



TOWARDS NATIONAL RESILIENCE

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Clause 8.2 of the NCEMA 7000:2015

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Sample contents from the Risk Assessment Chapter

Overview

Clause 8.2 of the NCEMA 7000 document states that the organization shall establish, implement and maintain a methodology for risk assessment to identify, analyze and evaluate the risks which may disrupt continuity of activities. The organization shall:

- ♣ Identify and approve risk parameters and must be pre-approved by the top management.
- ♣ Identify the risks that can disrupt the performance of prioritized activities.
- Analyze the risks against predefined evaluation criteria.
- Evaluate the impact of the addressed risk.
- ♣ Take into account interdependencies related to the performance of prioritized activities.

Explanation

The NCEMA 7000 BCM standard defines risk as "the impact of uncertainties on organizational goals." The fact is that often certain factors may arise, which give rise to business disruptions, thus preventing the organization from continuing to deliver its key products and services. These uncertainties make it more difficult for the organization to meet its goals and business objectives.

The standard defines Business Continuity Risk Assessment as "the process in which risk is identified, analyzed and evaluated." Therefore, Risk Assessment seeks to help organizations to equip themselves to manage risks.

Objectives

In order to implement a robust business continuity program, it is critical to have a good understanding of any risks that may prevent the organization from achieving its goals. The organization should be able to manage those risks, so as to decrease any negative impact that they could have on the organization's ability to meet its goals. Ideally a BCM Risk Assessment seeks to:

- ♣ Prevent business disruptions from occurring.
- If indeed any disruption occurs, to quickly bring it under control, before it gets out of hand.
- Try to make sure that the disruption does not occur for long; at most, for just a short time.

Through a well-conducted BCM Risk Assessment, you would have prior warning of the possibility of things that may go wrong. This would give you an advantage to bring such situations under control, if they did occur. You would get time to think through the situation well in advance, evaluate many possible courses of action, choose your preferred actions, and then implement any agreed controls and solutions.

Let us take an example. If an organization knows that its office is in a low-lying area where water can collect and the area can be flooded, it can put in place advance planning to prevent any disruption that the flooding might cause. The organization may consider moving to a region with higher elevation, or to a higher floor in the same building. It may choose to install emergency power facilities in upper floors and not in the basement. It may choose to put in place the needed infrastructure to quickly pump out water in case of flooding. It could also set up advance notification protocols with the weather bureau so that they could get advance notice of disruptive weather situations like heavy rainfall. It may put in place arrangements so that staff can work out of other distant offices on days when there is likely to be heavy rainfall. All in all, with advance knowledge, planning and testing, an organization would be able to do many things to be able to deliver its products and services even in times of disruptive situations.

If the Risk Assessment activity is effective, then the entire cost and effort of activating Business Continuity can be avoided - which could be a huge saving of time, effort and resources.

But what makes the BCM Risk Assessment different from a traditional Risk Assessment that many organizations may already have been conducting for many years? This is a new question that BCM professionals love to ask, which is: "What if?" For example: What if our supplier did not deliver us the required raw materials? Would we still be able to produce our product and meet the delivery timelines we have promised to our customer? What if the telecom cable got cut? How would we communicate with the external world? And other such "What if" questions.

By asking this question, competent and inquisitive BCM professionals even in the most mature and professional organizations are often able to add huge value during the BCM Program implementation. They do this by highlighting risks that no one in the past had raised or addressed. For example, many professionals may feel relaxed once a control was put in place for a possible vulnerability. But the BCM professional may be worried and ask what is the backup plan if the control failed? The organization may realize then that there is no plan B, which gives rise to a new vulnerability, which also needs to be addressed, for the organization to be adequately protected.

So the prime objective of a BCM Risk Assessment is to protect the organization from the cost and effort of managing disruptions that can damage the organization ability to continue. Yet, Risk Assessment could also help increase the trust, faith and loyalty of your customers, who may now see the organization as forward-looking, proactive, and professionally managed. In addition, the BCM risk assessment activity can also help identify opportunities that can help enhance the organization's productivity, efficiency, revenues and market share. This is because the Risk Assessment activity often identifies steps, procedures and controls where resources, money and effort are being spent, but it is leading to no tangible benefit. Those resources can be re-deployed to other opportunities where they can yield more benefits. By communicating the benefits of smart Risk Management solutions implemented, other departments can learn also, and the whole organization gains.

Deliverables

The key deliverables from this activity are the:

- Risk Assessment Methodology Document
- Risk Assessment Report

These are part of the 17 required documents as mentioned in the NCEMA 7000 standard.

The Risk Assessment Report would typically include:

- 1. Summary of the Risk Assessment activities conducted
- 2. Prioritized Risks, in order of potential disruption impact
- 3. Possible mitigants and controls

Methodology and Tips

The Risk Assessment Process comprises 4 steps as clearly mentioned in the NCEMA Standard. These are:



Risk Identification: As per the NCEMA Guidelines document, the following sources of risk shall be considered:

- Unavailability of staff
- ♣ Destructive loss of all or part of a building
- ♣ Major physical utilities (power, water, etc.)
- ♣ Loss of ICT functions (data center, servers, etc.)
- Unavailability of information
- National / international crisis or disaster
- Financial shortcomings
- Unavailability of transportation
- Any issues or problems with business partners and/or suppliers.

