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# EXPLORING THE RELATIONSHIP BETWEEN RISK MANAGEMENT AND ADOPTIVE INNOVATION: A CASE STUDY APPROACH

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**Abstract:** Adoptive innovation becomes increasingly important in today's competitive world. However, in the presence of current economic downturn, cautions are voiced against potential risks; these innovative activities can bring to from firm to country level. Our research addresses such concerns. The research is drawn from two key streams of literature: risk management and innovation management. We developed a conceptual framework that consists of three components: risk behaviour, environmental conditions and adoptive innovative (REAL). Applying the REAL framework, we examined the risk management efficacy of adoptive innovation activities of one organisation under a historical perspective. We conclude that although adopters have a high tolerance for managing uncertainty and appetite for risk taking in line with competitors, there are two key elements that determine the performance of such behaviour: level of environmental turbulence and the role of senior management. It is the first time research determining the relationship between risk and adoptive innovative behaviour is being undertaken and will also provide direct guidance for managers regarding how to manage risk and uncertainty under different circumstances of their innovative practices.

**Keywords:** Innovation, Risk Management, Global Sustainability

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## INTRODUCTION

With the increasing change in technology, economic crises resulting in shocks with global systemic repercussions organisations have no alternative but to adapt such change by undertaking strategic options that enable them to sustain the future of their business (Naman and Slevin, 1993). In this paper, we are interested in what we have termed adoptive innovation. It refers to the capability of an organisation to source and use new ideas from outside that organisation

or even the industry to make strategic or structural changes. Adoptive innovation has become increasingly important in the last two decades when the environment has accelerated from stable low uncertainty environments to environment with high levels of uncertainty.

However, in the presence of current economic downturn, cautions are voiced against potential risks; these innovative activities can bring to from firm to country level. Our research addresses two key

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questions: what is the relationship between risk factors and adoptive innovators and what is the impact of environmental turbulence on such a relationship? It further highlights the importance of adopter innovations to sustainability and risk mitigation of shock effects.

This paper is divided into five sections: introduction; risk management and adoptive innovation; a model of risks, environment and adoptive innovation; the risk management efficacy of an adoptive innovator; and conclusions and recommendations.

## **RISK MANAGEMENT AND ADOPTIVE INNOVATION**

### **Adoptive Innovation: Definition and Applications**

Research into innovation has become a multidisciplinary and multiple approach effort (Jin et al., 2004). It involves but not limited to sociology, psychology, organisational behaviour, economics and marketing, and it has also been approached in a variety of ways, such as through customer and/or provider perspectives (Drucker, 1999; Goldsmith and Newell, 1997), or levels of innovation in terms of individuals, teams/projects, organisations, industries and countries (Drucker, 1999; Pich et al., 2002;

Subramanian, 1996). The scale and complexity of such an effort makes a unified definition of innovation difficult if not impossible (Gatignon et al., 2002). It is therefore essential to make it explicit what it refers to before we attempt to discuss issues related to innovation.

In this research, we draw largely the literature into innovation in the field of

organisational behaviour and marketing. Our level of analysis is organisations not individuals or projects. We follow the definition of innovation from Jin et al. (2004) in which organisational innovativeness is defined as 'the core capability of organisations to master and maintain holistic value creating dynamics in which the opportunities of change are exploited and new ideas are generated, translated and implemented into practice'. We are particularly interested in a type of innovativeness identified in Jin et al. (2004), that is, adoptive innovativeness or soft innovativeness. Adoptive innovativeness refers to 'the capability of an organisation fostering "soft" output. For example, innovations that are implemented and realised through changes in an organisation's social system and the change of relationships between different components of such a system, usually demonstrated in the form of new strategies, images, organisational structures or relationships with other organisations. This includes administrative innovations such as those achieved through collaborative, strategic and even technical aspects of the business (Damanpour et al., 1989). It can also include firms that may simply adopt rather than create their own ideas for innovative purposes (Jin et al., 2004)'.

We then define adoptive innovator or adopter as an organisation that demonstrates a strong orientation in adoptive innovativeness. The innovations they adopt can be administrative or relational but not those yield new products or new services. Adoptive innovators often break the rules of the game by strategically redefining their business and focusing on areas often overlooked by their competitors (Markides, 1997). They successfully attack established industry leaders by questioning the norms. Most importantly, these companies do this

without the aid of a radical 'hard' innovation. In providing an understanding of how the model works in practice, we explore the case of Liverpool Victoria (LV=) and their adoptive innovation strategies in later part of this paper.

