

# **eLearning Operational Risk Assessment and Management: A Case Study of the M.Sc. in Management Program**

Sathima Patomviriyavong, Boonyarat Samphanwattanachai and Thanomsak Suwannoi

M.Sc. in Management Program, College of Internet Distance Education,  
Assumption University, Bangna Campus,  
SCIT Building, Bangna-Trad Km. 26, Bangsaothong, Samutprakarn 10540  
psathima@yahoo.com, boonyaratSmp@au.edu, thanomsakSwn@au.edu

## **Abstract**

*This paper focuses on the eLearning operational risk assessment and management framework of the Master of Science in Management (M.Sc. Management) program at Assumption University. It is important to make the effective eLearning risk assessment and management for administrative managers to establish preventive measures that are aligned with the strategic directions of the program. The paper analyses how university administrators can identify operational risk factors involving with the eLearning operations. Four major types of operational risk involving with eLearning are assessed as the content risk, technological risk, people risk, and process risk. Further, this study proposes a way to measure operational risks using Key Risk Indicators (KRI) which are considered the effective Operational Risk Management (ORM) tools for assessing the eLearning program. Lastly, the study suggests the ORM approaches related to its eLearning operational risks. For instance, there should be efficient allocation of resources and separation of administrative functions in an academic program.*

## **1. The Importance of Operational Risk in eLearning**

Historically, operational risk management (ORM) has centered on the

business operations and been managed internally within the business lines. Modern business organizations can devise effective internal control mechanisms complemented by an external auditing process to assess and manage their operational risks.

For university administration, however, risk management is not well termed. In a traditional framework, classroom operations at the university levels concern mostly on the pedagogical issues and designs. University administrators got into operational risk management unexpectedly and circuitously through their assigned positions. They run naturally through years to establish risk mitigation policies and procedures. Thus, risk management is something that (university) administrators have absorbed until it became an integral part of the role and responsibilities (Finstam, 2005).

As eLearning evolves with the speed of technological development, its operations cover more than just the conventional elements involving with the traditional classroom teaching. New Information Technology (IT) is changing the ways teaching and learning is conducted. Thus, systematic front- and back-office operations must be in place to ensure smooth operations and effective learning. For example, eLearning relies crucially on the Internet as a medium of communication. A technical glitch can deteriorate learning effective, causing frustration to students and ruining reputation of a university. Technical fiascos

are known to cause direct losses and indirect damages to the business organizations. For instance, Ameritrade, a U.S. brokerage firm, admitted that, through its database management, it lost tapes containing account information on up to 200,000 customers (Cohn, 2005). With technological dependence, an eLearning program holds no exception for possible technical hiccups.

This article addresses a conceptual risk management framework that can be applied to a management of an eLearning program. It combines organizational theories with actual operations of the Master of Science in Management (M.Sc. Management) program at Assumption University. The paper is organized as follows. Section II discusses how university administrators can identify operational risk involving with the eLearning operations. Section III assesses operational risks using Key Risk Indicators (KRIs). Section IV provides a framework for ORM in an eLearning program. Section V concludes the paper.

## 2. Identifying eLearning Operational Risk

The Basel Committee on Banking Supervision defines the operational risk as *“the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events”* (Jorion, 2005)

The British Bankers' Association categorizes operational risks into internal and external risks resulting from people risk, process risk, system risk, and pure external risk. For example, errors from the employees, reporting errors, and programming errors are part of the internal risks resulting from the people, process, and system. External risks are, for instance, regulatory changes, political upheavals, and, simply, a theft (Jorion, 2005).

Operational risk may have no clear-cut definition. But, it certainly has a serious implication if one mismanages it. Operational risk is not the risk that one would take willingly; it is a byproduct of the business operations (Sandman, 2005). Thus, a good ORM must ensure that both front-and back-office functions provide direct supports to the operations.

In eLearning, principles of accountability and learning effectiveness apply. Major types of risk involving with operations of eLearning courses are from preparation of the courseware (content risk), Internet speed (technological risk), facilitating instructors (people risk), and eLearning course administration (process risk). Each is discussed in turn below.

- Content Risk

The M.Sc. Management eLearning program invites experts in relevant fields to prepare the courseware contents for the M.Sc. Management courses. Unless they are those who have published their works extensively in journals, written books in their respective fields of interests, or have years of experience in their fields of expertise, the M.Sc. Management program incurs a risk of having insufficient academic and business contents in its courseware.

- Technological Risk

The M.Sc. Management eLearning program relies critically on the speed of the Internet broadband. A system's fall-down, a heavy traffic over the information highway, and availability of the broadband in certain geographical areas can cause monetary losses and reputation damages to the program.

- People Risk

The M.Sc. Management eLearning program employs facilitating instructors to oversee its eLearning courses at a ratio of 1 instructor per 40 students. Some instructors

are well-equipped with IT knowledge and comfortable working online with students. Some are otherwise. The program thus bears the risk that certain facilitating instructors may not be up to the learning speed of the students. Several students may log-in to the system and post inquiries at their convenient time. It may be difficult for one instructor to correspond to 40 students in a timely manner.

- **Process Risk**

eLearning is rather new in Thailand. To design an appropriate administration framework to accommodate eLearning courses is challenging. The M.Sc. Management currently sets the Program Director as an administrative manager together with administrative staff to look after the eLearning operations. The existing administrative system is considered sufficient but not satisfactory. With limited experience of its taskforce and eLearning infrastructure, the M.Sc. Management program is exposed to several unforeseeable events.

