Bamber, Christopher

Article

Exploring enterprise-wide risk management system in higher education

Management dynamics in the knowledge economy

Provided in Cooperation with:
National University of Political Studies and Public Administration, Bucharest

Reference: Bamber, Christopher (2023). Exploring enterprise-wide risk management system in higher education. In: Management dynamics in the knowledge economy 11 (3), S. 267 - 285. https://www.managementdynamics.ro/index.php/journal/article/download/542/477/2462. doi:10.2478/mdke-2023-0017.

sciendo

National University of Political Studies and Public Administration
Faculty of Management

Exploring Enterprise-Wide Risk Management System in Higher Education

Christopher BAMBER[1]

[1] Organisational Learning Centre OLC (Europe) Ltd, 66 Castle Street, Bolton, BL2 1AE, UK; cbamber@olceurope.com

Received: June 23, 2023
Revised: September 13, 2023
Accepted: September 20, 2023
Published: September 24, 2023

Abstract: The purpose of this case study research paper is to provide unique and in-depth data and understanding of Enterprise-Wide Risk Management within the real-world context of a private HEI. The research presented adoption of risk management practices within a UK higher education (HE) setting that demonstrates the evolution of processes towards enterprise-wide educational governance in support of a sustainable HE sector. Effectively managing enterprise wide risk ensures sustainability is on the governance agenda. Within this research paper a wide spectrum of risk management practices and theories is assessed and a case study review shows a mature adoption, over time, of a holistic approach to managing risk. This research paper therefore, provides valuable lessons learned and gives practical guidance for policy makers, governors and senior management in Higher Education Institutions (HEIs). The case study organisation provides a best practice view of enterprise-wide risk management system taking guidance from global standards, national regulatory bodies, universities, colleges and experts in risk management from all levels. The main gap in current published knowledge presented is that the drivers for successfully implementing sustainable risk management in the HE sector are not known. The research questions have led the inquiry to provide three contributions to a better understanding of adopting Enterprise-Wide Risk Management in HE with a new roadmap for implementation; thematic direction for governance; and six drivers for successfully implementing sustainable risk strategies.

Keywords: sustainability; risk management; process improvement; higher education institution; regulatory compliance; educational governance.

Introduction

The case study higher education institute presented in this research paper is in search of sustainability, it presents arguments that focuses understanding and knowledge of why and how one HEI manages a dynamic enterprise-wide risk management program. The case study discussion and risk governance practices presented illustrate that this HEI introduced a top-down strategic approach to identifying and assessing categories of risk and married this with a bottom-up approach using the continual improvement cycle of Plan, Do, Check and Act as a framework for implementing risk management program improvement. This approach provides a view of a dynamic move towards the identification of all known risks, better management of identified risks and active mitigation of unintended negative consequences. Hence, the arguments presented within this research paper supports the notion that enterprise-wide risk management systems can support a sustainable higher education sector.

Risk management in Higher Educational settings serves the purpose of proactively identifying potential issues before they arise. Leaders, Governors, Policy Makers, and Senior Teams within Higher Education Institutions (HEIs) are dedicated to achieving their objectives, but numerous obstacles can hinder their progress. To maintain sustainable organisations, HEIs also strive to provide affordable education while adhering to rigorous government regulations. Simultaneously, they must ensure a safe environment for all

How to cite
Bamber, C. (2023). Exploring Enterprise-Wide Risk Management System in Higher Education. *Management Dynamics in the Knowledge Economy, 11*(3), 267-285. DOI 10.2478/mdke-2023-0017
ISSN: 2392-8042 (online)
Journal Abbreviation: Manag. Dyn. Knowl. Econ.
www.managementdynamics.ro
https://content.sciendo.com/view/journals/mdke/mdke-overview.xml

stakeholders, including students, visitors, and employees, even in the face of budgetary constraints. Given the multitude of external and internal pressures prevalent in the education sector, HEIs must efficiently, effectively, and dynamically manage risks on an organization-wide scale. In the context of HEIs, risks encompass natural disasters, campus security, safety and health, financial risks, as well as risks related to student performance and academic progression. Furthermore, in our highly competitive and technologically advancing world, risks extend to new concerns like cyber liability and the impact of social media on reputation, credibility, and image, which poses an increasing threat to HEIs' reputations.

In recent times, the COVID-19 pandemic placed unprecedented and unexpected pressures on the HE sector and many HEIs have seen results and profits fall, (Popov, 2023). Di Gerio et al. (2020, p. 31), recommended that Higher Education Institutes should become sustainable and suggested:

> "To become sustainable and ensure that their *(HEIs)* respective territories follow suit, universities must change internally and initiate systemic processes to engage all members of their communities. Moreover, dynamic bottom-up models of learning and dissemination of environmental sustainability and social responsibility should aim to encourage students to be active inside and outside their universities."

Thus, risk concepts within higher educational settings are broad and comprehensive, coping with internal and external motivations, necessitating an enterprise-wide risk management system that encompasses comprehensive assessments and addresses emerging risk categories. This research paper aims to support Di Gerio's recommendation by analysing the role of enterprise risk management systems in higher education and offer roadmaps and direction for the HE sector to consider.

Literature review

Refining the evolutionary trajectory: UK perspectives on risk management in higher education

Risk identification, assessment, mitigation and transfer according to many authors (Bamber, 2005; Crockford, 1982; Harrington & Niehaus, 2003; Williams & Heins, 1995) have a long-established history in manufacturing, commercial and transport sectors. However, working towards risk management was not necessarily a focus within educational establishments until the 1990's introduced standard corporate governance requirements for the UK public sector and implementation frameworks followed such as those presented by Bamber et al. (2004) and Castka et al. (2004). Likewise, in the UK regulatory framework for higher education the Higher Education Funding Council for England (HEFCE, 2001, 2005) published good practice on risk management that was aimed at guiding the UK, Quality Assurance Agency inspectors and assessors.

The UK Government (Department for Business, Innovation and Skills, 2011) included a quality assurance regime that encourages 'strong', 'well-adapted' and 'genuinely risk-based', educational management, BIS (2012). In the UK, the HE Governance Code of Practice and Principles (CUC, 2009) published comprehensive risk management guidance and accordingly public funded HEIs are required to maintain a comprehensive system of internal control ensuring key principles of effective risk management have been applied. Likewise, reporting of effective risk management according to HEFCE (2012b, 2013), must include a complete system of risk management at all levels of the Institution and must be comprehensive and holistic with a systematic approach to processes of risk control.

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

Navigating the imperatives: pressures driving risk strategy implementation in higher education

The pressures both external and internally within higher education institutions are complex and comprehensive and are increasing as global markets open up to student mobility and student expectations. Those many internal and external pressures that are facing HEIs and in particular those impacting global business schools have been discussed in detail by Thomas et al., (2013) and accordingly Hommel et al., (2016) discusses the increase in risk taking by HEIs to remain entrepreneurial and competitive. Furthermore, the developing HE regulatory frameworks such as those provided by British Accreditation Council (BAC), Accreditation Service for International Colleges (ASIC) or QAA provide external pressure and Rasche and Gilbert (2015) discuss that as such internal resources are stretched which hinder HEIs revenue generating entrepreneurialism.

