RISK MANAGEMENT MODEL FOR AL-AIN UNIVERSITY OF SCIENCE & TECHNOLOGY, UAE

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Abstract

Risks are defined as something or somebody impacting adversely upon organizational objectives. Plans must be available to anticipate and manage such an occurrence. Risk management will, therefore, include identification, analysis, prioritizing and remedying such problems. The risk management also identifies opportunities that may exist. The risk management of Al-Ain University of Science & Technology, Al-Ain, UAE, is provided with collaboration between the colleges and university administration. We have developed a risk management model for Al-Ain University in conjunction with the development of new programs and in co-ordination with the Deans' Council and other administrative units through Deans and/or colleges' committees in line with the standards set by UAE Commission of Academic Accreditation. It is expected to have risks such as failure of Information Technology, loss of key personnel, budget deficit, shortage of faculty members, co-ordination risk and local and International Accreditation risk. We will restrict our study to these risks only, leaving thereby the scope of further studies. The paper also include some recommendations for the implementation of the plan

Keywords: Risk Management, University, Risk Management Plan, Accreditation, Co-ordination.

1. Introduction

Like an industrial organization, higher education institutions are also growing and developing to a level where precautionary measures become necessary to sustain its progress, reputation, and stability. To meet this requirement, Higher education institutions also have to keep in mind their vision, mission and objectives like the other commercial or business organizations always do. Frequent and incremental changes in the environment they operate are taking place. These changes are putting forward challenges to the higher education institutions in the form of, transparency, accountability, new competitions and variable consumption pattern which was never before there and are seen as a risk to be managed in a systematic and planned ways.

For this reason, the president, deans, and higher authorities are taking care of the commercial and business challenges to manage the risk involved in their institutions in the similar ways. Higher

education institutions can be said to perform well only if they are able to manage the risk in a proper way. Due to this reason, the need for a regulatory body is felt which will constantly supervise and control the institutions risk- taking.

According to the Higher Education Funding Council for England (HEFCE, 2001), the first step in looking at risk management is to understand what risk itself means. A frequently used definition of risk is "*the threat or possibility that an action or event will adversely or beneficially affect an organization's ability to achieve its objectives*".

It is very difficult to find everyone agreeing to have a single practice of risk management. Researchers about the theory and practice of management indicate the relationship between different types of risks, which refers to "*situational characteristics of the activity meaning uncertainty of its outcome, its possible adverse consequences, alternative option of error or success*" (Praisner, 2009). For sustainable and effective development, the organization should conduct targeted risk management to implement the plan successfully, because it makes the relationship between the investor and the organization much stronger (Praisner, 2009).

(El-Refae & Belarbi, 2015) have developed a working management model which has been established at Al-Ain University of Science & Technology (AAU). Their model is driven by adopting the standards of the UAE Commission for Academic Accreditation (CAA, 2011). They tried to set CAA standards for guidelines of the governance of all academics and non-academic units of the AAU. In a similar manner, we will develop a working management model for the risk management in Al-Ain University of Science & Technology, Al-Ain, UAE, because so far none of the authors has taken up this in the perspective of UAE higher education institutions.

According to the UAE Commission for Academic Accreditation (CAA), Ministry of Higher Education and Scientific Research, any proposal for the accreditation of any program, should demonstrate awareness of risks of all aspects of the initiation of the program and its delivery. So it is necessary for any higher educational institute, before applying for any program accreditation to have a concrete process for managing the risk (CAA, 2011).

The objective of the paper is to implement the risk management standards of the CAA and for that reason these standards are taken up as a model for the AAU risk management. The CAA risk management standards are short and ambiguous statements. We are going to investigate international journals and good practices of higher education institutions to point out the explanation for the mentioned standards which fits in the current situations of the AAU. The Main focus of the paper is to develop a risk management plan to achieve the academic mission of the institution. Risks mentioned in this paper are relevant as per CAA standard and the government policy of UAE, and for that matter ,some other risks which are relevant to other countries or institute are not considered in our model because those are beyond the scope of the university administration.

2. Literature review

It is very difficult to find any organization to have a risk-free environment. Risk management will only succeed if it is permitted to operate its assets safely, protect its finance well and keep

always improving its services. This bridges the deficits of trust in the stakeholders (Ruzic-Dimitrijevic & Dakic, 2014).

Exposition of different types of risks is a common feature of any organization and for that reason; there should necessarily be a risk management plan in place. Risks involved must be explored, estimated and managed. This method enables the organization to find out the sum total of risks and relation between them (Berg, 2010). From the perspective of the organization, risk management is a continuous, proactive and system based process. Thus, it enables to make proper strategic decisions which help in the achievement of the objectives of the organization.