Ideally, the anything and everything that can cause a business disruption in delivery of the organization's prioritized activities should be considered in the Risk Assessment, as signed off in the BIA. Ideally the Risk Identification exercise should be extremely comprehensive and exhaustive. All the 3 techniques of conducting a BIA could be utilized also for a Risk Assessment – questionnaire, one to one interviews and workshops.

Risk Analysis: Once a list of risks has been put together through a comprehensive Risk Identification exercise, the need now is to analyse those risks in terms of their ability and impact to disrupt the organization from meeting its business objectives. For this, it is useful to put in place Risk Analysis Scales. A good way to do this is by categorizing all risks in terms of the following 2 elements:

- ♣ Likelihood/ Probability how likely are the identified risks to occur?
- ♣ Impact how big is the impact of the risk occurring to organization's business and to the objectives?

Table 1 (from the NCEMA 7000 document) shows an example of possible Impact scales used for Risk Analysis.

Impact Scale				
Very	High	Medium	Low	Very
High				Low
5	4	3	2	1
The impact of this	The impact of this	The impact of this	The impact of this	The impact of this
risk is very high.	risk is high. There	risk is medium. It	risk occurring is	risk occurring is
Its occurrence	are major	has some negative	low. There is only	very low. There is
would be	disturbances or	effect, but the	a minor effect on	no or negligible
extremely	disruptions	overall damage is	the organization	impact on the
negative for the	coming from	limited		organization
organization, up	coming from this			
to a total disaster	risk			

Table 1: Example of Impact Scale

The second part of the risk analysis is the determination of the risk likelihood. For the risk assessment methodology, a quantitative approach may not often work, due to insufficient information available. Hence, we might sometimes need to use a qualitative (relative) scale. To identify an appropriate likelihood for a risk, it may be needed to consider objective information from records of past events. In the absence of this, interviews with stakeholders and employees can also be used to get a first impression. Table 2 (from the NCEMA 7000 document) as given below is an example of the way likelihood of each risk can be estimated using this scale.

Likelihood Scale				
Very Unlikely	Unlikely	Possible	Likely	Almost Certain
1	2	3	4	5
Less	Less	Once or	Between	At
than 1 in	than 1	twice	3 and 5	least 5
5 years	per year	per year	per year	per
				year
Extremely unlikely	Unlikely, but	The event might	There is a strong	The event is high
events, not expected to happen	there's a slight possibility that it	occur at some	possibility of the event to occur.	likely and expected to
expected to happen	may occur at some	time. For example, there may be a	There may be a	occur. There is a
	time	history of casual	history of frequent	history of regular
		occurrence in the	occurrence in the organization	occurrence in the organization
		organization	Organization	organization

Table 2: Example of Likelihood Scale

Risk Evaluation: The results of risk analysis (also referred to as Risk Values) shall be compared with predefined risk criteria set by the organization to determine whether a risk is acceptable or needs risk treatment. The basis of the comparison is the risk calculation and the level of acceptable risk. Table 3 from the NCEMA 7000 document demonstrates a method to assess the overall risk criticality.

Risk Matrix Verv Risk High High Medium Low Verv Low Very Unlikely Possible Almost Likely Unlikely Certain Likelihood

Table 3: Example of Risk Matrix

Value: Once impact and likelihood has been calculated, they need to be interpreted. In the sample table shown below, the maximum risk value is 25 (5 by 5). Possible actions are also indicated below, on a sample basis.

Risk Value				
Very	Low	Medium	High	Very High
Low				
1-2	3-4	5-8	9-15	16-25
No action required	No action required	No action may be	These risks could	These risks could have
		required on some	have a high impact	a very high or
		risks, but others may	on the	catastrophic impact on
		need to be treated.	organization, and	the organization.
		Decisions to be	definitely need to	These risks definitely
		taken case by case	be treated	need to be treated

Table 4: Risk Interpretation

Risk Acceptance Criteria: In accordance with above, risks of high and very high level should always be considered for risk treatment, but can be accepted if one or more of the following criteria apply:

- The cost of risk treatment outweighs the impact of the risk occurring.
- The actions for risk treatment are not practical within the organization business, work environment or culture.
- ♣ There are no legal implications when this risk is accepted.
- ♣ There are only tolerable impacts on organization's business objectives.

For a comprehensive Risk Assessment, all possible sources of risks information should be considered, such as personal knowledge of experts, brainstorming sessions, existing Risk Register of the organization, Horizon Scanning Reports, etc. As an example, per the results of the Middle East BCM Survey conducted by CORE, the top 3 causes of disruptions were applications failure and network infrastructure failure (46% response), power outage (42% response) and human error (25% response)." This information should be considered by the team that is performing the Risk Assessment, which should then make their own judgement on the validity and relevance of this data to their own organization.

Post the Risk Assessment exercise, the team typically documents the findings in a report to Top Management. Proposed solutions are identified and suggested.

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