



Everyone's Smart University

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Project Risk Management

Introduction

Risk is defined as an uncertain occurrence or a condition that, when it occurs, has positive or negative consequences for project goals (Hillson & Simon, 2020). Sanitary risk management is a key driver of a project's success because the actual quality, times and cost performance are more important than expected as a result of increasing time and cost reduction pressure. The lack of risk has been shown to be a major cause of budget overrun, fall short of time and lack of performance objectives (Carbone & Tippet, 2004). This situation is exacerbated by the high complexity associated with the projects characterised by massive investment, extensive execution processes, numerous resources, and stakes in unstable economic and political environments, in several industries such as construction and information and communication technology.

Risk assessment and control during all phases of a project is a strong necessity. A range of definitions and approaches have resulted from different perceptions, attitudes and requirements.

Project risk means potential loss or injury. Project risk is an uncertain occurrence or condition that has an impact on at least one project goal if this occurs. Global Supply Chain Management Project (GSCMP) is responsible for identifying and managing the risk during the entire project in order to minimise the project impact. Project risk management is not about risk reduction and elimination, but about risk identification, risk assessment and risk management.

1. Changes in policy and government

Changing political and political affiliations in countries around the world will increase the trade risk.

Maintain an enhanced level of operational compliance even though the governments permit a less stringent approach. This reduces the risk of infringements of compliance and of safeguards against new regulations. In addition, shippers should search for "third parties" non-associated carriers operating outside the countries concerned to address trade needs.

2. Instability Economic

Another threat to global trade is economic instability. For example, bankruptcy led to dramatically reduced global supply chain shipping capacity by the Seventh largest shipping company (Hanjin Shipping) in South Korea.

3. Events of extreme weather

One of the world's most important risks is extreme weather. Extreme weather Tropical storms can shoot off like trash ocean carriers. Tropical storms have perhaps not been a major threat in recent years, depending on the route. However, the threat of tropical storms is on the rise in global climate change.

4. Risks to the environment

Another critical risk in global trade is its impact on the environment. Environmental responsibility and sustainable practises are both forms of social responsibility and ocean carriers will be subject to greater scrutiny as more environmental laws are passed.

5. Disasters

Human and natural disasters do not fall in the weather category include disasters. Two calamities, for example, could affect global trade, include earthquakes and starvation.

6. Connectivity

There are also global supply chain risks within the connectivity of the current systems in the 24/7 world of modern trade. Although open-source software allows for integration of systems, system integration and modification increase the risk. Each amendment may lead to additional upgrading costs and poorly integrated systems may lead to enclosures and disturbances.

7. Attacks on Cyber

In modern supply chain management, cyber-attacks have become a predominant risk. Somebody with a malice can drive down whole networks of the supply chain and force freight rates to rise. Cyber-attacks also are becoming a terrorist weapon to undermine your digital footprint by anyone, government or agency, too.

8. Consistency of supplier

After a disaster, only 45% of suppliers can continue to work. Any risk may result in a disruption to the consistency of the supplier. The consistency of the supplier is also applicable to the manufacturer. The risk of interruption to raw and recovered materials is.

Literature Review

1. Processes for project risk management

Risk Analysis and Project Management (Del Cano & De La Cruz, 2002), Two-Pillar Risk Management (TPRM) (SEYED & HATEFI, 2009), Active Threat and Opportunity management (ATOM) and Project Risk Analysis and Management have very similar structures and joint objectives. Project Uncertainty Management In fact, three macro-phases could be summarized. The first steps of these processes are to understand and plan the risk management effort by determining the project's level, extent and objective. The mid-term steps are designed to identify risk alongside its causes, effects and how they relate to each other, to assess their likelihood of occurrence and impact, to prioritize risk response strategies and to establish plans for contingency.

2. Risk management techniques and their classification criteria

A common criterion examines the nature of the available information. Qualitative techniques require qualitative information in the form of descriptions and recommendations, while quantitative techniques use quantitative information to analyze risk occurrence and impact in a numerical manner. Another criterion proposes the selection of techniques based on the information a project need.

