

Impact of Recession on Construction Industry

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Abstract - The construction industry is most remarkable sector for development of any country. The state of construction industry directly reflects the state of economy of the country and has solid effect on GDP growth. This thesis aims to study the consequences of economic recession on construction industry and to analyze various strategic initiatives taken by different construction firms to fight such times and to come out with corrective tactics in the form of conclusion which can be referred by construction firms to navigate smoothly in the grave situation of economic recession. Then, through literature review, common business development strategies are identified, which are in turn later used to compare the data collected from the industry. Data are collected via surveys of general construction industries. Results show that companies which satisfied majority of the characteristics identified previously showed better growth. Further conclusions are discussed.

Key Words: Construction industry, GDP, Economic Recession, Strategies.

1. INTRODUCTION

India is called as developing country where people are very much talented or skillful to play vital role in making construction sector at the second number after agriculture sector. Despite of being at second number but play very important role in making GDP growth rate at the peak level. As the economy of our country is facing recession since from recent years, we could notice there is decrease in GDP of our country due to downfall of economy of our country. Various construction firms have been facing the problem of standing into the competence with other construction firms due to loses in their businesses. Recession has adversely affected through various reasons such as financial problem, unpredictable events, wars, fortunes, terrorizations and risk of investing the funds of the company in other sectors. Even though the country is developing but still it has to take some strategies to come out from the severe situations like recession so that our

country might be saved from critical economic downturn. The recession has adversely affected the economy of USA in the year 2008 resulted in worldwide. About 31 million of people lost job in India and construction experienced greatest downfall. The situation was handled by government policies such as FDI policies which helped India in such testing time. As it has been rightly said that business with right strategy and vision comes out stronger from the depression.

1.1 Scope

An impact of recession is going to be studied on the construction industry in Indian frame work. The survey was taken place in Dang district of Gujarat. The numbers of targeted respondents which are listed in list so, the distribution of the survey was directed to the potential respondents in person. The questionnaire survey was directed with engineers, supervisor, consultant owners and contractors from various construction trades. Quick action was taken while filling up the forms.

1.2 Objective

1. To identify the factors affecting the economic recession of construction industry.
2. To identify critical impacts on contracting companies during recession.
3. To identified company approaches in addressing financial constraints during downturn.
4. To identify critical success parameters of the firms during recession.

2. LITERATURE REVIEW

2.1 Impact of present-day economic recession in the construction industry:

It is found that factor that are responsible for recession have been discussed in this literature paper. The main aim

of this paper was to study the consequences of economic downturn and studying those factors and understanding it, applying proper strategies to come out of recession period. It mostly focuses on how recession occurs. There cession is part of natural economic cycle, the economy which expands for the span of 6-8years experiences slowdown for the period of six months to two years. (1)

The construction industry which witnessed robust growth from the period of 2004-05 to 2007-08, experienced massive slowdown from the third quarter of financial year 2008-09 and now on 2016-2017 About 31 million people lost jobs in India and construction industry experienced jittery due to slowdown.

A survey was conducted in this research paper on various factors that affects the recession in construction sector. RII method is used in this literature paper to rank the factors according to the response given by the respondents. Using five-point Linkert scale ranging from 1 to 5.

Sr. No	Name of Factors	Mean	Standard Deviation	Rank
1	Rise of interest rates	3.14	1.40	1
2	Lack of income consumption	3.11	1.47	2
3	Labours performance affecting the construction process	3.04	1.43	3
4	Falling of real wages	3.01	1.41	4
5	Indirect effects through consumption	3.01	1.47	5
6	Lack of incentive scheme among workers	3.00	1.43	6
7	Underground economy	2.97	1.45	7
8	Evaluating and modifying the fall and down of GDP in the society as well as in construction industry	2.97	1.49	8
9	Expenses loans used in major construction project	2.97	1.52	9
10	Capacity overdue leading to dwindling investment	2.95	1.49	10
11	Occurrence of fatal death and major or minor injuries affecting the project	2.94	1.43	11
12	Inflation suddenly	2.91	1.41	12

	occurring in an aggregate required for construction			
13	Increase the level of monetary and fiscal policies among the construction industry	2.91	1.42	13
14	Identifying market dynamics and external factors that impacting the construction sector	2.91	1.42	13
15	Reduction of necessary equipment's and materials	2.91	1.43	15
16	Inability to develop new infrastructure leading to GDP fall down	2.91	1.52	16
17	Construction business in a present economic condition	2.90	1.52	17
18	Unexpected tax	2.88	1.41	18
19	Lack of goods and services	2.87	1.42	19
20	Lack of time period in a completion of project	2.88	1.45	20

