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Selshi Effect: A New age conspicuous Exceptions to the Theory of Law of Demand

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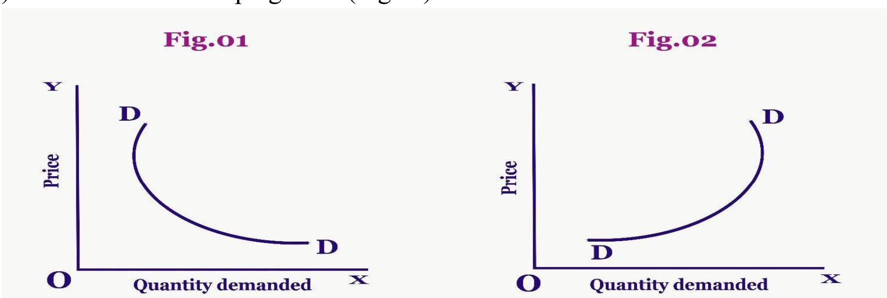
Abstract / Hypothesis: As we all come across the word "Demand" (a simple word but with multitude usage in practice), the foundational concept to understand what the economics is? And how it functions? With due importance of it, one can easily understand the behavior of commodities' against its prices (termed as Law of Demand) subject to its assumptions. There are certain circumstances where this law loses its validity due to one or the other reasons Viz.., Veblen's effect, Giffen paradox[1] etc.., In continuation to these exceptions this article is an attempt to check whether the state of the economy (especially recession) acts as an exceptional factor in determining the goods'/commodities' demand or not, by considering different sectors for different time periods[2]. The outputs were surprising because some sectors/businesses were benefitted due to this pandemic led recession and some faced challenge for its survival and revival. However the article is based on secondary data3 obtained from their competing agency/authority in which the credibility and credit follows them.

I. INTRODUCTION / BASIC BACKGROUND

As the foundational and fundamental concept in the economy, demand helps a common man to understand what economy is, and how it functions. **Demand** is the amount of goods and services that a shopper/consumer is able and willing to spend for a period of time. Technically all desires are not wants but all wants are desires[4]. Normally, the concept of demand and supply are considered as twin brothers and is triggered by the fluctuations in price (the crest of Law of Demand).

Ironically, the law of demand applies to a large no of goods'/services'. But there are some circumstances where it loses its validity. Such circumstances are termed as **Exceptions** to the law of demand where we can't observe the normal negative sloping demand curve[5] (Fig.01) instead Positive sloping curve(Fig.02).



Source : Bibliography No. 01 and 02

[1] In these circumstances, any increase/decrease in the price of a commodity will never ever affects its Qd (Quantity demanded). This results in an upward sloping of demand curve [The opposite form of The law of demand].

[2] For the purpose of sampling unit different sectors with different markets @ different time periods are taken (Indian Market)

[3] Hence this article shares both theoretical concepts (to some extent) and practical evidences on the basis of few Parameters (Macro-economic indicators).

[4] To call a desire as a want/demand, the end user/ shopper/consumer must desire, able and willing to pay for the aforesaid good/service.

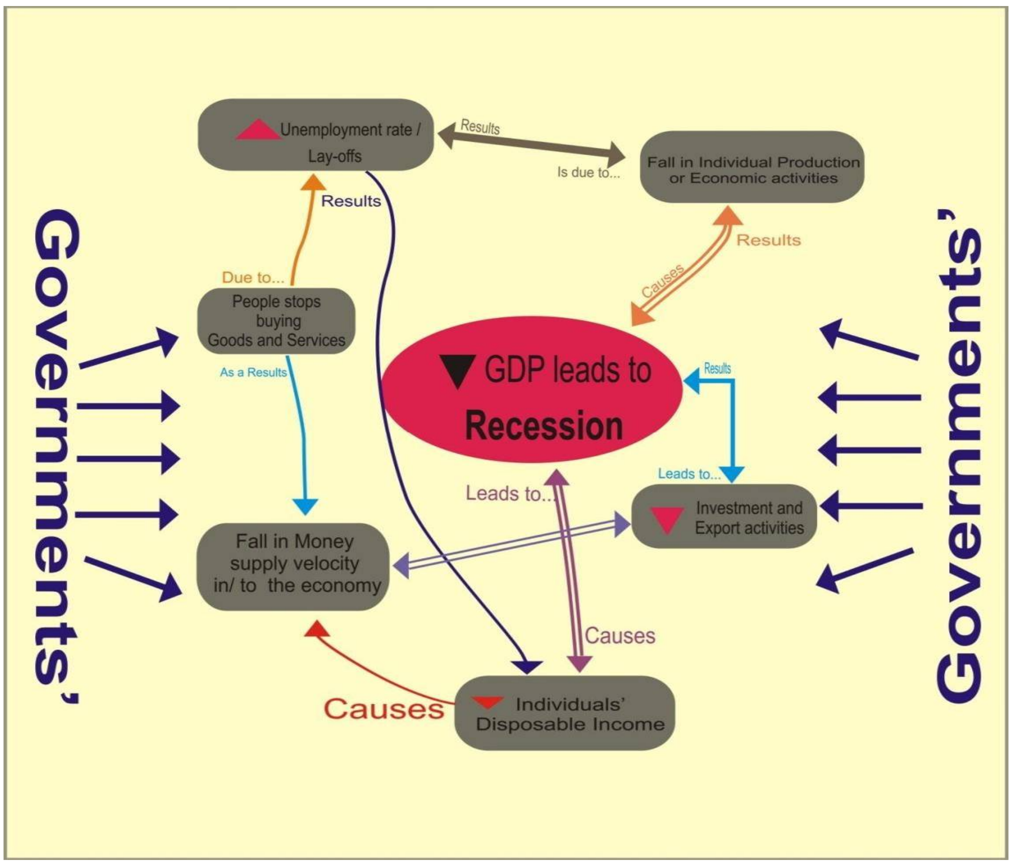
[5] The law of demand is all about this.

Further, the fluctuations[6] are caused either by price that influences demand and/or by supply. Thus the ultimate aim is to achieve the position of Qd=Qs.