It has been argued that HEIs need to manage the balance between innovative entrepreneurial activity and management control. Such control has been achieved in other sectors through the implementation of ISO 31000 (2018), (risk management standards of International Organization for Standardization) certification or for HEIs by creating a risk management element within the governing board with experienced corporate risk managers serving as members (Hommel & King, 2013). Meanwhile, the corporate consulting firm Price Waterhouse Cooper (PCW, 2005) have introduced guidance to help the governance of risk within HEIs and have commented that risk management is required as a direct result of increasing external pressures impacting on the HE sector.

Exploring the management of unintended events in higher education

The HE sector has been subject to change over many years with influences from stakeholders leading to the need for management of risk. Without looking holistically from multiple stakeholder perspectives risk is not managed effectively. It is more probable that unintended events occur for an HEI as a result of not knowing all their stakeholder intentions. Likewise, unintended events are discussed in detail by Koch and Schulpen (2018) where the causes of unintended consequences are explained by systems thinkers as the result of a "...multitude of interconnections, non-linearities, multi-dimensionalities and unpredictabilities that interact with external interventions." Kim (2012) when discussing project management risk suggest that risk analysts: "Suppose there is an event with unintended consequences. 'Unintended consequences' is the matter of identification not the matter of uncertainty of occurrence or impact." Therefore table 1 represents an illustration of risk across the dimensions of certainty and identification, indicating that not all risks are identified and therefore not all risks are controlled, hence as risk management experts suggest (Kim, 2012; Koch & Schulpen, 2018) it is inevitable unintended event will occur.

Table 1. Risk identification and certainty matrix

Certainty Identification	**Certain (Known)**	**Uncertain (Unknown)**
Identified (Known)	Known known (Identified knowledge)	Known unknown (Identified risk)
Unidentified (Unknown)	Unknown known (Untapped knowledge)	Unknown unknown (Unidentified risk)

Source: adapted from Kim (2012)

Even though risk management acts as 'a predictor of the future events' table 1 shows that it is not possible to identify all risks in advance, in part for the following reasons as expressed by Hillson (2005):

- Some risks are inherently unknowable.
- Some risks are time-dependent.
- Some risks are progress-dependent.
- Some risks are response-dependent, i.e., secondary risks.

For analysing knowledge strategies within Higher Education, many authors have used similar matrices to the above risk identification matrix, (Bolisani & Bratianu, 2018; Bratianu & Pinzaru, 2015). Bratianu (2020) continues to use the Known-Unkown Matrix to analyse strategies for Universities and has said; "… we are in Crazy Times." Bratianu (2020) demonstrated the use of the known-unknown matrix and searched for generic strategies which contribute to the renewal of intellectual capital and achieving a competitive advantage in the new global market of higher education.

The continued involvement of enterprise-wide human resource participation is crucial in attempting to identify all known risks and regularly updating the list of known risks, in order to ensure adequate risk controls are in place. It is therefore, not unexpected that HEIs will encounter unidentified risks and accordingly learn from responding to those unexpected and unintended consequences of events. Risk identification is common place within management of projects and according to Williams (1994) project teams would involve stakeholders in creating and completing a risk register in order to integrate risk management into their project definition. However, in a recent research review of higher education risk management Lincke and Khan (2020) after reviewing shootings in American educational setting said: "We conclude the higher education would be well served to take a broad perspective of risk." This paper, hence, encourages an enterprise wide risk approach which takes into consideration external influences on the higher education institute and thus provides a broad perspective for influencers and risk governors in the sector. Nevertheless, this research does recognise that as the UK University sector become more subject to governance as Huber and Rothstein (2013) research suggests; "… risk management principles potentially shape the extent to which responsibilities for adverse outcomes are distributed between university management and individual academics." The Huber and Rothstein article does suggest that enterprise-wide risk management practices lead to a new type of organisation which they call a 'Risk Organization.' That being said, they suggest a Risk Organisation is one which demonstrates reflexive risk management practice analyses potential adverse outcomes in terms of acceptable and unacceptable risk. Reflexivity, requires that reflection throughout the processes of managing risk, reflection on risk mitigation actions and risk behaviour takes place.

Higher education processes are centred on knowledge management

The whole purpose of the higher education sector is the creation and transfer of knowledge. Whether processes be the assessment, teaching or learning processes directly, or, the support processes of administration functions, human resource management or premises management, those processes exist to support growth and dissemination in knowledge. Likewise, within higher education the importance of establishing knowledge through research processes is high on the agenda of education ministers. Accordingly, Lozoya-Santos et al. (2019) suggested that higher education institutions have a significant role in the development of the economy of any society and its primary goal should lie in the generation, transfer, and application of knowledge. Bratianu (2023) on discussing the meanings and interpretations of knowledge dynamics re-iterates that the processes of knowledge sharing suggest there is a considerable amount of risk involved. Bratianu (2018) on the theory of knowledge fields considers that the theory defines three fundamental fields of knowledge: rational, emotional, and spiritual knowledge. Furthermore, when providing a holistic approach to knowledge risk, Bratianu (2018), and presents the risk is associated with each knowledge field such that the whole phenomenon of knowledge risk becomes more complex. The following sections of literature examine the complex nature risk management in the higher education sector. The literature survey shows that internationally recognised risk management standards and widespread government HE risk management guidance does not talk about nor does it consider knowledge risk, moreover it categorises risk and thus provides directions and mechanisms for risk management.

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

Forging a global benchmark: advancing an international standard for risk management in higher education

Many management systems experts will be aware of the framework within ISO 9001 (2015) quality management standard but less would understand, or know, the concepts of the enterprise risk management and operational risk management framework presented in the international standard ISO 31000 (2018). Nevertheless, the ISO 31000 framework sublimates the plan, do, check, act (PDCA) cycle, which is common to all management system designs and encourages reflexivity of all systems, processes and activities. The management system standard ISO 31000 (2018) guidelines are for the design, implementation and maintenance of its risk management program deployed throughout an organisation thus giving an enterprise-wide platform for risk management. Accordingly, implementation of ISO 31000 (2018) is intended to include a broad stakeholder group, which spans the organisational hierarchy and embedded across all their departments, including: executive level stakeholders; appointment holders in the enterprise risk management group; risk analysts and management officers; line managers and project managers; compliance and internal auditors; independent practitioners.

The management standard, ISO 31000 is divided into parts: Introduction and document references including terminology and definitions; Risk management principles (Section 4); The risk management framework (Section 5) Risk management processes (Section 6) and a Bibliography section. The purpose of the standard, however, is to provide principles and generic guidelines on risk management which can be adopted by any organisation or institution. Likewise, Dali and Lajthi (2012), discussing early publications of the standard, proclaim that the standard represents a shift from compliance-driven risk management to practical performance-driven risk management undertaken by decision makers across all sectors worldwide. Hence, the adoption of this standard can be taken up by a HEI in order to manage their risks associated with internal and external pressures on their organisation while maintaining focus on performance. Furthermore, as ISO 31000 is a management systems standard its framework can be augmented within existing HEI management systems.

Holistic integration: implementing enterprise-wide risk management for enhanced organizational resilience

Within management literature, it is accepted that management systems develop within organisations over time as the maturity of operations progress and lessons are learned through applying cycles of plan do check and act, (Bamber, 2005). This can be demonstrated with the Lascelles and Dale (1993), figure 1, showing a journey toward effective implementation of Total Quality Management (TQM) shown in figure 1. The journey towards improvement of management of an organisation accordingly, can go through levels of improving effectiveness from being uncommitted to improvement efforts to achieving world class status. Lascelles and Dale reported that this progression is done over a long period of time and proponents of improving management of HE such as Venkatraman (2007) suggest improvement does not happen immediately, while Tayeb et al. (2016) suggests achieving HE world class provision could take over 15 years.