(Helshoot & Jong, 2006) divided the risks into three main areas. This division into its forms identifies the various elements that have its role to play in the safety and security in higher education. The three main areas are:
- Social safety and security.
- Organizational safety and security
- Security of knowledge

The risk of fire is regarded as a primary risk of physical safety and is included in first and the second areas of division of risk.

(Raanan, 2008) is surprised not to find risk involved in the academia taken seriously. He found that only a few authors such as Menoni (2006), Watson (2004), Graven (2007), and Gabel (2008) wrote about risks in higher education. Most of the scholarly works on risk management did not cover non-profit organizations of universities.

(Hargreaves, 2008) discovered that most of the academic literature of risk management have not addressed the issues of risks involved in academia. He further suggests taking minimal risk of the curriculum designing.

(Austin, Browne, Haas, Kenyatta, & Zulueta, 2013) were surprised, why not like in the healthcare and construction sectors, the project management as a method is adopted and practiced in higher education. They were also concerned to find how this approach can benefit the higher education in dealing with the risk management. Effective Project Management delivers the results needed to achieve a strategy in a unified way while alleviating overload of subject matter with experts or high performers and granting unified project management processes and tools for success across the entire university. There is more to higher education than the department one works for. The faculty members of the university should be taken into confidence in their contribution to the project management.

(Dorfman, Ferguson, & Ferguson, 2006) suggests that for the development or maintenance of risk management in insurance (RMI) education programs, the basic and fundamental courses must be recognized and the adopted curriculum evaluation issues should deem practically feasible to the hierarchy of policy makers in higher education.

A decrease in the number of registration of new students in higher education institutes lowers down the brand reputation of the institution. (Beneke, 2011) suggests that just in a way similar to other brands, an institutional brand has also the effect when it reduces expected threats of risk for

consumers (the students) and allowing the institution some sort of stability in the community it serves to. He further added that brand management has a role to play in building relationship between the institution and key stakeholders, as well as increasing the exposure of the institution in the community it serves.

 (Hommel & King, 2013) observed that the risk management in higher education as compared to the business school has not been taken seriously, because of that; there is no theoretical basis for it. The entrepreneurial approaches of business schools are taking them much ahead in taking risk organization as compared to the higher education institution. Governments have now taken serious note of it and have asked higher education institutions also to have a set of risk- based regulations.

(Middlehurst, 1999) mentioned that higher education is affected by some new actualities that are likely to affect it, especially by those arising from developments in communication and information technologies. The question then arises whether the leadership and governance are prepared to cope with the change? Enlightened strategic institutional plans should be in place which depends only on the ideas of the management hierarchy.

 (Murzagaliyeva, Aushakhman, & Gumarova, 2013) examined the risks and threats to the system of higher education together with the factors that contribute to risk reduction. In a market economy, every organization, from its activities, must constantly study and predict a change in the internal and external environment. It is necessary to use SWOT analysis, through evaluation of opportunities and threats coming from the outside, and to identify strengths and weaknesses of the organization. The most important factor of economic growth and competitiveness are the development and implementation of effective innovation process of organizational and commercial characters. It is crucial to consider the risk that is an inherent part of market activity. Consequently, risk analysis and identification of remedies to minimize them are a couple of the pressing problems of today.

3. Risk Management Plan

"The institution has a detailed risk management plan which defines various sources of risk (for instance, natural disasters, failure of information technology infrastructure, loss of key personnel, financial risks arising from insufficient enrollment, loss of access to learning resources, cessation or insufficiency of access to clinical training sites), assesses their severity, and identifies strategies to avoid, reduce, or ameliorate them" (CAA, 2011).

The colleges in the AAU have developed risk management plans for the development of the new programs in co-ordination with the deans' Council and other administrative units through the Deans and/or colleges committees.

Risks are defined as something or somebody impacting adversely on the new program objectives. Strategies must be available to anticipate and manage such an occurrence. Risk management will, therefore, include identification, analysis, prioritizing and remedy such problems. The risk management also identifies opportunities that may exist. The management of

risk is provided with collaboration between the colleges and university administration. The objectives of risk management are:

- Understand and manage significant risks.
- Ensure awareness of risks and its consideration in decision making.
- Delegate responsibility where employees will be responsible for managing risks.
- Monitor and review through formal documentation of the remedies to the risks.
- Report to the university president the encountered risks, implementation of remedial process and the results of such implementation.
- Provide transparency about risks encountered or anticipated. The committee of risk management should inform the dean's council and council of trustees about the risks.
- Provide the necessary financial resources and operational capability to efficiently treat the encountered risks.
- Identify opportunities that may become available resulting from the risk management process.