A state of the economy/ economic activity determines and influences all other activities in the economy, depending upon the phases, the demand and supply across different sectors in the economy varies. Say during growth phase, there will be high economic activities, so that there will be high disposable income, plenty of investments and other activities (i.e.., during inflation, the demand for basic necessities and all other needs are high as there will be rapid money flow in the economy). But during recession there will be moderate change in this case (almost opposite to growth phase). The recession can occur due to any reasons like failure of financial sectors, government failures, external factors, pandemics, BOP issues etc.., Here in this article, the concentration is on **"Recession"**[7] (led due to pandemic situation) and its compound effects across different sectors (by considering different time periods) for the same to check whether the data supports the hypothesis or not.

II. RECESSION MODEL / ECONOMIC MODEL OF RECESSION

Fig.03 : Recession Model



Source: refer bibliography no 31.

[6] Numerous factors accounts these fluctuations viz.., availability of Raw resources, Competitors' products, Substitute products, Government policies on Internal as well as external (import n export) trades.

[7] A recession is nothing but the shrink in economic activities for 2 consecutive quarters. But **NBER** (National Bureau of Economic Research) 'economic recession is significant decline in the economic activity spread across the country, lasting more than few months, normally visible in GDP, impact on real personal income, employment rate and decline in industrial production, wholesale and retails etc..,'

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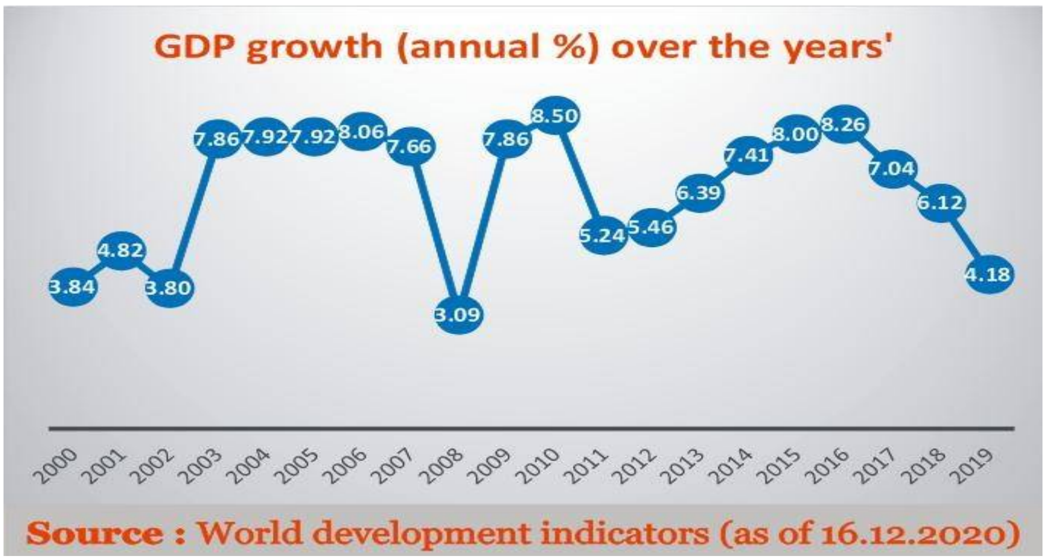
It is evident from the model that, a **Recession** is an integral part of economic activities that are performed by various economic agents like producers, consumers, Government etc.., Moreover it occurs due to the adverse compound effect of different economic activities which are interlinked / interconnected and determinants of one another. Say, a decrease in employment rate results decrease in individuals' disposable income, there by money supply/money velocity in the economy falls. This leads to business firms' to take care of their further investments and business activities. So the economic activities' and industrial productions' come to stagnant level. All these results fall in GDP[8] (and there by increases the unemployment rate either naturally/ forcefully i.e. layoffs). In this situation, as there will not enough improvements in peoples' purchasing power, they only thought to taken care of their basic necessities not other needs/wants. This is the situation where even any further decrease or price alterations of any commodity/service (other than basic commodities) will never fetch any improvements. The article is all about proving this exceptional case to the theory of law of demand during the recessional phase in the economic cycle by studying the sectors like Automobile, FMCG (Fast Moving Consumer Goods), Smart phones, décor items etc..,

Fig.04



III. ANALYSIS PART

A. *Automobile Industry*

As a key sector in the economy, this is one of the largest employment generating engines[9] in the economy. It combines the efforts of different market participants' like steel/aluminum producers, vehicle finance co.'s, Tire manufacturers, heavy goods transporters, industrial paint providers, plants/showroom affiliated investors' and their employees, ancillaries like plastics (molds), foams, wiring, leather, oil business etc.., so as to collectively contribute to the GDP with its forward and backward linkages between them. As a sunrise sector[10] in Indian economy, it has strong multiplier effect in the economy. In India, the manufacturing facilities were thriving since 1991 due to the adoption of LPG scheme by–

[8] **GDP** is a comprehensive scorecard of a given country's economic health. In simple it's the total monetary or market value of all the finished goods and services produced within a country's border in a specific time periods. GDP is used to estimate the size of an economy and growth rate by the policy makers, investors, businesses and others.

