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A STUDY ON IMPACT OF GOODS AND SERVICES TAX (GST) ON CEMENT INDUSTRY IN INDIA

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ABSTRACT

Concrete industry assumes an essential part in the advancement of an economy. It contributes essentially to the GDP and creates business. Developing populace, expanding size of financial exercises, and development in the land area has prompted a blast in Indian concrete industry. Different infrastructural advancement drives of Central and State Government likewise invigorated interest for concrete. Indian concrete industry has huge development potential. It is drawing in FDI through consolidations and acquisitions. The synergic impact has brought about mechanical headways and creation productivity in concrete industry. Regardless of having immense development potential, the development of concrete industry in India isn't acceptable because of different financial and other approach suggestions. A high pace of GST is quite possibly the main variable ruining the development of concrete industry. Concrete is set in the 28% expense piece of GST in India, which is higher than the other creating and created nations. As people utilize in excess of 65% of concrete for lodging developments, a higher expense rate on concrete will unfavourably influence the negligible areas of the general public. Non-accessibility of Input tax break (ITC) in development and land area additionally an adverse consequence on the development of and land and concrete Industry. GST being utilization based expense; the whole taxation rate is on end-clients. Taking into account every one of the elements an endeavour is made in this review to break down the effect of GST on the Cement Industry. It is observed that development underway, utilization, deals and FDI inflows isn't acceptable in Indian concrete industry after GST execution.

Keywords: *GST, Input Tax Credit (ITC), Housing & Infrastructure Improvement, FDI, GDP.*

Introduction

Concrete industry is the main essential industry in India. In worldwide concrete creation and utilization India positions second spot and records for 8% of the world's introduced limit. In the monetary year 2019-2020, India's concrete creation limit was around 545 million tons (IBEF report of August 2020). Concrete is a crucial part for building vital foundation offices, and it worked with financial advancement by giving business potential open doors to in excess of 1,000,000 individuals straightforwardly as well as by implication. The development area contributes around Rs.2.7 trillion to India's GDP (Statistic, 2020). Concrete is a vital element for development projects, the blast popular for lodging, transportation, water system projects, and the drives taken by the focal and state legislatures to construct brilliant urban areas, reasonable lodging plans, rail routes, metros, cargo hallways, ports, and other framework advancement projects gave further boost to the development of India's concrete industry. In India, the interest for concrete is relied upon to develop by 550-600 million tons by 2025 (Gupta et al., 2020). There are

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various purposes behind the normal ascent in concrete creation and utilization of agricultural nations, particularly the internal relocation of provincial workers to urban communities, which prospered the urbanization cycle, prompting an expansion sought after for development exercises, which incorporates concrete, a significant part. Reasonable lodging for all plans, modern turns of events, and possibilities of development in the land area, and government spending on open foundation are the significant drivers for the development of India's concrete industry. As indicated by the most recent report by the IBEF housing market is relied upon to develop $1 trillion by 2023. The Government of India proposed to update 1, 25,000 km Length Street in the following five years according to the Union Budget 2019-20. The concrete business likewise saw unfamiliar players' entrance as consolidations and acquisitions, along these lines improving the concrete creation limit. Despite the fact that having incredible development potential, India's concrete industry is slacking a direct result of miniature and full scale financial, political, mechanical, and different variables. The per capita utilization of concrete in India is around 235 kgs as against the worldwide normal of 520 Kg, showing significant potential for the concrete business' development (Business Standard, 2019). The new drives taken by the public authority of India, for example, demonetization and carry out of Goods and Services Tax (GST), affected the deals and incomes of concrete Industry. In the previous VAT system, concrete was charged at the pace of 13.5% to 14.5%, and due to falling of different duties, the powerful rate of assessment on concrete was 27% to 31%, and in GST, it is charged at 28% (CBEC official statement, 2017). Notwithstanding, Cement being a fundamental constituent for a country's framework advancement, the assessment rate on concrete in India is more contrasted with other created and non-industrial nations. There is a need to diminish the assessment rate on concrete as it is fundamental for each segment of society. As the majority of the development materials like steel, iron, cylinders, and lines are set in the 18% assessment chunk, comparably, there is a need to carry concrete into the 18% expense piece with the goal that it lessens the weight on minor areas of the general public and diminishes the expense of development and advancement projects.

