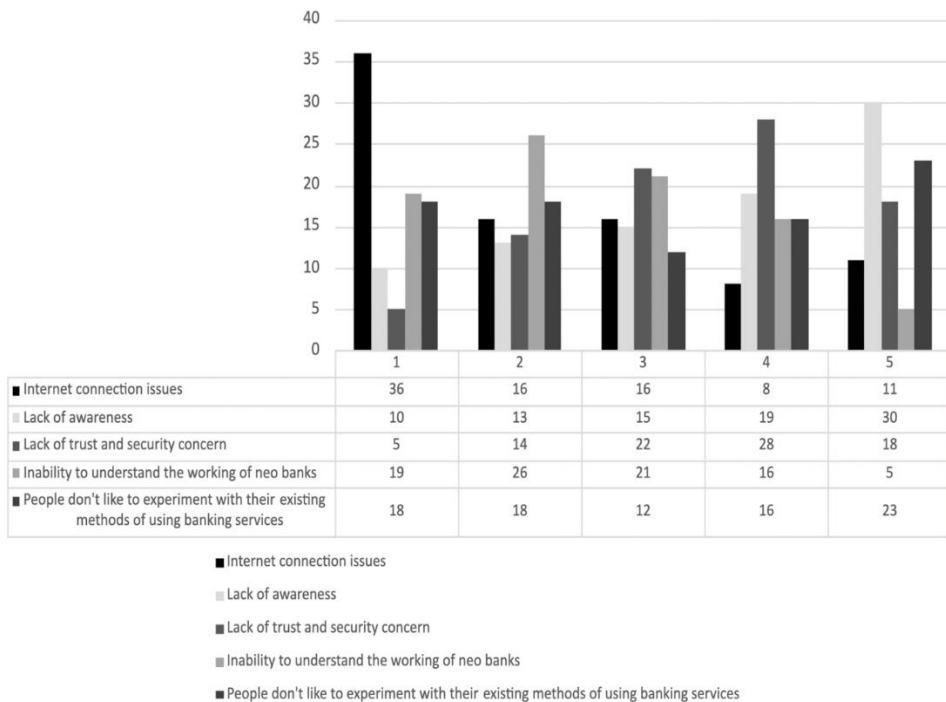
This section delved into the perception of people in terms of the challenges faced by users of neo banks and the ways in which awareness of the same can be increased.

The first question required the population to rank the challenges and list them from least important to the most important. Based on the responses the following ranking was obtained (from most to least important):

1. Lack of awareness
2. Lack of trust and security concerns
3. People do not like to experiment with their existing methods of using banking services

4. Inability to understand the working of neo banks
5. Internet connectivity issues

**Figure 4: Challenges People face in using Neo Banks as alternatives to Traditional Banking Services (Ranked from 1 [Least important] to 5 [Most Important])**



Source: Author's compilation

Therefore, it can be observed that the most pressing challenge of neo banks these days is their lack of awareness. It would be possible for neo banks to become more popular if their awareness could be increased. This is followed by lack of trust and security concerns, which from the last section was not a believable feature of neo banks. Their road ahead would include creating an image of trustworthiness in the minds of potential consumers. Another challenge is the fact that people do not prefer shifting from existing modes of banking. The last two challenges include inability to understand its working and internet connectivity issues. As the sample space of our study was limited to people with good internet connection, the results in this sphere may be skewed.

In conclusion, the popularity of neo banks can be increased by increasing their awareness and addressing the issue of security in the minds of potential customers.

Moreover, in the question regarding how awareness of neo banks can be improved and increased, most of the respondents believed that consistent advertising not only by companies but by the government as well could help. Similarly, people who were more informed about the same believed that greater regulation (which neo banks currently lack) and addressing possible security and privacy threats would also improve the image of neo banks. Furthermore, of the respondents who utilized neo banking services, approximately 55% of them would recommend the services provided by neo banks to their friends and family, which indicates that once such services are undertaken by customers, they do not have too many complaints and would like to continue with said services.

### **Challenges Circumventing Neo Banks**

With the technology industry's rapid and continuous expansion, the risks and challenges associated with it have risen in sync with the industry. Cybercrime, which has been on the rise, is one major risk connected with technology in the financial and banking industries. There was a considerable increase in cybercrime from the average number of security breaches in 2017 (130) to the average number of security breaches in 2018 (145), resulting in an 11 percent year-over-year increase and a 67 percent increase over the previous five years (Accenture, 2019). When considering the rise of Neo banks, which are fast gaining popularity, this factor must be considered as it will not only increase the expense of cybercrime for neo banks but also seriously mar their reputation among the public. It can also be noted from the survey that a large number of people are skeptical about using neo banks as they have security concerns and trust issues. More than 52% respondents of the survey ranked the factor: lack of trust and security concern 4 and above indicating trust issue is one of the biggest challenges neo banks are facing.

Apart from that, there is the race to get a large enough group of individuals on board. To become viable, neo banks will need to amass a large enough customer base, which will require persuading a considerable number of



people to switch their accounts from existing providers. It is well-known that this is a challenging task. For example, while the UK has about 70 million active current accounts, data from the Current Account Switch Service reveals that the annual number of switchers has been relatively stable at around a million for several years (Softwire, 2022). Considering this, any meaningful customer-base expansion will take time – something the neo banks do not have in plenty. This can also be seen from the survey results wherein more than 44% of the respondents didn't like to experiment with their existing methods of using banking services.

In the context of India, the most significant problem that neo banks have is the lack of separate licensing. The regulations of neo banks are such that they are currently not recognized as virtual banks in India, which is a roadblock to their development because they must rely on other partner banks for licensing. As a result, the promoters of Neo Bank are dissatisfied because they must agree to all the partner bank's terms and conditions in order to be licensed. Another major issue for neo banks is the lack of a regulatory framework that establishes rules and regulations for neo banks in order to fully allow them to provide services.

Apart from this, lack of awareness of neo banks, internet connectivity issues and inability of people to understand the working of neo banks are also few reasons which pose a challenge to the rise of neo banks worldwide. For instance, the UK is the powerhouse of neo banking and according to a Money Supermarket research, even the most well-known neo bank in the UK, Atom, is only known by name by 19% of UK consumers. This is also consistent with the survey results in which more than 56% of the respondents feel that lack of awareness poses a serious challenge to the growth of neo banks.

## **Sustainability of Neo Banks**

Neo banks' recent quick development is partly due to a rise in demand for digital solutions by tech-savvy clientele, as well as an easier account opening process, faster transactions, higher technological investments, and cheaper expenses. Despite the recent success of neo banks, some of their original advantages are eroding as a result of new technical entrants, operational model challenges, or traditional bank activities. Thus, in spite of significant

advancements of neo banks and the neo banking market, it is still too early to definitively define or predict the path in which these institutions and markets will develop in the future. This is because most neo banks have been in operation for less than ten years and are continuing in some sort of development. This implies that the inability to predict future movements in the neo banks ecosystem is hampered by a high degree of ambiguity about future advancements and prospective modifications. As a result, determining the major determinants that may affect neo banks' ability to sustain their economic activities and achieve further expansion is of special interest. The key factors that will have an impact on the sustainability of neo banks can be placed in three categories:

**Growth vs. value:** Many neo banks place a strong emphasis on growth and are able to swiftly attract a significant number of consumers. However, attracting clients through provision of specialty service or convenient app will not get them too far. In order to be successful and sustainable, neo banks will need to gain the trust of their clients so that they feel comfortable in depositing their pay checks and using the neo banks as their primary accounts. This customer trust and long-term value should be incorporated into the neo bank's strategic design and should be a part of the envisioning process.

**Convenience vs loyalty:** The art of convenience has been mastered by Neo banks. Customers can open an account in minutes and have access to specialized banking services. Using numerous neo banks for different services is straightforward and allows clients to quickly obtain the service they require. Traditional banks, on the other hand, are frequently perceived as more inconvenient and difficult to work with, despite the fact that many clients' principal accounts remain with them. To extract long-term value from their clients, neo banks must shift their focus from luring interested new users to creating loyalty and trust. Neo banks can create and retain important customer connections by incorporating loyalty incentives into the planning stage and using customer data to keep users engaged and enhance their customer journey.

Imitation vs evolution: The urge to consolidate services and become more like a regular bank arises when a neo bank's company grows and becomes successful. However, the value of a neo bank comes from its customer-centric focus, which extends beyond typical banking needs. Neo banks can grow inorganically by continuing to invest in partners and collaborating with open API ecosystems to unlock value. Neo banks will be able to learn quickly and adapt to changing client expectations if they have a culture of innovation and agile decision-making. Returning to ordinary banking will eliminate the benefits of being a neo bank.

## **Conclusion and Policy Implications**

The fintech industry, which utilizes technological improvements to deliver financial services previously provided by banks, has caused significant disruption in the banking industry. Modern technology allows financial organizations to provide financial services more efficiently, with reduced operating costs and greater flexibility. As a result, new banking business models such as neo banks have evolved, and these banks are steadily expanding their position in the financial markets, causing a threat to established banks.

However, even while new bank business models have the potential to overtake traditional banks in market share, they are still in the early stages of development and must overcome several challenges. These challenges, especially in relation to India, are not only related to policy regulation and licensing but also lack of awareness among the masses. Apart from this, people are hesitant in using neo banks because of lack of trust and security concerns due to increasing cybercrime. Moreover, people resist adopting new technology as experimenting with their existing methods may seem challenging, especially for the older generation. As a result, even though neo banks exhibit disruptive innovation features, a meaningful market disruption has yet to emerge.

Thus, it remains to be seen how much neo banks can disrupt the banking sector. While some have had tremendous growth to date, the general market is still yet to adopt them in large numbers. Therefore, in order to make a substantial impact and increase market penetration, especially in India, neo

banks have to work in tandem with the government. They can play a critical role in expanding the reach of financial services, operationalizing measures taken to address the issues of financial inclusion, and delivering a bundled portfolio of basic financial services by collaborating with the government. Apart from this, neo banks have to make considerable efforts to increase their awareness either through drives, mass advertisements or through social media and assure people that their usage is safe and secure.

Hence, even though currently neo banks are not able to create a substantial impact worldwide, their potential is immense and they can overtake the banking sector and become a leader in financial services in future if they continuously work to overcome the challenges faced by them.