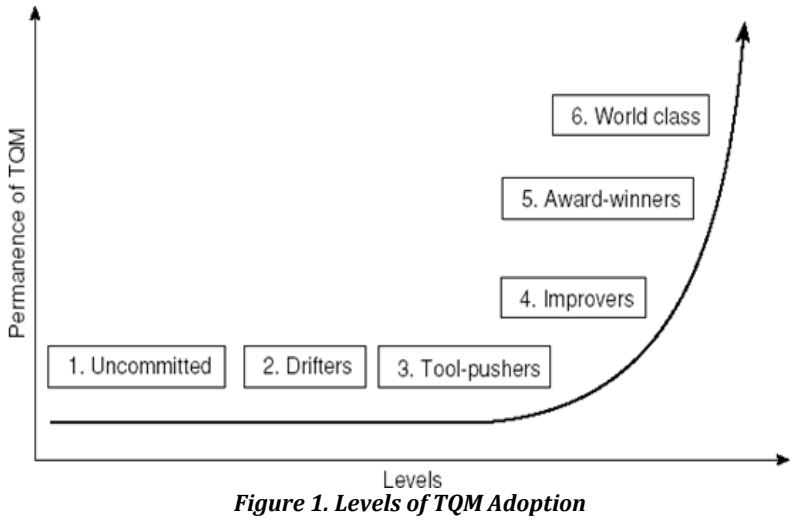

Figure 1. Levels of TQM Adoption
Source: Lascelles and Dale (1993)

Whereas, the concept of added value and a journey toward world class in HEIs is discussed by Cremonini et al. (2014) as being relatively speaking in the early stages of maturity. Moreover, it is widely accepted that an adaptive strategy towards implementing enterprise-wide risk management should take place (Mirfenderesk & Corkill, 2009). Adaptation therefore means over a period of time an organisation makes changes to their risk management approaches leading to better improved practices. Likewise, it is presented by McShane (2018), that the international guidance for risk management is ISO 31000 (2018) which has been developed over time. McShane argues for an organisational design science approach for mitigating the resistance to change that confounds effective implementation of Enterprise Risk Management (ERM) in organisations facing an increasingly uncertain environment and encourages future research for applying the approach to implementing the ISO 31000 risk management framework such as this case research paper presents.

Guidance for effective risk management in higher education

Organising the types of risk into broad categories, similar to figure 2, according to the UK, HE governing body, HEFCE (2003) will help to ensure that key issues are not overlooked, and will help when documenting the risk program. Similarly, in support of risk categorisation, the HEFCE (2001) endorsed survey of 48 public funded HEIs established what categories of risk they covered and those results are shown in figure 2.

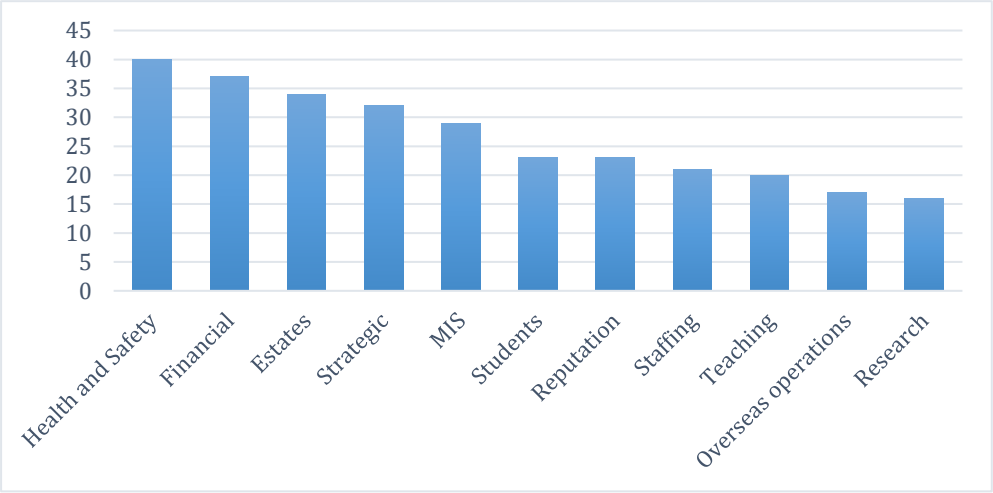

Figure 2. Risk Categories Identified by UK HEIs
Source: HEFCE (2001)

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

Other countries governing bodies also encourage their HEIs to adopt risk management practices. Likewise, the Australian Government deploy The Tertiary Education Quality and Standards Agency (TEQSA) to evaluate higher education institutes and they focus on four key areas in risk assessments to support the overall evaluation: regulatory history and standing; students (load, experience and outcomes); academic staff profile; financial viability and sustainability. Each of those four key risk areas of the TEQSA risk assessment framework have been divided into risk indicators which are the focus of evaluation of the assessment team (TEQSA, 2018).

AGB and UE (2009) the Association of Governing Boards of Universities and Colleges, USA also discuss risk areas within their 'Worksheet for Oversight of Systematic Risk Assessment' and similarly they highlight 'Student Affairs' as a high-level risk area. HEFCE (2005) debated that: "Whatever technique is used to identify risks, they must relate to the objectives of the institution, faculty, department, function, activity or specific project in question." This is demonstrated in figure 2, which shows there were varying degrees of take up of each risk category across the surveyed HEIs.

It is noted also, that the HEFCE (2013) code of practice for HEI is likely to be adopted by the Office for Students (OfS). The Higher Education and Research Act (2017) directed that HEFCE should be replaced by a new body, the OfS, also incorporating the Office for Fair Access (OFFA). The OfS legally came into force, as of 1st January 2018, to hold UK universities to account and promote students' interests (OfS, 2018). Hence, for HEIs in the UK, in recent times much emphasis on risk management is placed on management of the student experience.

The emerging research questions

Guiding this case research has been the quest of the action researcher to understand the better practice systems in the Higher Education sector, for the management of risk. Researchers, experts and practitioners in organisational improvement Castka et al. (2004), for example, have argued ISO management systems can be used as a framework for integrating new paradigms and for better systems integration. Furthermore, the search for new knowledge and creating robust sustainable systems of the future, is important in maintaining a presence in any marketplace, thus for the researcher such business continuity is a significant mission that provides an important continuing impact on society. From the paradigms presented in the literature review the following five research questions (RQs) emerge that aim to plug the research gap and thus identify drivers of successful implementation of sustainable risk management in the higher education sector.

RQ1: What do the global HE regulatory authorities perceive as necessary risk management categories?
RQ2: Will adoption of the ISO 31000 (2018) International Standard for Risk Management provide an appropriate framework for a private HEI to adopt?
RQ3: Can enterprise-wide risk management really be embedded in a small to medium sized private HEI to provide adequate risk mitigation and risk management?
RQ4: What should be the advice to policy makers, governors, senior leadership and other stakeholders of private HEIs when involved in enterprise-wide risk management?
RQ5: Can an Enterprise-Wide Risk Management Approach contribute to sustainability of the HE sector?

