Review of Literature: Implementation of Enterprise Risk Management into Higher Education

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Abstract- Due to rapid growth of the world economies in the past few decades, the importance of implementation of risk management into strategy formulation of any type of organizations has been understood by many establishments. The nature of variety of unexpected risks upcoming are increasing due to rapid competition, fast pace technological developments and varying behavior of customers which is difficult even to predict. Educational institutions have not been able to escape from these unpredictable risk components as they also expose to the same amount of uncertainties as other business organizations under the present situation. Implementation of enterprise risk management into business organizations as well as higher education institutions has become popular in the recent past and there have been many research studies carried on the importance of the topic. Many international organizations also have taken the leadership to helping risk managers of organizations under this dynamic atmosphere in selecting the best risk management approaches following the most appropriate standard and guidelines to assess the strengths and weaknesses of their entities. This paper presents the findings of the theoretical literature review and the empirical literature review carried out on the topic of implementation of enterprise risk management into higher education institutions.

Key Words- ERM, TRM, COBIT 5, COBIT 2018, COSO ERM updates, ISO 31 000 and S&P.

1) Introduction

The purpose of this paper is to discover the findings of the critical literature review done on the topic of implementation of enterprise risk management into higher education sector as a risk management tool using the deductive research approach. A comprehensive literature review has been implemented in this study in order to discover the theoretical background and also to reveal the empirical evidences from past research studies conducted by scholars, practitioners and specially by institutions who were interested on risk management especially of higher education sector.

Amidst this rapidly changing, ambiguous and dynamic environment, businesses today struggle for the survival and to achieve the sustainable growth of their organizations increasing the value for their shareholders. It has been identified the poor practices of Traditional Risk Management (TRM) approach were the main courses for the recent global crises (Sithipolvanichgul, 2016). It is advocated that a proper risk management solution is needed to resolve problems and challenges faced by businesses in this dynamic work settings. Under this situation, Enterprise Risk Management (ERM) has emerged as an effective solution to safeguard businesses from the possible disasters and optimizing the value of the firm enhancing the benefits for stakeholders. ERM is defined by Karaka, and Senol (2017) as a risk management process which will cover the overall risk profile of the enterprise minimizing the damages from negative events and maximizing the benefits of positive events. Alawattegama (2018) explains that ERM has gained the attraction of the modern day corporate leaders as an effective approach in managing the institution-wide risks.

The essential elements to survive in this dynamic, modern economy are the adoption of businesses according to the changes in the market place and utilization of the prevailing opportunities understanding the science of making correct choices as every choice from operational to strategic are involved with various types of risks (IRM, 2018b). Rubino states that risk brings positive outcomes to an organization, not only the negative outcomes therefore, firms should properly manage the risk factors in order to create a value to the stake holders of the firm (2018).

Risk management is not a new concept as the notions and the risk management principles have been accomplished since the 17th century in Europe though the insurance industry first introduced the transition of risk through insurance system during the period of 1950s. Many businesses at that period were tired of hazards fallen on them unexpectedly making their businesses in disasters (Lundquist, 2017). The contingency planning concept appeared as a vital tool in risk management of business organizations in late 1960s as insurance companies did not sufficiently safeguard the firm's assets, watch over the business operations and defend the firms from complete losses due to risky acts (Karaca & Senol, 2017). Traditional Risk Management (TRM) thereafter became widespread as a silo base mechanism to manage the risk of organizations mitigating each risk type independently (Beals, Fox & Minsky, 2015). Alawattegama stresses the inefficiency of TRM as a risk management approach due to the fact that each risk is addressed individually to identify and assess the impact onto organizations in TRM. The major concern of risk mitigation is the establishment of risk limits and the utilization of the risk for value creation. The concept of Enterprise Risk Management (ERM) emerged later as a holistic and cohesive approach in risk management which will amalgamate all the risk types and incorporate them into the overall objectives of the organization. ERM therefore gained the magnetism of the modern commercial world as an effective risk management practice which will create and protect the firm value while enhancing the solidity of the firm in the long run (2017; 2018). ERM added a paradigm shift to the risk management domain permitting firms to appraise their risk attitude, identify and prioritize risk and group the risk factors as acceptable, mitigated or completely avoided categories. The major emphasis of ERM is the development of an overall strategy for the firm facilitating the adoption of ERM best practices with the discretion of all the relevant stake holders (COSO, 2017; Sithipolvanichgul, 2016). All organizations currently are stern on setting business strategies and appraise them continuously not to slip-off any of the upcoming opportunities in the market place which will help enhancing the firm's value while managing the challenges expected to occur (COSO, 2017).