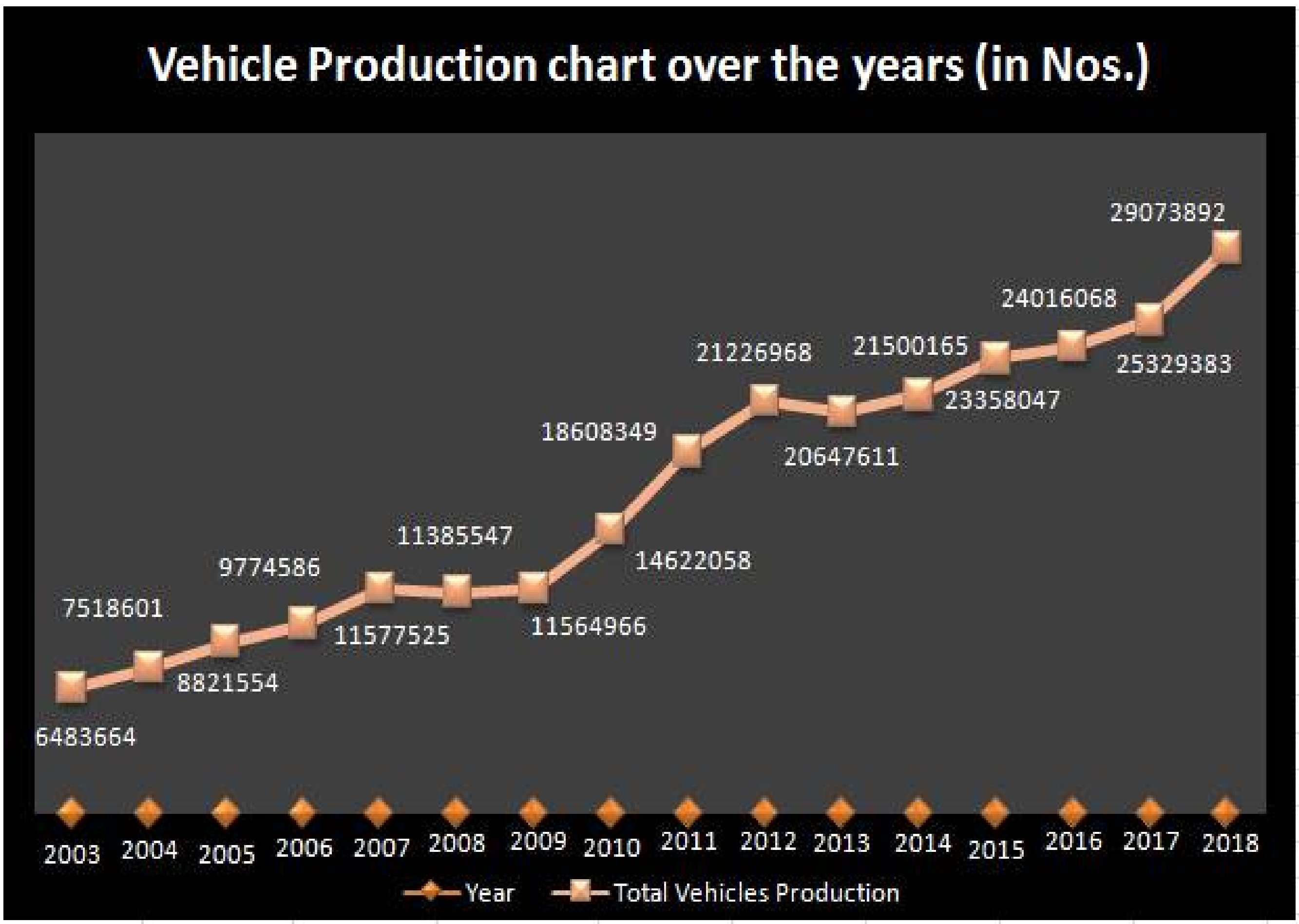
[9] Approximately around 35 Millions.

[10] With an average Monthly growth rate of 9.2% (bibliography NO.32). Further the sector has witnessed all time high growth of 63.6% in Dec. 2009 and record low of-86.5% in May2020.

--by the GOI[11]. The sector produces a wide variety of vehicles' with the product portfolio of passenger cars, Light-Medium and Heavy commercial vehicles (CVs), Multi utility vehicles such as Jeeps, 2-wheelers like scooters, motor cycle, mopeds, 3wheeler, tractor and other agricultural equipment etc.., that fetch in terms of volumes, exports and turnover to the economy.

India is the world's largest 2-wheeler and 3-wheeler manufacturer[12], it accounts around 7% of India's GDP. According to SIAM[13] reports, as the year ending Mar 2020, the sale of passenger vehicles (PVs), Utility vehicle (UVs) and vans were declined by 17.87% (i.e.., 27,73,571 units) compared to 17.97% decline (i.e.., 215,46,390 units) of cumulative sales across all vehicles like PVs, CVs, 2WHeeler and 3 wheeler of FY2019. There were only 3400 units of electric vehicles (4 wheelers) were sold (as per SMEV[14] reports) during the period.

Fig. 05 & 06 : Production and Sale data



Source: Annexure chart no 02

11 Government of India

12 Tractor manufacturer, commercial vehicles (5th), passenger cars (4th).

13 SIAM- The society of Indian Automobile Manufacturer

14 SMEV- The Society of Manufacturers of Electric Vehicles

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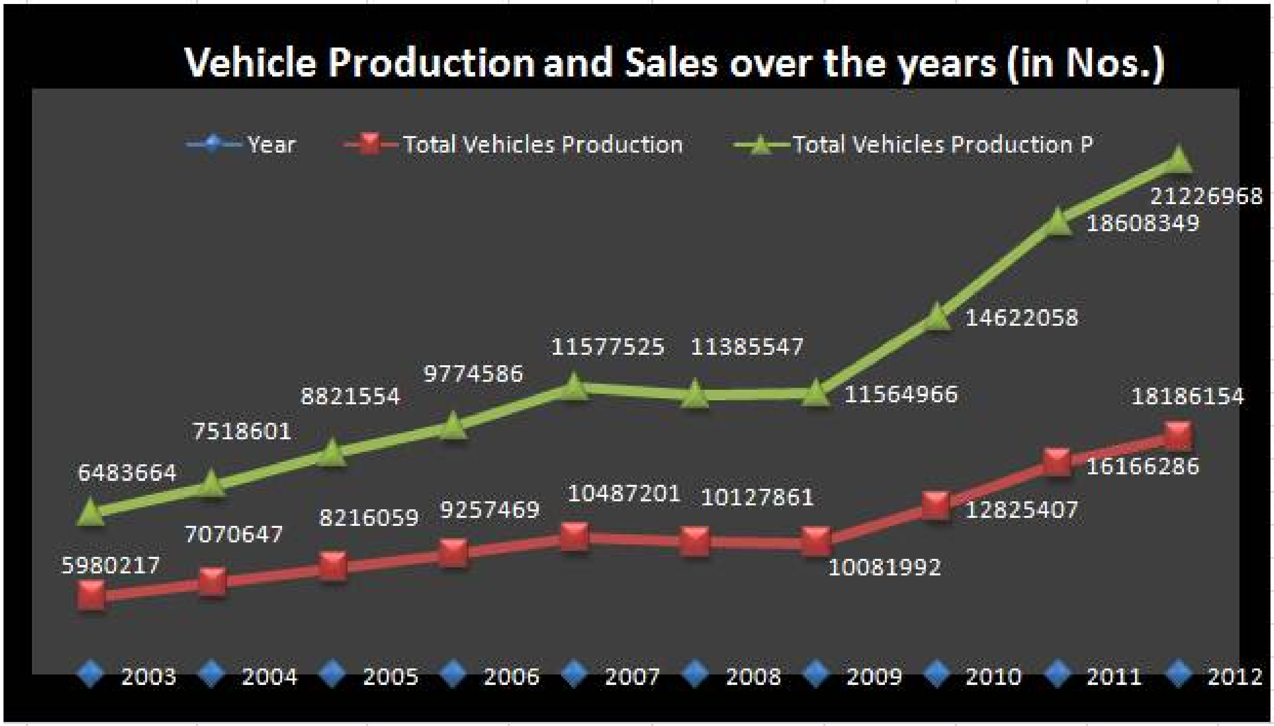