Risk analysis is carried out to separate minor risks from the major ones. The analysis provides datum that will contribute to the evaluation of the risk and the offered solution. Risk assessment goes through procedures. The qualitative risk analysis identifies the risk taking place both internally and externally. Internally, it takes place because of large faculty attrition rates and for that, we must know when and how it could happen. External risk takes place when there are no training sites for the students. Assessment of the consequences of this problem should properly be done.

The types of risks are classified according to the assessment of consequences after looking at the severity of their impact. They are classified as major, moderate and minor. The major type of risks involves the attention of the senior management represented by the president, the chancellor and the board of trustees. Moderate risks require the attention of the college dean and maybe resolved in collaboration with the university president and a third party. Minor risks are normally resolved within the college. Problems are usually discussed within the college council to determine solutions and to delegate responsibilities for implementing the solutions amicably arrived at. It is worth noting that some minor or moderate risks may escalate to become a major risk if not addressed in time. The following are the sources of risks faced by all colleges in the AAU, followed by suggested remedies:

3.1. Failure of Information Technology Infrastructure:
By the failure here we do not mean the error committed by the user or due to poor directions, or user guides. In fact, these are easily solvable by the IT technicians. We here actually mean the failure of the infrastructure itself which in turn is the result of the failure in the network infrastructure or the service infrastructure.

Issues relating computer hardware, software, telephone systems, networks, services, data, and other information that is available at the AAU to support and facilitate the teaching, research and administrative functions of the colleges are contributing to the information technology infrastructure. Several steps are taken to prevent failure, damage or misuse of the system and these are outlined in the IT policy of the university (Al-Ain University of science & Technology, 2015). The policy outlines the measures taken to preserve the integrity of the IT infrastructure

and prevent the loss of information including regular backup and the storage of the backup devices in a bank safety box.

Furthermore, the IT department also carries out a policy of extended warranties on the purchased items generally not less than 3 years. For example, all newly purchased PCs, servers, and office telephones have 3 years warranty while switches have 10 years warranty.

3.2. Loss of Key Personnel and Recruitment Difficulties:

For all colleges in the AAU, the university president, the college deans and faculty members work as a team and represent the key personnel. The faculty handbook (Al-Ain University Of Science & Technology, 2015) outlines the rights, benefits and responsibilities of the faculty that matches with other well-reputed universities in the country and the region. Additionally, the university pays attention to rare specialization and distinguished research activities of the faculty. In the case of loss of any of the key personnel, the university advertises through human resource department and official channels immediately to fill up the post. There were several cases when the university president resigned or was laid off. The vice president then took over the position for the continuation of the systems in the AAU, till a new president was appointed.

3.3. Financial Risks:

In general financial risk of higher education institutions implies the assessment of income and expenditure and its ability to manage them (Toma, Alexa, & Sarpe, 2014). There are two types of resources in higher education institutions. One of them is coming from the state (in our case it is from the board of trustees) and the other are from the resources such as a large number of enrollment by the students in different programs and through the participation in international or domestic projects (Ruzic-Dimitrijevic & Dakic, 2014).

A new program in any college of the AAU will be offered with an anticipation of around 60 student's enrollment annually for both campuses in Al Ain and Abu Dhabi. The main source of income (revenues) for the colleges and the university at large is from the tuition fees. These fees are used to support the university infrastructure and pay for the employees' wages. Therefore, any reduction in the number of enrolled students in any program will have a direct effect on the ability of the university to continue running the program while it is getting losses. Although the university administration is capable of tolerating temporary losses, but a continuous loss might not be acceptable.

If the number of students falls below 30 enrolled students for three consecutive years, then an action would be taken. Finance managers and others will have their input into this risk. There are several solutions to such problems depending on the severity, source and the nature of this problem. The main reasons for such reduced numbers of student's enrolment could be growing competition from existing and potential competitors, possible loss of public support and shifting attitudes of students toward other specialization or reduction in the number of expatriates in the country because of the Emiratization (nationalization), even though expatriate students are still in the minority in the AAU.

In any one of the above-mentioned cases, one or more of the following solutions will be considered:

- Reduction in the number of faculties by terminating their contract as stipulated in the faculty handbook.
- Raising student tuition fees to cover the running cost.
- Advertisements for the program to attract more students.
- Offering other programs utilizing the existing infrastructure of the current program such as MBA in a specialized area accompanied by the BBA.
- Termination of the program by halting the acceptance of fresh students but allowing the existing enrolled students to graduate.
- The University could bear a minor loss of the new program for the first three years until the situation becomes stable and better. The university has altogether six different colleges. The profit from current programs and the quite strong financial position of the AAU may contribute well to cover potential losses for a new program, especially for the first three years.