Research methodology

This research conducts a comprehensive literature review to analyse the evolution of risk management paradigms and explore the implementation of risk management in Higher Education settings. Additionally, it reviews the enterprise-wide risk management approaches currently adopted. Within the literature review, specific criteria are

established to assess and evaluate the case study organization, OLC (Europe), which has progressively developed its risk management system over a period of 25 years. Initially focused on internal health and safety risk assessments, OLC has transitioned its risk governance practices into a holistic enterprise-wide risk management system. The researcher, who is the founder, owner, and managing director of OLC, assumes the role of both participant researcher and action researcher. This provides an interesting longitudinal study of the emergence of enterprise-wide risk management systems benefits from complete access to archival documentation, current policies, procedures, and practices within the case study organization. The objective of this research is to demonstrate to scholars, policy makers, practitioners, and stakeholders in Higher Education Institutions (HEIs) that the establishment of an effective risk management system is attainable, albeit a challenging endeavour.

Primarily, this research adopts an intrinsic case study approach, driven by the researcher's personal interests and curiosity. It allows the researcher to explore areas of institutional continuity, sustainability and the management of pressures affecting continuity. However, this research also serves the purpose of providing an explanatory and descriptive case study, offering in-depth data and detailed observations. Renowned experts in case study research methods advocate for such approaches, considering case studies as vehicles for knowledge creation and dissemination (Stake, 1995; Travers, 2001; Yin, 2008). The researcher and author of this paper substantiates the arguments presented by providing archival document evidence trails, referencing published case study journal articles, and citing publicly available third-party reports for readers to cross-reference.

Firstly, to answer the above five research questions a literature review aimed at identifying risk management categories relevant to HEIs was presented. Following that the globally adopted risk management standard, ISO 31000, is explored in the context of Higher Education and the suitability of such a standard for adoption within a small private HEI has been tested and observations presented in the case study section following the literature survey. The literature reviewed also explored the pressures on HEIs to implement risk management practices. Finally, the lessons learned are presented in support of guiding policy makers, governors, senior managers and other HE stakeholders in the journey toward better practice, whether that be for improving risk management strategies or moving toward world class performance support is given. With a view to answer the research questions and plug the knowledge gap further, the following sections provide an in depth but focused case study review of the adoption of enterprise-wide risk management in a HE setting.

Case study review of findings and analysis

The case study example: the organisational learning centre

This research in particular, provides an independent higher education, case study example (OLC, 2021a), that has achieved 23 years compliance to ISO 9001 quality management systems and recently achieved an overall low risk profile across all UK, QAA, Quality Code assessed expectations as reported by the government appointed HE inspectors, (QAA Report, 2018). The case study organisation, OLC (Europe) known as *The Organisational Learning Centre (OLC)* through third party assessment has been successfully evaluated annually by the British Accreditation Council for its organisational and managerial competence and evaluated by Pearson for its educational program provision, (BIS, 2013). This case research is hence, interested how private higher education institutes can incorporate into their strategic intent and integrate into their existing operational quality management systems both the concepts of enterprise-wide risk management and operational risk management utilising best practice HE sector frameworks and the international standard ISO 31000 (2018) guidance. In summary, OLC is a private HEI,

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

with a maturely developed management system, currently providing quality approved HE programmes, predominantly for UK students (QAA Report, 2018).

Unveiling OLC's risk management strategies: tracing the path of emergence

Enterprise-wide risk management has not always been part of OLCs management system approach. In fact, in earlier years (1998 to 2002), OLC senior management team where adopting the principles of quality management and quality control to support their HE systems (OLC, 2021a). As an institution that has been third party certified to quality management systems since 1998, in this regard, OLC have incorporated enterprise-wide continuous improvement through planning, doing, checking and acting, PDCA. In 1998 OLC achieved certification to the ISO 9001 quality management system standard and at that point in time, risk assessment was limited to the health and safety officer's role and considered risk to employees, visitors and students in the classroom only. The concept of managing business risk was not discussed in those early days, however, the business did encounter unexpected consequences of not identifying and not managing enterprise-wide risk and problems with cash flow, a lack of meeting business objectives, failure to manage project risk and legal problems with use of intellectual property manifested. Further to such problems the economic crash of 2008 had a significant impact on financial liquidity of the business (Companies House, 2021).

External events emerged that impacted on OLC continuity of business and in 2010 changes to the codes of practice for international student visas was aggressively enforced by the UK Border Agency (UKBA), see Oates (2011), soon to become UK Visa and Immigration (UKVI) which ended in international student numbers rapidly deteriorating from 100s of students to zero. The events of the 2008 economic crash impacted on OLC being a private institution, meanwhile, events that started in Libya, in 2008, affected OLC professional oil and gas course provision, which rapidly reduced short term course student numbers from 100s per year to zero by 2010. Other external events impacting on the management of quality of OLC course provision include changes in regulatory frameworks and changes to the appointment of government led assessment authorities. Similarly, changes in regulatory and quality frameworks as described by Hunt and Boliver (2019) directly led to the private sector HE providers in the UK losing the ability to directly access government funded and government supported tuition fees and UK student numbers for OLC consequently went from 1,400 per annum to 140 between the years 2012 to 2016, see QAA Report (2018).

OLC has adopted the ISO 31000 (2018) guidelines for the design, implementation and maintenance of its risk management program deployed throughout its organisation as suggested by McShane (2018). This advance has provided the case study organisation with a comprehensive approach to risk management that is embedded into all activities within the college. The scope of this approach to risk management enables all strategic, management and operational tasks, throughout projects, functions, and processes to be aligned to a common set of risk management objectives.

The management of risk, referring back to the earlier table 1, at OLC is thus aimed at preventing any negative unintended events occurring by facilitating a culture of risk awareness and thus building enterprise-wide competence in risk management. Hence, the systems at OLC have been developed from a systems-thinking approach that has implemented a set of interrelated and interconnected processes, procedures, policies and practices in an enterprise-wide approach based on identified knowledge and identified risks, see table 1.

Management of risk, at OLC is likewise seen as interconnected within all employees' and associates' job role, daily activity and within the processes they work in. The aim being that system controls are in place that maintain and/or modify risk. Nevertheless, ISO 31000 (2018) notes that controls may not always exert the intended or assumed

modifying effect and learning from mistakes and in particular unexpected consequences of events has occurred within OLC.

The development of the OLC Risk Management System could be mapped against the levels of TQM adoption presented in figure 2 and it is argued by the researcher that it would present something similar to the journey shown in figure 3. The first level of risk management would be considered as relatively speaking uncommitted to managing risk with minimum attention to risk management, while the second phase would be implementation of basic risk assessment protocols such as health and safety risk assessment, resulting in localised risk mitigations. In OLCs case, early adoption of risk assessment focused on health and safety risk assessment and the five-stage approach as guidance provided by the Health and Safety Executive (HSE, 2021) was implemented to ensure the statutory requirement of risk assessing was met.

