



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

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Project Risk Management

Introduction

Risk is described as an incident that has a chance of happening and that could have a positive or negative effect on a project if it does. A Risk can have one or more triggers, as well as one or more consequences if it occurs. For example, getting an environmental permit to do work or having only a few people assigned to design the project may be a trigger. The Risk event is that the licensing department will take longer than expected to issue a permit, or that the allocated staff will be insufficient for the operation. If one of these unpredictable events occurs, the project's expense, schedule, or output may be affected. Risk isn't bad in and of itself; it's necessary for development, and failure is also a necessary part of the learning process. However, we must learn to weigh the potential negative effects of risk against the potential benefits of the opportunity that comes with it. A Risk is a possible future harm that may occur as a result of a current operation, such as a schedule slip or cost overrun. The loss is often thought of in terms of monetary loss, but it may also be a loss of reputation, potential business, or loss of property or life. Two other critical aspects of risk management must be addressed: first, preventive measures that can be taken to reduce the likelihood of the incident happening, and second, a contingency plan, or a set of actions that can take place either before or after the event occurs. Mitigation actions are always expensive. The cost of risk mitigation can often outweigh the cost of taking the risk and suffering the consequences. Before deciding to execute a contingency plan, it is critical to weigh the likelihood and effect of each risk against the cost of mitigation strategies. Contingency plans are proactive measures taken before a risk occurs in order to lessen the effect or eliminate the risk entirely. After a Risk has occurred, contingency measures may normally only mitigate the effect. Risk management is a broad topic that affects a variety of business sectors; however, it is also a topic that every human being on the planet must address in terms of their way of life; otherwise, human life is put in jeopardy and vulnerable to death, illnesses, and poverty.

Dealing professionally with risks and opportunities is quickly becoming one of the most important aspects of business success. The majority of businesses have recognized the challenges that turbulent markets present and have begun to adapt to them. In turbulent markets, however, the challenges and opportunities are greater, necessitating aggressive strategic risk management. Markets are becoming more unpredictable as competition becomes fiercer (even "hyper-competitive") and business cycles become more volatile. This turbulence reflects itself in shorter innovation and product life cycles for individual businesses. Simultaneously, the number of goods available expands, preparation horizons shorten, and strategy formulation becomes more unpredictable. Turbulent markets signal to management that their company's prospects and risks are shifting more often, and therefore must be used or avoided quickly. Dealing professionally with risks and opportunities is quickly becoming one of the most important aspects of business success.

Literature of review

Risk management is a continuous process that lasts the duration of a project. It entails risk management planning, recognition, review, tracking, and control processes. Many of these procedures are revised as new threats are discovered during the project lifecycle. The aim of risk management is to reduce the likelihood and effect of incidents that are bad for the project. On the other hand, any occurrence that has the potential to be beneficial should be taken advantage of. Risk detection usually begins before the project is started, and the number of risks grows as the project progresses through its lifecycle. When a risk is detected, it is first evaluated to determine its likelihood of occurrence, as well as the degree of effect on the timeline, scope, expense, and quality, before being prioritized. Strategic risk management is a comprehensive approach to corporate social responsibility. Its mission is to strike the best possible balance between security concerns and value creation objectives in order to add long-term value to the company. We develop a strategic risk management framework using quantitative risk management approaches from the financial sector and qualitative risk management methods from industry. This method aids managers in identifying and using important success and risk factors in their