Business organizations that are small or large in sizes are anticipated to face high volatility in the market place, uncertainty in revenue streams, complexity and ambiguity of customer behaviour according to the World Economic Forum (WEF). In order to face with these exciting risk factors, the effective implementation of enterprise risk management is pivotal for a business organization in the next decade to come (IRM, 2018b). Players in the higher education sector have not been able to escape from the challenges coming from internal factors such as the governance structure, risk attitude of the management and size of the institutions as well as external factors such as globalization, regulatory pressure and from other unpredictable uncertainties. Many of the Higher Education Institutions (HEIs) today consider integrating Enterprise Risk Management (ERM) into their strategy formulation in order to keep them ready for facing the consequences bringing up by the challenges (Lundquist, 2015). Whitfield (2003) state that HEIs need to establish a continues process to identify risks they face and likely to face in the future and focus on the effective implementation of ERM system as the consequences of missed opportunities are significant and critical than ever.

In Sri Lanka, higher education is a flourishing industry and has become a popular business in the past two decades due to high demand especially in the developing countries with less employment opportunities with high competition for well-paid jobs. This is proven by the Sri Lankan higher education market where rapidly grown in the last few years with the maximum support from the government. Too many private higher education institutions established in Sri Lanka have risen the competition making a battle among the institutions getting recruitments as they all run for-profit thus revenue through student numbers. Challenges coming for these institutions expose them to new unexpected risks due to radical movements in the market in terms of changing behavior of students, speedy technology advancements, changing rules and regulations and mostly the perceptions of the general public on the quality of the education of the private higher education institutions (Kulassoriya, 2019).

2) Literature Review

This paper presents the findings from the literature review carried out using electronic versions of journal articles and research publications on the topic of guidelines for the effective implementation of enterprise risk management in to business organizations. The definitions of risk, risk management and the enterprise risk management and the international standards and frameworks that provide guidelines for the decision makers in the process of ERM implementation are found in the study.

2.1 Definitions of Risk, Risk Management and Enterprise Risk Management (ERM)

ERM is an integrated risk management process which will cover the overall possible risk types that businesses are vulnerable to face and is applied to mitigate risks (Karaka & Senol, 2017). Beals, Fox and Minsky (2015) state that ERM promotes the awareness of the risk factors in the top management and helps them in making decisions. Beals et al further insists that an effective decision making process increases the performances of the firm while reducing the cost of capital (2015).

ERM has emerged as a holistic risk management approach replacing the TRM silo approach in the last decade realizing the importance of having a proper risk management system in organizations as no more firms can tolerate financial losses causing from unexpected events, disruptions to normal operations, damage to reputation and loss of market presence (IRM, 2018b). Implementation of a proper ERM system enables the firms to improve the decision making process related to strategy formulation where different strategic options are fully analyzed to reach the best strategy and enables the firm to make the risk adjusted tactics. ERM further helps to identify the possible events that will disrupt the operations of the entity and facilitates to reduce the likelihood of these events limiting the loss of occurrence. Compliance area can be enhanced by the implementation of ERM best practices recognizing the statutory and customer obligations well in advance and providing solutions avoiding the possibility of risks associated with those compliance issues (COSO, 2004).

Sithipolvanichgul (2016) expresses that the poor practices of Traditional Risk Management (TRM) were the causes for the recent global business crises and emphasized the need for the implementation of ERM mainly because entities can deal with all internal, external, strategic, operational, compliance and reputational risk types through ERM approach. Pooser cited in Sithipolvanichgul (2016) endorsed the idea that the ERM took the greater attention of the business community since the early 2000s and was doubled after the major financial crises (2008-2009) that destroyed the long-term value of big business giants like Enron. As a result, ERM has been largely given the focus by academic researchers and business practitioners in the recent past as the risk management is a critical business function and an essential tool for the survival of the organization.

Despite the popularity of the ERM as an effective approach in risk management, only a little empirical evidence is available to prove that ERM adds a significant impact to the existing value of the firm. Many research studies conducted to prove the significant impact of ERM implementation on the performances of the firm ended with contradictory outcomes where most of them concluded that no significant, positive relationship between ERM implementation and the firm performance (Alawattegama, 2017 & 2018; Karaka, & Senol, 2015; Barac, 2015).

2.2 Theoretical literature Review

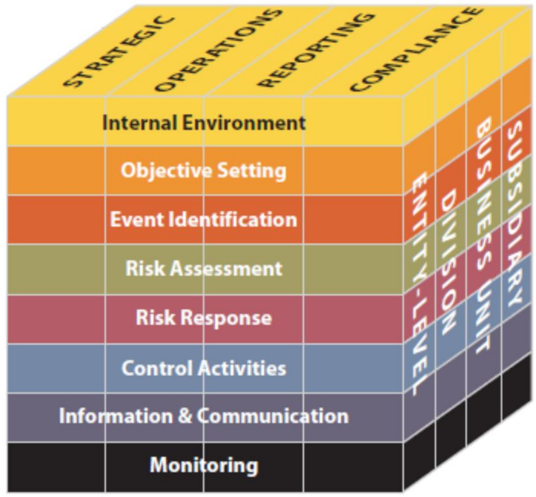
The literature review of this study revealed many international standards and frameworks that are recommended by international organizations for institutions to make use as guidelines in applying in their risk assessment and risk mapping processes. Rubino (2018) in his study, compared the ERM standards recommended by several institutions and ERM frameworks are published and revised over time, but commended that these standards still have some limitations. Organizations if expect to implement ERM best practices into their institutions, in order to enhance the firm’s value then it is mandatory for them to select the best ERM framework suitable to their capabilities and limitations via a proper mapping. The choice of the suitable framework is based on the experience and knowledge of top management that have gained from internal and external control processes which has made ERM very idiosyncratic (Pundervolt, 2017; Vollmer, 2015).