### **Sustainable Risk Management of Adopter Innovation Typology**

A significant proportion of research into innovation has been focused in finding out critical factors linked to the success and failure of new products or new services in the last 50 years (Craig and Heart, 1992; Griffin and Page, 1993, 1996; Jin and Li, 2007; Sherman et al., 2005). However, much less research is done on sustainability and risk management of developing new products and services. Even less research is available on the sustainable risk management of adoptive innovators. The issue of risk management for adoptive innovators is especially salient because of the unpredictability and uncertainty of changes that the organisations may get into (Richie and Marshall, 1993; Zahra, 1991). There are two key components for sustainable risk management for adoptive innovators: organisation perception of risks and the level of risk taking. Different organisations perceive risks differently, and their appetite for risk taking can vary quite significantly (Florice and Iabescu, 2008; Geiger 2005). Berglund (2007) further suggested that the way risk is conceived would influence implementation of innovative actions.

### **Environment Turbulence Implications for Globalising Adopter Innovation Strategies**

According to Ansoff (1991), the perception of risks of an organisation and its risk taking behaviour is not isolated. A key determining factor is its environmental context, especially

the level of turbulence of the environment (Ansoff, 1991; Ansoff and Sullivan, 1994). Antoniou and Ansoff (2004) suggested that the profitability of a firm is optimised when its strategic behaviour is aligned with the environment it is operated in.

Ansoff (1991) highlighted five levels of environmental turbulence: (1) repetitive, (2) expanding, (3) changing, (4) discontinuous, and (5) surprising. In a repetitive environment (Level 1), changes are slow and predictability of future is clear, whereas in the 'surprising level of environment' (Level 5), changes are extremely rapid and the future full of unpredictable surprises. One of the criticisms of Ansoff's strategic formula is that given the case of higher levels of environmental turbulence (Level 3-5) and thus the difficulty of environmental prediction in these circumstances; it is difficult if not impossible for firms to plan ahead. Furthermore, technological discontinuities mean that predictable, step-by-step strategic planning process may not be applicable (Tushman and Anderson, 1986, 1997).

Current economic downturn is worthy of mention and has implications for sustainability and innovation strategies. Risk management scholars and practitioners have called repeatedly anticipating and managing risks in financial organisations (Kessler, 2001), especially concerns with the radical nature of change and associated risks. However, the scale and scope of the economic downturn have created shocks and crippling consequences. In a globalised world, no country is immune to such shocks and their systemic outcomes, and therefore, it is in extremely risky and dangerous situation.

These in turn have a negative impact on performance of organisations, even successful performers operating in

less turbulent or stable environments (Picken and Dess, 1997). The stress lies in innovation which research has indicated can mitigate shock effects. For example, Finland experienced an extraordinarily deep economic crisis during the 1990s. Within 4 years, output was reduced by more than 10% and the unemployment rate quadrupled to almost 17%. External shocks (the collapse of trade with the former Soviet Union in 1991, but also a sharp downturn in the Organisation for Economic Co-operation and Development [OECD] area), combined with a domestic banking crisis, led to a collapse of consumption and investment spending. Overcoming the crisis required drastic measures to improve competitiveness and to consolidate public finances. OECD highlighted in their research adopter policies put forward by Finnish and Korean governments. Finnish companies instead of reducing R&D spending not only continued sustained levels of spend but also increased this spend resulting in a counter cyclical shift to the crises. These measures with strong investment in innovation and structural change (adoptive approach) helped put the Finnish economy on a stronger, more knowledge-intensive, growth path following the crisis. Similarly, strategies were effective in Korea enabling organisations to capitalise on new and emerging opportunities (OECD Directorate of Science Technology and Industry-Innovation in crises – Finland and Korea [oecd.org/doc](http://oecd.org/doc)).

## **REAL, A CONCEPTUAL MODEL OF RISKS, ENVIRONMENT AND ADOPTIVE INNOVATION**

### **Rationale for REAL**

Moehrle and Lothar (2008) suggested that risks facing different types of innovators

are significantly different, and their notion is also supported by Keizer and Halman (2007). It is, therefore, important to look closely what are risk factors associated with adoptive innovators and what are the risk perception and the level of risk acceptance of different adoptive innovators. Furthermore, given the importance of environmental factors and forces at play in determining not only the risk taking behaviour of organisations but also the impact on potential risks, it is essential to consider such an impact. We therefore propose a REAL model to take into account fully the three key elements for sustainable risk management of adoptive innovators.

