

Members of the value management study team construction essay



This report was written to outline the benefits of a value and risk management in the strategic project development stage. The report is based on a local government building a new administrative headquarters in center of city and relocating all staff to this single location.

The report will outline how to establish a value management study, and determine the techniques used, the benefits and give a detailed description of value management.

It will also cover the risk study associated with transferring a large number of employees to a central location. The timing and execution of the study will also be discussed.

Introduction

ABC Consultants have formed this document on behalf of Brisbane City council. The city authorities are relocating all staff to a central single location; they have approached ABC consultants for advice on applying the Value & Risk Management process to the development. As the company is expanding a central Head quarter is critical for cost efficiency. Brisbane city council requires value for money by relocating local government service departments in a high specification modern building,

Brisbane city council also requires ABC consultants to highlight all risks that are associated with this relocation. This report will contain the advice and benefits that Brisbane City council requires for the successful completion of the relocation of all employees.

Value Management Study

Value Management is a practice where the advantages of the development are known and it helps to focus on these traits to develop innovation. Value Management Study will help to identify the merits associated with the relocation of all office staff to a central headquarter. Brisbane City Council will be shown how to obtain maximum value from a total system. The study will help to integrate Brisbane City Council objectives into construction terms. It will outline the requirements and goals each sector will need to meet to ensure value is achieved. Value Management has been proven to perform efficiently when it is directed towards obtaining maximum value in the entire project. The project is currently at early stage of development, to have an effective Value Management report it should be reviewed at specific project dates. The objectives can be examined and the process can be track efficiently.

Brisbane City Councils project is a government project that is expected to exceed \$25M. Formal Value Management Studies that exceed \$5M are required to be submitted to Treasury. It is necessary for the Treasury to receive a synopsis of the Value Management Study results, the implementation strategy and the agency's preferred direct.

The Value Management process can be divided into three different phases. Due to the size and complexity of the relocation it is expected that the process will take up to twelve week from the kick off meeting to the handover of the report

1. Pre Workshop Planning: This will involve preparing and reviewing the VM objectives, select experience personnel, gather and organize the research.

Workshop: Build knowledge and understanding of the project and understand Brisbane City Council objectives and goals, including the attributes of value and value for money to be analyzed. Generate multiple ideas to improve value, evaluate potential ideas and prepare an action plan. A document is created to highlight the procedure how to implement the solutions.

Post Workshop: Debrief Brisbane City Council and deliver report. Implement the study recommendations.

Benefits of Value Management

The sooner the method is established the more beneficial it will be for Brisbane City Council. The project is currently at an early stage of development making it perfect time to commence to get the full benefit of Value Management. The advantages of VB are as follows:

Generating alternative ideas

Resolving conflicts

Improved understanding of the project

Identifying unnecessary expenditure

Improving communications

Promoting innovation

Maximizing resources

Program efficiency and time savings

Simplifying methods and procedures

Eliminating redundant items and

updating standards, criteria and objectives

Members of the Value Management Study Team

Personnel that will be required to participate in the Value Management workshop are picked by implementing an acid test. Acid test proves their ability to 'think outside the box' and their decision making ability. The following is a list of personnel who are required to participate in the workshop.

Value Management facilitator: A qualified and experienced facilitator is required to manage the workshop. Their job is to run the workshop and ensure the workshop has guidance and is working towards an effective answer.

Representative from Brisbane City Council: Their objective in this project is to be profitable and also they have an interest in value for money. Their experience in the industry will also add significant value to the process.

Members of staff: These can be a Union representative or a workers community. Their main aim is to benefit staff in terms of health and

education. It is essential that one of the legislatures has the fundamental training for this role.

Architect: The architect's role is to provide experience in the design stage, and also produce construction ideas. The proposed size of the building is 12500m². The architect will insure all space is maximized but not to limit employers well being.

Quantity Surveyor: Value Management and Cost Management run parallel to each other. QS Helps to determine the best value for money, without jeopardizing the quality.

Project Manger: Their role is to oversee the development as a whole project. Their experience from managing projects helps to develop a realistic view of Value Management.

Representative from Local Councilor: To ensure local residents are not being unfairly impacted on.