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# Analysis of Corporate Social Responsibility and Financial Performance with Reference to IT Companies

## Abstract

*Corporate social responsibility (CSR) is now widely recognised as a means for businesses to achieve long-term objectives. With the expanding socio-regulatory pressures, CSR as an important subject of public policy has occupied a vital role in the Indian business picture, as it has built up a durable relationship with the population at large. According to the principle of social responsibility, an organisation or individual has an obligation to behave in the best interests of society as a whole. Every individual or corporation has an obligation to perform social responsibility in order to preserve a balance between economic growth and sustainable development. Corporates nowadays do not limit themselves to utilising societal assets, but instead aim to achieve common benefits through economic and environmental*



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*development. The Indian government gained an authorised approach to deal with reconfiguring the business-society connection in the form of mandatory CSR exercises with the Companies Act, 2013. The purpose of this study was to evaluate the role of Information Technology companies in corporate social responsibility in the age of the Sustainable Development Goals. The aim of this research was to determine the impact of corporate social responsibility spending on the financial performance of nine Indian firms in the Information Technology sector during a five-year period, from 2015-16 to 19-20. Secondary sources such as Annual Reports, CSR Reports, Official Websites of Companies and moneycontrol.com, provide data on CSR spending, Return on Assets, Return on Equity, Net Profit Margin, Earning per Share.*

## **Keywords**

CSR, FMCG, IT, ROE, NPM, EPS, ROA, TCS, WIPRO, INFOSYS, HCL, LTI, TECH MAHINDRA, HEXAWARE, MPHASIS, REDINGTON INDIA

## **Introduction**

**According to Bill Ford, Executive Chairman of the board of Ford Motor**

—

*“Creating a strong business and building a better world are not conflicting goals – they are both essential ingredients for the long-term success”*

In the twenty-first century, corporate social responsibility (CSR) is a widely used term around the world. Globalisation, imperatives of climate change and the goal of equitable development are the major obstacles in the twenty-first century. Indian business, which is now widely seen as a responsible component of India's rise, is now set to take the lead in solving the problems of time. It's no longer just about making more money and surviving in the global market; it's also about how to compete and expand sustainably through CSR operations. It is widely acknowledged around the world that incorporating social, environmental, and ethical responsibilities into business governance supports long-term success, competitiveness, and sustainability.



This approach also reinforces the idea that businesses are a vital component of society, with a vital and active role to play in the preservation and enhancement of healthy ecosystems, the promotion of social inclusion and equity, and the supporting of ethical practises and good governance. This makes commercial sense as well, because organisations that practice good CSR have a reputation for being socially responsible, achieve long-term growth in their operations, and their products and services are favoured by the customers.

The three pillars of corporate sustainability are environmental, social, and economic. The environmental and social pillars are at the heart of corporate social responsibility, which extends beyond legal obligations in these areas. Economic stability is the prerequisite of every business. The private sector has achieved unfathomable growth rates, wealth, and profits as a result of most countries' policies aimed at making enterprise the engine of socioeconomic progress.

The fundamental motivator of CSR in India is moral obligation. According to the Vedic philosophy prevalent in Indian culture, Veda's emphasis is to meet people's needs while also benefiting others. CSR in India is a concept derived from the country's historical tradition and culture as reflected in its system of values, and it has evolved over time from religious connotations during pre-industrial periods to the strategic planning used by corporations today; however, there is still room for improvement. CSR is being promoted by the Indian government as a strategy to achieve economic equality in the country, and businesses are encouraged to use it to build a positive reputation and compensate for the social and environmental harm caused by their activities.

The Companies Act of 2013, which compels certain types of businesses to give a minimum of 2% of their average earnings over the previous three years to CSR, provides an opportunity for businesses to transition from charity to strategic CSR. The government believes that the private sector has the potential and resources to make significant improvements and development in the education and healthcare sector. One of our country's primary

challenges has been equitable allocation of resources, which is why many groups are being urged to contribute to the system's openness and efficiency.

As a result of rising concerns about sustainable growth, environmental performance, including pollution control and natural resource management, the concept of Corporate Social Responsibility has received global recognition. CSR concepts must be integrated into business operations to ensure the country's economic long-term viability.

## **Literature Review**

Companies have long done CSR as a philanthropic activity, but with the enactment of the legislations on CSR the focus has been shifted to the sustainable development of the society. The Study of Madhu Bala & Deepak Verma (2019) examined the perceptions of CSR Managers towards Corporate Society Responsibility. The study finds that the Investigated Indian organisations demonstrate extremely responsible behaviour toward society, and their interventions for the nations long-term. It is widely understood that all businesses have an impact on society, making CSR a critical topic.

The Indian government used a legal strategy to reconfigure the business-society relationship in the form of mandated CSR activities with the Companies Act of 2013. An overview of research study by Parvat Patel (2020) and Jayadev & Tattwamasi (2018) have found that many corporations have adopted the multi-stakeholder approach which necessitates the integration of CSR into a long-term business plan. Companies have taken a pragmatic and realistic approach to ensure that both financial performance and long-term viability coexist. Building institutions and research have been the core areas for CSR expenditure by many companies.

CSR has been evolved as a credible relationship management strategy that could robust the relationship between employee and the organisation. The Study by Ganga S Dhanesh (2014) examined robust, significant, and favourable connections between CSR and employee-organisation interactions, particularly between the legal, ethical, and discretionary elements of CSR and relationships. The concept of corporate social

responsibility (CSR) is then suggested as a relationship-management technique, particularly in the context of employee interactions.

CSR is a growing field in management study. Many companies in India have implemented CSR activities that have addressed a variety of societal concerns. The research by Anupam & Ravi Kiran (2018) and Shweta Verma (2011) talks about the shareholders and investors, CSR promotes a vision of company accountability to a wide range of stakeholders and states that IT and auto industries are more likely to engage in CSR projects, whereas the FMCG business has concentrated on social responsibility initiatives but not as much as the IT and auto industries.

By incorporating CSR efforts into day-to-day operations, a company's relation with its stakeholders are strengthened, and a value of the brand for its product is created. An overview of a research study by C Vethirajan and C Ramu (2019) was also targeted at examining the impact of CSR actions by FMCG firms based on consumer perceptions. According to the findings, consumers' perceptions are influenced by social, economic, and demographic aspects, resulting in inconsistency in the reported impact of CSR by FMCG companies. Even though there are regulatory restrictions on CSR efforts, many businesses ignore them and inflate their CSR spending. Ramanna & Narayana Reddy (2017) did research on the lack of CSR spending by several corporations in relation to their remarkable growth in their enterprises. Many firms still see CSR as a legal requirement rather than a social one, so it has a long way to go.

The recent legislative changes in India have made it clear that profit-making corporations must not only engage in CSR activities, but also spend a set percentage of their net income on CSR initiatives. An overview of research study by Nava & Monika & Shekhar (2015) examined the importance of CSR spending by various Auto Industry and FMCG industries in relation to education, healthcare, and the environment. According to the survey, CSR in the IT and auto industries is more focused on the above-mentioned metrics, but the FMCG business has not yet invested heavily in social responsibility activities.

## **Research objective**

- To examine the level, nature and activeness of the various initiatives taken by the leading Information Technology companies under the Corporate Social Responsibility policy.
- To identify the relationship between CSR Expenditure, CSR Spent, Return on Equity, Return on Total Assets, Net Profit Margin and Earning Per Share.

## **Research Methodology**

In order to study the impact of CSR spending by IT Companies on its financial performance, nine listed IT companies namely TCS, INFOSYS, WIPRO, HCL, REDINGTON INDIA, MPHASIS, TECH MAHINDRA, L&T INFOTECH and HEXAWARE TECHNOLOGY have been selected for the detailed analysis of their CSR initiatives. The approach is based on secondary data gathered through web-based research. Data and information on firms' CSR policies and programmes in the context of education have been taken from annual reports published and business sustainability reports available on the official websites of each company for different years (from 2015-16 to 2019-20).

## **Analysis and Result**

The study focuses on the CSR policies of some leading IT Companies and their specific role in the society upliftment. This will help us come to a judgement on whether or not CSR has been a priority for big companies and to identify the relationship between CSR Expenditure, CSR Spent, Return on Equity, Return on Total Assets, Net Profit Margin and Earning per Share. The selected companies for study are TCS, INFOSYS, WIPRO, HCL, REDINGTON INDIA, MPHASIS, TECH MAHINDRA, L&T INFOTECH and HEXAWARE TECHNOLOGY.

## **Tata Consultancy Services Ltd**

TCS' dedication to CSR derives from the Tata Group's long-standing concern for individuals and society. TCS shows concern for the community by

emphasising education and skill development, health and wellbeing and environmental sustainability, which includes biodiversity, energy, and water conservation. TCS has indulged in youth entrepreneurship initiatives that have aided in the expansion of new opportunities for young people.

**Table 1 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of TCS**

VARIABLE	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
CSR SPENT	602	434	400	380	280.22
CSR PRESCRIBE	600.06	541.56	497.36	445.51	360
EPS	88.64	79.34	131.15	120.04	117.11
NPM (%)	25.33	24.4	25.92	25.51	26.87
ROA (%)	31.68	30.21	27.72	26.35	29.8
ROE (%)	44.72	38.1	33.27	30.3	35.49

**Fig. 1- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of TCS**

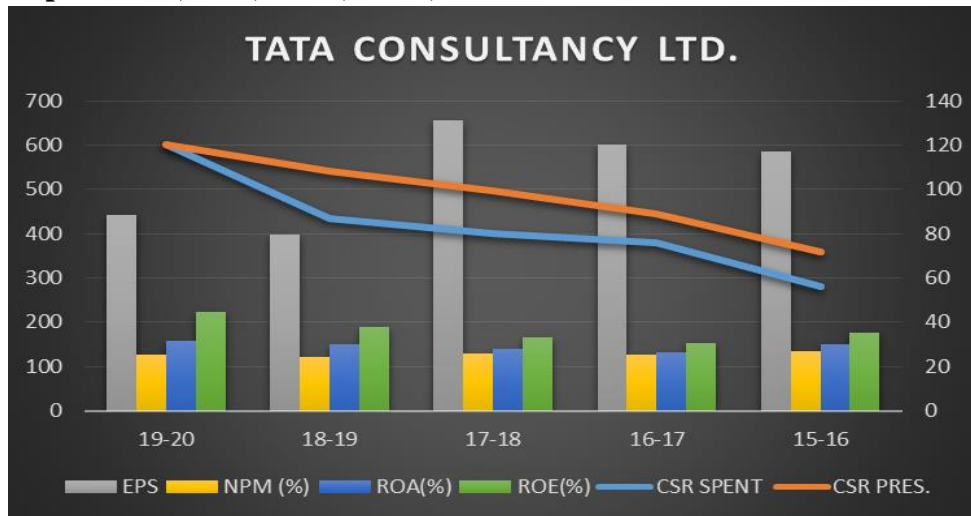


Fig 1 shows that CSR expenditure by TCS is always less than CSR prescribed for the company leading to underutilisation of CSR fund except

expenditure spent in 2019- 20. Due to non-utilisation of funds EPS of the company has been constantly falling from 117.11 in 2015 -16 to 88.64 in 2019-20. Net Profit margin and Return on asset of the company has remained steady over the years. Return on Equity has shown a stellar growth from 35.49 to 44.72 in 2019-20.