companies. As a result, strategic risk management entails recognizing a company's risks and opportunities, as well as taking steps to mitigate, execute, and track those risks and opportunities. Until a risk management strategy may be implemented, two requirements must be met. First, threats must be equivalent in order to group life-threatening incidents together. This is the best way to ensure that a risk management framework is more than just a list of individual possible risks and action plans, but rather a means of identifying potential existential threats across the organization. Second, issue areas must be prioritized in order to maximize the usage of limited business capital. As a result, a risk management system is made up of a risk management mechanism as well as a risk management agency. Risk management is a set of measures with the goal of identifying, addressing, and eliminating risk items until they become a significant source of costly rework or a challenge to the operation's performance. Risk evaluation and risk control are two interconnected stages of the risk management process. These stages are further subdivided. Risk detection, risk analysis, and risk prioritization are also part of risk management. Risk management includes risk assessment, risk mitigation, and risk reporting. Risk management must be performed iteratively and as part of the team's project management routine during the project. The team routinely enumerates as many project risks as possible in the risk identification process, in order to make them clear before they become issues. There are many approaches to assessing project risks. Understanding the various forms of risk is beneficial in allowing a team to investigate the possibilities of each. Any project faces the possibility of generic risks. Changes in conditions, the loss of key employees, and the company's or customer's bankruptcy are all examples of generic threats. A development company should keep a list of these types of risks on hand. Based on the known collection of programmers, administrators, and customers, teams may then determine the degree to which these uncertainties are a factor for their project.

Product-specific risks can be differentiated from generic risks because they can only be defined by those who have a thorough understanding of the product's technologies, people, and environment. The availability of a complex network required for testing is an example of a product-specific danger. Project, product, and industry risks can be subdivided from generic and product-specific risks. Project risks are those that have an

effect on the project schedule or the resources (people or money) allocated to it. Product risks are those that have an effect on the product's quality or results. Finally, market threats are those that jeopardise the product's profitability, such as creating a great product that no one wants or creating a product that no longer fits into the company's overall business plan.

Methodology

When assessing project, product, and business risks, there are a few things to keep in mind. This list contains some examples of these variables, but it is not intended to be exhaustive.

1. Human resource threats are linked to the development team's availability, skill level, and retention.
2. The scale of the product and the product team are linked to size risks. Larger products have more interactions and are thus more complex. Larger groups are more difficult to organize.
3. Process risks are associated with whether or not the team follows a specified, appropriate product development process.
4. The software or hardware systems that are being used as part of the device being built are the source of technology risks. The risk of using modern, evolving, or complex technology rises.
5. Tools risks are related to the use, availability, and reliability of support products used by the development team, such as design software and other Computer-Aided Software Engineering (CASE) tools, and are similar to technology risks.
6. The context in which the product is being created creates organizational and managerial risks. Some examples include the company's financial stability and risks of reorganization, as well as the potential for a lack of management support as a result of a shift in emphasis or personnel.

Changes in customer requirements, customers' lack of understanding of the effects of these changes, the process of handling these requirements changes, and the customer's ability to interact efficiently with the team and correctly express the characteristics of the desired product are all sources of customer risks.

8. Estimation risks arise from inaccuracies in calculating the resources and time needed to properly construct the product.

9. Sales and support threats include the possibility that the team will create a product that the sales force will struggle to sell or that will be difficult to fix, adjust, or improve.

10. Risk detection that occurs on the spur of the moment or on a sporadic basis is normally insufficient. The team will use a variety of risk elicitation methods to routinely and proactively surface risks.

Results

Since there's a greater possibility of success by risk management, the process of implementing the project will start sooner. Assessments contribute to the expression of outcomes as a contingency plan, as well as to identifying those that exist, and putting plans in place to maintain them. When you do a risk analysis, you gain a thorough understanding of the extent of the likelihood of a project's success, as well as easy-to-use methods for calculating risk.

Project existence may influence the success or failure of a project Having too much room for error is almost ensures failure, thus having no room for possibility raises the danger of that. The risk assessment methods help to establish contingency levels, with a target risk level of results, and these determine the maximum amount of uncertainty that must be tolerated before executing the desired action.

If risks are to be adequately managed, the project manager must begin with risk assessment and then work to prepare the strategies for reducing and eliminating those risks. It is generally better to work on a large, intricate projects rather than on a simple one-dimensional one because of the risks. You need to identify and prepare for all threats, even if it's just a remote. Very often, the company will have various risk management

practices that state the style and method of the risk preparation meeting, and these will set the appropriate risks that need additional attention.

Reference

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