Business Continuity Project Planning Process for Educational Institution

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Abstract

It would be wrong to interpret that the expression BCP is only coined for industries, establishments and organization which are running for profit motive. Introduction of the expression BCP into the glossary of nonprofit organization would not to be said unenviable. Keeping this objective in mind this research paper intents to impart the fact that how educational institute need BCP in the present scenario. The paper advocates the need of BCP in institution imparting higher education, and also enlists a framework for implementation of BCP.

Keywords: Business Continuity Planning; educational institute

1. Introduction

Every organization is swayable to natural disasters and other possible causes of business interruption. As an elucidation, business continuity planning makes an endeavor to ensure the safeguarding of critical operations when an organization is brazen out with interruptions such as natural disasters, technology failures, IT threats, human errors, and terrorism, as well as more minor disruptions such as planned or unplanned maintenance events. By developing a business continuity plan, an organization is able to reduce losses during times of business interruptions while abiding to serve customers and maintain administrative operations.

Business continuity plan is not only important for profit oriented organizations but also for educational institutions which are facilitating the research activities. Colleges and universities are obligated to protect and provide for students, faculty, staff, and visitors at all times, even in the event of a major interruption of operations. For institutions of higher education, a business continuity plan ensures the ability to resume business operations should a crisis occur. The failure of an institution to prepare a comprehensive business continuity plan could lead to significant financial consequences, interruptions to the academic schedule, the failure of current research projects, or other unforeseen delays to the completion of critical activities.

As a result of experiences gained from real time issues of disaster recovery and business continuity there are a lot of methodologies available today for preparing business continuity plans, but when we talk about a university or a educational institution the case is somehow different because of the fact that the sole purpose of educational institution is not profit making but to impart education, so there is a need of a totally different approach when we are structuring a business continuity framework for an educational institution.

One of the basic requirements for building a business continuity plan is to consider all risk scenarios an organization can face so that in future if they face any problem they never think of that should not surprise them, secondly there should be a broad risk management program,

and this ensures that all sorts of threats an organization can face are acknowledged and accessed accordingly.

2. Methodology

For designing a business continuity plan for educational institution we are suggesting PDCA (Plan, Do, Check, Act) model, the whole process is designed according to this cycle only. The various steps of developing the business continuity plan can be categorized under various heads of PDCA cycle as follows:

2.1 Plan Phase

- Obtain Top Management commitment
- Assign departmental business continuity responsibilities.
- Business Impact assessment
- Prioritizing the business requirement
- Determining the Business recovery approach

2.2. Do phase

- Determining the Business recovery approach
- Preparing business continuity strategy
- Preparing the Business Recovery plans and procedures

2.3. Check phase

- Testing the plan
- Auditing the plan

2.4. Act phase

- Improvement of business continuity plan

3. Detailed Process of Implementing BCP

A business continuity plan for and educational institution should embrace of following steps in conjugation with a detailed risk management process.

1. Obtain top management commitment.
2. Assign departmental business continuity responsibilities.
3. Identification of critical business processes.
4. Business impact analysis.
5. Prioritizing the business requirement.
6. Determining the Business recovery approach.
7. Preparing business continuity strategy.
8. Testing the plans.
9. Improvement of plan

3.1 Obtaining Top Management Commitment

One of the basic requirements for a successful business continuity plan is that top management commitment must be obtained. Top management commitment means that top management clearly understands that there is a need of a business continuity plan and they should authorize each and every activity that is being carried out in whole planning process. They should be ready to assign the requisite labors and funds needed to carry out the whole planning process.
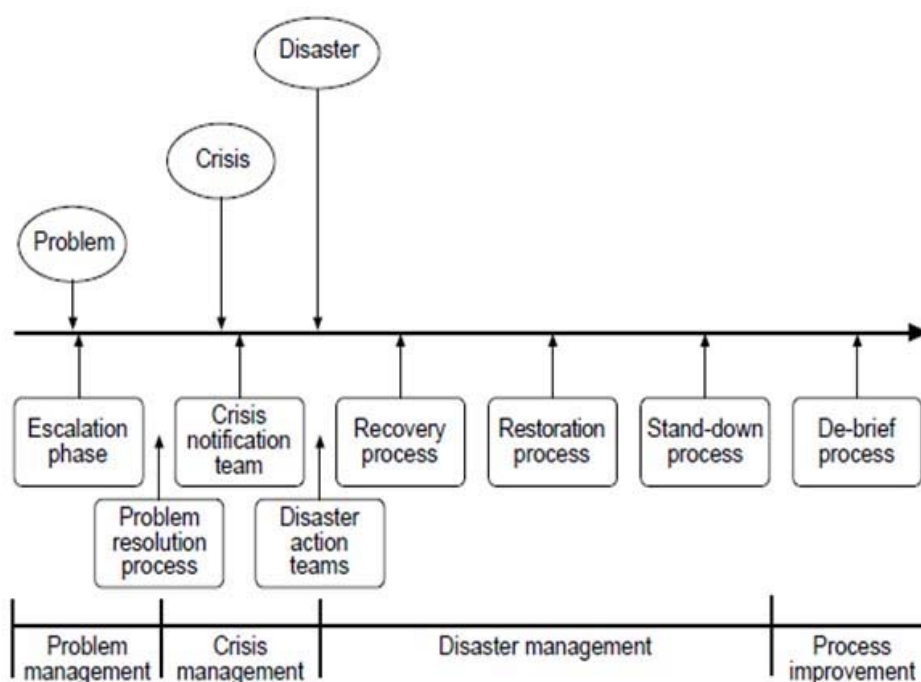

