Risk and Value Management

Critically evaluate the contribution that risk and value management could make to the successful management of a construction project

Bara Zuhair Albuoul

Anglia Ruskin University (Faculty of science and technology)

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Abstract:

Effective risk value management in any project or organization minimizes negative impact and maximizes opportunity from positive impact of internal and external events on outcome cost, quality and time (IRM, 2002). As construction projects typically involve high capital, unique site and build characteristics, a large supply chain and a tight programmed, risk value management can make the main difference between a successful overall outcome or an overall failure to meet client or contractor needs. The CIRIA guide was produced to address the construction industry’s long-suffered “painful consequences of failure to manage risk, exemplified in many major projects by long disputes and out-of-control schedules and cost budgets” by introducing “processes of systematic risk management designed to increase the likelihood of successful project completion.(Godfrey, 1996, p.1)” Effective risk value management involves risk identification, assessment of each risk identified, strategy for responding to the risk and monitoring of status of all risks throughout the lifecycle of the project (Hopkin, 2014). There are strategies and processes which can be implemented to make each part of the cycle as effective as possible.

Introduction:

Risk management (RM) can be defined as part of a strategic plan seeking to mitigate potential harms, such as those identified by SWOT analysis. It is essential for businesses to plan for potential adversity so that they can respond to them effectively, particularly in industries with complex and potentially vulnerable supply chains and multiple stakeholders, such as construction. Similarly, value management (VM) is a technique that assists in defining, maximizing and attaining value for money by considering the perspectives of all team members in projects (McNeil, Frey and Embrechts, 2015).

Application of Value Management Frameworks:

According to the viewpoint of Haimes (2015), VM can be assessed as an organized application of several methods as well as tools in order to attain high performance of construction project at low cost. However, it helps in enabling different strategies that can be set in order to identify the core competencies of project and accomplish desired targets (Haimes, 2015). The main purpose of selecting such a framework within construction projects is that it assists in creating access to and competence in regard to building a successful brand image for firms in the market.
However, Chance and Brooks (2015) argued that within the UK construction industry, the scope of VM is increasing frequently as customers prefer to spend their money on valuable things. Thus, an effective measure of value engineering was developed that helps in attaining clients’ needs of balancing time, cost and quality in regard to achieve success within construction projects (Chance and Brooks, 2015). As per the view of Bigelow, Bilbo and Baker (2016), Green’s soft SMART VM method helps in emerging as a leading method for clarifying the objectives of the multiple stakeholders of construction projects. However, the soft system is effective compared with VM as opposed to the hard system. Hence, it can be assessed that hard systems have serious limitations compared to soft systems in order to attain success within construction projects (Bigelow, Bilbo and Baker, 2016). Another important development in VM for the construction industry helps in defining the value that is related to identify and fulfill the need of client by developing specific objective that can be attained within construction project.

**Reviewing Project RM Frameworks:**

A large number of RM frameworks have been developed within the construction industry, reflecting the high risk of the sector, and it is essential to plan effective RM strategies to identify and analyze risks (Rostami et al., 2015). This necessitates consideration of the risk perception of multiple stakeholders in terms of certain RM factors, such as:

**Plans-** It can be assessed whether the RM plan helps in contributing to the success of the project through identifying the both internal and external risks. It involves different plans such as identified risks, their probability of occurring, impact and stated actions. Also, it can be evaluated that the risk with low or no effect does not have a huge impact upon the cost or timetable of construction activities to be carried out (Loosemore and Richard, 2015). For instance, a moderate risk might cause a certain increase in cost, disruption of schedule etc. while high risk events in construction projects cause significant impacts in terms of increased budget, disruption of schedule and firm performance.

**Preparation-** It is essential to make sure that projects run smoothly to achieve success, necessitating appropriate funding to avoid and mitigate risks while achieving optimum results (Zhao, Hwang and Low, 2015).

**Evaluation-** Evaluating the success of projects enables firms to carry out best practices and thus mitigate risks in subsequent projects. For instance, engineers involved within the construction project are required to develop proper training programs in order to create awareness regarding internal security, budget risk etc. and overcome such problems (Malik, 2015).

**Integrated Risk and Value Management:**

The chances of risk transfer should be assessed and eliminated effectively (Chou, 2015). There are different risks that affect the health and safety of workers in construction projects and connected to third party property or infrastructure. Hence, RM methods help in selecting a successful construction project. However, firm management is required to evaluate the risk issues in regard to assess the ability to manage and regulate risks (Chou, 2015). There are different RM tools and techniques in order to manage the construction projects involving risk identification, assessment and treatment etc. that can be applied in order to manage the risks within business so that resources can be utilized efficiently. Walker (2015) advocated risk assessor model (RAM) to determine the risk scores for different construction activities, which helps by providing an acceptability level for risks so that possible outcomes can be assessed (Walker, 2015). VM is required to focus upon the expected outcomes from the project. A clearly established outcome helps in defining, understanding, and agreeing upon objectives. It is essential for businesses to attain different value drivers in order to achieve best design for construction, which directly influences the project (Olsson, 2015).
Furthermore, there is a key differentiator among the VM concept and various other processes that help in focusing upon the expected outcomes from the construction project. Hence, the value drivers clearly involve essential attributes so that required values can be delivered (McNeil, Frey and Embrechts, 2015).

(Source: Haimes, 2015)
The rules and methods of VM are essential within construction a project to attain better value, but firms should undertake effective subsidiary advantages such as effective communication, enhanced team working, best alliance of supply chain and also better agreement of construction project goals (Malik, 2015). Hence, all these objectives help in applying the VM effectively within the construction project and making it successful. However, there are different risks involved within business that might affects firms’ operations, but management is required to mitigate the risks so that effective decision can be made (Malik, 2015). Further, it is essential for construction business to involve a risk analysis specialist within the VM team in order to attain best results effectively and efficiently. Moreover, the risk and VM perspectives are no longer considered as different concepts but they are integrated together in regard to develop effective construction operations.

Hard system is considered as a problem-solving approach that helps individuals assess threats as problems, which may be ill-defined or not easily quantified, while the problems linked to such systems are well-defined and thus can be addressed by single optimum solutions. However, in construction projects it is essential to define and troubleshoot certain common technical problems (Walker, 2015). While, soft systems’ problem solving considers a holistic approach in order to solve complex problems, the individual is involved in a problem-solving situation, which helps in controlling the problems and making effective decisions towards the project. The main benefits of the hard system are that it helps individuals overcome complex situations, as the problems are well-defined, thus the best results can be attained.

It is essential for construction businesses to focus upon establishing proper risk registers so that potential hazards can be identified in order to build activities that are expected to be involved within the project and thus take into account different risks identified. Establishing a risk register helps in creating a concern over all the critical risks involved within the project and thus helps clients in making budget and saving costs (Zhao, Hwang and Low, 2015).

### Conclusion:

It can be concluded from the study that value and RM are crucial factors that help in carrying out effective outcomes for the UK construction industry. Also, there has been high growth in the industry, therefore issues need to be overcome by businesses in the sector. The risk approaches within the VM are under the constant change with regard to identifying the implications of effective strategies, so that both RM and VM approaches can be implemented effectively within firm and attain organizational goals. However, the RM process is more efficient in enabling construction firms to determine risks and manage them properly in order to save costs and budget appropriately for construction activities.

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