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Value Managing & Managing

The Project Stakeholder Expectation

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Table of Contents;

Figures

1. Introduction

There is a relation between Cost and Value; cost in many ways is a crude measure of value, and value includes matters of price measures, and goes beyond cost. The management of value therefore requires some articulation of an agreement with the concept of value, and in general using value in a much looser way than for instance an economist; surveyor or accountant would use the word (Peter W., David G., 2002). The term of a value is encouraging most of the contractors to deal with as they can benefit from suggesting viable solutions. Also through the application of value management, value shows their keen interest in improving the existing performance. Earned Value Management (EVM) is a feedback tools for managing projects and the most effective performance measurement (PMI, 2005). The concept of value management (synonymous with value engineering and value analysis), is widely used in engineering, manufacturing, construction, and business processes, and there are some schools of thought that tend to distinguish value management from value engineering and value analysis (Patrick S., 1998).

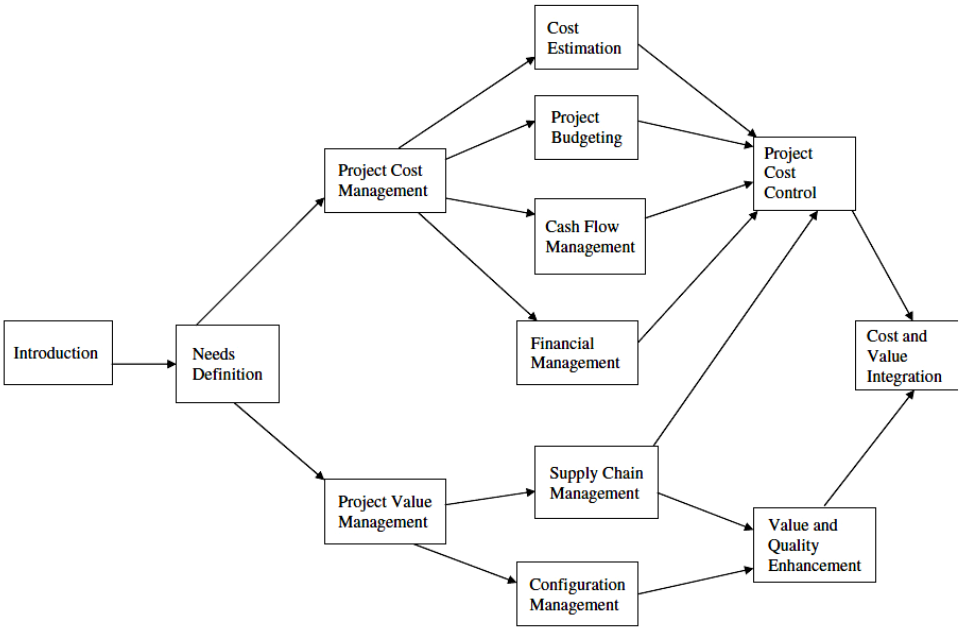

Figure 1: Cost and Value Management framework (Ray R., Jeffrey K. 2008)

The beginning of using value management, started to implement a formal programme of value analysis in 1954 by the US Department of Defence Bureau of Ships. In 1959 the formation of the Society of American Value Engineers established the technique and the name. In 1960s companies in

North America began to the global development of value management. During 1970s the Japanese manufacturing industries developed the principle of value engineering, in the late of 1970s and during 1980s manufacturing companies developed value engineering and it appears to be retained (John K., Steven M., Drunimond G., 2004).

1.1. Definitions

Value Management (VM) has deferent definitions such as; "a well-established methodology for defining and maximizing value for money. It can be applied to any type of project regardless of size or timeframe and at all stages throughout the life cycle of the project from inception to completion". Other definition "An umbrella term used to embrace all activities and techniques used in the effort to deliver better value for the client, commonly abbreviated to VM". The term 'value management' is using as a broad management approach to value rather than a narrower focus on technical performance. (Joan K., Steven M., 2005). For construction activities value Management is essential to reduce costs and to improve the quality of finished projects, and it is necessary to get the common meanings and concepts of value for the construction industry and construction projects. As a methodology of problems facing construction professionals, value management can make a valuable contribution toward a better solution for much trouble facing them (Patrick S., 1998).