Figure 1. Business recovery timeline

3.2.   Assign Departmental Business Continuity Responsibilities

The prime motive here is to form a BCP team for

- Defining scope and objective of Business continuity plan
- Management of recovery procedures.
- Testing and reporting BCP plans.
- Initiating the training and awareness program for BCP.

BCP team should include deans of all the departments because they know about their processes also we need IT officer of university, finance officer and the person who is concerned with facilities management. A project manager should be assigned for coordinating the whole project and also some project coordinators should be appointed to look after each business units.

Once the BCP team has been formed they should frame the whole project structure and should draft roles and responsibilities within the project. Preferably the people who are assigned with role of maintaining the Business recovery function should be the persons who look after all critical process on day- to- day basis. RACI (Responsibility, Accountability, Communicated and Informed) maps should be developed to establish the responsibility, accountability of the person to identify the people who should be informed about the BCP process and the persons who should be communicated about the BCP process

Once developed the business recovery plans should be tested so there is need of embedding the business recovery responsibilities in day-to-day functions. The BCP committee should also recognize the following:

- Providing training and awareness at university level.
- Planned and unplanned tests.
- Inviting people from local authorities (fire authorities, police etc) and telling them about the planning process and discussing with them legal obligations.

3.3.   Business Impact assessment

A key step in establishing a business continuity plan is comprehensively identifying events of disasters/ threats an organization can face and establishing methods for managing them in a judicious way. Business impact assessment is the process with the help of which we can identify the events of disasters/ threats an organization can face and also we can identify our critical process which are to be recovered during the time of disaster to run our business smoothly.   Business impact assessment can be applied to accommodate the whole organization or each process separately. The methodology should be able to identify even those issues that we can not foresee today and in future can surprise us.

The business impact assessment should include following steps

- Identifying the critical processes
- Identifying the dependencies of the critical processes in terms of IT infrastructure Resources, sites required and other resources.
- Identifying the impact of disruption on business in terms of operational efficiency, University services.
- Identifying the MTO (maximum tolerable outage)[1].

The common approaches for Business impact assessment are:

- **Discussion with Key Personnel**: The personnel interviews will evaluate business operations, current business continuity plans, common information on business continuity management and crisis vigilance, event scenarios, policy, compliance initiative, crisis response, internal/external interfaces (infrastructures), business risks, strategic direction, documentation and training.
- **Assess existing Written Business recovery Plans and resources**: This assessment will consist of a comparison of the present Business recovery Plan Manuals and Supporting resources against applicable university policies, procedures and appropriate requirements. recommendation for improvements will be made as a part of this review

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[1] MTO (The time before which the activity should be resumed after disaster)

Once the business impact assessment is done the outcome should be standardized and should be reviewed by the BCP team. The whole result should be communicated to the top management so that they can approve it. The report should be prepared in such a way that it is easily understandable to the top management.

3.4 Prioritizing the Business Requirement

Critical requirements are the requirements required to continue the core business of an organization. For each critical processes the event of failures needs to be identified i.e. there is need to identify the events in which the critical activity can fail. So there is need to identify each disaster/ problem/ crisis situation as per business impact assessment results and restoration order. The revitalization approach should be based on providing minimum resources to make sure that essential business requirements are satisfied.