Agenda Proposal

The Value Management workshop is expected to take up to two days. The overall aim of the process is to have a defined structure for the duration of the project. The workshop will follow the following structure:

Introduction, review and the Value Management Process

Presentation of Project

Evaluation of objectives (Value for money, reduce risk)

Analysis of development

Brainstorm

Evaluation phase

Implementation phase

Time

Activity

Day 1

07: 00

Welcome and introduction

07: 30

Brief of project (relocate all employees into one central office)

08: 00

Review of the objective

08: 30

Break

09: 00

Value Management exercise

10: 00

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Terminology & formulas game

11: 00

Identify important issues

11: 30

Brainstorm project issues

12: 00

Lunch

14: 00

Common Mistakes in Value Management

15: 00

Sample Scenarios

15: 30

Questions and answers

14: 00

End of Workshop Day 1

Time

Activity

Day 2

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07: 00

Information Review

07: 30

Value Methodology

08: 00

Functional space analysis. Is 12500m2 enough

08: 30

Break

09: 00

Value Management concept exercise

10: 00

Initial ideas

11: 00

Break up into groups

11: 30

Brainstorm solutions

12: 00

Lunch

14: 00

Define Brainstorms ideas

15: 00

Presentation of most appropriate solution.

15: 30

Implementation and solutions

14: 00

End of Workshop Day 1

This is a sample agenda for Value Management workshops. All workshops are to be developed in a professional manner to ensure all aspects of the development are considered.

Risk Management Study

The management of value and risk on a project go hand in hand. Completion of a Value Management Plan makes Risk Management considerable easier. The objective of Risk Management is to ensure the rapid identification of risks and to have a clear process of assessment. In business the natural associated risk is financial risk. While financial risk is undertaken through a very specialist risk discipline, there are various different types of risks which

can be internal or external which could impact on the schedule or cost of the project.

” Risk management is the identification, assessment, and prioritization of risk followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events.” Referecne

The objective of Risk Management is to identify risks and provide actions to minimize their disruption to the project.

Balancing Risk and Control

Due to the extreme size of the project it is advised that a Risk Management report is generated. An effective framework is required due to the large number of employees being relocated, Figure 1 identifies this.

Figure 1: Typical Corporate Governance Model

Risk Management is based on the simple philosophy that effective controls starts with the director. Strong leadership and control is the back bone to Risk Management. The balance between the projects ability to take risks for business purposes and that of risks management is a complex and dangerous practice. It is inevitable that the project will encounter some risks, the balance between these two is important. Figure 2: Identifies the balance between Risk and Control.

Figure 2: Balancing Risk and Control

Addressing Risk at an early stage of the development reduces the project's cost, completes it sooner and is more than likely to meet Brisbane City Council requirements. The company's willingness to allocate time and money to the report defines how effective the process will be. Senior management is responsible for implementing Risk Management however it is the whole organization who are in control of Risk in the work place.

Identifying risk

Risk identification involves examining and determines which risks might affect the overall project.

A trained professional is required to identify risks and generally includes the following:

Project team

Risk management team

Engineers

Staff

Stakeholders

Risk Identification is a three part process. The first part is completed by the internal risk management team. The second process is completed by primary stakeholders; the third phases are completed by an unbiased analysis, a person who has no relationship with the development will carry out a final iteration. Risk identification provides a framework for assessing project

activates. Top-down provides the most accurate risk analyses as it takes the project as a whole instead of sectors.

Risk Identification looks at the project requirements, sub-contract characteristics, all contracts, plans and drawings, specifications, sub-contractors, resourcing and project interfaces and interactions.

Typical tools and techniques for risk indentation are shown in Figure 3 below.

Project Risk

Examples

Documentation review

Performing a structured review of high level and detailed project plans.

Assumptions analysis

Every project is conceived and developed based on a set of hypotheses, scenarios or assumptions

Checklists

A checklist for identification can be developed based on historical information and knowledge that has been accumulated from previous similar projects and from other sources.

Learn from experience

Make use of near neighbor comparisons of similar projects locations, suppliers, customer etc.

Information gathering

information gathering techniques used, brainstorming, the delphi technique

Site

Floor plan not sufficient

Public Involvement

Citizen interest or involvement, rights of way

Figure 3: Risk identification tools

Risk Management Process

Risk Management Process is the process of establishing options and measures to enhance opportunities and reduce risk to the project. This process gives procedures on how to identify and eliminate risks within the project. There are several techniques used to implement a successful risk management plan.

4Ts' risk response actions

The 4T's response is an effective method for dealing with risks. These are as follows.

Terminate: Once risk is identified changing the project plan to eliminate the risk or to protect the project objectives from its impact.

Transfer: Risk transfer is seeking to move the consequence of a risk to a third party, e. g insurance

Treat: This strategy seeks to reduce the risk probability or its impact by taking early action to reduce the occurrence of the risk to an acceptable limit.

Tolerate: This strategy indicates that the project has decided not to change the project plan and to deal with a risk or is unable to identify any other suitable strategy to adopt. Active risk Tolerance may include developing a contingency plan to execute should a risk occur. Passive Tolerance requires no action leaving the project team to deal with the risks as they occur.