## INFOSYS LTD

The Infosys Foundation is a non-profit organisation that aspires to fulfil Infosys social duty by creating opportunities and working toward a more fair society. The Foundation funds programmes and organisations that help the rural poor, the mentally ill, and the economically disadvantaged. The Foundation also assists in the preservation of particular Indian traditional forms and dying techniques.

**Table 2 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Infosys Ltd**

VARIABLE	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
CSR SPENT	359.94	342.04	312.6	215	202.3
CSR PRESCRIBE	360	340.36	310.36	287.42	256
EPS	36.34	33.66	71.28	60.16	55.26
NPM (%)	19.66	20.11	26.08	23.3	23.51
ROA (%)	19.17	18.62	21.29	17.29	17.41
ROE (%)	24.97	23.44	25.44	20.31	20.78

**Fig. 2- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Infosys Ltd**

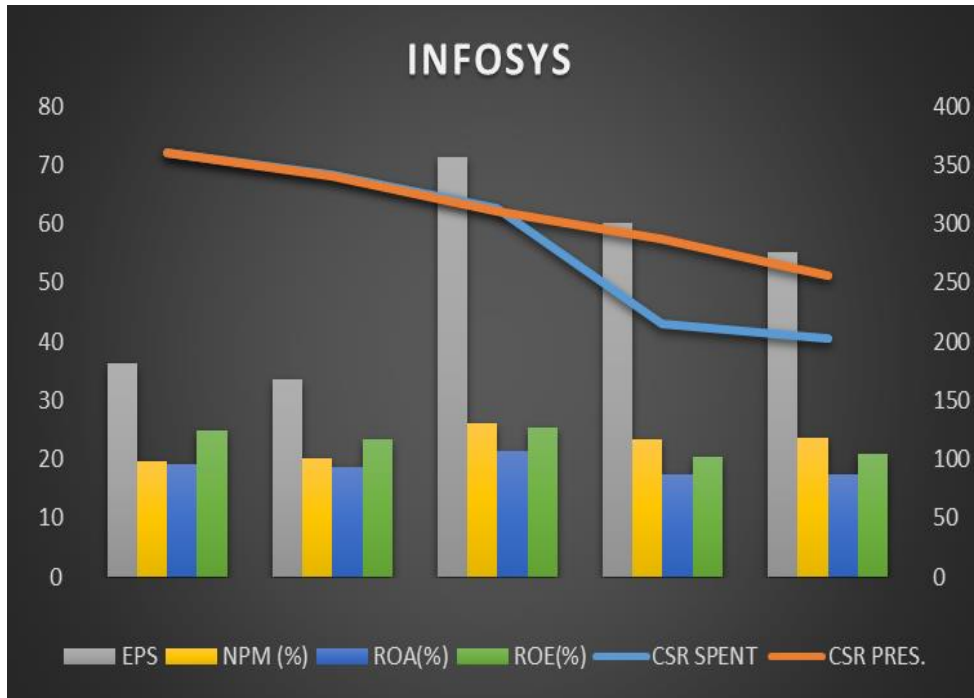


Fig 2 shows that CSR expenditure by Infosys is always in line with the CSR prescribed except in the year 2015 and 2016 indicating the positive outlook of the company towards adoption of CSR. Due to the effective utilisation of CSR fund, the EPS of the company has been constantly falling from 55.26 in 2015-16 to 36.34 in 2019-20. Net Profit margin has declined over the years at an increasing rate while Return on total assets has remained steady. Return on Equity has shown a marginal growth from 20.78 to 24.97 in 2019-20.

## HCL TECHNOLOGY LTD

HCL Foundation (HCLF) was founded in 2011 as HCL Technologies' CSR arm. It is a mission-driven, non-profit organisation that strives to contribute to national and worldwide development goals by creating long-term, sustainable projects that have a beneficial influence on people's lives. The foundation's mission is to eliminate poverty and promote growth and development that is inclusive. Long-term results and upward responsibility are ensured by active community engagement.

**Table 3 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of HCL Technology Ltd**

VARIABLE	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
CSR SPENT	176.29	129.5	91.29	129.16	122.4
CSR PRESCRIBE	173.01	144.25	134.33	129.16	122.13
EPS	33.06	59.69	52.54	48.18	33.52
NPM (%)	27.5	31.46	33.35	35.57	35.12
ROA (%)	16.75	21.85	22.43	21.23	17.74
ROE (%)	24.04	26.88	26.7	26.46	21.95

**Fig. 3- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of HCL Technology Ltd**

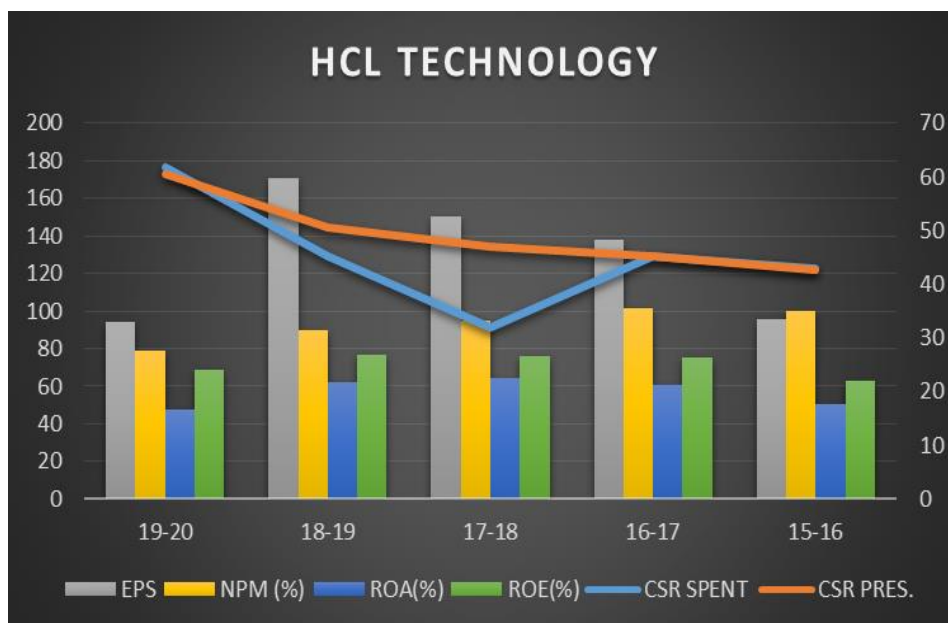


Fig 3 shows that CSR expenditure by HCL is always in line with the CSR prescribed barring in the year 2017-18 indicating HCL's active investing in



education and healthcare infrastructure and implementing new schemes and initiatives. Due to the effective implementation of CSR Fund, the EPS and Return on Assets of the company has remained steady over the years. Net Profit margin has drastically declined over the years from 35.12 in 2015-16 to 27.5 in 2019-20. Return on Equity has shown a marginal growth from 21.95 to 24.04 in 2019-20.

## WIPRO LTD

Wipro Cares is a non-profit organisation that works with underserved communities in close vicinity on issues like education, primary healthcare, and the environment. In addition, the charity works on the long-term restoration of communities that have been devastated by natural disasters. The below are the priority areas and scope of work:

- Education for impoverished children: Encourage underprivileged children to have direct access to educational opportunities.
- Primary healthcare: Collaborate with partners to provide high-quality health care to underserved communities near our locations and in rural areas where health care access has previously been limited or non-existent.

**Table 4 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Wipro Ltd**

VARIABLE	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
CSR SPENT	181.8	185.3	186.6	186.34	159.82
CSR PRESCRIBE	166.7	176.04	183.3	196.4	156
EPS	14.88	12.67	16.26	33.61	33.38
NPM (%)	17.22	15.82	17.27	17.72	18.35
ROA (%)	13.29	11.36	13.16	12.92	13.91
ROE (%)	18.68	15.41	18.27	17.47	19.89

**Fig. 4- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Wipro Ltd**

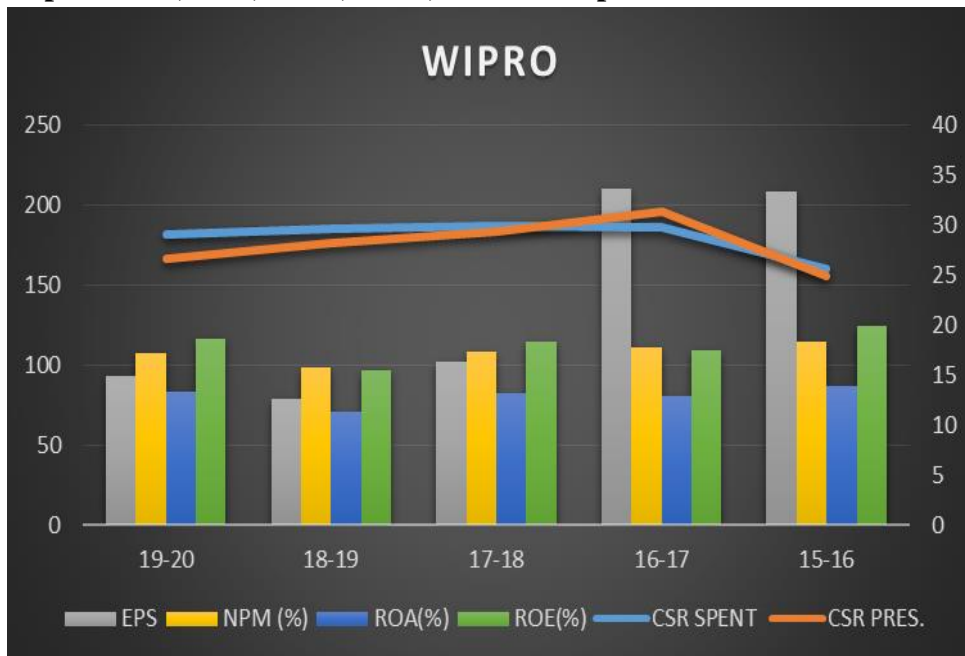


Fig 4 shows that CSR expenditure by Wipro has exceeded the CSR prescribed barring in the year 2016-17 indicating Wipro's commitment towards sustainable development and playing an active role in effectively utilising the CSR Fund. Due to Wipro's active commitment towards CSR EPS has acutely declined from 33.38 in 2015-16 to 14.88 in 2019-20. Net Profit margin and Return on Assets of the company has remained steady over the years. Return on Equity has not shown much growth over the years.