3.5 Determining the Business recovery approach

In association with a risk management program the above mentioned steps have identified the critical processes and their MTO (maximum tolerable outage). These inputs will now be used to in analyzing the related overheads and preparing the entire approach to provide us the re-establishment of the core business in case of any Disaster/ Problem/ crisis.

The objective of this stage is to analyze all available recovery strategies that are available, for the sweet running of the core business and associated activities and processes.
Expenditure related with new equipment, short-term facilities should be analyzed by the BCP and be presented before top management by BCP team on most reasonable alternative after doing a rigorous cost benefit analysis. Risk evaluation of any optional site or recovery site should be conducted this will help us to determine any shortfalls that may exist with the organization dependence on such a site. We should also consider the compliance with the statues and maintenance of public image of the institution. After establishing the exposure with the help of business impact assessment and cost of managing the exposure the BCP team is now having ample of information that will help them to make adequate decisions on recovery plans and risk acceptance. The whole plan should be based on business recovery timeline because the problems occur frequently, the crisis occur often and disaster occurs once in a blue moon.

In addition to these the Business continuity plan should encompass following:

- **Objective-** Details of overall aim of the business continuity planning process.
- **Scope-** The areas covered in the planning process and how & when the process is to be triggered.
- **Important Contacts-** Contact of all members of BCP team, Local Authorities, Police, Hospitals, Fire Fighting services.
- **Logistics-** Detailed phase of all recovery plans.

The scope will help to develop a practical model/ methodology & plans which can be evoked in any department of the institution after some minor adjustments.

3.6 Preparing Business Continuity Strategy

Rather than addressing all areas of the recovery it is a suggestive approach to target one or two critical process or core processes and developing a recovery manual on basis of recovery timeline.

The benefit of this approach is that we do not have to commit too many resources to the project and we can test our strategies that whether they are practicable or not. It also helps the people of the institution to understand the full implication of the business continuity plan.
Once the scope, purpose, area of responsibilities and accountabilities has been acknowledged, the particulars of all these should be conveyed to the person or persons affected.
During development of a fully fledged plan we should identify the major tasks and dependencies. The employees who are assigned the tasks are not basically the personnel who would take out all activities, they would be answerable for operation of the project in their particular departments and would be accountable for ensuring the activities are carried out and all the plans are properly tested.

The BCP team is now in a better position to recognize the high level strategies and their execution. Now the implemented plan should be discussed in management review meetings and if any short comes are identified the plan should be amended accordingly.

3.7 Preparing the Business Recovery Plans and Procedures

An outline of the business recovery procedures should be prepared to guide the collation of the requisite input. The team may demand for the assessment and approval the projected plan templates.

The purpose of such a methodology is that it:

- Helps to systematize the comprehensive business recovery procedures.
- Identifies all key steps before the writing begins.
- identifies unnecessary procedures that only require to be written once; and
- Provides a road map for developing the business recovery procedures.

The recovery procedures should be:

- Developed based on the recovery timeline and managed on project management disciplines – specialized software packages are available for this feature. Gantt Charts should contain revitalization phases; activities which when completed achieve milestones, tasks subordinate to activities, durations. teams and dependencies
- Supported by a distinctive business continuity strategy and related standards (a policy on its own is inadequate) and include methods for maintaining and updating the plan to reflect any major internal, external and/or business changes.
- We can also use technologies like relational database for maintaining the various information.

The recovery procedures will enable the constant functioning of core business processes following to either a long-drawn-out disruption or disaster state, and make certain the organized recovery of all other supporting processes in a specified timeframe.
As the data compilation process ends up, all results can be transposed into the appropriate recovery process templates or specialized recovery software.

3.8 Testing the plan

Testing the plan is an important stage, the point behind a Business Recovery test plan and strategy is to reveal the on the whole recovery capability on an area during a replicated major disruption of service(s) and to confirm that the information in the Business Recovery plan is correct.

The testing criterion and procedures are usually regarded as exceptional instruction instruments for the personnel concerned and verify that person realize their responsibilities and can carry out them effectively. It is indispensable that the procedures be systematically tested and evaluated on a regular basis. The test will offer the organization with the guarantee that all required steps are incorporated in the Business Recovery procedures.

Other reasons for Business Recovery plan testing consist of the following:

- establish the practicability and compatibility of recovery plans, recovery procedures and supporting manual workarounds;
- recognize areas in the recovery procedures need to be modified;
- provide training to the BCP team
- reveal the capability of the business unit/section(s) to recuperate;
- exhibit the capacity of IT service providers to meet business objective;
- Provide inspiration for maintaining and updating the recovery procedures.