Principles and guidelines for the correct selection and the effective implementation of the suitable ERM framework are given by various frameworks such as: 1) COSO ERM – Integrated Framework (2004), 2) COSO ERM Integrating with strategy and performance Framework (2017), 3) Casualty Actuarial Society Framework (CAS, 2003), 4) International Standard for Risk Management (ISO 31000, 2009), 5) ISO International Standard for Risk Management (31 000: 2018), 6) COBIT 2019 :Framework of the Information Systems Audit and Control Association for customizing and right-sizing enterprise governance of information technology and 6) Standards and Poor’s Enterprise Risk Management: analysis into *Corporate Credit*.

1) *Enterprise Risk Management - Integrated Framework by COSO (2004)*

The Committee of Sponsoring Organization (COSO) of the Treadway Commission of USA developed the first ERM model in 1994 and modified it in 2001 and finally improved this model named *Internal Control-Integrated Frameworks* in 2004 with eight interrelated components, four categories of objectives and four levels in the enterprise. The main purpose of developing this model was to helping entities to defend the firm's value and enhance share holders' wealth with the underlying philosophy of value maximization while adjusting risk (COSO, 2004).

Figure 1: Enterprise Risk Management – Integrated Framework developed by COSO (2004)



Source: COSO (2004)

The COSO (2004) model provides to a firm, the foundation how to focus on ERM implementation as a whole or by categories, components or by units. In order to assess the effectiveness of the ERM implementation, the functionality of the eight components in each department will be judged by assessing the existence which will give the pledge to the board that the strategic, operational, reporting and compliance objectives of the firm are well achieved. The existence of these eight components however will vary according to the size of the organizations but, may have applications that are more or less complicated and structured (COSO, 2004).

Since the initiation of the model, organizations that are in different sizes, different industries and in different countries have been successfully using this framework to identify risk factors, manage identified risks and to achieve the objectives of the firm (COSO, 2017). According to Sithipolvanichgul, COSO–2004 framework is the mostly accepted ERM framework by entities especially in the accounting literature (2016). However, this framework yet has some limitations and potential for improvements (Rubino, 2018). Practitioners proposed to inspecting some features of the framework with more wisdom and precision to provide greater comprehension into the links between strategy, risk and performance (COSO, 2017). Gjerdrum et al as cited in Sithipolvanichgul (2016) state that the COSO 2004 framework is a composite, many-sided and a complicated model that many organizations found it difficult to understand. Responding to all the arguments and suggestions, Committee of Sponsoring Organizations updated the COSO 2004 framework in 2017.

2) ERM - Integrating with Strategy and Performance Framework by COSO (2017)

COSO Enterprise Risk Management – *Integrated framework* (2004) model was improved to the ERM – *Integrating with Strategy and Performance framework* (2017) paying the major emphasis on how ERM informs the strategy and its performance and provides the framework for the board and the senior management of entities in all sizes. It exhibits how the ERM implementation can quicken the growth and thriving the performance of the firm. This model contains principles that can be applied in formulation of strategies. This publication has two parts as 1) the offering of the perspective on current and evolving concepts and 2) the applications of enterprise risk management. ERM – *Integrating with Strategy and Performance framework* (2017) framework alarms for the management, the board of directors, the governing boards and owners on the use of enterprise risk management in decide on and refining the suitable strategy for a firm scrutinizing the alternative approaches.

COSO 2017 framework explains the risk oversight role of the board in reviewing, challenging and concurring with management on establishing suitable strategies and the risk appetite for a firm, aligning the strategies with business objectives, mission and the vision of the firm, making decisions including mergers, acquisitions, funding and dividend-distribution decisions. COSO 2017 further supports in retorting to significant oscillations in firm performances, responding to deviation from core values, approving management incentives and remuneration and maintaining in investor and stakeholder relations.

Five interrelated components of COSO 2017 model covers a set of 20 principles under naming 1) governance and culture, 2) strategy and objective setting, 3) performance, 4) review and revision and 5) information, communication, and reporting.