### **The Model Description**

The model contains three components as follows:

*Risk factors:* The variable makeup of this category relates to behavioural factors (e.g. level of risk taking and innovation strategy) and that underpin the risk at a particular environmental state in which the organisation operates. We have no intention to attempt a classification of risk factors here. Instead, we are interested in level of risks, risk appetite, and risk taking behaviour of organisations.

*Environmental turbulence:* The variable makeup of this category links in to the risk behaviour (e.g. where there is less time to respond will require a higher degree of risk appetite). It is a particular concern when shifts of turbulence occur, that is, a departure from one level of turbulence to another. The pace of such change may have different impact on the risks facing the organisation and therefore their capability to cope with such change.

*Adoptive innovator behaviour:* The variable makeup of this category arises from

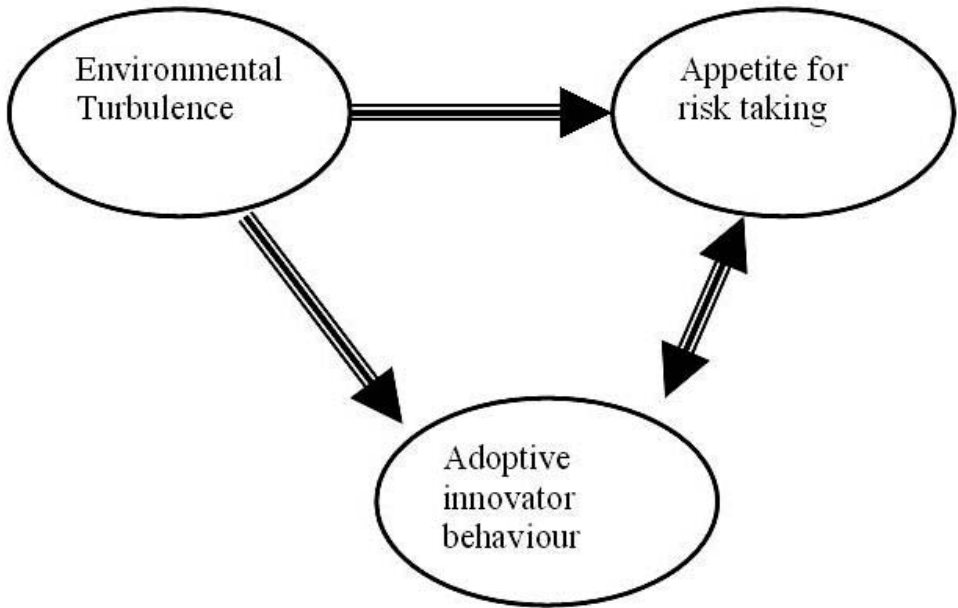


Figure 1 REAI framework

a particular innovator types but links in to the environment in which the organisation operates. The variables are dependent on the condition of the market environment and level of innovativeness undertaken.

Figure 1 shows the assumed relationship of these three components. The level of environmental turbulence acts as an exogenous construct, appetite for risk taking, and adoptive innovative behaviour as endogenous constructs, respectively. Given the definition of organisational innovativeness as one particular type of organisational capability, the model follows implicitly a resource-based view of organisations. In other words, an organisation that can best utilise its adoptive innovativeness will have a competitive advantage over those which unable to utilise such capability and resources, and therefore outperforms such rivals (Cool et al., 2002). Empirical evidence

has also shown that adoptive innovators perform better than non-innovators both in terms of annual sales growth and profitability.

### **Implications of REAI in Times of Turbulence**

The implications of the REAI model are straightforward. With the increasing of environmental turbulence, the change in terms of technology as well as customer tastes becomes rapid and unpredictable, which calls for higher appetite for risk taking. Therefore, the norm of business practice has to be changed to cope with such environmental uncertainty, which in turn calls for the organisations to adopt new approaches and changes in their behaviour. Organisations that are proactive and respond positively to such change will outperform those that are slow and unable to respond to such change.