Source: Annexure chart no 02

In 2017, India became the world's 4th largest automobile market and the demand for Indian vehicles continues to grow in domestic and international markets. There by the automobiles industry is one of the most important drivers of economic growth in India and one of the successful sector in which the country has high participation in GVCs[15]. Over the years, the Indian automotive industry has seen many ups but faces few slowdowns viz.., in 2007-09[16] due to global recession particularly in 2008 there were around 2% dip in the production of vehicle production[17] and the sales were dented up to 3.5% in the same year[18]. Even the production in the succeeding year (2009) was improved but not the sale. This may be due to the financial sector's recession[19] that stretch to the real economy in the form of de- leveraging, decline in asset value, falling income[20], rising unemployment rate , negative in exports growth/ global trade (Dis-equilibrium in BOPs) etc.., all these compounded adverse effect were not resulted any improvements in GDP[21].

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15 **GVCs** – Global Value Chains

16 The GDP were 7.66 %, 3.09 %, 7.86% for 2007, 2008 and 2009 respectively.

17 Refer the table 02 in annexure part and Fig. 05

18 Refer the table 02 in annexure part and Fig. 06

19 Monetary Policy Review (MPR) (3rd quarter review) 2008-09 by Reserve Bank of India.

20 The per-capita income was $1,193- refer GDP (chart no. 01) data in annexure part.

21 The GDP chart shows growth rate of 3.89% in 2008, compared to its previous year's growth (9.80% in 2007) and succeeding year (8.48% in 2009).

In the year 2012, the large volatility in the European currency market, high unemployment, deceleration in industrial growth rate [22] (due to slowdown in capital goods, intermediate goods, consumer durables etc..,) affected the GDP to contrast to 5.46% growth rate[23]. In 2019, the slowdown in the domestic economic activity due to the uncertainty around the US- China trade tensions, Brexit, Crude oil's price volatility etc.., affected the GDP to grow (at a negative rate of 1.18%) to 5.46%. as a result the private consumption and investment were slaughtered. Thus it resulted in contrast of vehicle sales followed by the production suspend by the giant vehicle producers to curb the costs. Even though numerous measures[24] were taken up by the GOI to improve the GDP (so as to restart the engines in the economy), this resulted meager results and thus proved the economic cycle of recession is an exemption to the theory of law of demand.

B. FMCG (Fast Moving Consumer Goods)

FMCG, the 4th largest sector[25] in Indian economy, it has demand and supply throughout the year i.e.., it's like bread and butter sector (with CAGR[26] of closely 30%[27]) for the economy to grow as the economic standing of any country is linked to its composite growth of this sector and its subsectors which are measured in terms of its revenue generation, employment generation, money velocity in the economy etc.., FMCG in India as always maintained robust double digit growth rate. Out of the FMCG's[28] whole product portfolio 50% are belong to household and personal care items, 31% are of health care products and the rest are of food & beverages. This sector has thriving growth rate[29] over the years in spite of different economic forces like inflation, deflation and emergency times like floods, disasters, and recession etc.., some factors like rise in income level, peoples' higher aspiration level, increased awareness and consciousness for branded products. Growing awareness of online shopping, easy access to internet, changing lifestyle, rapid growth in youth generation, thriving disposable income etc.., influences the different segments' people also. The rural consumers' spending has been increasing negligible now a day[30]. The sector is having compound effects on employment generation in economic chain from the stage of manufacturing till delivery to the end users. In last 10 years, the revenue in FMCG industry in India has been growing at the rate of 21.4% (in terms of value growth it's $21.6 Billion to $52.8 Billion). The sectors' sales were increasing in upward trend till the pandemics after wards it was increasing in downward trend but was heavily dented during the pandemic situation.

22 From 8.7% to 5.6% , MPR 2011-2012 report by RBI

23 IMF reports

24 Like FDI policy reforms, Public sector banks' mergers, slash in corporate income tax rates…

25 -Followed by Agriculture sector, Industrial sector and service sector, as the 4th sector of Indian economy FMCG market was estimated at around $52.75 billion.

26 Compounded annual growth rate is the mean annual growth rate of an investment over a specified period of time usually longer than one year.

27 https://en.wikipedia.org/wiki/FMCG_in_India#:~:text=FMCG%20industry%20iN%20India%20is,US%24220%20BIllion%20BY%202025.