3.4. Access to Training Sites:

The colleges require access to training sites to implement their capstone course of "Internship" as mentioned in the study plans of the university. The Internship is carried out both at governmental organizations and private sectors. According to our experiences, the risk arises from the lack of training sites and/or limited numbers of placements. Additional risk may come from a prior approval requirement of authority such as from the Ministry of Labor. Moreover, some good companies do not want any outsider to go inside their premises, office or working sites and hence they do not agree to accept any trainees.

The major risk may arise if, for example, the authorities on the UAE decide not to allow expatriate students to undergo training in the public sector, but this is very unlikely to happen. To deal with such cases the colleges will try to arrange training with institutions outside the public sector or even outside the country, preferably in the student's own country. An agreement with certain overseas institutions may be sought for this purpose.

Trainers and supervisors have been found to be lacking seriousness to train the students. The remedial action, in such a case, is to allocate money for such preceptors so that they can be motivated to take active roles in training and evaluation. A contract for this purpose may be signed with them. Fees to them should be paid for each trainee.

Most of the colleges are running different numbers of programs and all of them have a smooth system to follow internships. Because of our students being citizens of this country, having strong connections with governmental and private organizations, there is no dearth of training facilities. Also, a good number of our students are already employed so they manage their internship easily. Students of the College of Business Administration, for instance, have wide opportunities to join training sites. The business world includes, as known, banks, hospitals, governmental services and generally business sector.

It can safely be concluded that the expected graduates of any new program will also find sites as their previous colleagues succeeded in doing so. The colleges have decided to build an official network of successful training sites and it may organize a dinner party periodically to welcome and pay thanks to the field supervisors who helped the university in implementing their objectives related to the internship.

3.5. Non-Permanent Campuses

Although the university started its programs in rented villas, there has always been a determination to move in permanent, self-owned buildings in a suitable location. A non-permanent campus on the one hand poses a threat to the programs as it undermines the image of the university, and is also subjected to the tenancy litigation on the other. Furthermore, the university now has moved from the villas in Towayya in Al Ain city to a centrally located university designed premises. Al-Ain campus is quite wide and can absorb quite a few new programs. Even though the Al-Ain campus is old but there is a continuous effort in maintenance. The university has the plan to add new buildings in a span of two years.

Abu Dhabi campus made an expansion by renting extra four villas. The place is somehow narrow. The board of trustees determined to address the problem to a real conclusion. Now, the plans are underway to have new buildings (new campus) in Abu Dhabi city (Mohammed bin Zaid suburb). It is expected to move there in a span of a few months.

3.6. Accreditation Risk

All the colleges in the AAU have accreditation from the CAA. To compete with the regional universities, the AAU has started working seriously to secure international accreditation for all the colleges. Recently in the month of May 2015 the College of Pharmacy have got initial accreditation from the Accreditation Council for Pharmacy Education (ACPE International, 2012) and many colleges like Engineering and IT is ready to submit initial reports for securing initial accreditation from (ABET, 2015), while the College of Business Administration is seeking an accreditation from the AACSB international (AACSB, 2015).

There is hidden fear among the colleges that international accreditation is a tough task to achieve but the higher authority of the AAU is determined to achieve this target at the earliest possible time frame. The CAA checks the quality of each program after the graduation of the first batch of students. Then, there is still a risk or a fear to have or not to have full accreditation of all programs.

The university is aware that failure to comply with the accreditation standards of the Ministry of Higher Education and Scientific Research (MOHESR) would result in the withdrawal of accreditation and this will not only have a devastating effect on a program but to the reputation of the university as a whole. Therefore, the colleges seek a good collaboration with MOHESR represented by the Commission for Academic Accreditation (CAA). The colleges represented by their administration and the university administration feels that complying with the standards is not the target by itself, but it is a way to achieve excellence, to get recognition and achieve the viability of a program and its college. The colleges are completely familiar with mandatorily required standards of CAA for accreditation of any program (CAA, 2011). The AAU has its own institutional effectiveness system which is already being applied for continuous improvement.

3.7. Co-ordination Risk

Every university / college in the UAE offering same programs in different campuses is expected to have a strong co-ordination between them, so that *"The governance structure, faculty and*

other personnel, facilities, services, and academic programs of multiple-campus institutions ensure that students attending any campus receive an equivalent educational experience and achieve the same learning outcomes" (CAA, 2011). There is a strong need for the process of the evaluation and assessment of the activities of all the campuses (University of Sharjah, 2012).