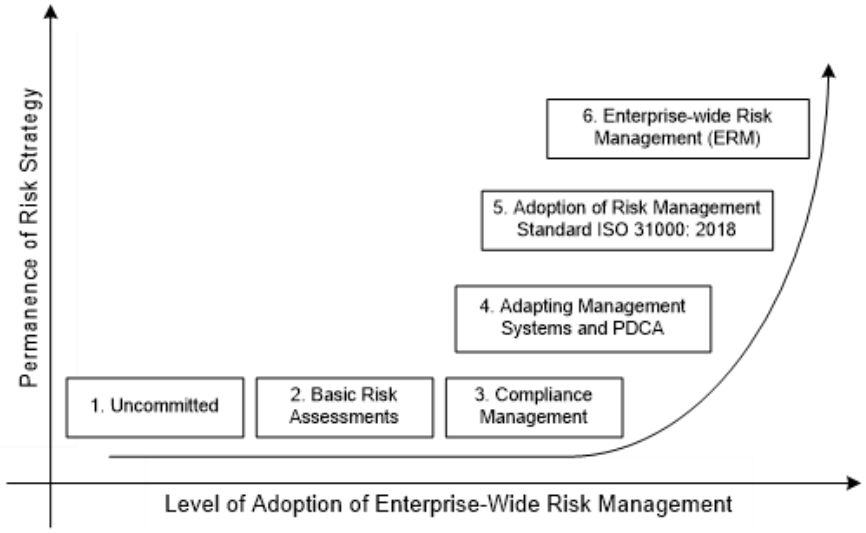

Figure 3. Levels of Risk Management Adoption
Source: own elaboration

As indicated earlier in this paper, the HE regulatory framework, student funding fees and student visa legal systems changed over time. These external influences on OLC led to the adoption, as illustrated in level 3 in figure 3, of legal and sector regulatory compliance management. This level of OLC risk management development introduced scanning of the external environment to identify what other HEIs were doing and what the regulators and legislators were expecting from a wider context than just health and safety. Alongside these developments in levels of risk management OLC continued to adapt its management system as lessons were learnt. As such the OLC quality management system became more encompassing and incorporated a more business-wide approach to planning, doing, checking and acting as advocated by the ISO management system standards. Level 4, shown in figure 3 therefore, included a more strategically directed and proactive approach to managing risk, albeit not yet widespread across all parts of the enterprise. Continuing towards enterprise-wide risk management at OLC incorporated the next level, as level 5 in figure 3, of adoption of better practice with the introduction of concepts presented within ISO 31000 (2018). This introduction of the international standard provided OLC's senior team with a framework to place strategic risk assessment and the goal of embedding risk management concepts throughout the organisation. The search continues with OLC governance systems scanning the external environment for better practice in enterprise-wide risk management, as level 6 in figure 3, which includes monitoring and evaluating other HEIs attempts, searching for sector recognised risk management frameworks and building on lessons learned through self-evaluation mechanisms.

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

Enterprise-wide risk management adoption in higher education institutions: establishing a comprehensive scope

As the intent of ISO 31000 (2018) is to be applied within existing management systems, to formalise and improve risk management processes as opposed to wholesale substitution of legacy management practices, OLC embrace aspects of risk management within their current total quality management practices. This has been done firstly within governance and management review processes taking into consideration risk management and aligning risk strategies with the college scope, strategic intent and objectives. Figure 4 shows the OLC risk and legal compliance matrix categories used by the OLC senior management team and board of executives.

This research has shown that managing categories of risk is to be expected by the national regulators of HEIs (AGB and UE, 2014; HEFCE, 2013, TEQSA, 2018). Looking at OLC risk categories, there are some different, but also other risk categories identified, by the HEFCE survey, probably because the survey included an evaluation of 48 different HEIs, see figure 2 and compare to figure 4. Having said that, OLC have included a few risk categories that are useful for them to provide risk assessment focus and prepare mitigating actions where necessary. Namely, OLC have included 11 risk categories of which the following 5 do not at first glance appear in the HEFCE list; Business Structure; Product Related; Government Education frameworks; Education Accreditation/Professional Protocols and Partner Agreements/Memorandums.

Figure 4. OLC risk management and compliance matrix categories
Source: OLC (2021b)

The risk categories present in figure 2 but not obviously present in figure 4, OLC risk categories are namely, reputation, overseas operations and research. The differences are partly down to semantics, where risk categories actually are the same but have different meaning, i.e. 'Strategic' category devised by HEFCE and the 'Business Structure' category devised by OLC have identified similar risk elements, hence are closely related categories. Within OLC, the risk categories shown in figure 3 are also further divided into smaller parts which the Senior Management Team refer to as risk elements. While another apparent difference is that, 'Overseas Operations' is not explicitly covered by OLC but it is risk managed within the category of 'Course Delivery Centre Status and Designation. In a similar way, the OLC risk category of 'Environment, Health and Safety' appears to have a wider scope than the HEFCE category of 'Health and Safety' but within OLC the

'Environment' means management of estates and their impacts on the local and global environments which is probably managed in the separate category 'Estates' within the HEFCE identified risks.

For OLC, this has meant that their risk categories are more akin to a private institution than a government funded institute and the focus is on representing their own organisational context, scope of operations and their own strategic intent. Other HEIs will no doubt identify their own categorisation of risks as expected by HEFCE (2013). Having said that, the senior team at OLC suggest the purpose of risk categorisation is that it helps summarise enterprise wide-risk and aids the deployment of risk mitigation methods from the senior management throughout the organisation. Hence, risk is summarised and assessed in all departmental areas using risk elements as a risk register would be used in managing project (Williams, 1994) and at all levels but is presented in summary to the senior team against categories. Furthermore, within categories those risk elements provide a framework for risk assessment and allow the OLC teams to rank those elements and ultimately rank the risk categories. Ranking of risk, for OLC, provides the focus for deployment of improvement team and/or corrective action teams.

Establishing a systemic approach for enterprise-wide risk management

For OLC as a private higher education institute, this also means that every board member, all employees, support staff, administrative staff and academic staff as well as every associate lecturer are involved in the risk management program. As such all are carrying out some aspect of risk management activities and they are aware of risk management principles. This involvement of employees is facilitated by including risk management training and risk procedure training in the continuing professional development programme adopted. This approach goes some way to embed within all departments a risk management approach to assuring intended performance and mitigating unintended consequences of events.

The archival Board Room Minutes and Strategic information assessed from OLC (Europe), show that an Enterprise-Wide Risk Management (EWRM) approach has indeed contributed to their continuity, sustainability and hence supported sector resilience. Having interviewed and discussed with the senior leadership team whether (EWRM) is paramount for sustainability, a list of ways in which EWRM has been shown to contribute to their sustainability emerged and is presented in figure 5, the EWRM cogs and gears driving sustainability.

Figure 5. The Enterprise-wide risk management gears for sustainability
Source: own elaboration

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

Discussion

This paper has demonstrated that an intrinsic case study research method can illustrate a phenomenon in a rich and in-depth manner. Through comparison of literature, best practice and a case example the purpose of this case method research was to both provide an explanatory and also descriptive case study, which better shows the in-depth data and detailed description of a journey toward enterprise-wide risk management. From the outset of this research the study was guided by five important but pragmatic research questions (RQs). These research questions are discussed in further detail.

RQ1: What do the global HE regulatory authorities perceive as necessary risk management categories?

