

## Risk Management in Public Sector: A Literature Review

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### Abstract

Public sector today faces a variety of complex and challenging events, and adequate measures are required in order to ensure that the perceived public value is maintained at certain levels. There is a treasure of literature available for the theory of risk and risk management in private sector, mainly with focus in financial and banking sector. Nonetheless, there is a gap in the literature regarding risk management in public sector. There is no well-established theoretical background of strategic risk management in public sector and most of the available literature focus only on the risk estimation and fail to further contribute to how these estimations can be introduced to the decision-making process within public authorities. For this reasons, this paper aims to present a review of the most sound literature on risk management in public sector and a special focus will be given to the identification of current literature gaps and possible future research areas.

**Keywords:** Risk, Risk Management Process, Public Sector, ISO 31000:2009.

### Introduction

Risk management is a critical task to be performed by organizations if they want to achieve their business goals and objectives (Lark, 2015). Normally, regardless the sector, organizations should have a clear vision on what does risk mean to them and try to establish a tolerance range so they can better truck the risk and take necessary measures when needed. This is known as well as strategic benchmark (OECD, *Advances in Risk Management of Government Debt*, 2005) (pp. 13).

Effective management of risk is not about risk elimination, it is more about deciding for possible future event weather is better to take them (OECD, 2014, p. 13), accept them as they are, or refuse by mitigation or trying for a full elimination of the consequences. Worldwide, governments face the challenge to better manage their daily risks. At the same time, there is an increasing demand for risk management, especially for governments, mainly following past financial and economic crises or increase in terrorist threats.

There is no difference for public sector; or better to say, the key difference in between risk management in public sector from the private one is that risk in the first case is much more complex and the scope of its impact is societal. Institutions in public sector are generally large and highly bureaucratic, making difficult any incentive towards risk management in this sector (Dobrea & Ene, 2006). The degree and variety of risks government bodies face in their daily activity is enormous and the key responsibility of these authorities is to assure the public that no current or potential risk will threat the perceived public value. Most of the time, public institutions have to deal as well with many risks which practically are responsibility of private sector but they are just not well equipped or willing to do so (Braig, Gebre, & Sellgren, 2011). According to (Bozeman & Kingsley, 1998) suggest that neither private sector nor public one have riskier or less risky cultures, what makes the main difference is the way how they respond to the identified risks.

### Research objectives and methodology

The main objective of this research paper is to provide a preview of existing literature regarding risk management in public sector, to identify key issues raised by authors and to suggest future possible researches in this area. Attention is paid to the selection of research and reports included in this paper. Relatively recent researches are considered and their impact

factor was important in the selection. Selected papers and researches are only in English language and they are presented in international journal and conferences. No empirical model is used and no data set was needed.

### Theory of Risk

#### *Risk as a concept and its terminology*

There are many definitions of risk as a concept and most of authors agree as well that risk is a hardly definable concept. In other words, most of authors try to offer definitions for a concept that is just different in different organizations and contexts. What is high for someone, can be perceived as low for someone else; what is a threat for a manager is an opportunity for another one. Simply said, risk is a perceptions and individual reaction towards the unknown. In general, incorporating industry specific characteristics with the organizations profile may generate a case specific and more accurate definition. Among the earliest definition in the field of management is the one provided by Keynes (1937) who makes a distinction between risk and uncertainty – according to him, risk is a scenario where the probability is known and uncertainty is the event where the probability is not accurately known (Hopkins & Nightingale, 2006, p. 358).

(Althaus, 2005) provides several definitions based on the context of the risk. His work on defining risk is shown in Table 1.

**Table I.** The Disciplines, Risk, and Knowledge Forms Applied to the Unknown that Determine Disciplinary Epistemological Definitions of Risk

Discipline	How It Views Risk	Knowledge Applied to the Unknown
Logic and Mathematics	Risk as a calculable phenomenon	Calculations
Science and Medicine <sup>a</sup>	Risk as an objective reality	Principles, postulates, and calculations
Social Sciences		
Anthropology	Risk as a cultural phenomenon	Culture
Sociology	Risk as a societal phenomenon	Social constructs or frameworks
Economics	Risk as a decisional phenomenon, a means of securing wealth or avoiding loss	Decision-making principles and postulates
Law	Risk as a fault of conduct and a judicable phenomenon	Rules
Psychology	Risk as a behavioral and cognitive phenomenon	Cognition
Linguistics	Risk as a concept	Terminology and meaning
History and the Humanities		
History	Risk as a story	Narrative
The Arts (literature, music, poetry, theatre, art, etc.)	Risk as an emotional phenomenon	Emotion
Religion	Risk as an act of faith	Revelation
Philosophy	Risk as a problematic phenomenon	Wisdom