Figure 2: Twenty principles under five components of the COSO (2017) framework

Source: COSO (2017)

3) Casualty Actuarial Society Framework (CAS, 2003)

Casualty Actuarial Society framework which was formed in 2003 focuses on an ERM Committee and summarized the ERM process applied in 2003, taking the Australian/ New Zealand risk management standards (AS/NZS 4360) as the guide lines. The objectives of the Casual Actuarial Society framework are similar to the objectives of the COSO (2004) framework and ISO 31 000 frameworks. The major focuses of all these frameworks are the maximization of the firm value accomplishing the set objectives of the firm. Casualty Actuarial Society framework recommends the formation of an autonomous risk management structure for implementing the ERM practices into an organization (Sithipolvanichgul, 2016).

4) ISO 31 000: 2009 – The International Risk Management Standards

International Organization for Standards (ISO) has been established as an independent, non-governmental organization with the purpose of conveying the experts to stake their knowledge and to improve international standards to boost novelties and to provide solutions to persisting global teething troubles, now has a membership of more than 160 national standard bodies (ISO 31000, 2009). ISO 31 000: 2009 version of the standards was developed by the technical committee of ISO on risk management to provide the guidelines and principles for the decision makers revising the Australian/New Zealand risk management standards (AS/NZS 4360) (Javaid & Iqbal, 2017).

Although, ISO 31 000 provides guidelines for all the organizations regardless the size, type or activities and locations to manage risk of all types it does not provide requirements. This framework was developed by a range of stake holders and recommended for risk professionals as well as for others who are involved with risk management strategy formulation. The main aim of this framework is to improve a risk management philosophy where all the stake holders of the organization are fully aware of the significance importance of watching and handling risk.

ISO 31 000 offers direction to recognize both positive opportunities and negative consequences involved with risk and provides the foundation for making effective, accurate and timely decisions in the resource allocation process. It is an open, principle based system which will enable the organizations to apply these principles and standards matching with the context of the firm. The major merit of ISO 31 000 risk management approach is the capability to detect the risk owners, which is a must for the answerability, proper communication and for implementing training programmes throughout the organization (ISO 31 000:2009).

ISO 31 000 framework delivers a concept with the risk management is at the center which is linked to the objectives of the organization which will be useful in planning, managing and governance of the corporate (Sithipolvanichgul ,2016). Further, it is emphasized that it is not mandatory for transferring to ISO system if an entity has already implemented COSO framework as there are many commonalities in between these two approaches. Sithipolvanichgul (2016) further argues that the definition given by ISO 31 000 for the risk term misapprehends the exact meaning of the risk and distort the organization to make illogical judgements as there are no any mathematical basis in ISO 31 000 standards and have limited use of probability, data and models.

ISO standards are reviewed in every five years to guarantee that the principles and guidelines are pertinent and update to meet the needs of the market. The latest version of ISO 31 000 was published in 2018 seeing the evolutionary changes in the market place and also to contest with the new challenges which present day organizations are exposing to.

5) ISO 31 000: 2018 – A Risk Practitioners Guide

Risk Practitioners Guide to *ISO 31000: 2018* was published by the Institute of Risk Management (IRM) as the revised version of ISO 31000 reviewing the present day challenges faced by entities and in allocating resources for ERM providing guidelines for professional standards related to risk management of all industries, all disciplines and all public, private, for profit or non-for-profit across the world (IRM, 2018b).

ISO 31000:2018 **-** *A risk practitioners guide* delivers better strategic instructions in comparison to its previous version of *ISO 31 000: 2009* and provide more emphasize on involvement of senior management on risk management and the integration of risk management into the firms’ decision making process. This framework acclaims the improvement of policy documents clarifying the role of people involved in risk management such as chief risk officer, auditors and compliance officers. This new framework emphasizes the significance of inserting the risk management into the organizational structure, processes, objectives, strategy and daily operations of an entity. ISO 31 000: 2018 framework has rationalized the content of the previous *ISO 31000:2018 - A risk practitioners guide* due to receiving many criticizes from practitioners and academics about the complication of the content and the difficulty of understanding the technical terminologies of the earlier version. ISO 31 000:2018 framework has more useful information and affords clear guidelines for entities for the implementation of risk management practices easily. However, it does not provide step-by-step checklist for entities on ERM implementation process and risk management professionals are thereby challenged as they will have to implement their own methodology in executing ERM into their organizations (IRM, 2018b).

6) COBIT 5: Complete Business Framework for the Governance of enterprise IT

Presently, Information Technology (IT) contributes enormously in operational, administration, strategy formulation and in almost every discipline of the business entity. IT particularly backing existing business operations while opening-up new business ventures for organizations meantime exposing enterprises into novel set of extortions such as cybercrimes, errors and various vulnerabilities. Senior management though, have not paid considerable attention on IT activities before, but presently they pay much attention on IT affaires as they are much more depend on information systems (IS). The dimensions of the risks coming from IT activities are rapidly increasing and therefore attention of risk professionals also in rise on vulnerabilities (Javaid & Iqbal, 2017).