Risk management categories have been identified in figure 2, produced by UK regulators, HEFCE and it was confirmed within the literature survey carried out that these categories are congruent with other country expectations (USA, Australia). Likewise, the case study organisation, OLC, have a risk management system that identified its own categories and subcategories (risk elements) that broadly fit the HEFCE expectations. However, OLC identified additional categories as a result of the OLC journey towards becoming a world class HEI. Albeit, a scope that is likely to change as research improves in this area and knowledge is gained, HEFCE identified 11 risk categories of: Health and Safety; Financial; Estates; Strategic; MIS; Students; Reputation; Staffing; Teaching; Overseas Operations; Research.

It is worthwhile noting here that the global HE regulatory authorities do not perceive knowledge in itself as a necessary risk management categories. Despite research papers Bratianu (2018), Bratianu (2023) and Lozoya-Santos et al. (2019) discussing the important role of knowledge management and many aspects of knowledge risk.

RQ2: Will adoption of the ISO 31000 (2018) International Standard for Risk Management provide an appropriate framework for a private HEI to adopt?

Many scholars have reviewed the appropriateness of ISO 31000 (2018) for providing a framework for managing risk effectively. There is little evidence of widespread adoption of the standard in HE, however, the case study organisation has adapted their ISO 9001: 2015, quality management system to incorporate the risk management standard. OLC have found that managing risk is an iterative process that follows PDCA which is a fundamental approach to management system improvement. Very much similar to continual improvement of their management system, OLC have improved their risk management effectiveness through adopting ISO 31000 principles. The researcher encourages other private HEIs to consider the adaptation of their existing management systems to include the ISO 31000 guiding framework but would suggest that embedding the standard completely will take several years. Nevertheless, the iterative processes of risk management should immediately improve the identification of previously unknown risks through a better structure of planning for risk by scanning the internal and external pressures on the institution. Remembering that unidentified risks are seldom, if ever managed effectively and most likely lead to unintentional consequences.

RQ3: Can enterprise-wide risk management really be embedded in a small to medium sized private HEI to provide adequate risk mitigation and risk management?

Embedding enterprise-wide risk management practice can be achieved but it is expected to be a long journey. However, this case study research has shown that journey passes through levels of adoption of risk management from no commitment being present, to incorporating ever increasing competences of risk management, ultimately leading to world class levels of performance utilising an enterprise-wide risk management strategy. The OLC case example presented has illustrated a journey of 23 years of iteration of their management systems. Hence, another word of caution to other private HEIs is that in

search of effective enterprise-wide risk management is a long journey through improving levels of adoption and adaptation of risk management.

RQ4: What should be the advice to policy makers, governors, senior leadership and other stakeholders of private HEIs when involved in enterprise-wide risk management?

The author would like to encourage governors of HEIs that are implementing risk management by stating it would help their organisations become more aware of the external and internal factors affecting performance. Moreover, they must recognise that improving levels of risk management must be their aim, as enterprise wide risk management is a goal that can be achieved and is a mechanism for managing external and internal pressures. Nevertheless, there is no instant pudding and the journey toward enterprise-wide risk management may pass several levels of adoption, adaptation and competencies. For, the leaders of HEIs, it has been shown that embedding risk management into their systems requires continuous learning. Hence, introducing training programmes in all types of risk management will help embed risk management practice. For policy makers and regulatory authorities further research must continue, so that the HE sector institutions can benefit from each other, as the categories of risk management are never complete and all risks are never known. The unknown of today could be the known of tomorrow, as this paper has shown risk management acts as a predictor of the future and not just for managing the now.

RQ5: Can an Enterprise-Wide Risk Management Approach contribute to sustainability of the HE sector?

This research has shown that, an Enterprise-Wide Risk Management (EWRM) approach can indeed contribute to the sustainability of the Higher Education (HE) sector. By implementing EWRM practices, HE institutions can effectively identify, assess, and manage risks across various dimensions, thereby enhancing their overall sustainability. Here are ways in which EWRM has been shown to contribute to the sustainability of the HE sector:

Strategic alignment: EWRM aligns risk management efforts with the institution's strategic objectives and goals. It ensures that risk considerations are integrated into decision-making processes, enabling HE institutions to make informed choices that support long-term sustainability.

Holistic risk assessment: EWRM takes a comprehensive view of risks by considering various aspects such as operational, financial, reputational, compliance, and environmental risks. This approach helps HE institutions identify potential risks that could impact their sustainability and develop proactive strategies to mitigate them.

Resource optimization: EWRM allows HE institutions to allocate resources more efficiently by prioritizing risks and focusing on areas that have the greatest potential impact on sustainability. By identifying and managing risks effectively, institutions can optimize their resource allocation and reduce waste.

Resilience and continuity: EWRM helps HE institutions build resilience and ensure continuity in the face of potential disruptions or crises. By anticipating and planning for risks, institutions can develop robust contingency plans, business continuity strategies, and response mechanisms, thereby safeguarding their operations and long-term sustainability.

Stakeholder confidence: Implementing EWRM practices demonstrates a commitment to risk awareness, transparency, and accountability. This enhances stakeholder confidence in the institution's ability to navigate risks effectively, resulting in stronger relationships with students, faculty, staff, donors, regulatory bodies, and the wider community.

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

Compliance and regulatory requirements: EWRM helps HE institutions stay in compliance with applicable regulations, laws, and standards. By actively managing risks and demonstrating adherence to compliance requirements, institutions can avoid penalties, legal issues, and reputational damage, thereby ensuring their sustainability in the long run.

Overall, an Enterprise-Wide Risk Management approach can significantly contribute to the sustainability of the HE sector by fostering a risk-aware culture, enabling proactive risk mitigation, and enhancing the institution's ability to adapt and thrive in a rapidly changing environment.

Conclusions

The implementation of an enterprise-wide risk management system in Higher Education Institutions (HEIs) can be perceived as challenging due to the vast array of available strategies and the complexity of the task. Executives within HEIs may find it difficult to fully embrace the idea that effective enterprise-wide risk management is achievable. Additionally, determining where to begin the journey towards enterprise-wide risk management can be a daunting task and upon till now literature had not provided a road map to guide the HE sector. However, Figure 3 depicts the levels of risk management adoption, providing executives, leadership teams, and governors with a visual representation of the progression towards risk maturity adoption and adaptation.

This paper offers valuable insights and lessons learned through a case study example, demonstrating how the path to enterprise-wide risk management entails the adoption and adaptation of new management systems that enhance organizational maturity. As organizations mature in their risk management practices, they come closer to identifying all known risks, managing identified risks more effectively, and actively mitigating the unintended negative consequences of expected and unexpected events. The paper has identified the importance of developing existing quality assurance systems towards integrating and enhancing the risk management system development. Primarily, it has been shown that ISO Management systems standards for Quality and for Risk are based upon the cycle of Plan, Do, Check and Act which in itself is a risk management tool.

This research has drawn attention to key literature from regulatory authorities in the UK and global sources, which categorize areas of risk management. The author recommends utilizing these categories as best practice but emphasizes the importance of individual HEIs assessing their own circumstances and tailoring risk management categories to their specific context. It is recognized that private HEIs operate differently from publicly funded ones, and not all risk categories are applicable to all HEIs. For example, private HEIs that do not engage in higher degree research activities may not need to manage associated risks.