## TECH MAHINDRA LTD

Through a range of projects, Tech Mahindra Foundation (TMF) undertakes CSR programmes in the areas of education and employability, which are then executed by a variety of NGO partners. As previously said, disability is a cross-cutting theme, certain projects are explicitly designed to benefit persons with impairments, including visual difficulties. The foundation, which works to ensure that all students receive a high-quality, egalitarian education, has chosen three focus areas: Whole School Improvement, Teacher Capacity Building, and Supplementary Education.

**Table 5 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Tech Mahindra Ltd**

VARIABLE	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
CSR SPENT	118.11	90.36	76.42	62.33	46.91
CSR PRESCRIBE	94.75	84.41	71.55	60.82	41.4
EPS	46.89	44.58	40.84	31.37	33.4
NPM (%)	15.51	16.09	16.9	13.15	15.35
ROA (%)	14.95	14.43	14.92	12.84	15.59
ROE (%)	20.35	21.21	20.46	18.04	23.75

**Fig. 5- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Tech Mahindra Ltd**

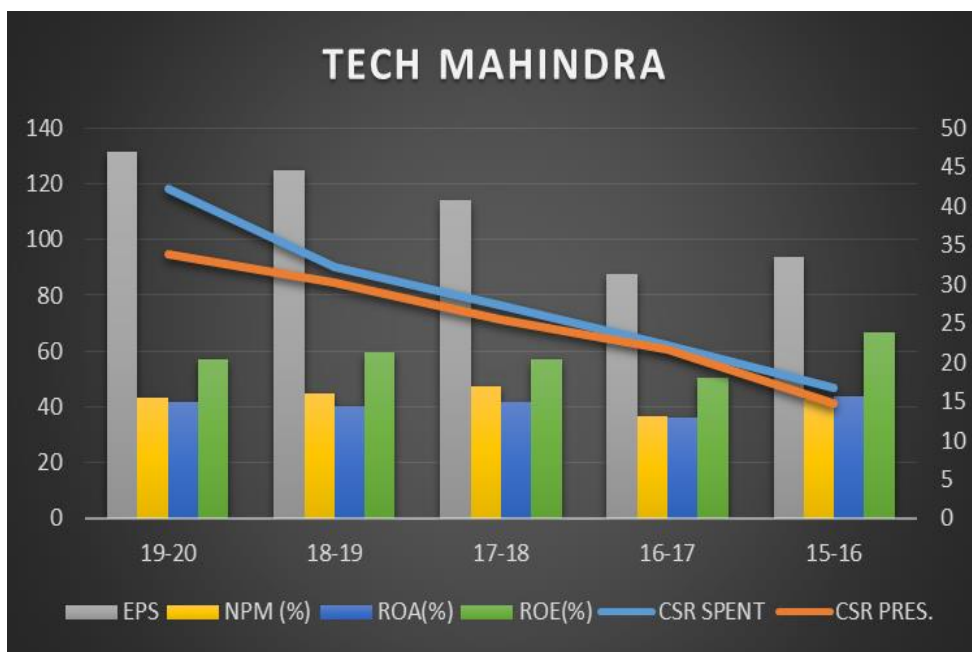


Fig 5 shows that CSR expenditure by Tech Mahindra has always exceeded the CSR prescribed over the years indicating Tech Mahindra's commitment towards holistic development of the society and its nudge to create an impact. Due to Tech Mahindra's nudge for CSR, EPS has shown astronomical growth from 33.4 in 2015-16 to 46.89 in 2019-20. Net Profit margin and Return on Assets of the company has remained steady over the years. Return on Equity has marginally declined from 23.75 to 20.35 in 2019-20.

## **L&T INFOTECH LTD**

Larsen & Toubro Public Charitable Trust has impacted the lives of lakhs of impoverished children, women, and youth in seven states where LTPCT operates, in partnership with prestigious NGOs, with the goal of reducing duplication of effort, increasing scalability, and implementing learning to multiply impact.

**Table 6 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of L&T Infotech Ltd**

<b>VARIABLE</b>	<b>2019-2020</b>	<b>2018-2019</b>	<b>2017-2018</b>	<b>2016-2017</b>	<b>2015-2016</b>
<b>CSR SPENT</b>	28.06	22.39	11.66	6.49	14.9
<b>CSR PRESCRIBE</b>	27.21	22.2	19.13	17.33	2.34
<b>EPS</b>	89.31	85.31	67.74	55.11	57.23
<b>NPM (%)</b>	15.24	16.56	16.79	15.16	16.84
<b>ROA (%)</b>	18.66	23.69	22.96	22.25	28.97
<b>ROE (%)</b>	29.68	31.29	31.19	31.49	50.34

**Fig. 6- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of L&T Infotech Ltd**

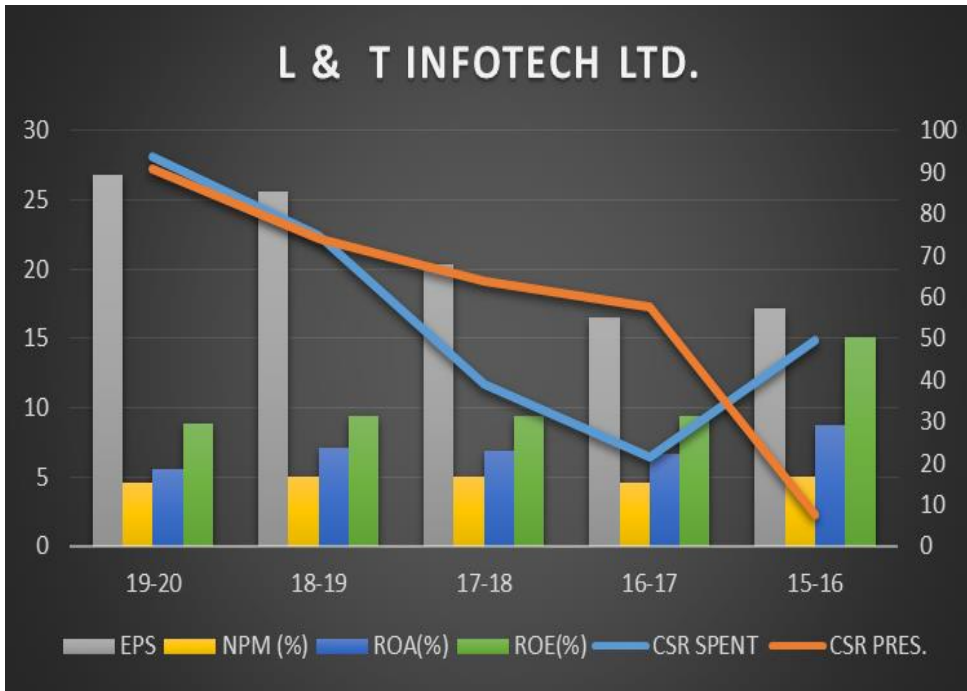


Fig 6 shows that CSR expenditure by L&T Infotech Ltd has doubled from 14.9 in 2015-16 to 28.06 in 2019-20. This has made substantial contributions to and demonstrable progress toward its ideal of a united India. Due to L&T Infotech's long-standing commitment towards the society, EPS has shown marginal growth from 57.23 in 2015-16 to 89.31 in 2019-20. Net Profit margin has remained steady over the years. Return on Total Assets has marginally declined from 28.97 to 18.66 in 2019-20. Return on Equity has shown a drastic decline from 50.34 in 2015-16 to 29.68 in 2019-20.

## HEXWARE TECHNOLOGY LTD

Hexaware's vision encapsulates the company's Corporate Social Responsibility (CSR) culture and places its stakeholders at the centre of its operations. Hexaware engages in strategic philanthropy projects to improve the quality of life of underserved, disadvantaged, and disenfranchised populations in order to fulfil its objective of instilling good corporate citizenship. The company takes a holistic approach to development.