Other term of value is value analysis or value engineering (VA/VE) defined as; "a techniques and methods to be carried out as formal review procedures by exercises, and it provides project managers with a tool for maintaining quality standards while eliminating unnecessary costs and in the event of cost growth, it gives visibility for cost reduction efforts" (Paul C., 1993).

1.2. Methodology

In this context the management of projects is concerned with controlling: time; cost; quality in the meaning of function, which is client determined and assessed through tools and techniques of value management (Patrick S., 1998). From this point of view and to manage the expectation of stakeholders of any projects, this assignment has been divided into three parts, first part is to find out the performance of value management through indentifying stakeholders and the expectations for these process, second part to understand the phases of value engineering and then the third part is to evaluate the principle of value management by influencing the project management, flowed by conclusions after that.

2. Performance and value improvement

The VM process included methods to identify, weigh and assess performance against a number of non-monetary attributes. These included traffic operations, construction timescale, maintainability, constructability and environmental impacts. As a performance management methodology, earning value management (EVM) adds some critical practices to the project management process which occur primarily in the areas of project planning and control, and are related to the goal of measuring, analyzing, forecasting, and reporting cost and schedule performance data for evaluation and action by workers, managers, and other key stakeholders., EVM requires the establishment of a performance measurement baseline During the project planning process. This requirement, especially those related to scope, schedule, and cost, amplifies the importance of project planning principles (PMI, 2005).

2.1.Identification of Stakeholders involved

Value management is a service transmits a statement of the value requirements of that project to the project designers by the sponsor of a project or the client, and the client's value system can be used to audit; project brief, emerging design, production method and client's use of a facility in relation to its corporate strategy. Because of that, value management is the client's management of a process to obtain maximum value on a determining scale, and a number of techniques are recognised as being powerful in this enterprise but none are compulsory (Joan K., Steven M., 2005). In the other hand, the investment return is more important to developers than the improvement in value, and the perspective adopted places value management which involved in the management of the construction process as a project and effected by three interlocking components: the organizational framework, the procurement strategy, and the legal framework that binds the parties together contractually (Patrick S., 1998).

2.2. The Similar and Differing Expectations

It's more important to know that value management focuses on improving the business while value engineering focuses on improving the delivery of the technical project. From this point, there are many studies of value management appeared in terms of reducing costs and the true success of any study should be expected by how many recommendations are really involved into the design and

implemented, the level of satisfaction and pleasing of the clients and stakeholders, and can the project will achieve its objectives or not (Patrick S., 1998).

By using Earning Value Management (EVM), an organization can set up suitable levels of performance measures for a project and its work tasks, and it can be used in conjunction with the project work breakdown structure (WBS). On the other hand, Earning Value Management difference percentages and efficiency indices are most often used and it occurs first at the task level, where the scope, schedule, and cost of work are planned and controlled (PMI, 2005).

3. The Phases of Value Engineering

A report by the US General Accounting Office (GAO, 1978) confirmed that during the period that the client maintains an interest in the building, the cost is featured of all procedures considered as being the total cost, which it (procedures) depend upon the use of life-cycle costing techniques. In the mean while, all value engineering authors recommend that the maximum cost reduction potential will happen at the beginning design stage process when the project was incurring the lowest cost. (fig1).

Value Engineering can be classified in two classifications, foundation values and strategic or innovation values. Foundation values affect the culture of the company and dependent on terms such as teamwork, communications, cooperation, and trust. While Strategic or innovation values usually come after the foundation values (Harold K., Frank P., 2009).

