Socio-Cultural and Multi-Disciplinary Perceptions of Risk

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ABSTRACT

This is a review of the extant risk theory literature that hypothesizes new cross-cultural perceptions and multi-disciplinary techniques have emerged in risk management practice. Basic concepts in risk theory are introduced and then the generally accepted risk management framework is explained (identification, assessment, planning, and control). Global macro-environment factors and contemporary risk assessment practices are briefly explored. A multi-disciplinary socio-cultural meta-model of risk theory is developed. The paper concludes with ideas and proposes research questions for future studies.

Keywords: Culture, Probability, Risk Assessment, Risk Identification, Risk Mitigation, Uncertainty

INTRODUCTION

The perception of the terms ‘risk’ and ‘contingency’ vary across disciplines and cultures (Smith & Fischbacher, 2009). It is not often culture is discussed within risk management, but it is a relevant factor.

Interestingly, in Asian cultures, where Buddhism, Confucianism, and Islam religions dominate, risk is often attributed to spiritual governance such as the wishes of Buddha, Confucius or Allah - the equivalent of God from Christian testament (Strang, 2011e). Eastern cultures (notably in the Middle East, Africa and Asia) typically refer to negative events as bad luck instead of unfavorable risk outcomes and therefore the tendency is to avoid risks rather than manage them, while the opposite is true of risk attitudes in the west such as in Europe and North America (Strang, 2010a). This phenomenon can be explained by a dimension in the global culture model known as ‘risk avoidance’, which refers to a bipolar tendency to either avoid uncertainty (high) or at the other extreme (low) to control or leverage risk (Hofstede, 2009; Strang, 2009).

The cultural implications of risk are relevant to cite. Strang and Chan (2010) found Asian marketing and design teams avoided ‘unlucky perceptions’ when creating contemporary technology products such as certain colors (white, and red, are spiritual) or names such as “1414” which in Mandarin sounds like “easy to fall to
death” but on the other hand “8” is lucky as it signifies “prosperity.” From a marketing risk standpoint it is important to appreciate Mandarin (Chinese) is the most common first-language on earth (followed by English, then Spanish) in our 7 billion world population (USGS, 2011). Socio-cultural perceptions across borders and disciplines will impact future risk literature (Morse & Shive, 2011; Ongena, Tümer-Alkan & Vermeer, 2011; Smith & Fischbacher, 2009; Sperandio & Girard, 2010).

Notwithstanding the socio-cultural impacts on risk, practitioners in most disciplines concede the terms risk, and mitigation, have a negative economic connotation. Nonetheless, professionals assert that risks should be proactively assessed and managed, not ignored (van Asselt & Renn, 2011). More so, the recent global instability and the connectedness of information are a major stimulus for proactive risk and contingency management across all disciplines (Taleb, 2007). In the last few years, citizens, organizations and governments around the world have experienced increased uncertainty, namely: the 2008 global economic crisis, tsunamis, flooding, earthquakes and terrorism (Altman, 2009).

Negative global events have impacted almost everyone in some way so to a great extent there is a universal recognized need to improve risk management. This brings us to the purpose of our manuscript: to share contemporary research sources for applying theories and models to identify, assess or mitigate risks. This manuscript is intended to stimulate research by citing interesting risk perspectives and ideas.

LITERATURE REVIEW

We certainly don’t want to review the history of risk but we do need to present a few basic definitions. The first point is that risk theories are multi-disciplinary (van Asselt & Renn, 2011), covering a range of disciplines including economics, psychology, statistics, mathematics and philosophy, yet they are difficult to categorize since they integrate mathematics, statistics, and management science (Gigerenzer, 2002). “What is clear from this burgeoning body of research is that risk transcends a number of academic disciplines and also cuts across other boundaries—whether they are socio-technical, geopolitical, organizational, cultural, physical, or health related” (Smith & Fischbacher, 2009, p. 3).

Risk Theories

According to well-known economist Frank Knight (1885-1972), risks are known in the sense they can be estimated, but it is the underlying uncertainty that remains a true risk (Mills & Patterson, 2009). A contemporary business definition of risk is: the effect of uncertainty on goals (ISO, 2011, p. 75). Probability theory can be used to estimate risk (Mills & Patterson, 2009). At the other extreme, contingency is a buffer or reserve against expected risk (Dichev & Tang, 2009; Neck, 2009).

Risks and probabilities go hand-in-hand. A risk could be considered an event, which is mostly uncertain (but could have some expectation of occurrence). As noted earlier, a risk also has a negative impact on some endeavor. For example, in a life insurance company, the timing of deaths of its policyholders is a ‘risk event’ that needs to be estimated and managed so the company is able to have reserves to pay claims as well as make a profit from premiums that they do not have to pay out. In an insurance company, actuaries never know precisely who among their insured is going to die in a given period of time (uncertainty) but each death costs them a payout equal to the face value of the policy if the event should occur within the policy coverage term (this is the negative impact on profitability).

Contemporary risk assessment theory concepts are grounded in Markowitz’s (1952) integration of economic and statistical principles for selecting the best portfolio investments (based on the mean-variance of beta risk and yield regression estimates). Another significant risk assessment theory is the value-at-risk (VAR) model which combines Markowitz beta-risk
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