**Table 7 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Hexaware Technology**

VARIABLE	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
CSR SPENT	10.99	9.963	9.046	7.017	4.121
CSR PRESCRIBE	10.98	9.963	8.95	8.297	8.038
EPS	17.03	15.25	13.82	11.8	11.05
NPM (%)	23.7	25.24	26.96	25.56	25.73
ROA (%)	22.46	22.65	23.59	21.4	22.21
ROE (%)	26	26.07	26.65	26.91	29.99

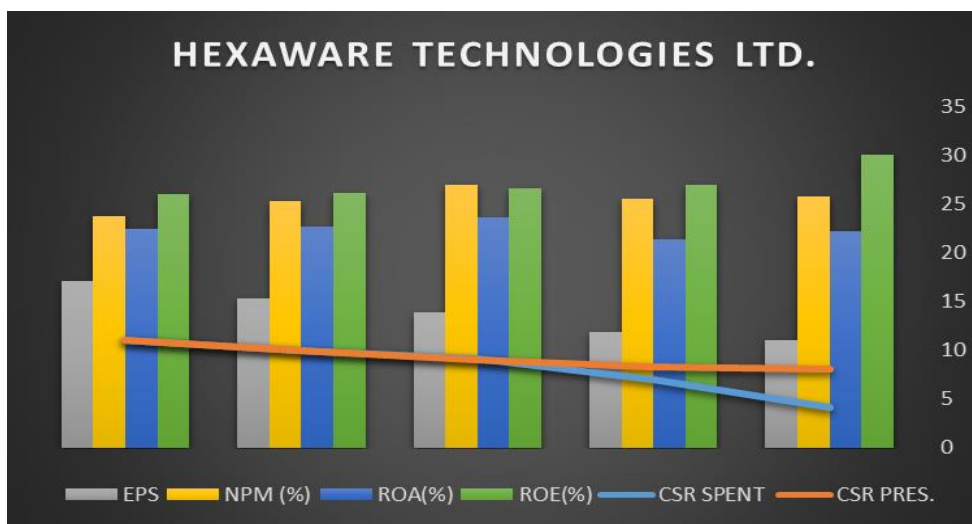
**Fig. 7- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Hexaware Technology Ltd**

Fig 7 shows that CSR expenditure by Hexaware Technology Ltd is always in line with the CSR prescribed indicating that an ethical corporation that recognises that growth and sustainability must coexist. Due to Hexaware commitment, EPS has increased from 11.05 in 2015-16 to 17.3 in 2019-20.

Net Profit margin and Return on Total Assets has remained steady over the years. Return on Equity has shown marginal decline from 29.99 in 2015-16 to 26 in 2019-20.

## REDINGTON INDIA LTD

Redington (India) Limited established the Foundation for CSR Redington Foundation to carry out various CSR activities for the development of society. It aims to meet the requirements of underprivileged and poor people in rural and tribal areas who come from economically challenged households in terms of quality education and health care.

**Table 8 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Redington India Ltd**

VARIABLE	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
CSR SPENT	5.31	5.75	5.74	5.4	4.95
CSR PRESCRIBE	5.31	5.75	5.74	5.41	10.12
EPS	12.58	3.84	4.6	5.21	4.73
NPM (%)	2.62	0.9	1.2	1.32	1.49
ROA (%)	8.56	2.92	4.13	4.59	4.83
ROE (%)	27.17	9.48	10.88	12.94	13.12

**Fig. 8- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Redington India Ltd**

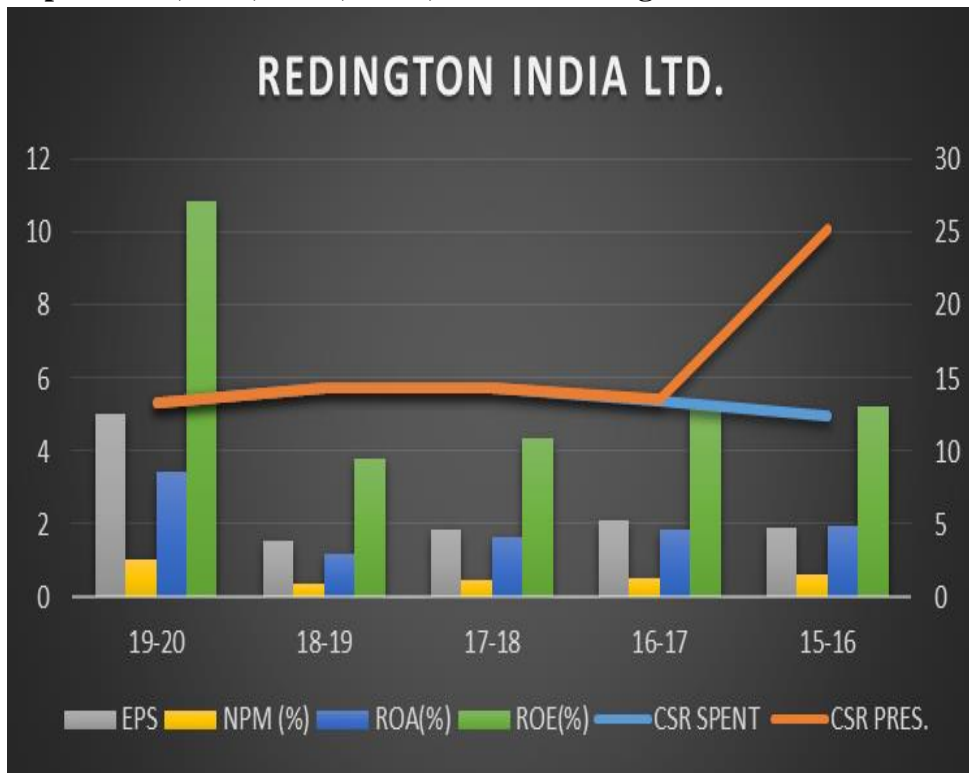


Fig 8 shows that CSR expenditure by Redington India Ltd is always in line with the CSR prescribed indicating its continuous contribution towards upliftment of the society. Due to its continuous commitment EPS has almost tripled from 4.73 in 2015-16 to 12.58 in 2019-20. Return on Total Assets has doubled from 4.83 in 2015-16 to 8.56 in 2019-20. Net Profit Margin has remained steady over the year. Return on Equity has declined from 13.12 in 2015-16 to 27.7 in 2019-20

## MPHASIS LTD

The Mphasis Foundation is an independent charitable trust with a mission to fund innovative programmes that promote social inclusion. Mphasis' corporate social responsibility focuses on these capabilities as leaders in technology-led solutions, bringing 'revolutionary' technologies into the realms of education, livelihood, and inclusion.



**Table 9 - Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Mphasis Ltd**

VARIABLE	2019-2020	2018-2019	2017-2018	2016-2017	2015-2016
CSR SPENT	20.8	18.22	16.86	13.36	11.78
CSR PRESCRIBE	20.8	18.22	12.91	12.98	13.86
EPS	64.66	40.18	37.69	29.76	21.78
NPM (%)	27.72	22.4	22.59	20.7	15.63
ROA (%)	21.86	17.98	15.85	11.62	8.57
ROE (%)	32.77	23.57	18.93	13.31	10.14

**Fig. 9- Graphical Representation of Actual & Prescribed CSR Expenditure, EPS, NPM, ROA, ROE of Mphasis Ltd**

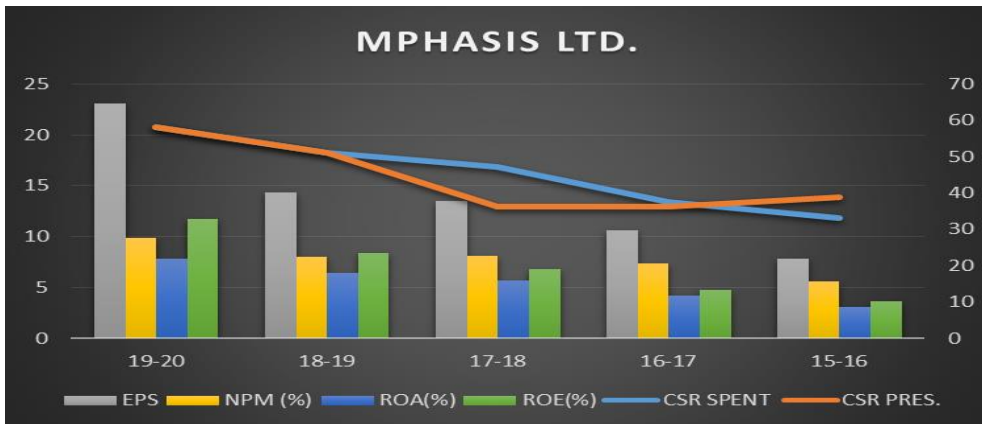


Fig 9 shows that CSR expenditure by Mphasis Ltd has always been in line with the CSR prescribed indicating its positive outlook towards the goal of Development for All. Mphasis Ltd EPS has almost tripled from 21.78 in 2015-16 to 64.66 in 2019-20. Return on Total Assets has doubled from 8.57 in 2015-16 to 21.86 in 2019-20. Net Profit Margin has also doubled over the year. Return on Equity has tripled from 10.14 in 2015-16 to 32.77 in 2019-20

## CONCLUSION

We have clearly seen the awareness and contribution of companies in the area of Corporate Social Responsibility through their various programmes and initiatives and its relationship with financial approach in the small research undertaken with the sole objective of determining whether the business houses of the IT sector are concerned with the sustainable development of the country or not.

TCS's aim is to empower the community by linking them to digital and economic opportunities. To help community members to bridge the opportunity gap, the firm has concentrated on education, skilling, employability, and village entrepreneurship. It also helps communities with their health, wellness, water, sanitation, and hygiene concerns.

The CSR Policy of Infosys aims to strive for economic progress that has a good impact on society as a whole while consuming minimal resources; accept responsibility for the Company's actions, support a positive impact through its operations to reduce hunger, poverty, and malnutrition and to preserve the environment; and to assist communities' stakeholders, as well as society.

The HCL Foundation is dedicated to shaping and enhancing India's economic, social, and financial future. They have placed a strong emphasis on environmental, social, and governance (ESG) goals that provide significant value, allowing them to grow as an organisation and develop long-term and productive partnerships. HCL adheres to the United Nations Global Compact's Ten Principles on Human Rights, Labour, Environment, and Anti-Corruption.

It is vital for Wipro to interact with the social and ecological concerns that humanity faces. Wipro deep, meaningful participation with social issues, based on a foundation of long-term commitment, is the only way for true change to occur on the ground. Their social programmes are built on a solid basis of ethical ideals, sound governance, and effective management.

Tech Mahindra Limited has been a socially responsible company, allocating 1.5 percent of its PAT to CSR efforts that aid socially and economically disadvantaged communities. This is accomplished through investing persistently in educational programmes for the disadvantaged and differently abled, as well as educating adolescents with market-relevant skills and opportunities.

LTI social initiatives focus on improving the quality of education for children from marginalised communities and assisting them in staying in school, enhancing the skills of marginalised youth and women, providing special education and skills for physically and mentally challenged people, and addressing the critical issue of environmental conservation.