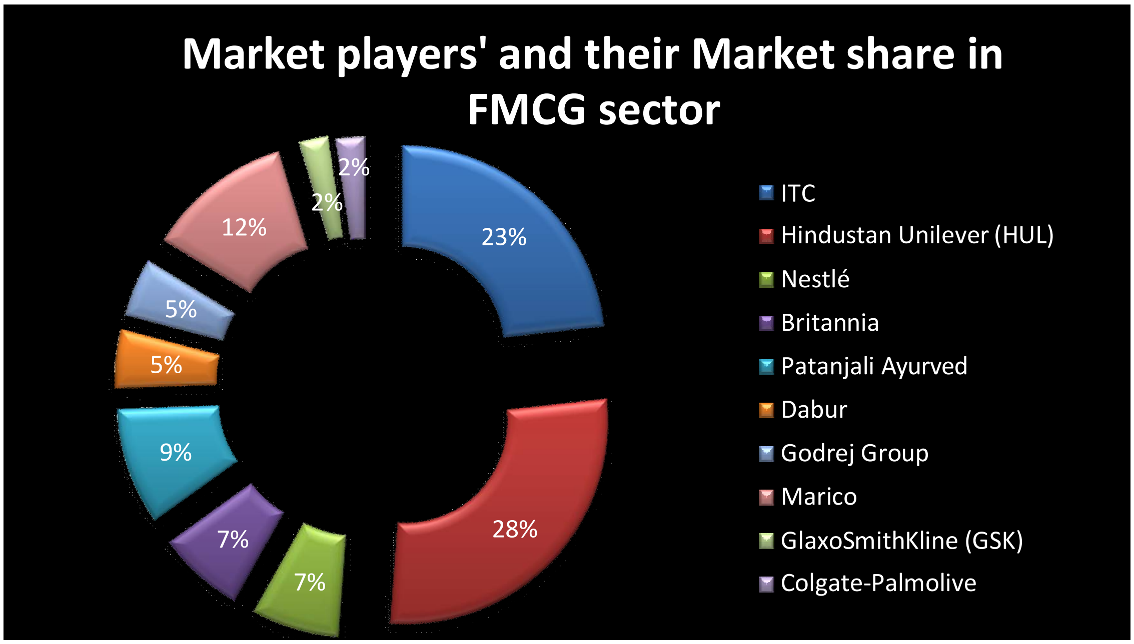
28 FMCG is also known as CPG industry i.e.., Consumer Packaged Goods. These products are sold quickly at a relatively low cost.

29 The sector is growing because of the entry of stores like Reliance retail, Big bazaar, D- mart, Easy day, More, Spencer's, Spar, Hypercity, Star bazaar. Due to the lack of variety of products the local grocery stores are suffering.

30 Around 36% of total spending was contributed by rural people and the urban customer accounts the rest. Further in the total FMCG's revenue breakup the offline consumers constitute 60% through buying from retail stores, malls/mart, kirani shops etc..,

In 2018, India's FMCG market growth was 14.8% (while the real GDP[31] was 6.12%) is the fastest market growth recorded in the entirety of Asia pacific[32] but in 2019(Q1) the FMCGs growth rate (including e- commerce) was 13.8%,Q4 2019 7.0%, Q1 2020, it was 6.3% (Jan + Feb 7.5%, March only 4.0%)[33]. This immediate drop in the growth rate affected many organized and unorganized establishments to dispose their assets, layoff their loyal employees, shutdown their activities for a while, default in tax payments etc.., the stakeholders were affected to a large extent as everyone are forced to sit under the concrete box.

Fig. 07



Source : refer foot note no.27

The government has extended its supports by liberalizing its FDI policy[34] new consumer protection bill, drop in GST[35] rates for frequently used FMCGs like soaps, tooth paste, hair oil [36]etc.., food and hygiene products[37] improvements in logistics and warehousing and many more. On the other hand corporate entities' at their end had initiated several measures to overcome this situation either through rigorous market efforts and/or by expanding their product portfolios[38]. These have bolstered the comeback of conglomerates' into the Indian market to improve their market share in order to satisfy its stake holders. Here any additional efforts in attracting customers like price cut will not work until the rise in people's standard of living (specifically disposable income/raise in purchase power). Hence this is an exceptional case.

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31 Refer GDP chart table (No.01 in annexure part)

32 https://okcredit.in/blog/what-is-the-fmcg-sector-how-it-works/

33 Nielsen RMS reports as of 30th April 2020

34 100% FDI in food processing and single brand retail and 51% in multi brand retail.

35 Goods and Service Tax

36 From 23.24% to 18%

37 From 12-18% to 0-5%

38 For instance post pandemics-ITC has introduced new products into their product portfolios, Asian paints introduced sanitization and disinfectant products, Nippon introduced Disinfectant paints etc..,

C. Tourism And Hospitality Industry/Sector

Hospitality and tourism industry is a vibrant and bustling sector of the economy in any nation, India is also not except from this factor. The tourism constitutes around 10% to the GDP[39] by emerging as one of the key drivers of growth among the India's other service sectors. The industry has a potentiality in employment generation[40] (in all of its value chain like travel agents. Hotels, tour operators, restaurants, tourist transporters', tourism service providers etc..,) and is a significant source of foreign exchange for the country. As a most digitally advanced traveler nation, the rising middle class and increasing disposable income is bolstering the domestic and outbound tourism. This bolstering resulted in becoming the 7th largest tourism economy in the world[41]. The vision of this sector is "Athithi Devo Bhava" or "Guest is God" along with generating/attracting tourist by facilitating a friendly hospitality facility for them. Across the country there has been immense opportunity to the hospitality industry[42]. It is very much essential to have a good forecasting tool and man force to execute this, at the crest it's all about the demand and supply in/of the sector. It is very much essential to look into each and every determinants as well as exception (to take care of pandemic like situations) because only 5% are branded luxury hotels, the unbranded budget hotels with bread and breakfast, guest houses like cottages etc.., accounts the rest (i.e.., 95%)[43].

Further the tourism industry / travel industry is based on the people travelling from one location to another location[44] for leisure, social or business purposes. This sector/industry has close connections with its peer industries[45] and heavily depends on the destinations' and their visit times'. Among the several sector in the economy, it is the largest and highly dependent sector which mint foreign exchange directly[46] .

Throughout the years' the tourism industry may have travelers inflows but certain times like recession (can be caused due to pandemic situations) the industry and their peer industries had faced huge dents in their businesses due to cancellation of many events, business related trips etc.., between the end of 2020 and beginning of 2021[47], the travelers and their planning for booking holidays are continue to decrease till now. To overcome this tuff situation, there has been knock-on effect has introduced in tourism related businesses where in airlines are forced to reduce their flights by as much as half percent, restaurants and similar establishments are facing even worse, some experiencing a fall in occupancy rates by a staggering 90 percent. A growing no's are being forced to permanently shut their doors. Due to covid-19, the tourism and its peer segments like inbound, outbound, corporate, MICEs[48], leisure, adventures has been affecting at a larger scale[49]. This wipe out all of their resources and now it became the question of survival and recover of the sector[50].