Table -1: Factor impact on present day economic recession in construction industry

2.2 Impact of recession in India:

This paper states that consumer loses confidence in the growth in economy and spend less. There is drying of capital inflows from the FDI which were invested in Indian stock markets for greater returns visualizing the potential higher returns flying back is continuing to challenge liquidity management. Recession is the significant decline in economic activity lasting more than a few months, which is normally visible in real GDP, real Income, employment, industrial production and retail business. At the heart of the current liquidity tightening is the balance of payments deficit, and this NRI deposit move should help in some small way. India is no different. New measures do not change our view on the growth outlook. Indeed, we remain concerned about the banking sector and financial sector.

Indian economy has been hurt by the global financial recession, but India may be in better position with quick recovery and for future growth than many of the other economics as Indian banks did not have significant

exposure to Sub-prime loans in the U.S. RBI's decisions to appropriate use of a range of instruments such as CRR, Repo/Reverse Repo rate, SLR MSS and LAF are in the right direction and taken in time. (2)

3. DATA COLLECTION

Data collection is a process of gathering and determining information on targeted variables in an established system, which then allows on to answer relevant questions and evaluate outcomes. For achieving the objective, questionnaire was made in which respondents should have to rate the different constraints according to analytical hierarchy process method. The collection of data is done both online & offline manner. The five- point scale which ranges from 1 to 5(1-Very low,2-Low,3-Moderate,4-High,5-Very High) for the factors affecting the impact of recession on construction industry.

According to the targeted city and stakeholders, overall quantity of accessible occupant contains of 100 construction firms and registered firms, the data are taken from the road and building department and various government departments Ahwa city of dang district.

3.2 Research Methodology

1. Study design: Descriptive cross sectional
2. Study setting: Different Stakeholders were involved from various firms of Dang district.
3. Sample size:80
4. Sampling method: Convenient sampling.

The research methodology is a way to systematically solve their search problem. It may be understood as a science of revising how research is done precisely.

4. DATA ANALYSIS

4.1 Reliability Test

Reliability is defined as the uniformity of results from a test. The method is a split half reliability method.

After calculations,

$$Rsb = 0.99 > 0.70, \text{ hence it is good reliability.}$$

4.2 Relative Importance Index Method

A ranking is a relationship amongst a set of items such that, for any two items, the first is either 'ranked higher than', 'ranked lower than' or 'ranked equals to the second. In

mathematics, this is known as a weak order or total reorder of objects. The ranking method of factor affecting recession whose assessment requires to order all rates from highest to lowest an important advantage of the

ranking method is that it forces ratters to distinguish among rates. By reducing detailed measures to a order of ordinal numbers, rankings make it possible to evaluate composite information according to certain criteria.

4.3 Outcome of RII method

Sr. No	Factors affecting recession on construction industry.	$\sum w$	$RII = \sum w / A * N$	Rank
1.	Search for new client	225	0.71428571	1
2.	High price of building material	223	0.70793651	2
3.	Level of poverty rates	223	0.70793651	3
4.	Expenses loans used in major construction project.	218	0.69206349	4
5.	Impact of demonetization	217	0.68888889	5
6.	Lack of income consumption	217	0.68888889	6
7.	Unexpected tax	214	0.67936508	7
8.	Conflicts	214	0.67936508	8
9.	Lesser amount of skill worker	213	0.67619048	9
10.	Risk undertaken	212	0.67301587	10

Table -2: Top ten factors influence the impact of recession on construction industry.