The AAU has two campuses- one in Al- Ain and the other in Abu Dhabi and both are in the UAE. Common courses offered have a strong co-ordination between the two campuses. Faculties of both the campuses meet twice with each other. Once they meet in Al-Ain and the other in Abu Dhabi and a record of these meetings is maintained in course portfolios of each campus. Further co-ordination aspects include:

- Similar study program with regard to No. of credit hours, study plans, pre-requisites.
- Same courses' syllabi should be followed and distributed on both campuses.
- Unified final exams with same model answers and marking scheme for grading answer sheet of the students.
- Final grades for students should be according to same grading scales on both the campuses.
- The program outcomes, the subjects that contribute to the outcomes and the tools should be the same in both the campuses.
- Teaching methods in both the campuses should be compatible with the courses' outcomes.
- Course portfolios at both campuses should be maintained in a similar pattern.

The new building in Abu-Dhabi campus will be ready in a year, the university may offer more programs in Abu Dhabi because they are already being offered successfully in the Al-Ain campus and consequently, the campuses might have a risk co-ordination. The situation would be much more riskier if the university opened a third campus.

3.8. Marketing Risk
Failure in marketing is regarded as the failure of the administration to take a lead in establishing affiliation and collaboration with other local and foreign universities and agencies. Marketing is also affected by the programs offered and their reputation. The college of Business Administration, for instance, has got a membership at "The Association to Advance Collegiate Schools of Business" and currently in the process of getting full accreditation. The college administration has good relationships with the local community via various activities made with them. The university has signed cooperation with the Sidi Mohamed University of Morocco which will strengthen its market value as a respected university.

There always exists a relationship between the institution and its important stakeholders. Therefore, it is necessary to have some sort of marketing strategy to highlight the brand reputation of the institution to the community of beneficiaries (Beneke, 2011). The university has the plan to set up a new marketing office along with the existing public relations office. The new office will be in charge of organizing marketing campaigns. This office will contribute to promoting the new and existing programs and attract students for enrollment. There is still a risk of marketing since there are good competitors in the surrounding region.

3.9. Safety
Safety is related to a condition that results in the protection of the students, faculty and administrative staff from the physical, occupational, or educational hazards. The university gives

a greater emphasis to this area. The AAU is particularly concerned about this issue; therefore, the AAU should appoint a safety officer for this purpose. Moreover, College of Engineering & IT and College of Pharmacy are more prone to the risk of fire due to the nature of their Laboratories. Colleges should organize regular safety drill to learn how to behave during such emergencies. College staffs and students should be made aware of the fire exits in the college buildings. The new current campus of Al-Ain and the new Abu Dhabi campus have wide areas for such drill. This kind of activities can be carried out in coordination with the civil defense department.

Additionally, the colleges should make sure that electrical wires were not trailed along the floor and that no one walks on slippery floors while it is wet due to cleaning. Since the university provides the college staff and their families with health insurance plans, this will be useful in case of injury to cover the expenses. The contract of health insurance is made with the "Al-Hilal Takaful" which provides wide access to most of the private hospitals.

(Helshoot & Jong, 2006) Suggest that there is a need for auditing the higher education's safety and security issues. The AAU has safeguarded their building with fire extinguishers. The university enjoys the full and modern infrastructure in the city of Al-Ain and the capital city of Abu Dhabi. In the case of any emergency situation, we can get support from the civil defense department within short notice of time. We have experiences in the past of fast arrival of ambulances and civil defense staffs to the site of the emergency. The AAU campus is located in an area which is close to most of the hospitals and civil defense departments.

3.10. Opportunities
The management of risk may also result in the creation of opportunities. As the colleges offer postgraduate programs with several concentrations, the new programs may open the door for upgrading the existing programs themselves to the postgraduate programs in the same discipline. New master degree programs, such as in Business or in Law, are quite in agreement with the vision of the university and its strategic plan. In addition to that, the new programs will also improve the quality of our community services as well.

The per capita income of the UAE is high enough and is similar to some developed countries of the world (Al-Jundi, 2012). Because of this, the families might prefer to send their wards to private universities.

The population growth rate in the emirates of Abu-Dhabi is more than 7 % which is considered to be one of the highest rates in the world (SCAD, 2015). The number of expected graduates from the high schools is quite high and can create a perceived demand for the services of the AAU.

The university enjoys from the increasingly positive attitude of the government to encourage and support financially their local employees to get their bachelor degrees. The opportunities mentioned above may eliminate the risk encountered by the university.

4. Delegation of Responsibilities for Risk Management

The CAA seeks clear evidence that "*The institution has clearly delegated responsibilities for risk management*" (CAA, 2011). In order to effectively manage risks within the colleges, responsibilities must be delegated. It is important to note that such management is the jurisdiction of the top administration of the university. The following are the distribution of responsibilities:

4.1. Faculty/Staff Member
Every faculty/staff member of the college is responsible for the identification of potential risk and its effective management. Assignments to the faculty/staff will be given by the college council for the application of measures in managing specific risk. In the light of previous experiences from the existing different programs in different colleges, each department can regularly discuss current challenges and problems. The minutes has to be documented, and suggested solutions have to be assigned to the faculty for implementation.