Hexaware believes that Corporate Social Responsibility (CSR) is a long-term commitment to act ethically and contribute to the advancement of the local community and society as a whole. They engage in targeted charitable projects to improve the quality of life of underserved, poor, and marginalised populations as part of their vision to instil good corporate citizenship.

Redington India empowers the economically disadvantaged by giving many chances and platforms, fostering long-term holistic development and social upliftment, and allowing them to become key contributors to India's prosperity. They support and implement community health initiatives and implement environmental protection initiatives.

Mphasis' CSR aims to mainline the cause of under-served and under-represented communities by combining technology with advocacy and inclusion. The programmes are implemented across the company's operational locations as well as disaster-affected areas in India. The initiative allows for more inclusive economic growth, enabling rural entrepreneurship to play a significant role in combating discrimination and boosting rural residents' living standards.

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## Rise of Gamification: Its Implications Across Varied Industries

### Abstract

*The aim of this paper is to explain gamification: its history, elements, strategies, and applications in a variety of industries, as well as upcoming trends. This paper also discusses how gamification improves a number of company variables, such as employee motivation, employee engagement, brand loyalty, and customer experience, which has resulted in increased brand awareness, rapid scaling, improved engagement and learning, and easier marketing. According to our findings, businesses that use gamification techniques benefit greatly from them, and more and more businesses are incorporating gamification mechanics to stay relevant and ensure perpetual existence.*

### Keywords:

Gamification, Conversion Technology, EdTech, Retail Business, Octalysis Framework, Mobile Commerce, Perceived Value, Purchase Intention

## **Objective**

In the wake of Pandemic Covid-19, an economic slump, a recession, production and sales being halted have become quite common. In order to revive the business and boost sales, gamification of economic activities can become a game changer. So, the objective of this research article is to spread awareness about how gamifying any economic activity can not only become a catalyst for sales, but it can also work as a differentiator and leave a lifetime recall value of a brand in the minds of the customers. To analyze the impact on various industries.

## **Research Methodology**

We conducted this research on the basis of secondary data. For writing this research article we had to collect data on Gamifications from various renowned journals, websites on the internet focusing on its evolution over time, economic aspects, theoretical framework, applications, and upcoming trends. Data was also collected from the Mint newspaper and YouTube videos on this topic. In addition, we examined the various businesses across multiple sectors that used Gamification and the way in which it contributed to their growth and increase in brand value. We have also instilled our personal observations across various companies to enhance the practicality of this research article.

## **Literature Review**

We have been seeing an increase in the usage of fun and entertainment-oriented technologies across industries. Gamification is the word for these phenomena, and it has emerged as one of the most significant developments in the field of information systems in the technology world. In recent years, gamification products for mobile commerce (m-commerce) applications have included not only traditional simple gameplay, such as checking in, receiving gold coins, and receiving cash, but also more interesting and engaging mini-games, such as planting flowers, petting animals and solving puzzles. In this article we have given umpteen instances to drive the point that gamification is the next big thing that will be used across the world by most businesses to thrive, scale and diversify. Our findings suggest that



gamification has a positive impact on the purchase intentions of m-commerce platform users and that game use intention acts as a go-between for perceived value and platform purchase intention which helps the businesses employing gamification to boost sales. It also benefits education, healthcare, telecom and various other sectors of an economy to attract, engage and gain relevant audience.

This article derives information from some research studies gathered from the SCOPUS database and various websites, and mostly verifies the findings on the usefulness of gamification across diverse industries, providing a coherent picture of the research that has taken place since the advent of gamification. We observed that in the study of gamification, there is a marked incongruence between theory and practice. This study broadens the scope of gamification research by focusing on its applications across various major industries in an economy in today's world, a field where scientific research is still in progress.

## **What is gamification**

With the passage of time, physical stores have devolved into basic bricks and mortars, while online stores have risen to prominence. The way people shop is also changing as a result of this innovation. Previously, gaming was thought to be a waste of time or an unproductive hobby, but this perception is changing. Gamification may be used to increase the efficiency of all economic activities. "Gamification is that design that places the most emphasis on human motivation in the process," says Yu kai Chou, a new age pioneer of gamification from China. It is, in essence, Human-Centered Design."In 2018, the global gamification industry was valued at \$6.8 billion, and it was expected to increase to \$9.8 billion in 2022 and is predicted to grow to \$40 billion by 2024.(1)

In following industries that are considered to be the most conservative and core valued industries, Gamification is being used nowadays. Health & Wellness, Education, Food & Beverage, Transportation, Retail, Banking etc. Gamification is the process of incorporating game features and mechanics into a digital environment with the goal of increasing engagement and improving the user experience. It is frequently confused with game

development for commercial objectives, which it is not. Gamification is about much more than just having fun and engaging people. It uses data-driven technology to improve the user experience, build loyalty, and boost engagement. Let's take a closer look at some examples, such as

For recruitment: Google has discovered a disruptive form of recruitment: sponsoring coding competitions can help them gain access to new talent while also allowing them to be tested in a real-world setting. The competitive aspect makes it more appealing to prospects, and the employer may monitor and match a candidate's ability to their job requirements, making an appropriate offer.

For acquiring and keeping customers: Starbucks' Starbucks Rewards app has had a lot of success. It features a basic and appealing design that makes it simple and enjoyable to use. The concept is simple: the user receives stars for each purchase that they can 'stick' on a cup in the app. Once a specific amount of data has been gathered. With such real-life examples, it must have become unambiguous how Gamification is used by and large. Gamification includes following elements such as Rewards, Points, Level, Leadership board, Badges, Goals, Stories, Teammates, and Avatars. According to Lazzaro, there are 4 types of fun: Easy Fun- based on curiosity. Serious fun - based on excitement of obtaining valuable objects. People fun - based on social connection. hard fun - based on challenges that require strategy and skill.

## **History**

Marketers began experimenting with strategies to generate loyalty in their clients long before the industrial civilization was established. Brands are still looking for ways to positively encourage purchase behavior and engagement over a century later, and gamification is one of the most recent marketing attempts to create extraordinary outcomes. In 2010, the term "gamification" became popular in a broader sense, referring to the introduction of social/reward features of games into software. Several companies began developing gamification platforms, and marketers began using game components into their marketing campaigns. Gamification takes inspiration

from a wide range of sources, but the timeline below focuses on the relationship between loyalty, games, and rewards throughout history.<sup>(2)</sup>

In 1896, S&H Green Stamps were issued by marketers to the shops, who used them to reward loyal customers. The Boy Scout movement was founded in 1908, and members were awarded badges for various accomplishments. Scouts may earn badges for mastering a skill, adhering to the organization's beliefs, and participating in special events. 1973: It is widely acknowledged that games can be used to engage personnel. "The Game of Work," written and published in 1973 by Charles Coonradt, was created in response to the United States' declining productivity. After noticing that productivity was declining as sales of recreation and sports equipment increased, Coonradt proposed that fun-and-games might be the solution to the difficult problem of employee engagement. American Airlines introduces AAdvantage, the world's first frequent flier programme, in 1981. The project's goal was to reward customers for returning on a regular basis, a strategy that can still be found in any high-street coffee shop today. 1982: Academics recognise gaming's potential - As computer games demonstrate innate abilities to captivate users, publications addressing the medium's potential for beneficial use begin to appear. Two 1981 publications by Thomas W. Malone, towards a theory of Intrinsically Motivating Instruction and Heuristics for Designing Enjoyable User Interfaces, described what could be learned from computer games and applied to other fields. Holiday Inn launched the first hotel loyalty programme in 1983. National Car Rental launches the first rental car rewards programme in 1987. 1999: Stephen W. Draper publishes a paper in which he proposes that user satisfaction be a major requirement for any software design. The power of game mechanics was gradually becoming known in the years leading up to the millennium's end. Nick Pelling coined the term "Gamification" in 2002 to help us understand the engagements and studies that have occurred and will continue to occur. Home gamification - Kevan Davis creates Chore Wars in 2007. The site's goal is to make chores more enjoyable by turning them into a game. The fantasy role-playing game theme of Chore Wars appealed to parents, children, and flatmates alike. Quest to Learn, an ed-tech company, enrolled sixth-graders in a class that uses a game-based learning environment in 2009. Everywhere, Here, and There - The release of Foursquare, an app that allows users to search for and discover new

places, was a strong example of gamification as well as a social tool. Users are recognised with badges and other accomplishments. Nathan Lands coined the term "Gamify" in 2010 to describe the process of applying game mechanics to non-game engagements. 45,000 people enrolled in Professor Kevin Werbach's online gamification course through Coursera in 2012. 2014: Customer satisfaction is on the rise, with 9 out of 10 businesses reporting success with their gamification efforts.

### **How is it applicable for any product or service?**

The universal rule of gamification is that mini games designed for m-commerce are simple and easy to use. They do not necessitate a large amount of time and effort in one instance, but they do necessitate a relatively long period of operation in order to produce results. Overall conclusion one can derive is that utilitarian value, social value, and hedonic value all have a strong impact on game use intention, and when combined with less time/energy, can further enhance users willingness to play games.

In this regard, pioneering Framework in modern time is given by Yu-kai Chao and that is Octalysis Framework. The Octalysis Framework is a human-focused gamification design framework that lays out the eight core drives for human motivation that can be tapped to boost user engagement and lead conversion.(3)



Source: Wikipedia

In the above diagram, there are 8 core drives that are considered to motivate humans and every drive that can be implemented to increase the user engagement and in turn revenue and other income. There are some few steps to implement this on your product.