Reference

Conclusion and Recommendations

ABC Consultants strongly advice Brisbane City Council to implement a Value Management process the early us of these applications improves the projects over all efficiency. Value Management has many advantages such as cost saving, risk reduction, time saving, increased functionality, achieving value for money, and increased performance in the development.

The document also outlines the advantages of Risk Management. The timing of the report is essential as sufficient time is required for a risk process to be implemented.

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Introduction

Value and risk management is a necessary tool to ensure a successful delivery of construction projects in the Irish construction industry. This essay aims to critically evaluate the current and potential future application of value and risk management into construction project management professional services in the construction sector in Ireland.

Value Management – Overview

Value management can be defined as the application of knowledge, skills, tools and techniques to a development to meet or exceed the value desired by the client. It involves management of all aspects of the business in order to achieve these goals. The main reasons for implementing a VM plan are:- to meet client requirements at the lowest possible costs; to increase production; to ensure continuous development of performance and quality; to enhance profitability and competitiveness and to abolish waste. These aims are usually achieved by the use of value planning during the inception and planning phases, value analysis through the implementation phase and value review through the implementation and closeout phases of a project. Value planning and analysis are proactive with value planned into the project while value review is reactive dealing with existing products/services in an

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attempt to improve them. On their website Davis Langdon (An AECOM Company) (2012) describes value management

“ Value Management helps project teams to generate detailed proposals and to implement clear and specific actions that add long term value to a project. It also provides a means for measuring the increase in value, thus demonstrating whether optimum value for money is being achieved”,
referenc

Due to the current extremely competitive and difficult conditions in the Irish construction industry optimum value for money is a foremost consideration for any stakeholders in a project. Value for money in procurement (as defined by the national Public Procurement Policy Framework) is the optimum combination of whole life costs and/or price, and quality (or fitness for purpose) to meet the users' requirements. Value Management is about a lot more than reducing costs, it can also bring the following benefits to a project: It provides a system for assessing developments in a easy and understandable way for investor and stakeholders. It supports the decision-making process as it is aimed at maximizing value; it is conducive to generating of innovative solutions; It facilitates optimisation of balance between the original drawings and the construction, maintenance and operation costs in the planned undertaking; It serves as a tool to compare the ratio of value and the price that has been maintained.

Value Management – Techniques

There are a vast array of value management techniques currently in use by construction project managers in the Irish construction industry some of the most effective and widely used are:-

Functional Analysis Methods

These value analysis methods are based on specification of the function of the undertaking planned. Two basic ways are used, one can be compared with the technique of examination of the hierarchy of importance of objectives and the second is based on the devising of function diagrams on the basis of the value management method.

Cost Modeling Techniques

Analyzing product cost can help in identifying sub-products or elements that could be high in cost and therefore candidates for reduction or disposal. The identification and selection of these items that offer the optimum savings potential is not always an easy task, particularly where several hundred items are eligible. The cost modeling technique is used to organize and distribute estimated elemental costs into functional areas that can be easily identified and linked diagrammatically.

Cost/Worth Modeling

Another useful piece of information that can be plotted on the histograms is referred to as worth. The worth of an item is directly linked to the basic function of that item. Worth is the lowest possible cost to perform an item; it is based on the current exchange value of that item. It is calculated by estimating the lowest expense of resources needed to fulfill the function

required by that element of the project. If the cost to worth ratio is greater than, say, two or three to one then that item has within it redundant cost, some or all of which could probably be saved.

Evaluating Basic and Secondary Functions

After determining the functions that constitute the system or subsystem under examination, the evaluation of these basic functions follows the techniques already explained of using cost models, cost/worth histograms etc. The basic functions of a product (or component thereof), are those without which the task would not be accomplished. They are needed to make the project work. Secondary functions may or may not be required; they may be “ nice to haves”. In order to focus on those functions and costs that really matter, it is important to analyze the product and categories the functions accordingly

Functional Analysis System Technique (FAST)

FAST is another method of analyzing product function. FAST diagrams are used to help in understanding the elements and components of an item under study and their functional relationship to each other. Because they are arranged as a sequential arrangement of functions, they can be very useful in providing the team with greater clarity on how the product is produced. There are two types of FAST diagrams that are commonly used in the value management process. They are “ technically oriented FAST” and “ customer oriented FAST”, also known as “ task FAST”. Technically oriented FAST applies best to existing products or components that are part of a total product or design because the scope lines on the diagram, limit the team to that specific component. Customer oriented FAST should be used for <https://assignbuster.com/members-of-the-value-management-study-team-construction-essay/>

designing new products. This type of FAST diagram starts with the user or customer need.