This Table shows complete list of all critical factors that affects the construction industry due to recession. We can understand that "Search for new client" (RII=0.714) is considered as the most important factor that affects the construction industry during recession. These are the top ten factors among the twenty-eight factors which are responded by different stakeholders. Rank has been given according to the highest value of factor by RII method.

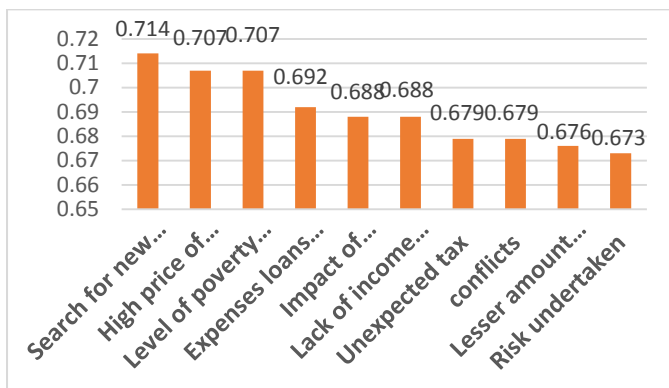


Fig -1: Histogram show Top ten factors influence the impact of recession on construction industry.

5. CONCLUSIONS

The objective of this research was to detect the factors that influence the impact of recession on construction industry. It helps to understand how construction industry is affected by recession and can be improved by identifying the most critical factors that affecting construction industry.

The study examines all possible factors through a designed questionnaire circulated in one city of Gujarat: Ahwa. The result was analyzed and factors were ranked using Relative Importance index method (RII)

Twenty-eight factors were considered to identify critical factors which are responsible for recession on construction industry. Total 80 questionnaire form were distributed out of which 63 responses have been recorded (78.75%). As the engineer, contractor, owner, consultant and supervisor have vast experience in the construction industry. Stakeholders given their views according to their talent.

The results from the calculations of RII method from different stakeholder's point of view indicate that the most important factors affecting construction industry during recession are "Search for new client, High price of building material, Level of poverty rates, Expenses loans used in major construction project, Impact of demonetization, Lack of income consumption, Unexpected tax, conflicts, Lesser amount of skill worker and Risk undertaken".

In addition, the agreement/disagreement among the respondent was checked using Split Half Method, which states that there is good reliability among the respondent

regarding ranking of factors affecting construction industry during recession.

REFERENCES

1. V, V. M. (Feb. 2019). Impact of the present-day economic recession in the construction industry. *International Journal of computer application*.
2. Paul Tansey, X. M. (2013). A critical review of response strategies adopted by construction companies during an economic Recession. *29th Annual ARCOM Conference*, (pp. 679-689).
3. Sfakianaki, E. (2015). Crisis management under an economic recession in construction: the Greek case. *International journal of management & decision making*.
4. Shrunkal V bhagatkar, R. J. (2015). Consequences of economic downturn on construction industry & its remedies. *International Journal of Civil Engineering & Technology*, 79-86.
5. Lazim, A. B. (2010). *Critical Success Factors for contracting organization during Recession*. Malaysia.
6. Mangal Sain., A. M. (2013). Impact of recession on India. *INTERNATIONAL JOURNAL IN MANAGEMENT AND SOCIAL SCIENCE*.
7. Ajinkya Bhagwat, S. M. (2018). Effects of Demonetization on the real estate sector. *Pacific Business Review International*.
8. Dwikojuliardi, R. (2015). Malaysia & Construction Industry Present.
9. Usman Aminu Umar M, (2012). Impact of recession on green building and sustainability over residential & nonresidential building in United Arab Emirate. *UTM-IBIMA International Real Estate Conference 2012*.
10. Himanshu Kushwaha, A. K. (2004). Impact of Demonetization on Indian Economy: A critical study. *International Journal of management studies*.
11. Ms. Ramya, M. (2017). GST & Its impact on various factor. *Journal of Management & Science*.
12. Himanshu Kushwaha, A. K. (2004). Impact of Demonetization on Indian Economy: A critical study. *International Journal of management studies*.