Information Systems Audit & Control Association (ISACA) has developed internationally recognized IT management framework which is named Control Objectives for Information and related Technology (COBIT) to help IT professionals and enterprise leaders to fulfill their IT governance responsibilities while creating the value to the business. COBIT framework contains a set of best practices for IT management and contribute to the business organizations in achieving their business goals. COBIT framework benefits businesses to improve, establish and execute strategies around information management and governance. COBIT 5 version of the framework was released in 2013 including more information related to risk management and information governance to its' previous versions of COBIT 3 (2000), COBIT 4 (2005) and COBIT 4.1 (2007) (White, 2019).

7) Standards & Poor's and Enterprise Risk Management

Standards and Poor's (S&P) has added ERM component into their credit rating analysis process since 2005, especially focusing the business sectors of Energy, Financial services and Insurance and introduced the same for non-financial sector in 2008. As a result, all financial and non-financial sectors should now focus on risk management culture and the strategic risk management philosophy of their entities in order to achieve a good S&P rating. Companies with good S&P rating have high capacity and greater access to external capital at lower borrowing cost due to the high confidence of the lenders (Sithipolvanichgul, 2016).

The precedence to the real value of ERM given by S&P's classifications create a culture of risk resilience with the ability to adapt to changes. The limitation of S&P's ERM rating is that, it is judgmental the assessment of the effectiveness of the ERM implementation. There is no any indication in the S&P's of any specific ERM framework and the implementation of the same to achieve objectives of the entity but, it mentions the components of effective risk management to be considered when assessing the risk management process of the enterprise (Hampton as cited by Sithipolvanichgul, 2016).

- ***New business opportunities are unwrapped:*** ERM will help management to identify new business opportunities and to unveil associated challenges considering both positive and negative aspects of risk.
- ***Identifying and managing entity-wide risk:*** every part of the business exposes myriad risks that will affect the entire organization. Risk may originate in one department may have inverse effect onto the other divisions. ERM supports the management to identify the sources of risks and the diverse impacts that are created by them in order to sustain and improve the performances of the firm
- ***Increasing positive outcomes and advantages while reducing negative surprises:*** Effective implementation of ERM facilitates the entities to improve their abilities of identifying risk and

establishing appropriate solutions, getting ready for facing shocks and surprises that will make unbearable losses.

- ***Reducing performance variability:*** performance variability occurs when the firm does not achieve the expected targets or outcomes and also when the scheduled targets exceeded. Both scenarios make the firm unrest due to unmanageable situations. ERM supports firms to anticipate the targets accurately in both the scenarios which will enable the firm to put forward proper actions required to minimize the disruptions of not achieving expected targets while utilizing the achieved over-targets through proper contingency action plans on managing overall need of resources, prioritizing resource deployment and enhancing resource allocation effectively.
- ***Enhancing enterprise resilience:*** the ability of an entity on accurately anticipating the future changes and ability of planning how firms are responding to these changes may decide the medium and long-term viability of that entity. Effective ERM provides the platform for the entity basically for the survival and also the guidelines for thriving the business into success.

In addition to the above benefits, the implementation of an ERM framework is the best tool for an entity as ERM facilitates the management for the selection of the most suitable strategy to their entity analyzing the risk factors aligning with resources with the mission and the vision of the entity in running the business successfully means the selection of correct choices and accepting trade-offs (COSO, 2017).

Enterprise risk management has no single theoretical definition as various organizations have come up with various definitions time-to-time (COSO 2017). Same organization even have refined their previously given definition after some time considering many external and internal factors.

The table 2 below summarizes some ERM definitions given by standard organizations for the concept of ERM and also the academic researchers who have referred those definitions in their studies in the past.

Table 2: Definition of ERM from International Standard Organizations

Definition by	**ERM Definition**	**Reference by previous literature**
COSO (2017)	“Enterprise risk management is not a function or department. It is the culture, capabilities, and practices that organizations integrate with strategy-setting and apply when they carry out that strategy, with a purpose of managing risk in creating, preserving, and realizing value. Enterprise risk management is more than a risk listing. It requires more than taking an inventory of all the risks within the organization. It is broader and includes practices that management puts in place to actively manage risk. Enterprise risk management addresses more than internal control. It also addresses other topics such as strategy-setting, governance, communicating with stakeholders, and measuring performance. Its principles apply at all levels of the organization and across all functions. Enterprise risk management is not a checklist. It is a set of principles on which processes can be built or integrated for a particular organization, and it is a system of monitoring, learning, and improving performance.	Rui and Yrjo (2018) Metricstream (2018) IRM (2018a) ISO (2019) Wheatly (2018)