Profile of Indian Cement Industry

Fabricating concrete in India was begun in 1889 by a Kolkata-based organization. During the 1900s Indian concrete industry began getting a coordinated shape. In 1914, India Cement Company restricted was laid out in Porbandar city of Gujarat state. At first, the organization began with an introduced limit of 1000 tons. After First World War, there was gigantic development in concrete creation and utilization in India, and in the year 1956, cost and appropriation control framework was laid out to guarantee fair valuing for buyers and producers (Indian mirror, 2019). After the monetary changes in 1991 concrete industry saw solid development because of weighty interest in introduced limit by homegrown and unfamiliar players. The developing populace and increasing monetary exercises need for lodging and framework improvement exercises gave further upgrade to the development of Indian concrete industry. As of now, there are 210 enormous concrete plants with an aggregate introduced limit of in excess of 410 MT, given the appealing possibilities in land, and the interest for concrete is relied upon to accomplish 500-600 million tons for each annum by 2025 (IBEF, 2020). The intricacies and falling impact of prior circuitous duties, for example, deals duty and VAT prompted high expense rate on concrete and brought about expansion in concrete cost. Acquaintance of GST drove with an ascent in the Consumer Price Index (CPI) for administration, lodging, and transportation areas (S.Morris et al., 2017), and it prompted an expansion in development and capital expenses of lodging costs. Since GST is a utilization based expense, the buyer needs to bear whole GST, which will unfavourably influence the fantasy of negligible segments of the general public to claim house. Indian concrete organizations are working underneath introduced limit, i.e., 70% (Statistic, 2019). To utilize the inactive limit of the concrete business there is a need to animate interest for concrete by decreasing the GST. In India, concrete is charged at the pace of 28%, which is a lot higher than other created and agricultural nations on the planet. The non-accessibility of Input tax reduction (ITC) during the development stage additionally contrarily impacted the interest for development exercises. Accordingly, there is a need to lessen the assessment rate on concrete and to give Input Tax Credit (ITC) on development properties to make ready ascent sought after for concrete and expanded limit use by concrete organizations, bringing about expanded per capita concrete utilization and income assembly to the public authority.

Review of Literature

Issues of lodging designers: Low Sui Pheng and Carol P.W. Loi, (1994) featured the issues and difficulties looked by building workers for hire in the development business GST in Singapore. Directed review of building project workers and IRAS authorities to concentrate on difficulties looked by little and huge development organizations. Seen that higher consistence costs caused by development

organizations on account of mind boggling charge framework, additionally, saw that unfamiliar and little organizations brought about more expense than medium and huge scope organizations, the duty arranging endeavours of little organizations are not exactly huge organizations. It is seen that bigger organizations invested more energy and exertion in making arrangements for GST execution than little development organizations. Proposed that development organizations should put forth genuine attempts to find out about GST to beat structure early stage troubles of GST. Essentially, (Rozlin et al., 2016) explored the ramifications of development and capital expenses in GST system and their effect on the lodging engineers and lodging property costs. Reviewed property designers and experts of Malaysia to break down the effect of GST lodging costs. It is seen that building material and land obtaining are the significant capital development costs impacted by GST. Moreover, an increment in capital streams has prompted an ascent in house properties' cost; thus the last customer sees an Electronic duplicate accessible at: https://ssrn.com/abstract=3836270 increase in cost. Recommended to lessen GST rate and make mutual benefit circumstance for lodging engineers and purchasers.