Core drives motivate users in 8 different ways. **Epic Meaning** makes you feel that you are part of something bigger and makes them believe 'Savior'. Journaling painful memories in a poetic way and displaying them on any public platform where people who faced similar situations read the poetry can become a writer's confidence boosting factor if combined with feedback from the reader. Second drive deals in **Accomplishment**. This core drive motivates people to feel that you are improving and achieving mastery. Nowadays, a smartwatch provides information about steps walked, pulse rate and temperature etc. It gives short term gratification which normal human beings want. **Empowerment and Feedback** can be used to solve bigger problems. Sudoku in newspapers makes readers feel they are sharpening their brain and this way a good share of newspaper readers get addicted to this part of the newspaper only. Owning something makes people content and enlightened and this introduces our next drive which is **Ownership and Possession**. Earning points and badges, and using them to unlock the next level of game has been in use for a very long time. Society molds man and fifth drive uses this proverb very much. **Social Influence and Relatedness** is the drive that motivates people by showing results of other known people. LinkedIn is the most suitable example of this drive as seeing other people achieving milestones motivates others to do big and this way LinkedIn keeps its user engaged. **Scarcity and Impatience** motives people by creating a sense of urgency. Shopping websites use it very prominently. 'Hurry up, only 1 piece is left' is most commonly seen these days. Life is the other side of unpredictability and the same way seventh core drive, **Unpredictability and Curiosity** brings motivation. Kinder Joy, a composition of cream and chocolate commonly has different toys inside the pack and this makes customers eager to know what will be in the next pack. Losing something might sound bad to ears but what if it can be ignored? Eight core drive, **Loss and Avoidance** motivates people by making them avoid unfavorable situations. Meditation gives people a sense of calmness. If one is given a task to meditate a couple of minutes in a day he forgets to do so, then it will create

a sense of loss in his mind and the person will be trying to do it as soon as possible.

Understand your product in terms of its left brain and right brain usage. Right brain usage is for more creativity and social ownership and all drives in the right of the diagram are right brain oriented. Where left brain activity is more of calculation and figuring things out and drives in the left of the diagram is relevant to that. Make an informed decision to use what sort of gamification platform, i.e., putting in an already existing or connecting it to the web-based game and that would be clearer based on the product usage, relevant industry and what amount of time is used to make customer buy such a product. Make testing of it before launching for the entire segment and perform the entire process at the asset light model basis. Most simplified game combined with the less usage of time will reach to customer faster and produce desired output.

## **Assessing User Experience Through Statistics**

In order to explain this, I would like to state certain facts that can clarify things more. More than a third of high school pupils abandon their studies at some point. According to the World Health Organization, more than 300 million individuals suffered from depression in 2018. Around the world, up to 70% of employees are dissatisfied with their jobs.(4) Following changes occurred as a result of the introduction of Gamification in various industries.

- Employees like to include gaming-inspired features in their job 95% of the time.
- The market for educational gamification is expected to reach \$1.5 billion by 2020.
- On skill-based exams, gamification participants score 14% higher.
- In 2018, the global gamification market was expected to be worth \$5.5 billion.
- Employees claim that gamification motivates them to work harder.

- Gamification has been shown to boost the number of newly registered business users by 600%.
- When a task is gamified, 89 percent of survey respondents say they are motivated to accomplish it and are in a competitive attitude.
- During a gamified course, only 3% of people are unproductive.
- These days, games are all over the place!
- In skill-based exams, gamification participants score 14% higher.
- In 2019, 79 percent of employees said gamified activities have given them more motivation and purpose at work.
- Employees said they will spend more time using gamified software, with 85 percent saying they will do so.
- 97 percent of employees aged 45 and up say gamified activities improve their work quality.
- In their strategy, 50% of startups include gamified activities.
- Gamification has been shown to boost the number of newly enrolled business users by 6X.
- Gamification can help a business enhance customer engagements by as much as 40%.
- Employees that participated in gamified training raised their productivity by 60%.
- The market for educational gamification is expected to reach \$1.5 billion by 2020.
- The learning games market generated \$3.91 million in global revenue in 2012.
- The market for gamification in education was worth \$93.04 million in 2015.

- The learning games market generated \$8.95 million in global revenue in 2017 and will continue to expand at an exponential rate until 2022.

## **Types of Gamification Strategies: A Critical Analysis**

*Fun Product Recommendations:* Businesses create product suggestions based on personality, pets, spirit animals, and other factors, and then relate those preferences to a product they're selling to their customers. The products best matched to the customer's needs are revealed after they complete a few simple questions such as their gender, budget, and lifestyle<sup>(5)</sup>.

But this method may also seem as a breach of privacy and hindrance to 'right to choose' by people as the application usually generates products that are sponsored or are same as previous purchases of the customers.

*Reward Linked Loyalty Programs:* Platforms usually set up a points system in which points may be accumulated through consecutive transactions and then redeemed for actual and virtual goods. This is a good approach to increase repeat purchases and improve loyalty. Loyalty programmes are well-known among payment app brands such as Paytm, PhonePe, Google Pay, Amazon Pay, Freecharge and Mobikwik.

The disadvantage of this strategy is that consumers may not know how to best redeem the points and may be disappointed with the redeemable items up for grabs because the options are usually limited.

*Product Quizzes:* Many e-commerce brands create interesting puzzles based on their website's items; these puzzles can be linked to product purchase pages or a points system, which can then be redeemed in cash or kind. These quizzes, which assist customers in selecting the ideal pair of sunglasses, is an excellent example of a product quiz. Quizzes can also be used to increase product awareness. This is a double-edged sword since the buyer identifies your product with fun, enjoyment, and positive reinforcement emotions.

The problem with this strategy is that some e-commerce companies create difficult questions so that users can't easily win quizzes, making customers feel humiliated. Furthermore, if customers aren't interested in the quizzes to begin with, this Gamification strategy may fail.



*Spin the Wheel*: Many websites are jumping on the bandwagon of creating fortune wheels and rewarding discounts and freebies. This is a great example of corporate gamification that is both engaging and rewarding. This type of gamification platform is an especially powerful technique for collecting email addresses from first-time visitors. The allure of a freebie is beneficial in increasing the number of email addresses on their mailing list. This is one of the simplest ways to initiate the first buy.

In certain spin wheels, there is a "better luck next time" option, which essentially means the player will not receive a prize. Customers are frequently dissatisfied as a result of this, and they may not use the app again.

*Slogan Competitions*: An online shopping platform firm might profit greatly from holding a slogan writing competition on Facebook or Twitter, in which followers are asked to contribute a slogan. This is a widely used strategy. The reason seems to be that a slogan contest produces a lot of interaction and word-of-mouth promotion, as well as contributes to the growth of a stronger, more lasting brand image.

Slogan competitions only function when they're accompanied by nice prizes, and most small organisations who use Gamification aren't able to take use of this strategy.

*Avatars of Customers*: Under this strategy, the e-commerce brands allow users to create their own, one-of-a-kind avatars on their website/app. For each individual purchase, points are assigned to the avatars which can be used to redeem other features and rewards.

Customers may dislike their avatars or believe that creating an avatar is risky in the online realm.

*Referrals and Loyalty*: Referral-based discounts are one of the most common forms of gamification in business. A reward is given to a consumer who refers new customers to a store. Loyalty, on the other hand, can be gamified through the use of a point-based system. This is a fantastic concept to employ in combination with the previous point regarding custom avatars.

But in this method, nudging people for referring their friends might be considered as spam if the application generates referral messages from time to time.

## **Usage Of Gamification Across Varied Industries**

With the number of mobile shoppers growing by the day and e-commerce grabbing a larger share of the \$22 trillion-plus global retail market, gamification is emerging as a highly effective conversion technology for converting web app visitors into loyal customers through the use of entertaining game design features. E-commerce is rapidly expanding and has a lot of space to expand. Because of its effectiveness, customer conversion technologies such as gamification are rapidly growing. China and Asia-Pacific have the fastest rates of e-commerce growth.(6)(7)

## **Gamification in EdTech Industry**

Since the 1970s, people have used gaming elements to learn new concepts. These modules, known as 'epistemic games,' have been primarily concerned with gaining knowledge through game-play that focuses on teaching players how to think creatively. Epistemic games were the first digital-era instructional tools in which the player learned to think like a professional by playing a simulated game pertaining to professions including accounting, architecture, law, banking, and so on, establishing that game learning is associated with enhanced learning outcomes and engagement. Intrinsically motivated teaching occurs when games provide players with options in three key categories: challenge, curiosity, and fantasy. Players are more motivated to play and learn when a computer game is built using this paradigm. The incorporation of game-design principles, animations, interactive quizzes, and assessments improves the whole learning experience and demonstrates the actual power of technology. According to a recent estimate, the worldwide game-based learning industry is predicted to reach \$5.8 billion in 2020 and will continue to develop in the years ahead, becoming a key aspect of e-learning. As per a recent report by The Ken, since the pandemic broke out, Byju's alone added 20 million new students on its platform with over 64 million registered students currently. Vedantu boasts more than 1 million

students who study LIVE on its platform every month, and that over 25 million users from over 1000 cities in India and 40+ countries access free content, tests, doubts, and videos on Vedantu's site and its YouTube channels every month.

## **Gamification in Healthcare Industry**

Healthcare gamification is described as the process of integrating game mechanics, gaming principles, and design strategies to non-game applications in order to increase user engagement and significant health awareness. These primarily include daily trackers, progress indicators, and the option to share results, as well as the possibility for users to socialize with others. Healthcare gamification has largely inspired apps aimed at self-managed medication, fitness & nutrition, physical treatment, and emotional health. Demand has increased in recent years as smartphone usage and internet affordability have increased. One of the key tenets driving the growing market demand for healthcare gamification is the increasing adoption of smartphones. According to user surveys, nearly 3.8 billion people will own a smartphone by 2021, accounting for more than half of the global population. Furthermore, the numbers indicate a considerable shift in customer preference from feature phones to smartphones. In 2016, there were about 4.3 billion mobile users, including 2.5 billion smartphone users. By 2021, the number of mobile users will have risen to over 4.8 billion, with approximately 3.8 billion using smartphones. This shows that users' desire for smartphones has increased in recent years, which greatly improves connectivity. This is one of the primary reasons for the market's success. This is one of the leading reasons for market expansion. Internet connectivity via mobile devices has also seen rapid uptrend, significantly contributing to market expansion. The global healthcare gamification market is expected to grow at a healthy CAGR of 54.7 percent from 2017 to 2022, reaching USD 3,780.6 million by 2022, driven by increasing technological breakthroughs, rising smartphone use, changing lifestyle, increasing digitalization, and a growing focus on workplace wellness. Fitbit, Inc. was established in 2007 and is headquartered in San Francisco, California, USA. It sells fitness wristbands and clips, as well as smart fitness watches and other fitness accessories. It has released the gamification application Fitstar, which

captures fitness data, as well as fitness accessories such as the One, Flex 2, Alta HR, Charge 2, and Aria, which can be synced with the application to measure fitness. Nike is engaged in the design, development, manufacturing, and worldwide marketing and sales of footwear, apparel, equipment, accessories, and services. Nike+ iPod was created in 2006 as a result of a cooperation between Nike and Apple. The Nike+iPod Sports Kit is an activity tracker gadget that measures and records user actions such as walking and running. Nike has released two gamification apps: the Nike+ Training Club app and the Nike+ Run Club app.(8)(9)

