

Risk Management

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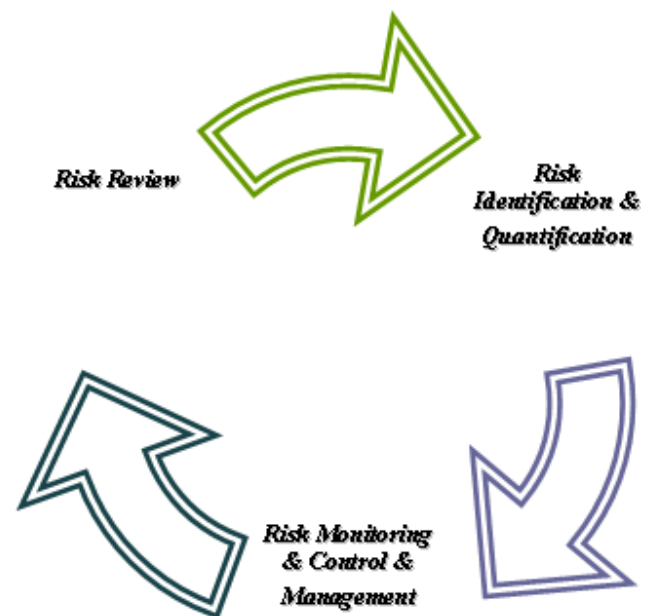
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Risk management is recognition, assessment, and prioritization of risks followed by economical and coordinated application of resources to reduce, control and monitors the probability and impact of unfortunate events and to maximize the recognition of opportunities which comes our way. Risks can come from uncertainty which comes in financial markets, and threats from the failure of projects. The failure of projects can be in any phase : in production, design, development, or sustainment life-cycles), natural causes, legal liabilities, accidents, disasters and credit risks as well as intended attack from a competitor, or events of uncertainty or unpredictable root-causes. A lot of risk management standards have been build up including the National Institute of Standards and Technology Project Management Institutes.

The technique to manage the menaces(i.e. the uncertainties with some negative consequences) are typically comprised of changing threats to some other party, divert the threat, lessening the negative effect or possibility of hazard, and also accepting either some or

all the potential or the genuine consequences of appropriate threat, and the reverse of possibilities (undetermined future states with profits).

Some conditions of many of risk management standard have come under the criticism for having no improvement on risk which could be measured, even if the confidence in decisions and estimates seems to gain.



In the ideal risk management technique, a process called prioritization is followed through which the risks with greatest loss or impact and the considerable possibility of occurring is managed first, and the risk with low possibility of occurrence and with lower loss is managed in the descending order. While practicing, the process of surveying the overall risk could be difficult, and balancing the resources which are used to check between risks with high possibility of occurrences but the lower loss vs risk with a high loss but with the lower possibility of occurrences can usually be misdirected.

Intangible (indefinite) risk management analyzes a new type of risk that has 100% possibility of occurrence but is avoided by the management considering loss of the recognition capability. Like, when inadequate information is exercised to a situation.

The relationship risk arrives when useless association takes place. A risk called process engagement risk might be an issue when inadequate operational methods are exercised. These risks precisely decrease the production of knowledge workers, and reduce cost-efficacy, quality, service, profitability, brand value, earnings quality and reputation. This type of risk management allows the risk management to create an instantaneous value from the recognition and decline of risks that lower the productivity.

Management of risk faces obstacles in assigning assets. This is the concept of the opportunity cost. The reserves spent on the risk management could have spent more on profitable movement. Repeatedly, the ideal risk management decreases spending (on resources like manpower) and also reduces the negative consequences of risks.

Method

For the most part, this strategy consists of the following elements performed in this order:

1. Identifying and characterizing the threats
2. Determining the susceptibility of the critical assets of the specialized threats
3. Determining the risk (i.e. the expected likelihood and consequences of specific types of attacks on specific assets)
4. Identifying the ways to reduce those risks
5. Prioritizing the risk reduction techniques based on a certain strategy

Principles of risk management

The International Organization for Standardization (ISO) recognizes the consecutive standards of management of risk.

Risk management should:

- Create value – resources exhausted to diminish risk should be inferior than the consequences of inactivity, the benefit should surpass the pain
- Be an intrinsic part of the authoritative processes
- Be part of decision making process
- Explicitly address unpredictability and presumption
- Be systematic and structured process
- Be based on best possible facts
- Be tailorable
- Take human factors into account
- Be transparent and inclusive
- Be dynamic, iterative and responsive to change
- Be competent of constant enhancement
- Be continually re-assessed

How to develop risk management plan?

Establishing an efficient risk management plan helps in keeping small issues from advancing into danger. Different kind of risk management plan

can agreement with computing the possibility of a particular event, and how that event would have an impact on you. What are the risks with some fixed endeavor and how to check the complications combine with those risks which are present. If you have a plan then it will help you to deal with the unfavorable conditions, if such condition arises and they head them before they come up.