## **THE REAL MODEL IN PRACTICE: A CASE STUDY**

### **Liverpool Victoria: A Low Risk Taking Non-innovator**

Liverpool Victoria began in 1843 as a burial society. Today, out of the existing 200 friendly societies, Liverpool Victoria or as it is now rebranded as LV= is the largest friendly society in the United Kingdom and has remained a mutual organisation (no shareholders) throughout its existence. As a friendly society, LV= was not highly competitive and was often referred as the 'sleeping giant of financial services' getting premium income as a collecting society through weekly door-to-door calls relying significantly on cash as a transaction method. New business was gained through recommendations and referrals. The company did not see the need then for greater name awareness. The solidity of the organisation meant that even though the market was becoming competitive, strong customer loyalty ensured LV's survival (Hamel, 1998).

### **The Level of Environmental Turbulence and the Role of Senior Management**

Since late 1980s, with the changing demographic trends and new competition both friendly societies and insurance companies began to compete for the younger group market share. The emergence of new technology, especially Internet and related digital technological applications, makes the production process of LV= more costly and less efficient than its rivals. The level of environmental turbulence during the period is no longer at the lower Level of 1 or 2 but rather on par with Level 3 or 4 in Ansoff's scale, that is, changing or discontinuous. LV= was jolted into the reality of the situation. Senior management realised that

its survival was at risk if they did not respond to such changes. In late 1995, it released its vast free assets to look for new acquisitions. Furthermore, new structural changes were being made. The name was changed from Liverpool Victoria Insurance to Liverpool Victoria Friendly Society reiterating the mutual concept and home service brand. Furthermore, over 900 jobs were cut, and there were rumours in the market that the company was ready to be sold. However, in 1996 with the merger with Frizzells, a large personal lines underwriter at Lloyd, more changes were made with a new senior team in place. As part of reframing, its innovative stance LV= undertook some direct actions – 75% sales staff laid off in 1998 and new sales force rebuilt over the next year together with a setting up of a telephone-based operation.

### **The Emerge of an Adoptive Innovator LV=**

In 2000, LV= introduced an intranet knowledge management system to inform staff on all group's products, services and activities, and for the next few years, new systems were put in place with a rebranding, and again a new team and significant new staff employed in 2007 and 2008. It also made new acquisitions such as motor specialist Highway Insurance.

The acquisition was seen 'to accelerate LV's ambitions in the broker underwriting channel, adding scale and expertise as well as broadening the product range' (insurance newslink August 2008). LV= continues to expand, and although it showed a loss in 2009 due to short-term fluctuations, its operating profit was up by 128% and gross premiums up by 38% (insurance newslink April 2009).

It can be seen that LV= has moved from a non-innovator to that of an adopter

innovator. The risk acceptance level and risk appetite of new LV= have increased dramatically and correspondingly its adoptive innovativeness. The LV= case indicates that being a non-innovator is not an option in the time of high environmental turbulence. To be an adoptive innovator requires constant dynamic strategic action where the role of senior management is vital.

### **CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH**

The research is drawn from two key streams of literature: risk management and innovation management. We developed a conceptual framework that consists of three components: risk behaviour, environmental conditions and adoptive innovative (REAI). Applying the REAI framework, we examined the risk management efficacy of adoptive innovation activities of one organisation under a historical perspective. We conclude that although adopters have a high tolerance for managing uncertainty and appetite for risk taking in line with competitors, there are two key elements that determine the performance of such behaviour: level of environmental turbulence and the role of senior management. It is the first time research determining the correlation between risk and adoptive innovative behaviour is being undertaken and will also provide direct guidance for managers regarding how to manage risk and uncertainty under different circumstances of their innovative practices.

The conclusions are also consistent with findings from existing literature in strategic management (Ansoff and Sullivan, 1994; Cool et al., 2002). However, our findings must be interpreted with caution. First, our research is only exploratory. In

this paper, we used a single case study to illustrate applicability of the REAI model. The boundary and conditions of such application are not specified. Therefore, there is a necessity to test the REAI model using a large representative sample. Given that it takes relatively long period to observe the changes of the environmental turbulence as well as organisational behaviour. It is also essential to carry out such a study from a longitudinal perspective.

### **BIOGRAPHY**

**Zhongqi Jin** is a Senior Lecturer at Middlesex University Business School, London, UK. He holds a PhD from School of management, University of Bath. He teaches marketing and innovation. His research interests are in the fields of innovation management, product development, and consumer behaviour. He has published in *R&D Management*, *Journal of Strategic Marketing*, *International Journal of Innovation Management*, *Asia Specific Journal of Logistic and Marketing*, *Asia Pacific Business Review*, etc.

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