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# *Codifying Motivation Authorities of Value Engineering Studies in Governmental Companies and Organizations (A case study in Iran for Construction and Development of Transportation Infrastructure Company)*

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## **ABSTRACT**

Value engineering has been used for more than 50 year as a successful technique in the upstream authorities and documents of Iran. Although it has been used in the role of an effective method to improve the constructive projects and plans, value engineering has not reached its real position yet. This can be attributed to many reasons such as optimistic view of managers towards the results of a project, improper understanding of the technique, and insufficient culture and motivation among project components as well.

This study aims to codify motivation authorities of the value engineering in addition to evaluate necessities of motivating the value engineering parameters in Construction and Development of Transportation Infrastructure Company (CDTICO) as one of the most important firms with many huge projects in Iran. Thereby, value engineering can enable the company and many other governmental organizations to utilize this advantageous technique more than any time before. This research has been conducted by using advices from value engineering experts through interviews and questionnaires since they were sufficiently familiar with CDTICO.

## **KEYWORDS:**

Value Engineering, Culture Customizing and Motivation Creating, Compensation, Grants, Construction and Development of Transportation Infrastructure Company (CDTICO).

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## 1- INTRODUCTION

According to vice president of strategic planning and monitoring supervision, until the end of 1388, 8/56% of the project laged from the timetable and only 5/43 of the projects that was due to the operation were finished. Weighted average for the implementation of development projects is 10.3 years and closed projects is 12.7 years while the average length of new projects, was predicted 4.4 years [1].

now , the role of improving the preservation and proper use of resources, initiatives reforming and appropriate prioritizing seems key. Among the different methods of improvement, value engineering more than 50 years as technical functionalist efficiency as an effective tool to improve the design, construction and cost savings in a variety of construction projects has proven in practice.

Our country never benefit the advantages and potentials of this technique as an acceptable level. Based on the research that was done in this regard in the ranking of the most important factors in the lack of engineering development, lack of motivation and culture of save and utilization of resources was recognized 94% effect. In this regard, such as lack of motivation to save public property, the importance of better jobs as a religious and national duty, superior economic boom and a lack of interest on savings incentives have been allocated to the greatest effect [2].

World experience shows that the creation of value engineering study of motivational factors in the success and development of value engineering is most important.

Male,s provided 10 critical success factors for value engineering studies that “the benefit of the results of the study” is one of the most important factors [3].

One of the projects beyond the implementation of value engineering in the Department of Transportation as the former was conducted. Manufacture and development of transport infrastructure of the country, as the largest company and one of the largest state-owned companies, has started the implementation of these programs and has good experience in this context . This research aims to develop a motivational elements for the implementation of value engineering in the company’s development of transport infrastructure as the company’s Country Wide and long-distance and Urban Development Department and is one of the largest private companies in the

country.

## 2- METHODOLOGY, DISCUSSION, RESULTS

Since the survey method, is the most powerful tool in the study of the distribution of the characteristics of a population, references to the population and to collect the views of experts (which is set by employers, consultants, engineering consultants in the field of transportation, particularly the value of the Company are aware and addition of value engineering are also specialty) and with respect to the point in providing value engineering in the Company’s management model is necessary so , survey method (survey field) is selected as the best method to meet the need.

The population of this phase of the research, had been selected from the specialists and experts in the field of value engineering, as well as those with characteristics and acquaint the construction company. So to answer those two criteria of value engineering knowledge and familiarity with the Company gained 6 points were collected. The scoring of the criteria is according to Table 1. Based on the number 30 that it had provided the author of dominance on value engineering and manufacturing company confidence and themselves also want to answer to complete the questionnaire in this regard were selected.

According to the results of the best strategies for effective participation in the research project of VE, was determined the material praised. Also, results showed that all respondents were in favor of rewarding them, 63% to pay bonuses based on team members believed the index.

Also the survey conducted by the study was that 60% of share bonuses to reward the team members, 25% and 15% of value engineering services to be paid consultant. So if the value of A dollars reward for engineering services unit to be considered, it is clear that the reward team members, (60/25) A equivalent 2.4A and rewarding project consultant determined (15/25) A equivalent 0.6A.

Meanwhile, to motivate workshops 51 percent of rewards related to the people’s influence, 24 percent of the people who accepted their idea and 25 percent will be paid to the other members. However, 17% of respondents divided equally among team members believed reward. In addition to the 83 percent of respondents agreed with the awards annually Value Engineering.

### 3- CONCLUSIONS

According to the presented results suggest that after the approval of engineering studies and the value of bonuses of these studies calculated and paid by this method :

Equal to half of the percentage of the saving contract value added engineering services unit. In this regard, it is possible to increase or decrease according to the contract with the consultant contracts and 25% of the contract has a maximum rate applicable to saving 50 percent bonus.

If the unit value engineering advice of a consultant and a counselor Grade 1 or 2 bonus calculated value is divided equally between them. Also the remuneration consultant in collaboration with the study and with the approval of the Working Group on Value Engineering, equivalent to 60% bonus will be calculated for the same services.

Remuneration Committee in terms of value engineering team with a maximum of 4.2 times and 2 times the minimum wage will be calculated for Value Engineering Services The office administrator with

value engineering and value engineering approval committee, composed of 50% effective members of the team, 25% of team members that their ideas accepted and 25% of other team members will be paid.

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