## **Gamification in E-Commerce Industry**

In recent years, e-commerce businesses have used gamification tools and techniques to increase sales and customer loyalty. In 2020, mobile games accounted for 72 percent of total app store spending. The younger the generation, the more likely they are to engage in gaming. According to the Consumer Insights study, approximately 81 percent of Gen Z gamers reported playing games in the previous six months. E-commerce apps that include in-app gaming experiences can increase sales and attract new customers to your online store. The prize at the end of the game is the primary motivator that will entice customers to play. There are numerous reasons to reward users, such as giving them a prize or discount if they share a game with their friends or their social media achievements. Retailers can also use gamification to encourage customers to make more purchases and return to repeat their shopping experience. To increase customer engagement, Amazon, for example, used spin and win wheel on its eCommerce store. Amazon offered a variety of enticing incentives that customers couldn't pass up. However, only registered customers were able to spin the wheel and try their luck. As a result, people requested that their family members or friends register on Amazon to participate in the popup game in order to increase their chances of winning. By gamifying the shopping experience, Flipkart's online shopping app encourages users to shop more by luring them with subscription-based freebies. Users earn super coins with almost every purchase on the app. The higher the purchase price, the more super coins earned. Super coins can be redeemed exclusively on Flipkart for a variety of offers and deals. It encourages more spending and loyalty for shopping on

Flipkart by reducing shipping fees for loyal customers. The app is updated on a regular basis with new puzzle and roulette-based games, as well as quizzes.<sup>(10)(11)(12)</sup>

## **Gamification in Telecom Industry**

Consumer attitudes toward telecommunications companies are shifting. With the rise of digital alternatives, telecom brands must differentiate in order to remain relevant. Seventy-seven percent of consumers are no longer loyal to a single brand. As a result, all businesses must address the issue of loyalty. Back in 2011, Samsung was one of the first corporate brands to launch a gamified corporate website. Samsung Nation was created in order to better engage and appreciate their online community. Essentially, it's a social loyalty programme on steroids. Members of Samsung Nation could win badges, points, and other rewards by winning, engaging, and competing with other 'nationals.' Verizon's (an American telecommunications company) web portal serves as a central location for events, competitions, sponsorships, and other charitable endeavors. Users can earn points by participating in site activities such as attending events, playing games, or writing reviews. Users can use their points to earn badges and join public leaderboards to win exclusive promotions. Over half of all users took advantage of the new gamification features. These simple platform enhancements resulted in 15% more page views and a 30% increase in site log-ins. Verizon personalized user experiences based on interests and location, in addition to gamification elements. They've also added the ability to log in using your social accounts. Users who did the latter spent 30% more time on the site on average.

## **Upcoming Trends**

Application of Gamification will be used for small business owners. Currently Around 80% of the retail market in India is unorganized and runs its sale through conventional methods such as discount, buy one get one etc which caters only to regular customers. Applying simple gamification techniques to the local stores through physical or digital gaming elements can bring exponential customer engagement and manifold increase in sales. Let us understand with the help of real-life example. Warren Buffet, Investment

Guru and Entrepreneur has placed Pinball game in barber shops which not only increased Barbers's revenue but also made a decent income for him also.

Gamification in SaaS. SaaS (Software as a Service) has also started using Gamification tools. Most widely used example of this is G Suite by Google which provides services of Google Docs, Google meet, Google forms. They use tools such as progress reports, badges and reward points. This way gamification provides Client satisfaction and loyalty, User acquisition and retention and Word of mouth recommendations.

Maturing Gamification tools for learning is being used in full swing by every edtech company through Acceleration in adoption of Gamification with an increase in Mobile Learning and Micro Learning. Moving towards the use of next Gen Gamification Techniques which will consist of VRbox, Metaverse and AI.

Well established automobile companies in India have been using this for long. They use Virtual Reality sets to make their customers feel real senses of using products instead of straight away giving them for a test drive. Electric Vehicles (EV) will be using more gamification techniques in coming years and this way Gamification will make our lives easier.(13)

## Swot

<p><b><i>Strength</i></b> It is cost-effective and creates many times the initial investment in revenue, and it will be in great demand. As more people are using internet nowadays, accessing apps and websites have become easier, so companies using gamification techniques can attract more consumers on their platform.</p>	<p><b><i>Weakness</i></b> Staying relevant necessitates a great deal of creativity, and being creative all of the time is difficult. Also, there are no standardized gamification techniques, so businesses that can't come up with new ideas cannot employ it efficiently. Its implementation is also difficult for small enterprises.</p>
<p><b><i>Opportunity</i></b> This technology can be used in a variety of ways based on the</p>	<p><b><i>Threat</i></b> Any gamified activity that has a negative impact like addiction</p>

company's ingenuity, and there is a growing market for it. It's usage across industries shows that it can be easily diversified and that there's a huge scope of innovation	might harm a brand's image leading to discontinuation of the use of that game. Legal regulations in this regard may also cause harm.
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## Limitations of Gamification

Gamification emphasizes an activity's intrinsic value. Gamification will not help if the activity has no intrinsic value for the performer. To give an example: - people will willingly submit selfies after immunization with a vaccination frame set up in the center of an Indian vaccination drive, but if they are asked to submit selfies after eating at any random food outlet, they will not, indicating that there must be internal motivation as well. Also, gamification may cause learners (typically in the education industry) to become distracted from their educational and training objectives. A teacher or instructor may fail to use gaming to supplement curriculum and learning. Moreover, poor game design or complex user interface leads to disengagement and misunderstanding which ultimately results in loss of users.

## Conclusion and Findings

Our main goals in writing this research article were to analyze how these Gamification tools and techniques have managed to carve out their own space in the last decade. Our findings show that Gamification, which was once used to engage young customers, is now catering to all customer segments in every economic activity. Gamification in most cases encourages shopping and payment. While conducting research on this topic, we found out that by playing games on the platform, users have a better chance of getting goods at a lower price or even for free, allowing them to save money. Gamification conditions can lead to a higher perceived coupon value, particularly when the product type is utilitarian, and gamification can further improve perceived coupon value. Having said that, it won't be long before every sector of the economy is gamifying all of its operations, and a separate industry of

gamifying other businesses and their operations will emerge, valued in the billions. Only those who keep up with technology and Gamification techniques will be able to compete in the coming decade. This research article is our small initiative to identify and explain this less cognitive concept as a business tool which empowers every economic activity for long-term survival. Furthermore, it will dispel the myth that gamification is a waste of time, energy, and money for customers and industries, as most traditional businesses believe.

### **Limitations of this Study and Scope of further research on this topic**

We only used secondary data in this study, whereas primary data would have provided significant insights. Furthermore, research on this topic is scarce, and in order to explain certain phenomena and examples, we relied on personal observations to supplement our understanding of the subject. While we are confident in the thoroughness of our research, it is possible that some publications were overlooked due to accessibility constraints.

Gamification is fairly broad, and no clear line exists between what actions are covered by it and what are not. Understanding how to create and implement a company-specific gamification strategy is still essential. It will continue to develop until a reference source or a custom-made strategy is developed for all sorts of brands so studies need to be conducted from time to time to supplement its understanding. Other methods, such as experimental methods, may be used in future research to better understand consumers' use and purchase intentions.

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# **STRIDES – A STUDENTS' JOURNAL OF SHRI RAM COLLEGE OF COMMERCE**

**ISSN 2581-4931 (Print)**

## **HISTORY OF THE JOURNAL**

The idea to launch this Journal was discussed in the year 2016 by the former Officiating Principal, **Dr. R. P. Rustagi** with **Prof. Santosh Kumari**, the Editor of the Journal. The idea appealed to Dr. Santosh Kumari and she took the initiative to create this new academic research Journal and took the responsibility for its Creation, Registration, License, and ISSN (International Standard Serial Number) etc. along with *Editorship*. Therefore, she was appointed as the Editor of the Journal in March, 2017. She meticulously worked hard for developing the structure of the Journal. She introduced the concept of COPE (Committee on Publication Ethics) to maintain high academic standards of publication.

On behalf of the college, Prof. Santosh Kumari made every effort in seeking License from Deputy Commissioner of Police (Licensing), Delhi to register the Journal at "The Registrar of Newspapers for India, Ministry of Information and Broadcasting, Government of India". First issue of the Journal "Strides – A Students' Journal of Shri Ram College of Commerce, Volume 1, Issue 1, 2016-17" was successfully released on the 91st Annual Day of SRCC held on April 13, 2017 by Shri Prakash Javadekar, Hon'ble Union Minister of Human Resource Development, Government of India.

On December 18, 2017, the College got the license "License No. - DCP / LIC No. F. 2 (S / 37) Press / 2017" to publish 'Strides – A Students' Journal of Shri Ram College of Commerce'. On April 26, 2018, the SRCC Staff Council unanimously appointed Prof. Santosh Kumari as the 'Editor of Strides' for the next two academic years. On May 04, 2018, the college received the 'Certificate of Registration' for Strides – A Students' Journal of Shri Ram College of Commerce and got the Registration No. DELENG/2018/75093 dated May 04, 2018.

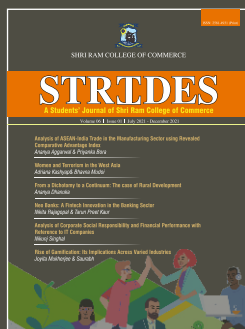
On May 07, 2018, Prof. Santosh Kumari submitted the application for seeking ISSN (International Standard Serial Number) at "ISSN National Centre – India, National Science Library, NISCAIR (National Institute of Science Communication and Information Resources). Weblink - <http://nsl.niscair.res.in/ISSNPROCESS/issn.jsp>". Finally, the College received the International Standard Serial Number "ISSN 2581-4931 (Print)" on June 01, 2018.

We are proud that this journal is an add-on to the enriched catalogue of SRCC's publications and academic literature.

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