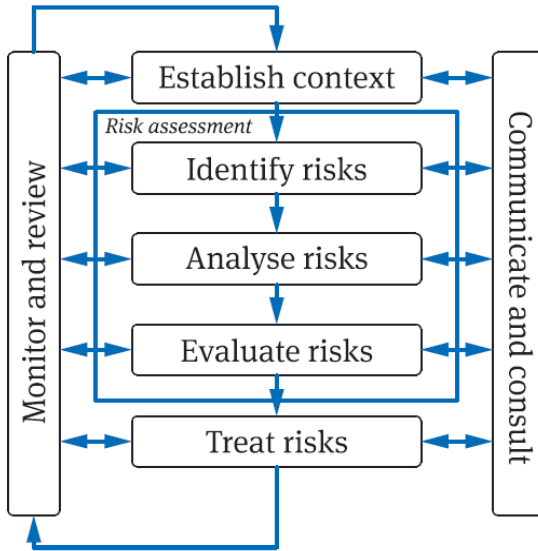
Source: (Althaus, 2005, p569)

Referring to (Queensland, 2011) Report a general statement of risk we may accept as if there is an element of uncertainty surrounding an event, then risk exists. Since 2009 with the introduction of ISO standard for risk management, risk management became more standardized and managers around the world embraced this incentive for a common language of risk. ISO definition of risk is simple and straightforward: “*effect of uncertainty on objectives*” (ISO, 2017).

#### *Risk Management Process*

Risk management process is the step-by-step approach for identifying, assessing and responding to risks. In addition communication of the identified risk to the relevant stakeholders is a critical step in this process (Queensland, 2011, p. 7). The same as per risk definitions, through the literature there are presented different risk management processes. (Leung & Isaacs, 2008) present a simple three step model: risk identification, risk measurement and assessment, and decision-

making. Nonetheless, since the introduction of ISO standard in 2009 offered a more comprehensive model, consisting in 7 steps and easy applicable in different industries and sectors, including public sector. This model is shown in Figure 2.



**Figure 2:** The ISO 31000:2009 risk management process (Lark, 2015, p. 14)

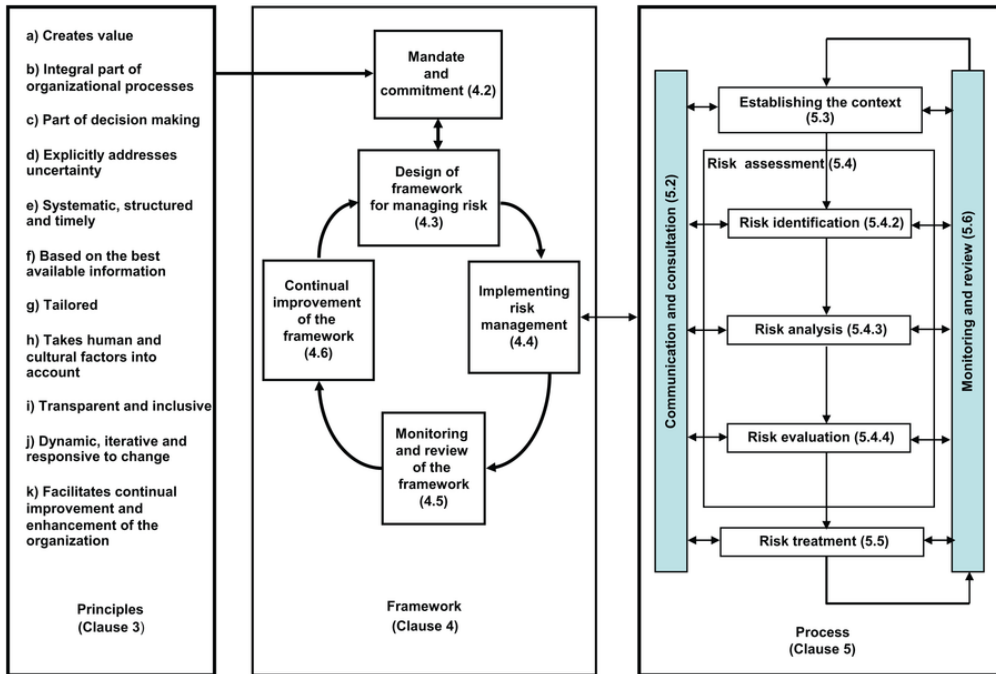
As can be seen from the diagram, risk management key steps are: establishing the context, risk identification, risk analysis, risk evaluation, risk treatment, communication and consultation, and monitoring and review. Even though shown separated, there is a continuity and overlap of the steps. This model is a good start for a risk management process nonetheless organizations are encouraged to develop further this model based on their specific organizational requirements (Queensland, 2011, p. 17).