Construction and Capital expenses: ZainalR, and et al. (2016) audited the GST impacts related with development capital expense and house property costs in Malaysia. After GST execution, expansion expanded in Malaysia, which prompted an ascent in the lodging and development costs, and individuals are troubled with the higher lodging costs. It is recommended that Malaysian government ought to give lodging designers impetuses, and charge rates on development exercises ought to be reconsidered to diminish the GST impact of GST on development and capital expenses. Similarly,(K. Rajmani et al., 2018) led study of sellers to survey the effect of GST on the concrete business. Looked at the expense rates prior charge system to new assessment system, and saw that there is an expansion in charge rate on concrete from prior 24 - 25% to 28%. it has prompted expansion in the concrete cost. In any case, it is thought that amendment of expense rates limited cost of data sources, taking care of materials, and auxiliary transportation administrations, which are crucial for assembling and appropriation of concrete. Discoveries uncovered that the greater part of the respondents concur that GST makes charge framework more effective and straightforward and leaned toward it over before charge framework. It is thought that a decrease in concrete costs possibly happens when concrete organizations pass on the advantages of diminished information expenses for shoppers. Pavitra and Rajkumar (2018) directed overview of common development organizations of Mysore city to evaluate the effect of GST on concrete costs. Seen that cost of concrete expanded in GST, and the interest for concrete and proposition for new developments diminished. Believed that cost of concrete is a critical element for the development and advancement of development organizations. Proposed that focal government should go to fitting lengths to control concrete cost in the forthcoming days for the feasible development of development organizations. Store network proficiency: Ankur Taak and Ravinder Kumar, (2019) recognized different factors fundamentally affecting concrete industry, for example, deals, charge assortment, calculated expenses, transport, stockrooms, season of conveyance, natural substance cost, creation costs, method of instalment, GST charge rate, mindfulness about GST programming, and wholesalers. Seen that because of 28% assessment rate, different foundation projects got impacted. Notwithstanding, subsequent to concentrating on Supply Chain Management (SCM), it observed that the real expense is decreased due to a decrease in planned operations and transportation costs, diminished conveyance time, and diminished creation costs.

Objectives of the Review

The review is an endeavour to dissect the effect of GST on Cement Industry in India. The particular destinations are referenced underneath:

- To analyse the effect of GST on the value, creation, utilization, import and commodities of concrete.
- Similar examination of development of concrete industry and its commitment to circuitous expenses when GST execution.

Data and Methodology

The review is scientific in nature. Understanding the effect of GST on the concrete business shapes the essence of the review. The review depends on optional information gathered from data sets like the Centre for Monitoring Indian Economy (CMIE), EPWRF, and ability data set. Different reports, for example, IBEF, yearly reports of concrete organizations and DIPP reports are eluded. For information investigation, different illustrative measurements like mean, Standard deviation, Year on Year development (YoY), matched t test, and connection were done to show up at the review results.

Data analysis and Interpretation

Table 1: Growth of Cement Industry in India

Year	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Factories	1414 (3%)	1367 (-3%)	1450 (6%)	1487 (3%)	1378 (-7%)	1523 (11%)
Employees	155366 (5%)	154817 (0%)	164068 (6%)	174964 (7%)	179863 (3%)	191827 (7%)
Workers	112954 (3%)	112999 (0%)	121334 (7%)	130307 (7%)	135256 (4%)	145891 (8%)
Capital*invested	980495.5 (15%)	1739780 (77%)	1178646 (-32%)	1328196 (13%)	1312454 (-1%)	1576454 (20%)
Fixed*Capital	864346 (15%)	1602409 (85%)	1034222 (-35%)	1171230 (13%)	1168170 (0%)	1400150 (20%)
Gross*Value ofOutput	921095.5 (30%)	1023130 (11%)	1017097 (-1%)	1140830 (12%)	1098749 (-4%)	1193965 (9%)
Gross*Value added	324802.9 (40%)	329664.4 (1%)	292875.8 (-11%)	301920.5 (3%)	294699.1 (-2%)	348893.4 (18%)
Net*Income	227525.4 (50%)	232935.1 (2%)	185807.1 (-20%)	173385.9 (-7%)	170515.1 (-2%)	192960.1 (13%)
Profit*	185537.3 (61%)	184191.2 (-1%)	131198.9 (-29%)	110905 (-15%)	106446.3 (-4%)	119426.7 (12%)

Source: Analysis based on the data of Annual survey of cement lime and plaster industry by CMIE.