4.2. Quality Assurance Committee
There is a quality assurance committee in each college of the AAU, which plays a key role in identification, analysis, prioritizing and remedying such risks and ensures that the program goals are met.
Assessment process of this committee involves the following steps:
- Defining and reviewing program goals.
- Deriving program learning outcomes.
- Identifying and designing assessment tools.
- Establishing an achievement target for each assessment measure.
- Conducting the prepared assessment tools, analyzing data, and getting results.
- Students' attainment of learning outcomes should be improved by implementing development plans of actions.

The committee coordinates its works with the college councils and the University Academic Quality Assurance Committee (AQAC) and the deans' council.

4.3. The College Council
The College Council is accountable for the establishment of a risk management system and its implementation in accordance with the university policy. The College Council is headed by the College Dean. Assignment of responsibility in relation to risk management is the responsibility of the College Council. The council discusses in every meeting the issues regarding quality assurance, challenges, and new problems. The Dean will coordinate with the Deans' Council to ensure that adequate resources are allocated to solving specific threats. He/she will also undertake the responsibility of communicating certain tasks to the concerned department/unit within the university or a third party outside the university.

4.4. The Deans' Council
The Deans' Council will play a major role in risk management. Its role will be:
- To lay down the foundation for establishing a culture of risk management within the university. This includes: Firstly, specifying whether the university as a whole is 'risk taking' or 'risk averse' or to what level of risk it can tolerate in specific cases. Secondly, types and levels of acceptable and unacceptable risks must be identified.
- To set the standards and expectations of faculty/ staff with respect to professional conduct.

- To determine the AAU risk prioritization practice.
- To approve major decisions that may affect the risk profile of the AAU or its exposure.
- To monitor the management of basic risk cases.
- To review the AAU approach to risk management and approve any changes or improvements suggested for some elements of processes and procedures.

Several units, committees, and departments of the university may be formed and given the responsibility to handle certain risks or related tasks either by direct orders from the university president/vice president or through the Deans' Council. These entities include the finance manager, library director, AQAC and HR manager.

4.5. Third Party
The College Dean in coordination with the College and Deans' Councils may contact a third party to analyze, assess, resolve and/or improve the risks related to the program goals. Typical examples include the sponsorship of an external review team for the new program and contracting with external establishments to conduct students' internships. The college may seek agencies for advertisements and employment for rare specialization.

5. Financial Resources for Risk Management

The CAA stated that "*The institution has appropriate levels of liability and other insurance—or designated financial resources—to provide adequate replacement protection for its physical facilities and equipment and to cover the potential liability of personnel*" (CAA, 2011).

Refer to the standard of Fiscal Resources set by the (CAA, 2011), the operating costs should include insurance and contingency amount. The university allocates contingency amounts of 20% to the total operating costs in order to reach reasonable and adjusted figures about their costs when they design their budget in the beginning of each year. Contingency amounts annually increase with the corresponding increase in operating costs. The university has a budget committee which includes a couple of Finance professionals in addition to Finance manager.

This process aims at planning to raise extra funds from the start to be used in urgent and unexpected situations like the increase in the governmental fees or the rise in the prices of inputs of production process like electricity, textbooks, and rent as well as an unexpected breakout of fire.

Apart from this and in order to guarantee liquidity during the coming years, the operating costs have been reconsidered by taking into account the impact of a 3% inflation rate on prices of inputs and wages. The tuitions and other fees to be collected from the students were assumed to be steady.

Due to our experience, the university did not suffer a lack of liquidity since we have well established six colleges. The total profit of the whole university is capable of covering urgent expenses. Thus, we can conclude that, under the worst-case scenario, the university will be able to keep up with its commitments in the coming operating years even in the case of insufficient revenues due to rises in the profit from current programs offered in the AAU.

6. Approval by the Governing Body

 The CAA declared that "*The risk management plan, delegation of responsibilities, and insurance coverage for identified risks, are approved by the governing body on at least a biennial basis*" (CAA, 2011). The role of the operational management of the institution by the higher authority and that of the governing body, in setting up of the direction and the institutional value are different from each other (Kelvin kt, 2013).

The risk management plan, delegation of responsibilities and financial resources for risk issues are approved by the College and Deans' Councils. It is important to mention that the university annually makes a budget after a careful analysis of gathered information from different departments, colleges, and supporting services units. The budget includes expenses of current programs and new projects.

A new program is a result of deep discussion started from the concerned department. However, to contact the CAA, we need an approval from the college council, the Deans' Council, the chancellor and the board of Trustees in this order.