#### *Towards a common standard in risk management*

ISO is an independent, non-governmental membership organization and the main developer of voluntary international standards (Dali & Lajtha, 2012). ISO 31000:2009 is a short but very comprehensive set of principles and guidelines on risk management. As an overview of the standard, it is a 23 pages document that presents 11 principles, a framework, and a process, which can be tailored, based on the specific organizational requirements (Lark, 2015).

This standard was introduced in 2009 and since then has been widely used worldwide (Dali & Lajtha, 2012). ISO standard is designed for a wide range of users, applicable in different organizations and sectors. Nonetheless, one should bear in mind that this is not a legal enforcement but just a voluntary approach and together with the wide range of benefits it offers, there are some limitations that should be overpass by practitioners.

Together with the risk management process, standard offers an extended diagram, explaining relationship in between principles, framework and process.



**Figure 3:** Relationships between the risk management principles, framework and processes (ISO, 2009)

As it can be seen in this extended diagram, ISO standard attempts to create the full picture of what managing risk means for an organization. The clear principles help in the establishment of the framework, which further

### Risk in public sector

General background, principles, standards a models or risk management can be applied in the public sector as well. Nonetheless, necessary adjustments should be performed in order to increase the accuracy of the used model and principles. (Nilsen & Olsen, 2005) in their paper emphasize the fact that local authorities deal with many requirements and objectives, and together with high levels of bureaucracy and regulation, risk management in public sector becomes more complex and challenging. (Leung & Isaacs, 2008, p. 510) as well support the idea that risk management in public sector is very complex, mainly deriving from the wide variety of involved interests (most of the time conflicting interests), political influence, etc. (Braig, Gebre, & Sellgren, 2011, pp. 1-3) as well accept that managing risk in public sector if highly more complicated than in private sector. They identify key challenges identified in risk management in public sector, which are as following:

1. Mission goals that override other considerations.
2. Frequent leadership changes and vacant leadership positions.
3. Leaders who lack knowledge of risk management and business.
4. Separation of operating budgets from program budgets.
5. Lack of clear risk metrics.
6. Complex procedural requirements.
7. Limited risk culture and risk mind-set.

The range of stakeholders in public sector is larger than for a business itself. Actually, for public institutions we can admit that stakeholders in risk management are basically everyone. For this reason, complexity and diversity of risks these

organizations face are enormous. The nature of risk can be different such as reputational risks (critical for public sector), operational risks, financial risks, infrastructure risks, national security risk, etc.

(Brown & Osborne, 2011) in their research conclude that there is a gap in the literature regarding risk management in public sector. In addition, existing literature does not provide a clear and comprehensive background of risk in the specific context of public sector. (Vincent, 1996) suggests that, even though risk management in public sector is part of the whole background of risk, still it has its unique sector based characteristics which need to be address in the model of risk. According to him, the key difference in between private and public sector lays in responsibility and accountability of managers. Private sector organizations are responsible to their shareholders, who, in a voluntary way, contributed capital for the establishment and continuity of the organization. On the other side, authorities and agencies in public sector operate based on funds collected from public, mainly in an un-voluntary way (taxes for example). In contrast with this view, authors like (Spira & Page, 2003) suggest that there is no material difference in between private and public sector when it comes to risk management. All standards and principles apply much or less the same regardless the sector. According to (Hansson, 2005, p. 12) another difference between risk management in private sector and public sector relates to the measures taken for the management of identified risks.