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[39] Approximately around $275 Billion.

[40] For instance, in FY2020 around 39Mn jobs were created in the tourism sector in India- which accounts around 8% of the total country's employment-www.ibef.org

[41] https://www.newshour.press/hospitality-industry-in-india-an-overview/

[42] Includes both organized and unorganized

[43] Bibliography NO.33

[44] Both domestically as well as internationally

[45] This includes entertainment industry, hotel industry, hospitality industry, transport etc..,

[46] This helps to maintain Balance of Payments account

[47] Low GDP- Less Employment-Lower Disposable income / purchasing power

[48] MICEs- Meetings, Incentives, Conferences, Exhibitions

[49] Up to Rs. 15Lakh Cr.

[50] FAITH- The Federation of Hotel and Restaurants Association of India

Further the average daily drop rate (ADR) was increased to 18-20% due to Covid, which were stood around 12-14% in normal days. This forced them to layoff the existing man powers and no more recruitments, there by the sector's employment rate were decreasing at an increasing rate. For meeting their subsistence costs some of the hotels were offering their premises for quarantine purposes. Thus the recession (can be caused by any reasons like Pandemics, Banking and Financial sectors' failure, emergencies, natural disasters etc..,) has adversely affected the sector and is an exceptional cases where any increase or decrease in Price/tariffs does not improve the demand for it.

D. Digital Market / Virtual Market

The video streaming or the cloud based service dates back to the mid of 2000s, where the data speed (Internet) took revolutionary growth. YouTube, the pioneers[51] in this and its acquisition by the Google stimulated the companies like BBC, Ten cent, Alibaba, Baidu, Hulu, Disney, Hot star, Netflix, Sun networks and Amazon to enter into this in the later days. It was moving like tortoise in the race but during the recession (led due to pandemic situation) it ran like rabbit. During corona pandemic, more than 1/4th of the world's populations were forced to sit inside the 4 walls. This led to the widening of online steaming and entertainment services along with online service providers (who does not have time restrictions to provide services) than ever before[52].as of juNE2020, Disney+ Hotstar, Discovery + have served 8.6Million subscribers in 2020Itself. The E-Commerce has grown 7.8% in 2020 itself. The technical advancement like block chain technology, Artificial Intelligence, were bolstering the growth in upcoming days. The global video steaming market size was valued at $50.11 Bn. In 2020 (in 2021 $59.14 Bn.) with a CAGR[53] of 21.0% from 2021-2028. Now the online streaming is considered as a New-age media over conventional theatres and CD shops.

E. Others

Apart from the above sectors Aviation sector is also one of the chief contributors to the country's revenue part and was equally hit as like tourism and hospitality sector. The outbreak of recession on account of pandemic has caused excessive damage to the sector where in no check in or check out is entertained with respect to any country (inter as well as intra-travels were restricted). This pandemic led recession has affected all the players in the sector to maintain their presence in the business. This resulted in layoff and pay cuts to its employees. Further around 66% businesses were stuck during this time. It will take much more time to resume their activities in the sector. Others like Real estate sector, Insurance sectors, Smart phones and its peer electronics, construction activities, businesses providing decors items and other lavishing life style items were also affected to a large extent. Many unorganized workers like caterers, masonry and other related workers and many more were highly affected and requires more time to get back to the normal situation. All these were result of low purchasing power (disposable income) of people, which are caused due to the recession where the economy is facing due to one or the other reasons. In this situation some businesses (like chemical businesses like sanitizers, hand gloves, surface disinfectants and their tools, medicines and many more) got advantage of this situation but these businesses does not compensate the actual earnings of the affected businesses.

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51 The original pioneers were Youku & Todou launched in 2003 &2005. YouTube in 2005 itself.

52 There were around miN.10% of viewership rise during the lockdown and it drastically rising across the globe.

53 Compounded annual growth rate is the mean annual growth rate of an investment over a specified period of time longer than one year.

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IV. RELEVANCE OF THE ARTICLE IN THE FIELD OF ECONOMICS

This article is an attempt to extend the theoretical framework of **the theory of law of demand** that has been studying over the years. For instance, the recession situation can be of determinants (in some cases like Pandemic led recession, the chemicals like sanitizers, PPEs. Digital steaming platforms etc..,) as well as exceptions (Crest of this study) to the theory of law of demand. There were positive effects on the businesses in former case but adverse effect in the later one. In such situations, any increase/decrease in the commodities' price or its attributes will not fetch any improvements in the business (applies to large nos. to the extent). So this will acts as one of the exceptional cases to the theory of law of demand (where in the demand curve will not follow usual negative sloping pattern). Further this will helps to take preventive as well as corrective measures to come out of recession and pave the way for survival as well as revival of different operators in the economy, so as to achieve the desired growth through GDP.

V. LIMITATIONS OF THE STUDY

Life has no limitations but the study is not except from its own limitations. Some of the limitations are seen as framework in this study. Such are-

1) Firstly, to check the validity of the above mentioned hypothesis, only few sectors were selected for the study rather than studying each and every corners due to time and energy constraints.
2) Since the study depends mostly on different statistics for the concerned sectors, all the data are obtained from the competing sources (i.e.., secondary source of data). Proper credits are given to their sources and the credibility depends on them.
3) To understand what recession is and how it travels/results its adverse impact on the economy, the author (on his own) incorporated all these in recession model for better understanding purpose.
4) In order to understand the effect of recession on different sectors, only required time periods' data are taken into consideration with respect to their GDP growth rate.
5) Since the article is about analysis point of view, it does not intends to express the concerned sectors' rankings or qualitative phenomenon but concentrates only on their relationships with the economy from the point of aforesaid hypothesis.
6) Could not be able to access each and every data for the study, as some are classified as confidential in nature and are used for internal purposes.
7) Subsequent improvements and adverse effects are ignored.