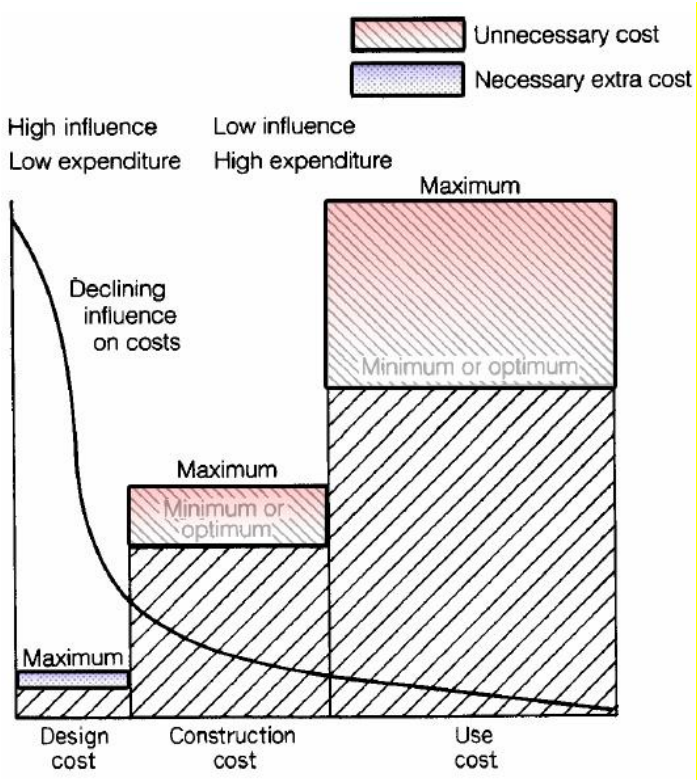

Figure 2: increase in design costs increase the chance that construction and use costs are at their minimum (Joan K., Steven M., 2005).

In addition of that and through application of the approach to the study of value, a characteristic of value engineering is the team approach to creativity (Joan K., Steven M., 2005). To obtain the value of the process of management, by dividing into phases;

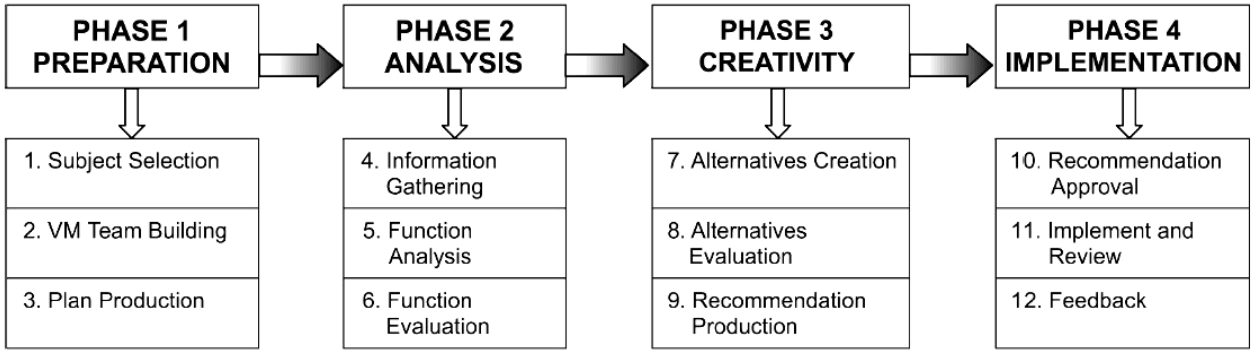

Figure 3: Job Plan Outlined by the National Standard in Construction Industry in China (Qiping S., Guiwen L., 2004)

3.1. Phase 1: Orientation

The objective of the orientation meeting is to pose questions which promoted by the General Services Agency to chair the value engineer for the project and attending by the design team and those client representatives, these questions are:

- What is to be accomplished?
- What does the client need and/or want?
- What are the desirable characteristics?

3.2. Phase 2: Information

The objective of the available collected information which should be obtained from the best possible source relating to the project is to identify the functions of the whole or parts of the project. The specific information being sought at this stage is:

- The fundamental requirements of the client needs.
- Expressing budgetary limits as the total cost.
- Time for design and construction as well as the anticipated period.

3.3. Phase 3: Creativity

Value engineering team puts direct possibilities to answer the functions which have been figured for study, and a number of creative techniques like brainstorming, the Gordon technique, the synectics technique and many more using, all of these solutions are to identify problems.

3.4. Phase 4: Analysis

The objectives of this phase dealing with the value engineering team are:

- Evaluate the ideas generated in the creativity phase.
- Estimate the value of each idea.
- Investigate thoroughly the best ideas.

3.5. Phase 5: Programme Planning (Development)

In this stage the target is to make;

- Investigation in considerable detail for technical feasibility and economic viability to the accepted phase before, by using life-cycle cost models and computer-aided calculations.
- Establishment the manufacturing programme by identifying operations, design and production personnel, suppliers, etc.
- Giving Promotion to ideal creativity in all involved parties.