Most of the studies in risk management area has been conducted with a specific sector or organization such a project risk, risk in agriculture, financial sector risk, specific local public authorities and agencies. Within the scope of this paper, studies regarding risk management in public sector will be considered. Leading countries for their commitment toward risk management in public sector are mainly European countries, but Canada and Australia as well has a notable and well – recognized commitment to risk management.

Maybe most recognized and influential standard on risk management is ISO31000: 2009. Nonetheless, countries like Australia or Canada have provided very useful and comprehensive risk backgrounds for public sector applications. Australian standard (AS/NZS 4360:1995) later one re-published with some new versions, offers a very detailed explanation of what risk means for public sector and steps to be taken for an effective management of it. Latest version is that of 2009, titled 'AS/NZS ISO 31000:2009 - Joint Australian New Zealand International Standard Risk management / Principles and guidelines' which suspended AS/NZS 4360:2004. This is a 25 pages document and offers detailed guidelines on risk management (Standards Australia/Standards New Zealand, 2009).

'Managing Risk Across the Public Sector: Toward Good Practice' (Cameron J. , 2003), (Cameron J. , 2004) and (Pearson, 2007) are three important performance audit reports from Victorian Auditor-General's Office that have help improvement of risk management in Victorian's public sector organizations. Similar reports were published by Queensland Government 'A Guide to risk management' (Queensland Treasury, 2011)

USA as well has offered sound reports and publications on risk management in public sector. Risk management became even more important after 11/2001 catastrophic event, which became a bitter lesson for all. Among most relevant publications are (Walker, 2005) and (Jenkins Jr, 2007). Similar researches and publications are published by UK and Canadian governments with many useful case studies in their local authorities and agencies. There are as well a couple of publications from international organizations such as OECD or Independent scholars.

### **Concluding remarks and future researches**

The aim of this paper was to provide a short but comprehensive literature review on risk management in public sector. Purposefully, this research was focused on risk applications in public sector due to an increase in the emergency for deeper researches in this field. There is a treasury in literature concerning risk management in general and its applications in private sector (mainly banking and financial sector). Especially, introduction of ISO 31000:2009 standard simplified risk analyses providing a general widely accepted language on risk management. Most of studies applying risk principles and standards in public organizations are leaded by some countries such as Australia, New Zealand, Canada, UK and USA. There is a commitment of governments in all G20 countries for risk management in public sector, nonetheless – excluding countries mentioned above – not many publications are available regarding their risk practices and approaches in the public sector organizations.

The key finding of this research was that risk management is neither an optional nor a volunteer tool in the whole management of an organization; it is a must for every type of organization if they want to assure the achievement of their strategic goals and objectives. Risk is a threat or an opportunity, which cannot be eliminated completely and requires an effective management. Accordingly, our risk attitudes and risk perceptions may be influenced by a number of factors – even if we are not aware of such an influence. Additionally, managing risk in public sector, due to high level of regulation, bureaucracy, and wide range of involved stakeholders, can be a more challenging process than risk management in private sector.

There is a need for increased awareness regarding risk management in public sector worldwide, especially for emerging and developing countries. Scholars, by referring to ISO 31000 standard and other sound guides and reports, can establish risk models for specific public authorities and agencies in their countries. Through their work, they should aim to promote and support risk management in their country. Contribution can be done in designing an effective country based risk management strategy. Most of the countries nowadays fail to establish a national risk management plan and strategy, or even in case they have one, they are unable to implement it in an effective way.

Ongoing studies on roles and responsibilities within specific organizations would be very useful in tailoring effective risk management frameworks and procedures for the organization. By knowing who does what, it is easier to address any issue in risk management and people involved in the system are more committed to accurately perform their tasks. In case of failure, they know that it will be easy to discover their responsibility. Additionally, scholars and experts in the field may develop simple and comprehensive guidelines and checklists so it will be easier for local authorities to get involved in organizational risk management.

Lastly, by-product of this paper, we believe that governments worldwide should invest more in research on risk management within their public sector. A highly recommend approach would be stretching ties between government and higher education institutions and research centres. A public-private partnership in risk management would assure a more qualitative commitment towards risk management in public sector. Nonetheless, in order for this to happen, first an increased awareness on the importance of risk management in public sector organizations is needed. As a concluding note, most emerging researches should aim mainly to promote and support risk management in public sector and invite central and local governments for more commitment.

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