Functional Breakdown Structure (FBS)

The functional breakdown structure (FBS) evolved from the task (customer) oriented FAST and is generally used with new products that commence with a need and are developed into calculable functions that can be implemented in the design phase. It is based around the customer's function, these can include their concerns. It is constructed in the same way as a work breakdown structure in that a function is built only to the level of detail that is required to measure the function.

Value Tree

A value tree is related to a FAST diagram in that it asks and responds to how and why questions. Value tree is implemented to try and establish a series of goals, and objectives that will maintain the overriding purpose. Value trees can be used at any stage of the project and is a valuable system that reduces risk in the development.

Public Procurement & Value Management

As part of the Irish government's reform of public sector construction procurement, the guidance notes were published as part of the Capital Works Management Framework to assist project managers involved in public sector. The following value management techniques were advised therein, these techniques are now commonly used by construction project managers in both public and private sectors:-

Value profiling

Value profiling is a technique for defining how the Client defines value and of prioritizing key value drivers based on the Client's preferences. This enables the Client and the project team to make informed value-based decisions.

Function analysis

Function analysis is a way of breaking down project objectives into their component parts and determining how they contribute to the overall project objectives. A completed function analysis shows what the financial investment 'buys' for a Client. Successful function analysis drives innovative project decisions, and also forms a basis for risk management.

Value metrics

Value metrics is a technique that is used for measuring improvements in value, including the value for money index. Using this technique enables a Client to maximize non-monetary benefits, including aesthetic matters, staff well-being etc.

Option selection

Option selection is a technique that helps project teams to select value-based options, by using the techniques described above.

Whole life costing

A technique for calculating the cost of a building or other facility over its whole life, including the capital costs for building (including design and other consultancy costs), and the operating and maintenance costs over the whole of its useful life.

Value engineering

Value engineering is a technique that involves continually monitoring project processes to determine if there are any alternative ways of proceeding or any innovative solutions that can enhance the use-value of the project without increasing the cost. The purpose of value engineering is to maximize the value for money of a project design.

(Department of Finance, 2009)

Risk Management – Overview

Risk management as defined by the OCG(2003) “ includes all activities required to identify and control the risks relating to the preferred project option”. Risk management cannot be owned by one individual in a project. All team members must be “ risk aware” and participate in activities to improve a project’s position, through Action Plans, which are part of the main project plan. The two objectives for the deployment of risk management are: Plan and take management action to achieve the aims of removing or reducing the likelihood and effects of risks before they occur and dealing with actual problems when they do; and, Continuously monitoring potential impacts of risks, review the associated action plans, and provide and managed adequate financial and schedule contingencies for risks should they occur.’

To be successful, Contracts or Project Managers need to recognize that risks exist and to actively manage them; this should be viewed as an indication of good project management, not an admission of failure. By looking ahead at future activities it is possible to put actions in place to address them (where

appropriate), project teams can pro-actively manage risks and increase the success rate, for cost, time and quality. Risk Management is therefore a key Project Management discipline.

The Contracts or Project Manager's responsibility is not to make risks "disappear" but to manage and communicate these through the implementation of a systematic risk management process. Often it is not possible for the project team to identify all risks as unexpected things may still occur, however these instances should now be very rare and project staff will be familiar with dealing with other examples of risk occurrence and mitigation. All project staff has some level of responsibility for internal control as part of their accountability for achieving objectives. Having an efficient risk management process will enable companies to choose development that have a high success rate. Risk management helps protect companies from poor risk methodically and to decrease the chance of negative impacts. It focuses on issues that are of high important. It can also improve clients and team relationship as communication is increased to insure risk is reduced. This Gives the team responsibility, within a measurable process and enables a tracking process if an audit is required.

Risk Management Techniques

Risk management is usually a 4 step process:-

1. Identification Identify all significant risks (excluding external risks).
2. Analysis Analyze risks in terms of likelihood and impact (on cost, time and quality).

3. Management Actively manage risks to reduce or eliminate the possibility of occurrence, or to take advantage of any opportunities that might arise for value enhancement.

4. Review Review the risks and monitor the performance of the Risk Manager throughout the project.

This is a standard approach to risk management by construction project managers in

the Irish construction industry. The Bruce Shaw Handbook (2012) outlines their approach to risk management in a similar fashion “ We identify all risks which are specific to each project, assess the implications in terms of cost, time and quality, identify a course of action to mitigate the risk and allocate responsibility for resolution. The Risk Register is treated as a “ live” document, and maintained throughout the project lifecycle”.