VI. CONCLUSION / SUMMARY PART

The concept of **'demand'** and **'supply'** helps to understand what economics is and how it functions. This twin brothers determines almost everything that are quantifiable in nature like volume, value, growth rate etc.., that all leads to a single indicator (@country level) called "**GDP**". The GDP is determined on the basis of different methods; it was stood at around 3-4%[54] before adoption of LPG[55] (1950-1990), afterwards it ran in double digit. Further a recession is nothing but a fall in economic activity for two consecutive quarters (i.e.., 6months) accompanied with decline in income, sales and employments which are clearly visible and understood easily. Since independence, India has faced 4 major recessions[56] but this 5th (pandemic led) recession killed almost all the corners of the economy due to lockdown.

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54 Also known as Hindu rate of growth, it's the low growth rate compared to the high growth rates in other Asian countries

55 Liberalization, Privatization and Globalization. In Toto known as economic reforms.

56 in 1958,1966,1973,1980 due to the difference In Balance of Payment (BOP), severe drought, emergency crisis, oil shock driven BOP crisis- source : foot note no 41

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This research study is carried out with the intention of testing whether the data supports the hypothesis (i.e.., can economic status acts as an exception to the theory of law of demand) or not. For testing of the aforesaid hypothesis the data pertaining to Automobiles, FMCG, Digital steaming, Tourism and hospitality were considered. The available data of this sectors/area of business were obtained from their competing publishing agencies/research firms. From the obtained (limited) data from these sources proved that 'the status of the economy (say recession) can be an exception to the theory of law of demand. [The recession can be caused due to any reason, either it's because of failure of financial sectors, crash of markets. Pandemic situations like Covid-19, emergencies etc… in this situation peoples are very much concerned about meeting their immediate requirements rather than others (due to fall in disposable income/ purchasing power followed by other consequences of recession[57])]. Due to pandemic around 23.9% de-growth in GDP is observed in India[58].But this is not the case across the economy because some businesses involving in Hand sanitizers and Disinfectant chemicals, Hand gloves and other PPEs,[59] Streaming services, Pharmacy/medicines, E-learning platforms, Electronic transfers, Remote working tools and software providing businesses, Online gaming platforms, etc.., boomed in their business never like before.

Thus, recession can be of determinant for some businesses but in majority cases, it's an exceptional to the theory of law of demand. Further, this recession has taught both the policy maker and the business firms to get ready for taking proactive measures in emergencies. This will help to boost the economic agents, so that the economy gets back to revival position ASAP[60]. This can be done effectively through macro-economic policies by the Governments.

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57 refer recession model

58 April-June 2020 Vs April-June 2019

59 Personal Protective Equipment's

60 As soon as possible

VII. CHARTS AND ANNEXURES

A. *GDP Data for Over the Years*

Gross Domestic Product (GDP) of India						
Year	GDP Nominal (Current USD)	GDP Real (Inflation adj.)	GDP change	GDP per capita	Population Change	Population
2020	-	-	-	-	-	-
2019			4.18%	$2,100		
2018			6.12%	$2,006		
2017	$2,650,725,335,364	$2,660,371,703,953	6.68%	$1,987	1.07%	1,338,676,785
2016	$2,290,432,075,124	$2,482,433,620,957	7.11%	$1,874	1.10%	1,324,517,249
2015	$2,103,587,813,812	$2,294,947,293,526	8.15%	$1,752	1.12%	1,310,152,403
2014	$2,039,127,446,299	$2,125,024,908,809	7.41%	$1,640	1.15%	1,295,600,772
2013	$1,856,722,121,394	$1,978,419,519,434	6.39%	$1,545	1.19%	1,280,842,125
2012	$1,827,637,859,136	$1,859,659,673,960	5.46%	$1,469	1.24%	1,265,780,247
2011	$1,823,049,927,772	$1,763,439,576,431	6.64%	$1,410	1.30%	1,250,287,943
2010	$1,675,615,312,693	$1,675,615,312,693	10.26%	$1,358	1.36%	1,234,281,170
2009	$1,341,886,699,393	$1,544,380,258,529	8.48%	$1,268	1.42%	1,217,726,215
2008	$1,198,895,498,504	$1,431,812,818,925	3.89%	$1,193	1.48%	1,200,669,765

2007	$1,216,735,426,855	$1,388,940,404,163	9.80%	$1,174	1.52%	1,183,209,472
2006	$940,259,892,375	$1,290,107,534,501	9.26%	$1,107	1.56%	1,165,486,291
2005	$820,381,672,148	$1,193,872,693,289	9.28%	$1,040	1.59%	1,147,609,927
2004	$709,148,531,775	$1,106,221,983,522	7.92%	$979	1.63%	1,129,623,456
2003	$607,699,299,977	$1,025,010,946,219	7.86%	$922	1.67%	1,111,523,144
2002	$514,937,961,194	$950,312,739,671	3.80%	$869	1.70%	1,093,317,189
2001	$485,441,026,156	$915,487,809,335	4.82%	$852	1.74%	1,075,000,085
2000	$468,394,948,472	$873,357,345,618	3.84%	$827	1.78%	1,056,575,549
1999	$458,820,428,318	$841,052,590,011	8.85%	$810	1.82%	1,038,058,156
1998	$421,351,487,589	$772,701,320,024	6.18%	$758	1.86%	1,019,483,581
1997	$415,867,763,817	$727,697,481,831	4.05%	$727	1.89%	1,000,900,030
1996	$392,897,063,751	$699,374,084,350	7.55%	$712	1.91%	982,365,243
1995	$360,281,961,339	$650,280,977,289	7.57%	$675	1.94%	963,922,588
1994	$327,275,591,370	$604,493,654,736	6.66%	$639	1.96%	945,601,831
Sources:	https://data.worldbank.org/indicator/ny.gdp.mktp.cd					
	https://population.un.org/wpp/					
	https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=IN					
	https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=IN					
	https://data.worldbank.org/country/india					

B. *Auto Mobiles' Production and sales for different years*

Table 2: The Production of Automobile (Unit)