Contribution to knowledge

The main limitations of this study are attributed to the chosen case study research method. It is acknowledged that the researcher, who is also the author, assumes multiple roles as the owner, founder, participant observer, and action researcher, introducing potential bias in presenting the findings. However, the purpose of this particular case study research paper was to provide a unique and in-depth data and understanding of enterprise-wide risk management within the real-world context of a private HEI and that aim has been achieved. Nevertheless, the study encourages further research utilizing qualitative approaches, such as replicating and broadening the population surveyed by HEFCE (2001). This would undoubtedly yield new risk categories specific to HEIs and

contribute to a better understanding of the adoption and adaptation of enterprise-wide risk management among both private and publicly funded educational institutions.

The gears for sustainability have emerged from this research and have been discussed as drivers of a sustainable enterprise-wide risk management system. Likewise, the six cogs supporting long term sustainability are: Strategic Alignment; Holistic Risk Assessment; Resource Optimization; Resilience and Continuity; Stakeholder Confidence; Compliance and Regulatory Requirements. These six cogs can also serve as themes to help direct further practitioner research into knowledge management within the Higher Education sector. Moreover, as Di Gerio et al (2020), recommended that Higher Education Institutes should become sustainable through greater involvement knowledge management. This research paper thus provides support to Di Gerio's recommendation by analysing the role of enterprise risk management systems in higher education and offers a roadmap (figure 3) and thematic direction (figure 4) with drivers (figure 5) for the HE sector to consider. Hence, the research has led to three contributions to a better understanding of adopting Enterprise-Wide Risk Management (EWRM) in HE with a new roadmap for implementation; thematic direction for governance; and six drivers for successfully implementing sustainable risk strategies.

Future research recommendations

In acknowledgement that this research paper has plugged a gap in the literature the author recognises that much more work is needed to gain a better and more complete of risk management practices in the higher education sector. Therefore, further research could be conducted utilizing qualitative approaches can provide a deeper understanding of enterprise-wide risk management in HEIs. Furthermore, replicating and broadening the population surveyed, as done by HEFCE (2001), could generate additional insights and perspectives on risk management practices. While this approach has been qualitative, further, qualitative methods such as interviews, focus groups, and case studies could continue to capture rich data and explore the experiences, perceptions, and challenges faced by different stakeholders in implementing risk management.

Recognising the limitations of a single case study review, another useful approach could be conducting comparative analyses between private and publicly funded HEIs that can shed light on the similarities and differences in their risk management practices. Likewise, examining how different organizational contexts and funding structures impact the adoption and adaptation of enterprise-wide risk management systems would contribute to a more comprehensive understanding of risk management in the higher education sector. The author accepts a lot more research in the context of higher education and the area of enterprise-wide risk management is needed.

References

AGB and UE. (2009). *The state of enterprise risk management at colleges and universities today.* Association of Governing Boards of Universities and Colleges, United Educators.https://www.vsu.edu/files/docs/internal-audit/the-state-of-enterprise-risk-manangement-at-colleges-and-universities-today.pdf

AGB and UE. (2014). *A wake-up call: Enterprise risk management at colleges and universities today a survey by the association of governing boards of universities and colleges and united educators.* United Educators. https://agb.org/reports-2/a-wake-up-call-enterprise-risk-management-at-colleges-and-universities-today/

Alvarez-Santos, J., Miguel-Dávila, J-A., Herrera, L., & Nieto, M. (2017). Safety management system in TQM environments. *Safety Science, 101*, 135-143. https://doi.org/10.1016/j.ssci.2017.08.019

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

Bamber, C. (2005, April 5). *Beyond the quality management paradigm – A UK case study perspective on corporate social responsibility* [Paper presentation]. 49th Annual Congress of the European Organisation for Quality „EOQ", Antalya, Turkey.

Bamber, C., Castka, P., & Sharp, J. M. (2004). *Implementing effective corporate social responsibility and corporate governance: A framework*. BSi Publications.

BIS. (2012a). *Government response: Consultations on students at the heart of the system-a new fit for purpose regulatory framework for the higher education sector*. Department for Business, Innovation and Skills. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32405/12-890-governmentresponse-students-and-regulatory-framework-higher-education.pdf

BIS. (2012b). *Applying student number controls to alternative providers with designated courses.* Department for Business, Innovation and Skills. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32725/12-1292-applyingstudent-number-controls-consultation.pdf

BIS. (2013). *Privately funded providers of higher education in the UK*. Department for Business, Innovation and Skills. https://www.gov.uk/government/publications/privately-funded-providers-of-higher-education-in-the-uk

Bratianu, C. (2023). Designing knowledge dynamics: Exploring its meaning and interpretations. *Management Dynamics in the Knowledge Economy, 11*(2), 100-111. https://doi.org.10.2478/mdke-2023-0007

Bratianu, C. (2020). Designing knowledge strategies for universities in crazy times. *Management Dynamics in the Knowledge Economy, 8*(3), 209-223, https://doi.org.10.2478/mdke-2020-0014

Bratianu, C. (2018). A holistic approach to knowledge risk. *Management Dynamics in the Knowledge Economy, 6*(4), 593-607. https://doi.org.10.25019/mdke-6.4.06

Bratianu, C., & Pinzaru, F. (2015). University governance as a strategic driving force. In J.C. Dias Rouco (Ed.), *Proceedings of the 11th European Conference on Management, Leadership and Governance* (pp.28-35). ACPI.

Bolisani, E., & Bratianu, C. (2018). *Emergent knowledge strategies: strategic thinking in knowledge management.* Springer International Publishing.

Castka, P., Bamber, C. J., Bamber, D. J., & Sharp, J. M. (2004). Integrating corporate social responsibility (CSR) into ISO management systems–in search of a feasible CSR management system framework. *TQM Magazine, 16*(3), 216-224. https://doi.org/10.1108/09544780410532954

Coman, A., & Rone, B. (2009). Focused SWOT: diagnosing critical strengths and weaknesses. *International Journal of Production Research, 47*(20), 5677-5689. https://doi.org/10.1080/00207540802146130

Cremonini, L., Westerheijden, D., Benneworth, P., & Dauncey, H. D. (2014). In the shadow of celebrity? World-class university policies and public value in higher education. *High Educ Policy 27*(3), 341–361. https://doi.org/10.1057/hep.2013.33

Crockford, G. N. (1982). The bibliography and history of risk management: Some preliminary observations. *The Geneva Papers on Risk and Insurance, 7,* 169-179. https://doi.org/10.1057/gpp.1982.10

Committee of University Chairs. (2009). *Guide for members of higher education governing bodies in the UK: Incorporates the governance code of practice and general principles, committee of university.* HEFCE. https://bcuassets.blob.core.windows.net/docs/CUC-Governance-Code-of-Practice.pdf

Dali, A., & Lajtha, C. (2012). The gold standard. *EDPACS, 45*(5), 1-8. https://doi.org/10.1080/07366981.2012.682494

Di Gerio, C., Fiorani, G., & Paciullo, G. (2020). Fostering sustainable development and social responsibility in higher education: The case of the tor Vergata university of Rome. *Management Dynamics in the Knowledge Economy, 33*(8), 31-44. https://doi.org/10.2478/mdke-2020-0003

Harrington, S., & Niehaus, G. R. (2003). *Risk management and insurance*. McGraw-Hill.

HEFCE. (2001). *Risk management: a guide to good practice for higher education institutes, Higher Education Funding Council for England, London*. HEFCE.

HEFCE. (2003). *Good practice checklist for assessing risk management in HEIs, Higher Education Funding Council for England, London*. HEFCE.