*Rupees in million

Note: Figures in parentheses syndicate the percent change Year on Year growth (YoY).

Table 1 shows the development of concrete industry from 2015-16 to 2020-2021. It is found from the investigation that there is a declining pattern in the quantity of concrete production lines, representatives, labourers, capital contributed, and fixed capital speculations. An expanding pattern should be visible in the net worth of result, net worth added, net gain, and benefit of the concrete manufacturing plants. Concrete industry has seen development and decrease because of different outer and inward factors. Significant approach changes like demonetization and execution of GST, additionally has suggestions on the concrete business' presentation. Among the different approaches, high pace of GST at 28 % is one of the explanations influencing the development of cement industry. Organizations' benefit and total compensation expanded on account of a decrease in falling of expenses and less duty rate on concrete information sources.

Table 2: Cement Prices before and after GST

(Rs/50Kg Per bag of Cement)

Year	Before GST		Year	After GST	
	Average Wholesale Price	Average Retail Price		Average Wholesale Price	Average Retail Price
2014-2015	301.3	311.4	2017-2018	314	324.4
2015-2016	292.3	296.4	2018-2019	306.4	315.2
2016-2017	304.6	315.2	2019-2020	342.1	354.6
Mean	299.4	307.66	Mean	320.83	331.4
S.D.	6.3663	9.9404	S.D.	18.805	20.6116
Paired t- Test values for wholesale prices			Paired t-Test values for Retail prices		
N 3 Correlation 'r' 0.8356 Paired Sample t-test 2.6646 P value of Paired Sample t-test 0.1166			N 3 Correlation 'r' 0.8081 Paired Sample t-test 2.9628 P value of Paired Sample t-test 0.0975		

Source: Analysis of data on cement by Centre for Monitoring Indian Economy (CMIE).

H_1.H_0: There is no significant difference between cement prices before and after GST.

Table 2 shows the results of matched t-test and connection coefficient for the progressions in discount and retail costs of concrete when GST execution. It is observed that there is a serious level of connection between discount costs of concrete when execution of GST. i.e. 83.56%. On account of retail

concrete costs, additionally there is serious level of connection is 80.81%. It demonstrated a serious level of relationship among discount and retail costs when GST execution. The normal discount cost of concrete expanded from Rs. 299.4 to Rs.320.83, and normal retail costs of concrete expanded from Rs.307.66 to Rs.331.4 during when GST periods. Nonetheless, combined t-test results that there is no huge distinction in discount and retail costs of concrete when execution of GST. Subsequently, the invalid theory is acknowledged and presumed that there is no critical contrast in discount and retail costs when GST.

Table 3: Production and Consumption of Cement before and After GST (In'000 tonnes)

Year	BeforeGST		Year	AfterGST	
	Production	Consumption		Production	Consumption
2014-2015	261338	257412.6	2017-2018	287964	284721.2
2015-2016	273857	271243.5	2018-2019	327722	324927.9
2016-2017	270375	266823.5	2019-2020	328066	328728.9
Mean	268523.33	265159.86	Mean	314584	312792.66
S.D.	6461.64	7063.93	S.D.	23054.23	24384.77
Paired t-Test values for Cement production			Paired t-Test values for Cement consumption		
N 3 Correlation 'r' 0.9609 Paired Sample t-test 4.7097 P value of Paired Sample t-test 0.0422			N 3 Correlation 'r' 0.9225 Paired Sample t-test 4.5644 P value of Paired Sample t-test 0.0447		

Source: Analysis of data on cement by Centre for Monitoring Indian Economy (CMIE).

H_2.H_0: Thereisnosignificantdifferenceincementproductionandconsumptionpreandpost GST.