	Enterprise risk management can be used by organizations of any size. If an organization has a mission, a strategy, and objectives—and the need to make decisions that fully consider risk—then enterprise risk management can be applied. It can and should be used by all kinds of organizations, from small businesses to community-based social enterprises to government agencies to Fortune 500 companies".	
COSO (2004)	"A process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives." Scope of Risk: 1. Strategic risk 2. Operational risk 3. Reporting risk 4.Compliance risk	Alawattegama (2017& 2018) AGB (2016) Barnett (2014) White (2019) Vollmer(2015)
ISO (2018)	"The purpose of risk management is the creation and protection of value. It improves performance, encourages innovation and supports the achievement of objectives. Principles include the requirement for the risk management initiative to be (1) customised; (2) inclusive; (3) structured and comprehensive; (4) integrated; and (5) dynamic. The purpose of the risk management framework is to assist with integrating risk management into all activities and functions. The effectiveness of risk management will depend on integration into governance and all other activities of the organisation, including decision-making. The risk management process involves the systematic application of policies, procedures and practices to the activities of communicating and consulting, establishing the context and assessing, treating, monitoring, reviewing, recording and reporting risk".	IRM (2018b)
ISO (2009)	"…coordinated activities to direct and control an organization with regard to risk" and defines the risk management framework as a "set of components that provide the foundations and organizational arrangements for designing, implementing, monitor, reviewing and continually improving risk management throughout the organization".	Yazdanpanaha & Saharkiz (2015) Rodrigo (2015) Soliman & Mukhtar (2017)
CAS (2003)	"The discipline by which an organization in any industry assesses, controls, exploits, finances, and monitors risks from all sources for the purpose of increasing the organization's short- and long-term value to its stakeholders." Scope of Risk: 1. Hazard risk 2. Operational risk 3. Financial risk 4. Strategic risk	Acharyya (2009 Gordon et al (2009)

S&P ERM Rating	"… is tailored to each insurer's risk profile and focuses on five main areas: risk management culture, risk controls, emerging risk management, risk models, and strategic risk management." <u>Scope of Risk</u>: All key risks in the risk register	Mc Shane et al (2011) Baxter et al (2013)

Source: Adopted from Sithipolvanichgul (2016)

2.3 Empirical literature Review

This section of the article presents the findings from the review of empirical literature on the topic of implementation of enterprise risk management into higher education sector. Electronic versions of journal articles and research publications on dissertations and theses were used in discovering the literature.

Due to the wide expansion of world economies in the recent years, higher education has become much popular than ever in every country regardless the location, type or the size of the country. The governments now allocate more funds and resources to enhance the higher education of their countries as they have realized the major role played by higher education in the economic, political and social sustainability of the country. Especially, in the third world developing countries with less job opportunities and high unemployment rate, parents are highly enthusiastic about the higher education of their children as they believe that it is the only way for a person to grab a job opportunity with high pay or to settle in another developed country like Australia, Canada or in the UK (Gunawardena, 2017). As a result, higher education is becoming a popular business venture and many people invest in the higher education sector considering the increasing high demand and the potential growth in the industry. There are many private higher education institutions run for-profit across the world as only a small contribution of the higher education is made by the state sector for free. Therefore, HEIs also run as business organizations and not been able to escape from the challenges what other business types are affected.

Barac (2015) state that the concept of risk and universities seems irrelevant as risk is normally associated with extreme sports, behavior of people, businesses and in the financial world. Universities are viewed them-self as ivory towers that are isolated and separated from the corporate world. It is regarded as a place which accommodate for deep thinking, discussing philosophical matters, theories and ideas in depth and as a place where future leaders, managers and investors are groomed but has nothing to do with the risk. The reality is however, the risk is a part of everyday life and universities and colleges like any other people or the businesses have to deal with the strategic, operational, financial, compliance and especially the reputational risk (Sabri, 2011). Despite their core education mission, universities and colleges are more like cities in terms of numbers, and variety of services offered. For example, University of Southern California operates up to twenty different businesses including food preparation, health care and sporting events (McShane, 2018).

The Higher Education Funding Council for England (HEFCE) defined the risk faced by HEIs are as the threats that an action or event will adversely affect an institution's ability to achieve its objectives (2001). HEFCE further state that purpose of institution-wide risk the management is to ensure that institutional objectives are more likely to achieve and less likely the things that damage the institutions to happen. The National Association of Colleges and University Business Officers (NACUBO) defined risk as any issues that will deviate the institutions achieving the set objectives (2007).

According to the former Enterprise Risk Management Director of Yale University, institutions involved in higher education are complicated businesses where millions of dollars are at stake but, they have not yet realized themselves as businesses (Lundquist, 2015). Universities have been blinded to many aspects of the outside world and one of them is the risk. Many universities and colleges behave traditionally with the hope that they can survive further without exposing to the world of changes. It is important bringing the concept of risk management to the academic world as it is an effective management tool to assist universities to achieve their strategic objectives (Sum &Saad, 2017).

2.4 Types of risks faced by higher education institutions

PricewaterhouseCoopers cited in Sum (2005) states that universities and colleges are undergoing a period of change, driven by the need to maintain and enhance the excellence in teaching, research and other services in order to survive in the rapidly changing environment. Higher education institutions also face similar types of risks faced by other business organizations named strategic, operational, financial, compliance and reputational risks (COSO, 2004).