Refer to the university catalog 2014/2015 (AAU, 2014); the board of trustees is the legal body in charge of the whole institution and its policies. The board shall secure financial resources to adequately support the institutional goals and approve the annual budget. The chancellor of the university is responsible for following up the implementation of the adopted strategic plan.

Conclusions

1. The appendix shows a model of risk management of Al-Ain University of Science & Technology.
2. Failure of IT infrastructure can be avoided by having a regular back-up and storage of back-up devices with extended warranties and also by having regular maintenance and up gradation of networks.
3. Loss of key personnel should not frequently take place and it can be avoided by having a suitable and stable recruitment policy which emphasizes on taking care of specialization and remuneration of the prospective personnel.
4. Financial risk shows its ugly face due to poor enrollment, increase in operational cost and insufficient cash flow, but this can be compensated by the fast collection of fees, offering new programs, adequate marketing, and proper management of cash resources and sometimes raising tuition fees.
5. Loss of access to learning resources can take place due to fire break and due to the shortage of the textbooks and reference books, library database, insufficient technology supports to the faculty members. This can be avoided by proper allocation to our budget for purchasing books and lab equipment and other facilities.
6. We may have insufficient faculty members because of loss of university reputation and salary differences with the contemporary universities which do not help in retention of existing faculty members.

7. Risk of accreditation leads to a sudden drop in the enrollment of students causing thereby the loss of both the reputation and the revenue of the university.
8. The co-ordination risk implies the ineffective follow-up between campuses.
9. Some other issues such as the breakout of fire, campus violence, student insurance plan, and natural calamity are beyond the scope of this paper to consider and address them.

Recommendations

1. There should be proper wiring of electric connections inside the labs to avoid accidents causing damage to computers and injury to students.
2. Fire safety should be emphasized and regular drill exercises should be there to create awareness and learn safety measures for students, faculty and staff. It will also protect the further damage of books in the library. If it happens, it will cause a great loss to the university.
3. A delegation of responsibilities and accountability should be dealt with seriously.
4. Faculty should not be uncomfortable with facilities available for teaching and research.
5. Salaries of staff and faculty should be compatible with another university in the area.
6. Academic development of the faculty members should frequently be done by organizing workshops and seminars. Faculties should be provided with new laptops at an interval of every two years.
7. Our Model is a university specific in the UAE. So our study was limited to the development of risk management plan of the AAU only. There exists a possibility of further research on this issue if someone includes a number of universities from UAE or including the universities from different countries and do an analytic study.
8. A probabilistic study of the risk involved is another issue for further research to prioritize a particular risk in the risk management plan.

References

AACSB. (2015, June 27). Retrieved June 2015, 2015, from AACSB international: http://www.aacsb.edu/
AAU. (2014). *The University Catalog 2014/2015*. Retrieved June 29, 2015, from Al-Ain University of Science & Technology: http://aau.ac.ae/en/university-catalog/
ABET. (2015). Retrieved July 3, 2015, from ABET: http://www.abet.org/accreditation/
ACPE International. (2012). Retrieved July 1, 2015, from Accreditation Council for Pharmacy Education: www.acpe-accredit.org

Al-Ain University Of Science & Technology. (2015). *Future Staff.* Retrieved June 24, 2015, from Faculty Handbook: http://aau.ac.ae/en/future-staff/faculty-handbook

Al-Ain University of science & Technology. (2015). *IT center Vision and Mission.* Retrieved June 25, 2015, from www.aau.ac.ae: http://www.aau.ac.ae

Al-Jundi, S. (2012). Economics Diversification in UAE. *Economic Horizons, 33*(122).

Austin, C., Browne, W., Haas, B., Kenyatta, E., & Zulueta, S. (2013, september). Application of Project Management in Higher education. *Journal of Economic Development, Management, IT ,Finance and Marketing, 5*(2), 75-99.

Beneke, J. (2011). Marketing the institution to prospective students - A review of Brand (repution) management in Higher education. *International journal of Business and Management., 6*(1), 29-45.

Berg, H. (2010). Risk management: Procedures, methods and experiences. *Risk Management, 1*(17), 79-95.

CAA. (2011). *Standards for Licensure and Accreditation.* Retrieved June 15, 2015, from CAA, UAE Ministy of Higher Education and Scientific Research: www.caa.ae

Dorfman, M., Ferguson, W., & Ferguson, T. (2006). Curriculum design in risk management and insurance education. *Journal of Insurance Issues, 29*(2), 158-178.

El-Refae, G., & Belarbi, A. (2015). University Governance and Education Quality: AAU Model. *26Th Business and Economics Society International Conference* (p. 25). Al-Ain,UAE: www.besiweb.com.