HEFCE. (2005). *Risk management in Higher Education, Higher Education Funding Council for England, London*. HEFCE. https://dera.ioe.ac.uk/id/eprint/5600/1/05_11.pdf

HEFCE. (2013). *Letter to all Heads of HEFCE-funded higher education institutions and Heads of universities in Northern Ireland HEFCE's: Accounts Direction to higher education institutions for 2013-14 financial statements*. HEFCE. http://www.hefce.ac.uk/media/hefce/content/pubs/2013/CL,252013/CL2013_25.pdf

Hillson, D. (2005, August). Why risks turn into surprises. *Risk Doctor Briefings*. http://www.risk-doctor.com/pdf-briefings/risk-doctor16e.pdf

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. https://doi.org/10.1108/02621711311328309

Hommel, U., Li, W., & Pastwa, A. (2016). The state of risk management in business. Schools. *Journal of Management Development, 35*(5), 606 – 622. https://doi.org/10.1108/JMD-08-2014-0088

Huber, M., & Rothstein, H. (2013). The risk organisation: Or how organisations reconcile themselves to failure. *Journal of Risk Research, 16(*6), 651-675. doi:10.1080/13669877.2012.761276

ISO. (2018, February). Quality management systems. Requirements, Guidelines BS EN ISO 900:2015. *ISO Publication.* https://www.iso.org/standard/65694.html#:~:text=ISO%2031000%3A2018%20provides%20guidelines,not%20industry%20or%20sector%20specific

ISO. (2018 February). International standard ISO 31000: 2018 Risk management – guidelines. *ISO Publication*. https://www.iso.org/standard/65694.html#:~:text=ISO%2031000%3A2018%20provides%20guidelines,not%20industry%20or%20sector%20specific

Jacobson, M., & Azzam, T. (2018). The effects of stakeholder involvement on perceptions of an evaluation's credibility. *Evaluation and Program Planning, 68*, 64–73. https://doi.org/10.1016/j.evalprogplan.2018.02.006

Johnson, W. (2012, November 28). Bogus student warnings ignored. *The Telegraph.*

Kim, S. D. (2012, October 23). Characterizing unknown unknowns. *Project Management Institute.* https://www.pmi.org/learning/library/characterizing-unknown-unknowns-6077

Koch, D-J., & Schulpen, L. (2018). An exploration of individual-level wage effects of foreign aid in developing countries. *Evaluation and Program Planning, 68*(C), 233-242.

Lascelles, D., & Dale, B. G. (1993). *The road to quality*. IFS Publishers.

Liao, H., & Hitchcock, J. (2018). Reported credibility techniques in higher education evaluation studies that use qualitative methods: A research synthesis. *Evaluation and Program Planning, 68*, 157-165. https://doi.org.10.1016/j.evalprogplan.2018.03.005

Lincke, S. J., & Khan, F. (2019). Ethical management of risk: active shooters in higher education. *Journal of Risk Research, 23*(12), 1562-1576. https://doi.org/10.1080/13669877.2019.1687575

Lu, Y., Teng, F., Zhou, J., Wen, A., & Bi, A. (2013). Blood management: Failure mode and effect analysis in blood transfusion: a proactive tool to reduce risks. *Transfusion. Wiley online library, 53*(12), 3025-3283

Mcshane, M. (2018). Enterprise risk management: history and a design-science proposal. *The Journal of Risk Finance, 19*(2), 137-153. https://doi.org/10.1108/JRF-03-2017-0048

Mirfenderesk, H., & Corkill, D. (2009). The need for adaptive strategic planning: Sustainable management of risks associated with climate change. *International Journal of Climate Change Strategies and Management, 1*(2), 146-159. https://doi.org/10.1108/17568690910955612

The Office for Students. (2018, January 8). New universities regulator comes into force. *News Story*. https://www.gov.uk/government/news/new-universities-regulator-comes-into-force

OLC. (2018). Internal quality audit report June. Not available for public view. *OLC Europe.*

PCW. (2005). *Risk management in higher education: A guide to good practice*.

Vol.11 (2023) no.3, pp.267-285; DOI 10.2478/mdke-2023-0017

PricewaterhouseCoopers. https://dera.ioe.ac.uk/id/eprint/5600/1/05_11.pdf

Popov, D. (2023, June 14). UK higher education and Covid-19. *Frontier Economics*. https://www.frontier-economics.com/uk/en/news-and-articles/articles/article-i7536-uk-higher-education-and-covid-19/#

QAA Report. (2018). *Higher education review of alternative providers for OLC Europe t/a Organisational Learning Centre*. QAA Educational Oversight. https://www.qaa.ac.uk/reviewing-higher-education/quality-assurance-reports

Raban, C. (2011). *Talking about quality risk and regulation*. The Quality Assurance Agency for Higher Education.

Rasche, A., & Gilbert, D. U. (2015). Decoupling responsible management education: Why business schools may not walk their talk. *Journal of Management Inquiry, 24*(3) 239-252.

Lozoya-Santos, J. d. J., Jorge de J. G. l., Brenda, E., Vargas-Martínez, A., Molina-Gaytán, I. E., Román-Flores, A.R.M., & Morales-Menendez, R. (2019, April 8-11). *Knowledge generation in higher education institutions* [Paper presentation]. Global Engineering Education Conference „EDUCON", Dubai, United Arab Emirates. https://doi.org/10.1109/EDUCON.2019.8725273

Sharma, S., & Pratap, R. (2013). A case study of risks prioritization using FMEA method. *International Journal of Scientific and Research Publications, 3*(10) 1-4.

Stake, R. (1995). *The art of case study research*. Thousand Oaks.

Tayeb, O., Adnan, Z., & Jozef, R. (2016). *Becoming a world-class university: The case of King Abdulaziz university.* Springer International Publishing. https://doi.org/10.1007/978-3-319-26380-9

TEQSA. (2018). *The Tertiary Education Quality and Standards Agency: Regulatory risk framework.* Tertiary Education Quality and Standards Agency.

Thomas, H., Lorange, P., & Sheth, J. (2013). *The Business School in the twenty-first century: Emergent challenges and new business models.* Cambridge University Press.

Travers, M. (2001). *Qualitative research through case studies.* Sage Publishing.

Venkatraman, S. (2007). A framework for implementing TQM in higher education programs. *Quality Assurance in Education, 15*(1), 92-112. https://doi.org/10.1108/09684880710723052

Vengrin, C., Westfall-Rudd, D., Archibald, C., Rudd, R., & Singh, K. (2018). Factors affecting evaluation culture within a non-formal educational organization. *Evaluation and Program Planning 69*, 75–81. https://doi.org/10.1016/j.evalprogplan.2018.04.012

Williams, A., & Heins, M. H. (1995). *Risk management and insurance.* McGraw-Hill.

Williams, T. M. (1994). Using a risk register to integrate risk management in project definition. *International Journal of Project Management, 12*(1), 17-22.

Woodhouse, K. (2015, September 27). Closures to triple, the inability of small colleges to increase their revenue will result in triple the number of closures in the coming years, a new Moody's report projects. *Inside Higher Ed*. https://www.insidehighered.com/news/2015/09/28/moodys-predicts-college-closures-triple-2017

Yin, R. K. (2008). *Case study research: Design and methods*. Applied Social Research Methods Series.