The terrible incident of September 11, 2001 in the USA, the tragedy at Virginia Tec, devastation of infrastructure of universities and colleges by Hurricane Katrina, faculty conflicts on hiring and firing of university president and other similar issues pertaining to the disturbance of operations of the universities arisen in the recent past have opened up the eyes of the stake holders on the destructive consequences of risks in higher education sector spanning to quality and compliance issues, regulatory pressures, information security, natural disaster readiness, student safety, competition for faculty, student behavior and student mental health, discrimination of law suits, employability and reputation (Sabri, 2011; Barac, 2015; Whitfield, 2003; Weately, 2018; Pundervolt, 2017). In addition, some other risks are identified including variable tuition fees, increased competition for students, changing expectations of students, increased exposure and reliance on overseas markets, global competition and alliances, restructuring, huge investments on infrastructure, institutional expansion and large capital projects, commercialization opportunities, new and emerging technologies and involvement in partnerships and associations as risks for higher education sector.

In the Sri Lankan context, number of private HEIs operating grew rapidly in the past few years due to the incentives given by the government. According to statistics, in 2017 a 35% of the higher education enrolments reported to engage in private HEIs where only a 15% for the state universities (Kelegama, 2017). Though the number of private HEIs operating in Sri Lanka has grown from 45 to 88 within a period of two years, there is a debate on the qualitative shift in term of quality of delivery, infrastructure facilities for students, quality of curriculums and the leadership due to the nature of for-profit of these institutions (Kulasooriya, 2019).

Both public and private higher education institutions in Sri Lanka expose to all the risk types such as strategic, financial, operational, compliance and ultimately, the reputation that directly affects the enrolments thus the revenue (Kulasooriya, 2019). Kulasooriya further explains that the strategic risk that directly affect the ability of achieving the objectives of the institution through high quality delivery system, updated curriculums and programs that offer high employability while meeting the expectations of the students and parents. Operational risk affects the ongoing processes due to changing technologies, financial issues, human resources issues and meeting expected student enrolments due to high competition in the market. Compliance risk is occurred due to unconformity with the rules and regulations of the government and the partner institutions. Financial risk occurs when assets are lost from natural disasters and from terrorist attacks or from thefts. Reputational risk occurs when the general public perceptions on institution name, qualifications given and its operations are negative (Cassidy et al as cited in Sabri, 2015).

Proper understanding of the types of risks affecting the institution, correct estimation of the gravity of the harm it will bring if not the risk is managed and selecting the appropriate risk management approach is critical for a higher education institution to effectively manage the institution-wide risk achieving the expected performance.

Understanding the types of risks faced by the institutions is extremely important as it is to be managed properly placing in the strategy formulation. There have been many studies done in order to discuss the type of risks faced by higher education studies and the table 3 below shows the list of literature and the type of risk identified from each study which is related to the higher education risk management.

Table 3: The summary of common types of risks faced by Higher Education Institutions

Literature	Strategic	Financial	Operational	Compliance	Reputational	Technological	other
Rubino (2018)						/	
Pundervolt (2017)					/		
AGB (2016)	/	/	/	/	/	/	
Barac (2015)	/		/		/		
Dimitrijevic & Darkic (2014)	/	/	/		/		
Yazdanpanaha & Saharkhiz (2015)	/	/	/	/			
Beggan & Hester (2011)		/		/		/	
Boone (2004)						/	
CAS (2003)	/	/	/				/
Cassidy et al (2001)	/			/			
COSO (2004)	/		/	/		/	
Achampong (2010)		/	/	/			
Gallaghar (2009)	/	/	/	/	/		
Hubar (2011)		/	/		/		
Jamil & Saleh (2010)		/	/				
Kameel (2007)	/	/	/				
Kohhoutek (2013)			/	/			
Lundquist (2015)	/	/	/	/	/		
Mershreky et al (2012)	/		/	/			
AGB (2009)	/	/	/	/	/		
Achampong (2010)		/	/	/			

Sabri (2011)	/	/	/	/	/		
Sum & Saad (2017)	/	/	/	/	/		
Tafano (2011)	/		/	/	/		
Urmia (2007)	/		/	/	/		
Wheatley (2018)			/				
Whitfield (2003)	/	/	/	/	/		
Wilson (2013)		/		/	/		
Wilson at el (2010)	/	/	/	/	/		

Source: Literature Review of the researcher, 2019

3. Discussion

The terms “risk”, “risk management” and “enterprise risk management” have been given various definitions by international standard organizations, academics, researchers and practitioners and there is no universally accepted single definition for these terms. This has made a major confusion and an ambiguity among the practitioners and risk management professionals not having proper, consistent and uniformity in definitions. Therefore, it has risen the need for the development of proper, compatible and comparable international standards for enterprise risk management where any firm regardless the size, the type of business or the industry can commonly apply.