Also, what techniques are to be used are determined by the nature, the size, the complexity, the level of innovation and the project cycle phases. The risk management is especially crucial in the project planning stage and increases its scope and depth when the project progresses towards the implementation phase, while the completion phase decreases (Ward & Chapman, 2003).

The risk analysis objective may also be a criterion for identifying appropriate risk management techniques such as economic and financial results controls and quality variances or tracking delays (Kmec, 2011).

3. Defining dimensions for selecting project risk management techniques

The characteristics of such tools and of the criteria available for their classification were taken into account to identify the relevant aspects to be taken into consideration when selecting between project risk management techniques. It has been widely demonstrated and accepted that no technique for risk management is appropriate for each phase of the risk management process. In the context of its application, risk management should be defined: the lifecycle for a project should be considered. The Ward and Chapman studies (2003) indicate that moving from one phase of the project to another implies a different degree of unsafety, with more detailed and quantitative data available. The focus of all risk analyses and the risk management techniques adopted must therefore change with the project lifecycle phases.

Finally, in order to ensure that the approach adopted to the people applying it is appropriate and to analysis its results, Bartlett, J. (2004) proposes consideration of the risks maturity of employees in a company carrying out the project when selecting risk management techniques.

Methodology

Risk impact:

- High – Catastrophic (Rating A – 100)
- Medium – Critical (Rating B – 50)
- Low – Marginal (Rating C – 10)

It identifies the timeframe for this risk to affect it. The following is classified as one:

Timeframe	Description
Near	Now- until one month
Mid	next 2-6 months
Far	>6 months

Impact-Probability Matrix:

Impact	Probability			
	High $80\% \leq x \leq 100\%$	Medium high $60\% \leq x \leq 80\%$	Medium low $30\% \leq x \leq 60\%$	Low $0\% \leq x \leq 30\%$

A = High	(Exposure Very High) (Score 100)	-	(Exposure Very High) (Score 80)	-	(Exposure High) (Score 60)	-	(Exposure Moderate) (Score 30)
B = Medium	(Exposure High) (Score 50)	-	(Exposure Moderate) (Score 40)	-	(Exposure Moderate) (Score 30)	-	(Exposure Low) (Score 15)
C = Low	(Exposure Low) (Score 10)	-	Exposure Low) (Score 8)	-	Exposure Low) (Score 6)	-	(Exposure Low) (Score 3)

Examples of risk classification:

Risk event	Probability	Impact rating	Score
The hardware will come 10 days late, resulting in a project which is of minor importance to customers and takes a total project delay of 10 days	30%	C	30
A risk of losing goods' capacity for carriage due to bad weather	50%	B	60
The immediate risk for companies is that costs will rise and waiting times will cross borders, especially when customers adapt to new processes.	90%	A	100
Total			190

EVM calculation:

Risk	Risk Probability (P)	Cost Impact (IC)	Risk Contingency (P*IC)
A	0.3	\$6.000	\$1.800
B	0.5	\$8.000	\$4.000
C	0.9	\$12.000	\$10.800

The following objectives are addressed in the risk response plans:

1. Risk reduction
2. Reduces the risk probability
3. Reducing the risk impact on project objectives

Discussion

The application of the framework can derive a number of advantages. It contributes from a decision-making point of view to improved project understanding, thereupon improving control over resources, supporting the development and implementation of surveillance strategies and stimulating the better use of ways of identifying and assessing risk with an inherently beneficial effect on contingencies evaluation.

References

- Bartlett, J. (2004). Project risk analysis and management guide. APM publishing limited
- Carbone, T. A., & Tippet, D. D. (2004). Project risk management using the project risk FMEA. Engineering management journal, 16(4), 28-35.
- Del Cano, A., & de la Cruz, M. P. (2002). Integrated methodology for project risk management. Journal of construction engineering and management, 128(6), 473-485.
- Hillson, D., & Simon, P. (2020). Practical project risk management: The ATOM methodology. Berrett-Koehler Publishers.
- Kmec, P. (2011). Temporal hierarchy in enterprise risk identification. Management Decision.
- SEYED, H. S., & HATEFI, M. A. (2009). Two-pillar risk management (TPRM): a generic project risk management process.
- Ward, S. C., & Chapman, C. (2003). Project risk management: processes, techniques and insights.