3.6. Phase 6: Programme Execution (Presentation)

The refined ideas supported by drawings, calculations and costs are presented by the value engineering team to the body which commissioned the value engineering exercise and appraising further suggestions from suppliers.

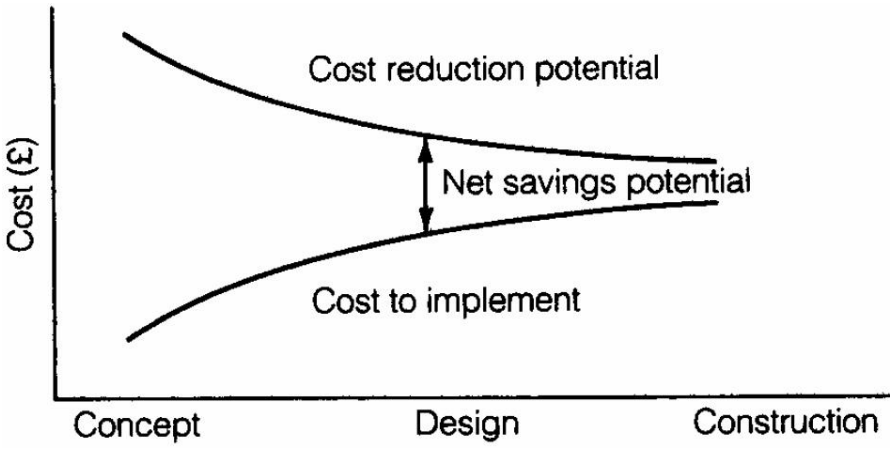

Figure 4: A simple representation of the opportunity to change design (Joan K., Steven M., 2005).

3.7. Phase 7: Status Summary and Conclusion (Feedback)

The value engineer receives some detail of those new ideas to take executive decisions that have been put into practice and be able to test that act of the design and cost predictions of the team. That is only if not make recommendations to those who are to make the decision.

4. Principles of Value management as an Influencing for Project Management

Value management controls regulations for integration to support communication and data flows to the management of any project. According to this, value management allows the participation and connection between time, cost, quality and function and any trade off between these. By requiring the appropriate choice of value management team in major projects, provides the opportunity to anticipate and explore potential problems and solutions. This process involves issues of size, complexity, and schedule urgency in terms of existing resources. Also in major projects where an independent value management team is used and a value manager engaged on by a client. Some researches show that, by using the same team on the same project provides the opportunity for retention of project specific information and overcomes one of the disadvantages of using an independent audit. (Joan K., Steven M., 2005). A successful value management defined as achieving a context of human dynamics, methods and skills management attitude and environment described by which value management controls and achieves the boarder environments of stakeholders, customers, suppliers, statutory and legal constraints and ecological considerations. The techniques of value management are used to ensure that the space of any building (as an example) achieve a strategic fit with the requirements of the client at the cost that represent the best value for money, and there are some principles approached by value management, such as (Kelly J., Male S., 1993):

- A continuous awareness, estimating, monitoring and controlling the value for the organisation.
- Attention to the identification of objectives and targets before seeking solutions.
- Maximising and encouraging creativity and innovation of teamwork and communication and practical outcomes by focusing on function and customer's requirements.
- Focusing on what things do rather than what they are.

5. Conclusion

- Value Management is one of the most strategic effective channels for improvement, but to achieve the improvement requirements, value management needs to change the attitudes of clients and construction professionals; this change is a prerequisite for improvement.

- Value management and value engineering are facilitated team activities and they are different from other management techniques in three factors such as:

    - Making explicit the clients value system;

    - The application of function analysis.

    - The use of team.

- Managers using Earning Value Management determine whether action starting point have been reached for their targets and control accounts. And with the use of a work breakdown structure (WBS), by joining the targets and control accounts of a project together. In the mean while, while variance and efficiency thresholds are commonly used in EVM, trends in the performance measures for a project can help a project manager solve or anticipate a future performance problem.

- Clients for the project working with value management could be more open-minded, and relationships between construction professionals could be more cooperative than confrontational.

- Foundation values are those values that must be achieved in the short term for the continuous operation of the firm on a day - to - day basis. While Strategic or innovation values are those values that must be achieved for the long - term survivability of the firm.

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