Year ending"	Passenger Vehicles	Commercial Vehicles	Three Wheelers	Two Wheelers	Total Vehicles Production	% Change
2003	723330	407394	276719	5076221	6483664	----
2004	989560	550080	356220	5622741	7518601	15.96222
2005	1209876	707406	374443	6529829	8821554	17.32973
2006	1309300	782166	416423	7266697	9774586	10.80345
2007	1545223	1039964	556126	8436212	11577525	18.44517
2008	1777583	1098012	500660	8009292	11385547	-1.6582
2009	1838593	833740	497020	8395613	11564966	1.5758
2010	2357411	1135117	619194	10510336	14622058	26.434
2011	2982772	1476675	799553	13349349	18608349	27.262
2012	3123528	1772110	877711	15453619	21226968	14.07228
Source: Centre for Monitoring Indian Economy (Prowess) and self-constructed						
2013	3231058	832649	839748	15744156	20647611	-2.72934411
2014	3087973	699035	830108	16883049	21500165	4.12906849
2015	3221419	698298	949019	18489311	23358047	8.64124531
2016	3465045	786692	934104	18830227	24016068	2.81710624
2017	3801670	810253	783721	19933739	25329383	5.46848468
2018	4010373	894551	1021911	23147057	29073892	14.7832618
Source: SIAM (Society of Indian Association of Manufacturers)						

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Table 2: The Sales of Automobile (Unit)

Year	Passenger Vehicles	Commercial Vehicles	Three Wheelers	Two Wheelers	Total Vehicles Production	% Change
2003	707198	381364	79529	4812126	5980217	
2004	902096	520228	284074	5364249	7070647	18.23
2005	1061572	636860	307862	6209765	8216059	16.2
2006	1143076	702082	359920	7052391	9257469	12.67
2007	1305189	935530	403910	7842572	10487201	13.28
2008	1549882	980988	364781	7232210	10127861	-3.42
2009	1552703	768388	349727	7411174	10081992	-0.45
2010	1951333	1065442	440392	9368240	12825407	27.21
2011	2501542	1369810	526024	11768910	16166286	26.05
2012	2618072	1619064	513251	13435767	18186154	12.49
Source: Centre for Monitoring Indian Economy (Prowess) and self-constructed						

C. *FMCG Growth*

Market share in FMCG market

Company's Name	Market Share (%)
ITC	10%
Hindustan Unilever (HUL)	12%
Nestlé	3%
Britannia	3%
Patanjali Ayurved	4%
Dabur	2%
Godrej Group	2%
Marico	5%
GlaxoSmithKline (GSK)	1%
Colgate-Palmolive	1%

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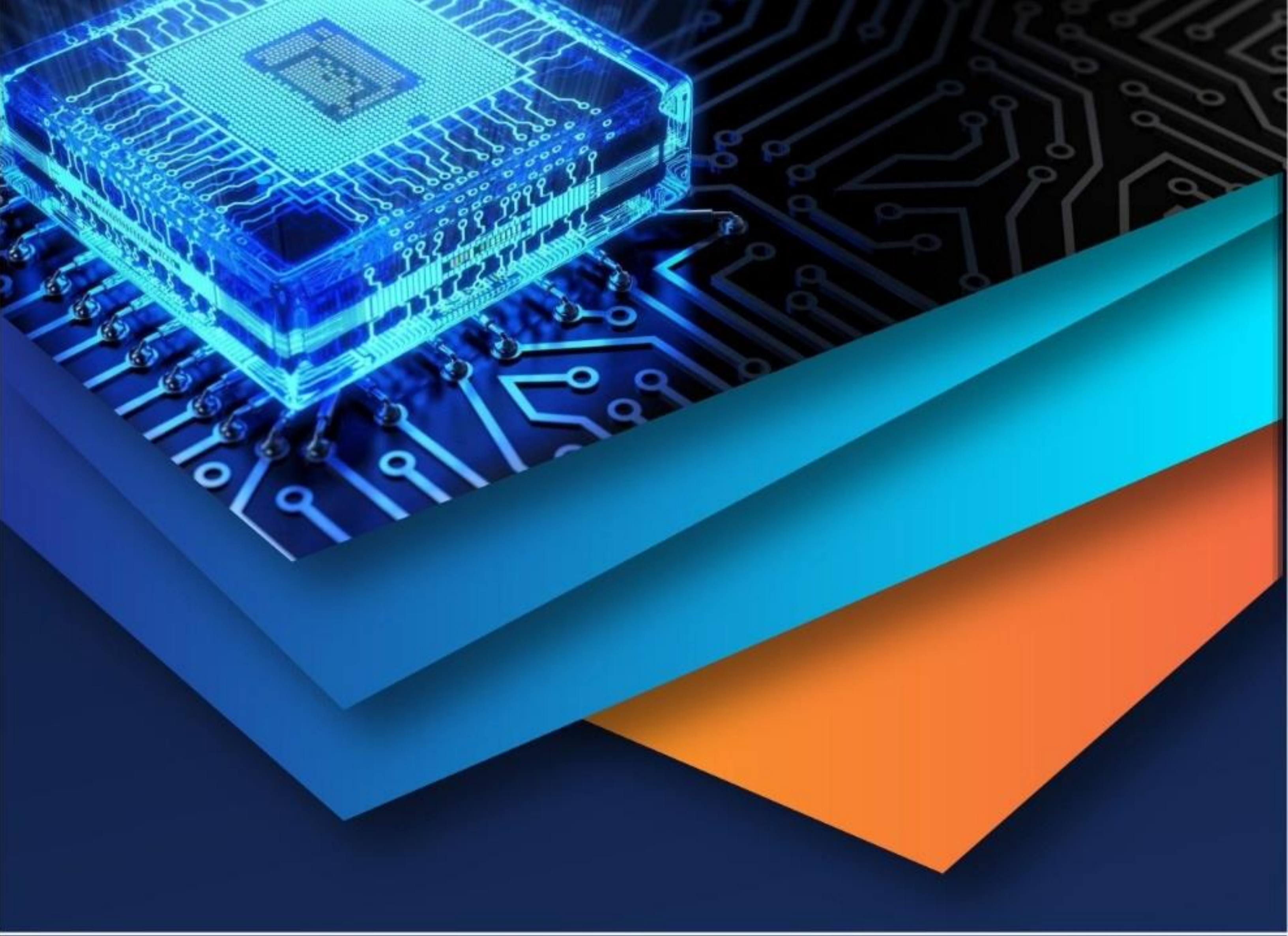

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