### **3. Assessing eLearning Operational Risk**

Cohn (2005) suggests to first assume that anything that can go wrong will go wrong (known as the Murphy's Law). Then, strategies and methods should be properly devised to accommodate everything on the list that can go wrong in your operations. This is a risk assessment and management in a nutshell.

A more systematic risk assessment can be classified into the top-down and bottom-up approaches. The top-down model measures operational risk at the firm-wide level first while the bottom-up looks at individual business units (Jorion, 2005).

Regardless of the approaches, tools that can be used to measure and manage operational risks can be internal auditing process, self-assessment reports, statistical

probability models, and key risk indicators (KRIs). This article centers its discussion on KRIs as an effective ORM tool for eLearning. The KRI is simply indication of the presence of the operational risks (Jorion, 2005). The KRIs could be, for instance, staff turnover and sales volumes. These objective measures can provide early warning signal to administrative managers to foresee damages and thus mitigate the problems in advance.

Suggested KRIs for the M.Sc. Management eLearning program are:

- Changes in the number of students enrolled in the program from one semester to another.
- Number of students dropped and transferred from the program.
- Number of complaints received from the students (classified by types of concerns, e.g., about the Internet speed, the contents, and the eLearning instructors).
- Number of matters posted on the webboard of each eLearning course (e.g., questions pertaining to assignments and quizzes and a response from the eLearning instructors).
- Staff and faculty turnover in the program.

### **4. Managing Operational Risk in an eLearning Program**

Finstam (2005) states that administrative managers should not only identify, assess, and manage risks but also take into account the strategic directions of the organization. He suggests some general ORM concepts summarized as follows.

- One rather goes for having an average plan and a good team than having a good plan and an average team. In ORM, it pays off to build expertise of individuals to tackle the unforeseeable events.

- An organization should allow people to specialize in certain areas. Again, this conception will allow staff to establish specific skills to handle unexpected situations. Further, a separation of functions should be clearly stated. When an event occurs, it should be apparent who is in charge and who should be stepping back.
- One should plan for re-engineering an organization. Provided that IT changes at a rapid rate, for instance, a plan to reconfigure the IT systems should be in order.

In general, the M.Sc. Management program manages its eLearning operational risks using the internal control and external control approaches which can be described as follows.

- Efficient allocation of resources.

Putting the right person to the right job is a fundamental concept in good management. The M.Sc. Management program trains its administrative staff to deal with issues promptly. Unlike classroom teaching, complaints from eLearning students come at a speed of the Internet. A commercial Call Center is appointed to be the first port of call for all concerns from the students. Then, the M.Sc. Management administrative staff and faculty members take turn to look after the forwarded issues.

- Separation of functions.

Internally, there is a clear distinction of job assignments and responsibilities for the M.Sc. Management administrative staff and faculty members. Externally, the M.Sc. Management program commissions Samart Telecom Public Company Limited (SamTel) to manage the IT solutions for its eLearning contents and technical administration. The program is thus able to concentrate only on the learning effectiveness of its students.

- Dual entries of transactions.

Inputs should be cross-checked or matched from two different sources. eLearning students register for courses and make a payment of tuitions online administered by SamTel. The M.Sc. Management program crosses check the transactions with the Bank of Ayudhya to verify the registration and payment by its students, transaction by transaction.

- Confirmation and verification of command.

The database of the M.Sc. Management students is maintained internally and externally (at SamTel). A permission to update the database is required. The program centralizes the confirmation and verification of all administrative orders.

- Internal and External Audits

A formal auditing process provides valuable information on potential weaknesses and problems in an organization and business process. Currently, the M.Sc. Management Program Director performs an internal audit by cross-checking concerned issues through relevant parties. An external audit is subject to the University's Quality Assurance team. Both internal and external audits are at present limited.

- Warning system.

Given an appropriate set of KRIs, a warning system is in place to give early warning signs to the administrative managers.

## **5. Conclusion**

To help achieve an effective ORM, Finstam (2005) suggests certain questions to be addressed. Does your organization have a formal risk management policy? And, has the policy been effectively communicated to everyone in the unit? Who is in charge of the risk management in your division? What do

you consider to be a major risk factor in your work? And, do you really understand the risks you are dealing with? These questions are not trivial in modern business organizations. On the other hand, educational institutions pay little attention to enterprise risk management. Only do pedagogical designs and issues receive substantial consideration. University administrators naturally absorb and initiate risk management policies through experience and trial-and-error processes.

This article provides a fresh route to the university administrators involving with eLearning operations and addresses risk management in a systematic way. The paper refers to the eLearning operations of the M.Sc. Management program at Assumption University as a case study. It identifies four major types of risks involving the program: the content risk, technological risk, people risk, and process risk. Each of these risks has been mitigated to a certain degree. For instance, there is an academic committee to view the contents of each courseware production and facilitating instructors are knowledgeable in their respective fields as evident by their educational background and work experience. The program also teams up with a technical partner to provide IT solutions to its eLearning program to minimize technical glitch. Further, through a well-planned ORM, eLearning course administration is well under controlled.

The paper also suggests how key risk indicators (KRIs) can be identified to provide early warning signals to the administrators. A discussion ends with how operational risk can be managed in a systematic framework.

What left off from this paper is a discussion of regulatory compliance. For private universities in Thailand, the Commission of Higher Education oversees curriculum development and academic standards. It is thus by design that each program in the private universities must

comply with regulations set forth by the Ministry of Education. Thus, compliance is not considered as a risk management burden in this article.

## **6. References**

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