Test Register										
S.No	**BCM item**	**Disaster/Issue**	**Test Frequency (Based on One Year)**	**Mitigation**	**Time**	**Date of Trial (dd-mon-yyyy)**	**Actual Recovery Time**	**Status Found**	**Remarks**	**Action Plan**

Figure 2. A sample template of test register

Frequency of testing: Test should be conducted as often as possible, Executive prospect, test objectives, the maturity of the planning practice and system/process criticality are all factors when deciding how often to test. If the university is working on multiple areas then the frequency of testing the plan should be kept high.

Types of tests[2]:

- Procedure verification tests.
- Desk check or board room type testing.

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[2] *ISACA® InfoBytes, Business Continuity Plan Testing: Considerations and Best Practices, By Brian Zawada, CISA, CBCP*

- IT environment (systems and application) walk-through.
- Simulation (e.g., full-scale interdependency testing and walk-through)

3.9 Auditing Business continuity plan

Auditing business continuity plan is very important step in establishing that the whole business continuity planning process is effective over a period of time. As stated within the standard, Information Systems Audit and Control Association's (ISACA) periodical "Information Systems Control Journal, Volume 4, 2005", business continuity management is an ongoing process of risk assessment and management with the purpose of ensuring that the business can continue if risks materialize.

The objective of audit is to provide guarantee that the university business continuity process convenes a suitable level of quality by assessing the university's business continuity plan.
The audit of business continuity can be broken into three major components:[3]
1. Validating the business continuity plan
2. Scrutinizing and verifying preventive and facilitating measures for ensuring continuity
3. Examining evidence about the performance of activities that can assure continuity and recovery

A successful audit review of business continuity plan can help to expose many deficiencies and operational lapse that cannot be identified during testing and issues that have been ignored in the design of the plan. Hence, an audit of the business continuity plan should be done at least at yearly intervals in addition to the periodic testing by the BCP team.

3.10 Improving Business Continuity Plan

Routine continuance provides for the continued improvement of the procedures, assures that they think about and reacts to all changes in the environment, keeps staff known with the business continuity strategy and recovery process, and provides for continuing testing. After the test results are executed, verified by management, in parallel assessed, and reported to the board, it may be essential to renew the BCP and test program. During the improvement process, the recovery plans, risk assessment process and recovery test plans must be reviewed by top management and the BCP planning team least once a year. The team or coordinator should contact deans throughout the university at regular intervals to review the nature and scope of any changes to the university structure, systems, software, hardware, personnel, or facilities. If noteworthy changes have occurred or if audit result necessitates changes to the recovery plans or test program, the business continuity plan, guidelines and program requirements should be restructured accordingly. Additionally, an autonomous evaluation of the revised recovery plans and test program should be performed by an auditor to guarantee that both are comprehensive and restructured based on the university's risk profile and test results. The process of updating the recovery plans and the test program requires BCP team to document, track, and in the end determine any essential changes by revising the recovery plans, the test program, or conducting supplementary tests, if deemed indispensable.

4.   Benefits of the Approach

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[3] ISACA, Control journal, Volume 1, 2005 Auditing Business Continuity By S. Anantha Sayana

There are many benefits of the approach which we suggested for development of Business Continuity Plan in an educational institution. This approach helps one not only to work "right" but work "smart". By applying PDCA (Plan, Do Check, Act) cycle along with a detailed risk management technique each and every event which can cause potential harm to an educational institution can be identified, even those once which no one can foresee today but later in the course of time can shock the university management. This approach also helps to develop a fully fledged recovery plan which can be invoked in case of disaster. Applying the principles of PDCA ensures that the Business Continuity Plan is effective over a period of time and is embedded in the culture of the organization and at regular intervals new events are identified and accordingly mitigated.

5. Conclusion

Till date it is assumed that principles of Business Continuity are applicable only to profit making organization but today no one can deny the fact that there are wide ranges of events which can disturb normal functioning of the educational institutions, but ironically these issues are always kept at low priority, however there is need of a framework of Business Continuity Management for the educational institutions and should be part of their general planning program. Also the business continuity plan should be seen as an ongoing process rather than one time exercise. The above mentioned approach not only addresses all issues of Business Continuity planning with reference to educational institutions but also helps to build a framework of BCP for an educational institutions applying which the University/ College can not only protect their processes but also can run their activities in case of disaster and disruption.

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