

ANALYSIS OF FACTOR AFFECTING CONTRACTOR'S BIDDING STRATEGY USING RII METHOD

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Abstract— Companies must have the capability to deal with various bidding situations successfully in today's highly competitive construction market. The contractors' strategy is affected by various factors and influences. The development of the construction industry has led to an increase in the number of criteria which is affected contractor bidding strategy. Previous research efforts have been devoted to finding solutions for helping contractor's bidding strategy to select a tender objectives are considered. This paper presents the analysis of factors affecting contractor's bidding strategy of 81 respondents from various construction firms of central Gujarat region using RII method.

Keywords- Competitive Market, Competitive Bidding, Bid Strategy.

I. INTRODUCTION

A clear relationship between bidding decisions and the competitiveness trend is shown by many researchers. To cover the concept, the study will investigate the both areas in parallel. Contracting projects are the norm in a wide range of business activities. A significant amount of engineering construction work is let through competitive bidding. Direct competition through bidding is the most common method of job distribution in the construction industry. Contractors need to make strategic decisions in respect of: (i) project selection whether or not to bid for a job; and (ii) determination of bid price if contractors choose to bid. With limited response time to different bidding opportunities, contractors need to strive for projects that put them at an advantage in terms of pricing efficiency. In examining the 'right' price in construction bids. In this research, the study will focus on the bidders' competitiveness strategies during the procurement stage in the project life cycle.

II. OBJECTIVES OF THE STUDY

This paper has an objective to act as a foundation for future studies and its results will become worthwhile information in efforts to improve the contractor's bidding strategy in the construction industry.

III. RESEARCH METHODOLOGY

The data collection to determine the most influential factors on contractor's bidding strategy of construction firms was done through a survey by explorative questionnaire to the respondents involved in daily activities of construction firms in various regions in the central Gujarat region of India. The questionnaire was designed so that respondents can give the rank to their answers based on the Likert scale. The analysis of these data was done by Relative Importance Index (RII) method using Microsoft Excel.

IV. DATA COLLECTION

A total number of 81 respondents were surveyed from the central Gujarat region of India, namely cities like Ahmedabad, Anand, Nadiad and Vadodara out of which 37 respondents were Contractors

and 44 were Engineers. A ranking of the factors was achieved from the Relative Importance Index (RII) method.

V. DATA ANALYSIS BY RELATIVE IMPORTANCE INDEX (RII) METHOD

The data collected was manually analysed by the RII method with the help of which a decimal figure for each factor is obtained which is known as its Relative Importance Index. This index is used to rank the factors.

Total 50 factors were analysed using RII Method and ranked as shown in Table 1.

TABLE 1: - RANKING OF FACTORS AFFECTING CONTRACTOR'S BIDDING STRATEGY

FACTORS	RII	Rank
Terms of payment	0.9135	1
Current financial situation of the company	0.8919	2
Possessing enough qualified technical staff to do the job	0.8919	2
History of client's payments in past projects (considering delays, shortages)	0.8919	2
Financial status of your company (working cash requirement of project)	0.8811	3
Availability of the required materials within the region	0.8811	3
Allowed project duration being enough	0.8757	4
Current financial capability of the client	0.8486	5
Experience and familiarity of your firm with this specific type of work	0.8432	6
Project type	0.8432	6
Client's attitude, characteristics and stability in needs	0.8432	6
Availability of required qualified labour within the region	0.8378	7
Ability to fulfill tender conditions imposed by the client	0.8324	7
Project size (total bid value)	0.8270	15
Availability (number and size) of other projects within the market	0.8054	10
Rigidity of specifications	0.8054	10
Penalty conditions for not being able to complete the project on time	0.8054	10
Possessing enough required plant and equipment to do the job	0.8000	11
Having qualified material suppliers	0.8000	11
project location	0.7892	12
Need for continuity in employment of key personnel and workforce	0.7784	13
Payment conditions of the project creating a risky environment	0.7730	14
Availability of the required plant within the region	0.7676	15
Current workload of projects, relative to the capacity of your firm	0.7568	16
Uncertainty related to the construction site condition	0.7351	17
Possible contribution to increase the contractor firm's classification	0.7027	18
Possible contribution in building long-term relationships with other key parties	0.6865	19
Possible contribution to increase the firm's identity and brand strength	0.6811	20
Possible contribution in improving your firm's staff expertise	0.6649	21

VI. CONCLUSION

The construction industry is considered as an important sector in the world as it develops and achieves the goals of society. A questionnaire-based survey was used to judge the attitude of contractors and engineers towards factors affecting contractor's bidding strategy in central Gujarat Region. 115 questionnaires were distributed out of which 81 questionnaires were returned as follows: 37 from contractors and 44 from engineers as respondents. The respondents were asked to indicate the level of importance of each of the 50 factors as not important, very less important, less important,

and moderate important, high important and very high important on contractor's bidding strategy. The results indicated that the most important factors affecting contractor's bidding strategy are: Terms of payment, Current financial situation of the company, Possessing enough qualified technical staff to do the job, Possessing enough qualified technical staff to do the job, History of client's payments in past projects (considering delays, shortages), History of client's payments in past projects (considering delays, shortages), Financial status of your company (working cash requirement of project) and Availability of the required materials within the region.

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