Many enterprise risk management frameworks have been developed by international standards organizations in the last two decades to combat the risk spectrum but, most of these standards focus on large scale businesses where well established systems and processes are in place plus risk management experts are on duty. Most of these international standards are specific for some special business types and provide generic guidelines for the strategic level but not for the operational level (Javaid & Iqbal, 2017).

Hampton states that COSO and ISO ERM standards are the most suitable frameworks to follow and implement ERM though, it is essential for companies to consider the indicators of effective risk management given in S&P’s framework. Mikes and Kaplan, Nielson et al., Tahir and Razali indicate that COSO is the most appropriate framework for ERM implementation and therefore have been used by many researchers and practitioners whilst S&P’s ERM component is widely used by insurance companies. CAS ERM framework is only used by a few academics in their research studies (as cited in Sithipolvanichgul, 2016).

It is tedious for an enterprise to select the most appropriate risk management framework for the self-organization yet it is the first step of the ERM implementation process. The selection, customization and the application of the matching standards and framework for an entity is a time consuming process with the commitment of an ample amount of resources which is difficult for small organizations to bear. In-depth knowledge is essential about the standards and frameworks as well as the good understanding of the strengths and weaknesses of the entities to consider adhering to any particular standard which requires the service of expert human resource again at high cost. Thus, the implementation/application of international risk management standards are still at a sour level in many organizations because of the poor level of understanding of the top management on the importance of effective implementation of enterprise risk management standards (Rubino, 2018).

This study attempts to discuss the importance of effective implementation of enterprise risk management into higher education institutions due to the fact that the use of ERM is a common practice in many business areas though, very limited attention has been paid by the higher education institutions on ERM. Financial and Banking sector focus on risk management as a part of their business and given major prominence for risk management in their strategy formulation process. Universities and colleges who believe to survive under their traditional way without reacting for the changes in the market and not getting ready to accept risks cannot be expected to sustain in the long run. The best universities in the UK who excel in research, teaching and attracting students around the globe even have not been able to escape from the challenges coming from unexpected activities. It is therefore, universities and colleges in any corner of the world is now necessary to get ready to face the challenges coming from various internal and external risk factors. In order to understand, manage and control risks of an institution, first and most important step is the identification of the types of risks faced by self- institution. The proper use of available resources to mitigate the identified risks is then become important and the selection of correct framework or the approach is another critical step. Finally, the effective implementation of ERM is expected to enhance the ultimate value of the firm.

4. Conclusion

This paper discussed the terms of risk, risk management and enterprise risk management given by various authors, the benefits of implementing an effective ERM system for an organization, the difference between the traditional risk management and the enterprise risk management and the international standards and frameworks available for organizations to choose the most appropriate framework for their work setting.

The process of selecting and implementing the most appropriate risk management framework for an enterprise is a complex and a time taking activity which varies from company to company. There are many factors influencing this whole process such as the organizational governance culture, the risk philosophy of the entity and the size of the organization.

There is a number of frameworks which is developed by international standards organizations in order to fulfil the need of having consistent and compatible guidelines for organizations to implement effective ERM systems. It is however, many of these frameworks have had some criticism from practitioners and from academics in terms of complexity and impracticality. Therefore, most of the international standard organizations tend to revise the framework periodically to overcome the limitations of the earlier versions and to include new strategies to combat new challenges upcoming in the market place. As a result, Committee of Sponsoring Organizations (COSO) has now developed two versions of their framework with the latest in 2017. International Standard Organization (ISO) has published the latest version of ISO 31000: 2018 adding new set of instructions and guidelines for organizations. Information Systems Audit & Control Association (ISACA) revised the COBIT 5 version in 2019 as a framework for customizing and right-sizing enterprise governance of IT considering the new trends, technologies and security needs into the framework. COBIT 2019 framework helps aligning business goals through linking IT with other functions of the business organization. Mikes and Kaplan, Agrawal and Ansell as cited by Rubino (2018), despite the updates of the frameworks covering the current risk factors, still there is a need for better frameworks in order to implement an effective and accurate risk management process as the existing frameworks are little integrated with the corporate control systems, including strategic planning and management control.

Higher education institutions regardless the country of origin, ownership or the governance structure, they all expose to all the risk types such as strategic, financial, operational, compliance and ultimately, the reputation (Kulasooriya, 2019) like other business organizations. The strategic risk affects the ability of achieving the objectives of the institution, operational risk affects the ongoing processes due to changing technologies, financial issues, human resources issues. Compliance risk is occurred due to unconformity with the rules and regulations of the government and the partner institutions. Financial risk occurs when assets are lost from natural disasters and from terrorist attacks or from thefts. Reputational risk occurs when the general public perceptions on institution name, qualifications given and its operations are negative. Proper understanding of the types of risks affecting the institution, correct estimation of the gravity of the harm it will bring if not the risk is managed and selecting the appropriate risk management approach is critical for a higher education institution to effectively manage the institution-wide risk achieving the expected performance.

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