Step1: Understanding how the process of Risk Management is taken into account: Risk is an effect. It can either be positive or negative. It is the effect of an event or order of events which takes place at more than one locations. It is estimated from the possibility of the occurrence enhancing a matter and impact it will have. Like,

$\text{Risk} = \text{Probability} \times \text{Impact}$

Numerous elements should be recognized in order to examine a risk, including:

1. Occurrence: What are the possibilities (prospects)?
2. Possibility: How an event will happen?
3. Impact: What are the consequences if event happens?
4. Mitigation: How the possibility could be reduced and by how much the possibility is reduced?
5. Contingency: How the impact will be reduced and by how much the impact will be reduced?

6. Reduction = Contingency X Mitigation

7. Exposure = Risk – Reduction

After we have determined all the components, the result is recognized as Exposure. And this particular volume of risk can't be avoided by us anyhow. Exposure can also be intervened as Threat, Severity or Liability, but they all mean one or the same thing in some or the other way. It is used to help us determine that the planned activities should be done or not. This is generally a formula of simple cost vs. benefits formula. These elements might have been used before to find if the risk of carrying out the change is lower or higher than the risk of not carrying out the change. If we decide to progress (at times there is no choice, e.g. federally authorized changes) then the Exposure which has been found out, becomes what is known as Assumed Risk. In some places, Assumed Risk is decreased to dollar value which is used to determine the profit of the end commodity.

Step 2: Define the project: The next step is to define the project. In this step, let us assume that we are answerable for

a computer system which gives important (but we cannot say life-critical) instruction to a very large population. The main computer where the system exists is old and it is required to be replaced. Our effort is to make a Plan of risk management for the movement to another place. This will be a simple model where the risk and the Impact are indexed as High, Medium or Low (and this is very common especially in Project Management where we manage the projects).

Step 3: To get the input from others. Now the third step is to gain input from others. Here we get along with several people those who are familiar with that particular project and ask for inputs and what could happen using this. How we can help prevent to it, and what we can do if it does happen and what if it does not happen. We will take notes of all the things. We will use the output of this important session many times during some of the steps. We should try to have an open mind to get new ideas. We have a phrase which is used by people i.e. "Out of the box" thinking. We should think out of box means that we should think in a different way, but we should keep control of sessions. It should be focused and on the target.

Step 4: To identify the results of each risk. From a very important brainstorming discussion, we gather information about what could have happened if risks have materialized. Associated each risk with the results arrived during that particular discussion. Let it be as specific as possible with each other. Project Delay is not as fascinating because the project would be delayed by 13 days. If we have dollar value than we should list that value and say that going over budget is very common.

Step 5: To eliminate the inappropriate issues. If we are moving, for example, we could say that a car's dealership computer system, have threats such as killer asteroids, plague pandemic or nuclear war are a bit identical things which will disturb the project. There is nothing that we can do to plan for it or to the way by which we can lessen the risk. We should keep it in mind, but should not put those kind of things on our risk plan.

Step 6: To make a list of all determined risk items. We are not required to put the list in any particular order. We just need to make a list of them one after the other.

Step 7: To pin on the probability. For each of the risk elements which are present on our list, we need to determine

if its likelihood is absolutely materializing is either low, high or medium. If we literally have to make use of the numbers, then we figure the probability on the scale from zero to one, where 0.01 to 0.33 is the value of Low and 0.34 to 0.66 is a medium value and 0.67 to 1.00 is the value of high.

If the possibility of any event occurring is 0, then it will be eliminated from discussion. There is no sense in considering things which simply could not happen.

Step 8: To assign the impact. In general, appoint the impact as either low, high or medium. These are based on some established protocols. If we certainly have to use the numbers, then we figure the impact on the scale from zero to one as shown: where 0.01 to 0.33 is Low, and 0.34 – 0.66 is Medium, and 0.67 – 1.00 is high.

If the effect of any event is 0, then it should not be indexed. There is no logic in considering the things which are inappropriate regardless of the probability (my dog ate dinner).

Step 9: To conclude the risk for the elements. Generally, we make use of a table for this. If we have used the high, low and medium values for the

probability and effect, the top table is useful for this. If we have used the numeric values, then we are required to recognize a bit complicated rating system which is identical to second table which is present here.

Step 10: To rank the risks which have been listed. We list all the elements which we have recognized from the highest to lowest risk.

Step 11: To estimate the entire risk: In a table, we have assigned seven risks such as L,L,H, H, M, M, and M. This could translate to 0.2, 0.2, 0.5, 0.5, 0.5, 0.8 and 0.8. The average of entire risk is then 0.5 and this is translated to Medium.

Step 12: To establish mitigation approaches.

Step 13: To establish contingency scenario. Contingency is constructed to decrease the effect if the risk does materialize. Repeatedly, we will usually develop only contingencies for the High and the Medium elements. For instance, if the disapproving parts need not reach on time, we might have to use old and the existing parts while we are waiting for the new parts.

Step 14: To evaluate the effectiveness of strategizes. How much we have reduced the possibility and the effect? We analyze our contingency and the mitigation strategizes and we reassign the effective ratings to our risks.

Step 15: To estimate the effective risk and monitor the risk. Now our seven risks which we have seen are L,L, L, M, M, M and M, which translates to 0.2, 0.2, 0.2, 0.5, 0.5, 0.5 and 0.5. This gives us an average risk. And the average risk is 0.329. The total risk is now classified as low.

Conclusion:

To identify the risks and plan risk management. This is the way we try to overcome the risk and save our resources which have been used.

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