Table 3 shows the consequences of matched t-test and connection coefficient for the progressions in concrete creation and utilization during pre and post-GST execution. There is a serious level of positive connection between concrete creation when GST. i.e., 97.80% and a serious level of positive connection (92.25%) between concrete utilization when GST execution. Results showed a solid positive relationship between concrete creation and utilization during pre and post-GST execution. The normal creation of concrete expanded from 268523.33 million tons to 314584 million and utilization expanded from 265159.86 million tons to 312797.66 during pre and post-GST periods. Invalid theory is dismissed on the grounds that the combined t-test results demonstrated that there is a measurably critical contrast in concrete creation and utilization when execution of GST

Table 4: Export and Import of cement before and after GST (Rs. In million)

Year	Before GST		Year	After GST	
	Cement Exported	Cement Imported		Cement Exported	Cement Imported
2014-2015	8095.6	4665.1	2017-2018	8523.2	7875.3
2015-2016	8992.9	5069.7	2018-2019	7816	7195.8
2016-2017	9503.4	7409.5	2019-2020	6830	4795.4
Mean	8863.96	5714.766	Mean	7723.06	6622.166
S.D.	712.70	1481.558	S.D.	850.416	1618.09
Paired t-Test values for Cement exports			Paired t-Test values for Cement imports		
N 3 Correlation 'r' -0.9683 Paired Sample t-test 1.2742 P value of Paired Sample t-test 0.3306			N 3 Correlation 'r' -0.9972 Paired Sample t-test 0.5073 P value of Paired Sample t-test 0.6622		

Source: Analysis of data on cement imports and exports by Centre for Monitoring Indian Economy(CMIE).

H_3. H_0: There is no significant difference between import and export of cement by cementcompanies.

Table 4 shows the results of combined t-test and relationship coefficient for changes in concrete sent out and imported during when GST execution. It is observed that there is a serious level of negative relationship (- 96.83%) between concrete traded during pre and post-GST. And furthermore, a serious level of negative relationship of (- 99.72%) is found between concrete imported in pre and post-GST. The outcomes demonstrated a solid negative connection among imports and products in the pre and post-GST time. The normal concrete traded is diminished from Rs. 8863.96 to Rs. 7723.06 million, and the normal concrete imported expanded from Rs.5714.76 to Rs. 6622.16 million in the time of when execution of GST. The matched t-test results show no genuinely critical contrast between concrete sent out and imported. Henceforth, the invalid theory is acknowledged and inferred that there is no uplifting pattern in concrete import and products when GST.

Conclusion

Concrete is a vital component in each development action possibly it is a development of an extravagance home, or it is a development of reasonable houses for negligible areas of the general public. Concrete is fundamental for Indian lodging and framework improvement; it is charged at the assessment pace of 28% in Goods and Services Tax (GST). GST is utilization put together circuitous expense exacted with respect to labour and products, and the last weight must be borne by a definitive buyer. The pace of GST on concrete is more in India when contrasted with created and creating areas. The review discoveries uncovered that discount and retail costs of concrete expanded definitely after GST due to the higher expense rate and other inner and outer variables. It at last affected the creation and utilization of concrete in pre-and post-GST. Because of the greater duty rate on concrete, sends out have diminished, and imports expanded. Moreover, FDI inflow to the concrete business, foundation advancement projects decreased, and an impressive ascent in FDI inflow to development projects. It is seen that there is no reassuring pattern in the development of creation and deals made by concrete organizations. It is essential to take note of that the Indirect duty paid by concrete organizations diminished, and the net gain and benefit of the concrete organizations expanded after GST; it is a result of the improvement of awkward assessment regulation by supplanting interlacing duties with one country one expense, i.e., GST. Notwithstanding, the public authority ought to guarantee that the organizations are giving the advantages of scaled down duties to shoppers as discounted concrete costs. The organizations are underutilising the introduced limit (up to 70%). Hence, to expand the limit usage and per capita concrete utilization, there is a need to support concrete utilization by lessening the assessment on concrete. GST rate decrease on concrete will animate the interest for concrete, which will expand the economies of scale as higher creation and deals as well as commodities of concrete will increment. India's concrete industry will draw in more FDI to foundation advancement and development projects. Consequently, the GST chamber should consider diminishing the GST charge rate on concrete.

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