England, H. E. (2001). *Risk Management: A guide to good practice for higher Education institutions.* HEFCE.

Hargreaves, J. (2008, August). Risk: the ethics of creative curriculum. *Innovation in education and teaching international, 45*(3), 227.

HEFCE. (2001). *Risk Management: A guide to good practice for higher education institutions.* Higher Education Funding council for England.

Helshoot, I., & Jong, W. (2006, September). Risk management in Higher Education and Research in the Netherlands. *Journal of Contingencies and Crisis Management, 14*(3), 142-159.

Hommel, U., & King, R. (2013). The emergence of risk-based regulation in Higher education: Relevance for entrepreneurial risk taking by business Schools. *Journal of Management Development, 32*(5), 537-547.

Kelvin kt, L. (2013). *Governance Code and Supporting Guidance of the Governing bodies of Higher Education Institutions in Scotland.* GOOD HE GOVERNANCE.

Middlehurst, R. (1999). New Realities for Leadership and Governance in Higher Education. *Tertiary Education and Management, 5*(4), 307-329.

Murzagaliyeva, A., Aushakhman, D., & Gumarova, S. (2013). Risk Minimization in Higher Education Under the Requirements of Quality Improvement. *2nd International Scientific conference on Econmic and Development*, (pp. 601-604). Paris, France.

Praisner, A. (2009). *Balanced Scorecard system in the marketing and Sales.* Moscow: Gorbennikov Publishing House.

Raanan, Y. (2008). Risk Management in Higher Education - Dowe need it? *11th Toulon-Verona International Conference on Qulity in Services. 44*, pp. 43-56. Firenze University Press.

Ruzic-Dimitrijevic, L., & Dakic, J. (2014). The Risk Management in Higher Education Institutions. *Online Journal of Applied Knowledge Management, 2*(1), 137-152.

SCAD. (2015). Retrieved June 28, 2015, from Abu Dhabi Statitics Center: http://www.scad.ae/

Toma, s., Alexa, i., & Sarpe, D. (2014). Identifying the Risk in Higher Education Institutions. *Emerging Marketing QueriesinFinance and Business. 15*, pp. 342-349. Procedia Economics and finance.

University of Sharjah. (2012). *Campus Coordination.* Retrieved June 29, 2015, from University of Sharjah: http://www.sharjah.ac.ae/en/Administration/

Appendix

RISK MANAGEMENT MODEL for AL-AIN UNIVERSITY OF SCIENCE & TECHNOLOGY, Al-Ain, UAE.

Risk	Technique	Determination	Strategy	Responsibility
Failure of information technology	Avoidance	-Failure of infrastructure. -Failure of network and services.	- Regular backup and storage of backup devices. - Extended warranties. - Upgrading networks. - Regular maintenance.	IT Center
Loss of key personnel	Reduction	- Repeated changes in top administration and colleges' deans.	- Pay attention to rare specializations. - Keep track of the distinguished researchers. -Stable recruitment policy. - Existence of vice president and deputy deans. - Offer appropriate financial numerations to key figures.	University administration and HR department
Financial risk	Elimination	- Reduction of enrolled students. - Increase operating costs. - Increase bad debt. - Insufficient cash inflows.	- Fast collection of fees. - Offering new programs to attract more students. - More advertising to promote the new programs - Occasionally, raising tuition fees. -Adequate policy to control and manage cash resources.	University administration and Finance department

		- Shortage in the textbooks, references, library databases. - Insufficient technology support in the classrooms and labs. - Insufficient professional library and IT staff. -Lack of access to training sites.	- Set appropriate budget for the library & labs. - Regular checkups of the computers in the labs. - High quality technology devices. - Provide updated lab tops for faculty. -Cooperation between all parties to develop the library and IT facilities. - Accessibility of electronic resources by students and faculty. - Continues public relation with business community.	
Loss of access to learning resources	Avoidance			University administration, Library and IT center
Shortage of faculty members	Reduction	- Lack of qualified faculty members. - High competition. - Rare specializations.	- Provide faculty development programs. - Encourage the promotion of existing faculty members. - Update policies and processes for advertising, recruiting, and appointing faculty members.	University administration and HR department
Accreditation risk	Elimination	- Denied accreditation by CAA will sabotage the existence of the college programs. - Denied accreditation by international bodies affects the reputation of the colleges. - Reduction in the number of enrolled students.	-Full compliance to accreditation standards. - Collaboration with MOHESR represented by CAA. - Complete cooperation with international accreditation bodies.	Deans and faculty members

Co-ordination risk	Elimination	- Ineffective coordination between the two campuses	- Continuous coordination at the college and departments level. - Face-to-face contact - ensure using the same textbooks and syllabi	Deans, deputy deans, and faculty members