Transforming Environmental Uncertainty to Risk - Managing Risk and Management Control

Krister Bredmar
Associate Professor, School of Business, Economics and Law, University of Gothenburg, Sweden
Email: krister.bredmar@handels.gu.se

Abstract

Purpose: Managers deal with environmental uncertainty and risk on an everyday basis, especially when it comes to making decisions and taking action. In order for a manager to be informed and to be able to take purposeful actions, he/she needs to translate and interpret what is going on in and around a business and by doing so make sense of the context. Management control, in its simplest form equivalent to planning and control, becomes a tool that can be used to manage environmental uncertainty and deal with a more specific risk. This paper comes from a larger study where management control as an organizational sense-making process was studied (Bredmar, 2011a).

Design/methodology/approach: A multiple case based study was conducted in the main study and this paper focuses on how the CEOs in five organizations reflect on their own understanding of environmental uncertainty and risk.

Findings: The findings show that from a theoretical perspective, risk is a small, well-defined part of a larger uncertainty. But from a practical perspective, uncertainty and risk are always there, in decisions and actions, however not that well defined.

Research implications: Management control, in general, becomes a tool that helps in dealing with uncertainty and risk and by doing so also becomes a way to manage risk.

Keywords: Environmental uncertainty, risk, management control, risk management, case study

Research Type: Case based study

Introduction

For middle management, the process of management control becomes a process of organizational sense making (Bredmar, 2011b). In this process a basis for purposeful actions is built where an individual manager takes support in the organization for his or her actions (Checkland & Holwell, 1998). The daily work with managing an operation also includes taking actions and making decisions where the outcome is not all that clear and in doing so the manager has to deal with uncertainty and a form of risk. In this way an underlying understanding of risk intervenes with the day-to-day operations and in doing so becomes a part of the regular management control process. Working with actions that are coming out of a management control process then also becomes an expression of how a manager manages risk. The uncertainty that is included in a decision or action is in a way reduced by a management control process.

Working with risk in organizations has from time to time been understood as minimizing risk and prevention, i.e. that the things you do not want to happen do not happen. Today, to a greater extent, risk is something that is calculated and something that the organization is prepared to take in order to advance and develop. Risk is also associated with something
creative, to take the initiative. Understanding risk and uncertainty is more and more becoming something that is important for different parts of an organization to be able to work with.

“Risk management is no longer a private matter for experts, but is increasingly publicly certifiable and visible because of its role in defining organisational virtue and legitimacy.” (Power, 2007, p. 180)

The perception of what risk is differs between individuals and organizations. When working on a particular issue or task, it may pose a risk to a specific person and another person may not see it as risky. A risk is then something that becomes a concept when it is defined by its context. Risk can in many cases be linked to the ambition and the way management is done in a certain part of the organization. This in turn leads to a risk control of actions and behaviour, which becomes a part of dealing with risk.

“Concepts like risk and governance are ultimately social constructs shaped by the contexts they inhabit. As dimensions of the organisational realm, they become operationalisable and actionable because they can be formalised and rendered technical. Making risk and governance concepts procedural and analytical enhances their capacity to be managerially actionable.” (Bhimani, 2009, p. 3)

This paper deals with how managing risk in a management control setting could be described and understood. The purpose is to contextualise risk as a phenomenon, a concept and by doing so, connecting it to management decisions and actions. The management control process then sets the scene through which the basis for minimizing or handling risk is done. In the following sections, the task of managing risk is described as understanding uncertainty, working with risk and understanding risk. A rather fine line is drawn between the transformation of a more general uncertainty into a specific risk, which by doing so becomes easier to handle and act upon. Managing risk is understood as the process, the management control process, where a vague uncertainty becomes a manageable risk.

**Previous Research**

Risk as a concept can be illustrated from multiple perspectives. In a way, managing risk is about how uncertainty is perceived in the organization and theories describe how uncertainty could be minimized or even absorbed. Management of an organization today increasingly have come to focus on managing and leading a business based on the risk that exists in and around the business (Miller, Kurunmäki & O’Leary, 2008). Although uncertainty and risk is not the same thing in a management context, it is nevertheless an assessment of uncertainty that leads to the risk. When understanding uncertainty, it becomes possible to manage risk and act upon it (Bhimani, 2009). Although risk concepts are difficult to interpret, and contains a great deal of uncertainty in itself (Renn, 1998), the work to systematically manage the risk paradoxically led to the ability to handle a more comprehensive uncertainty decreased.

“... the management of organisations is rapidly being transformed into and formalised around the management of risk, while much of the management of uncertainty occurs through a variety of hybrids that reside beyond the formalised practices of risk management. The management of uncertainty does not only happen through the now obligatory and increasingly elaborate appratuses of risk management systems and assurance frameworks. As compliance with more or less standardised governance models comes to dominate increasingly the design of risk management systems, it may well be that the ability of these
systems to manage the full range of uncertainties that organisations face is diminished.” (Miller et al., 2008, p. 944)

**Uncertainty**
The difference between uncertainty and risk is difficult to define (Froud, 2003). 50 years ago, risk management and control were synonymous with cost control (Gallagher, 1956). An initial starting point may be that uncertainty means a great variety of different aspects of the operation, while risk refers to a specific uncertainty that is defined and categorized as a risk (Miller et al., 2008). In a way, risk could then be calculated in the form of a quantitative probability (Froud, 2003). One possible interpretation of the concepts and a consequence of this assumption is that if a situation can be quantified and counted on in terms of probabilities, it is a risk, while if it is not possible to calculate in that way; it is an uncertainty (McGoun, 1995). The need to quantify uncertainty, gives accounting logic and accounting information a new purpose and function (Broadbent, Gill & Laughlin, 2008). When an uncertain context can be defined, preferably in quantitative terms, it thus becomes a risk, which could be seen as a subset of a larger amount of uncertainty.

One of the most obvious areas that are affected by uncertainty and risk is when decisions are made (Broadbent et al., 2008). Nevertheless, risk and uncertainty are not always taken into account in the decision making process. Froud (2003) argues that there are three different ways in which different decision makers relate to uncertainty and risk. In the first approach, which can be described as a technical decision-making, risk is controlled through analytical assessments and calculations and uncertainty is not considered. In the second approach, which can be described as a more post-modern approach, a community is seen as a risk society (Giddens, 1998). Different aspects of the decision itself have become too complex and therefore cannot really be used as a way to control risk. An even greater problem is that the decision also creates risks and uncertainties, which has been described as systemic risk (Beck, 1992). In a third more radical model, both uncertainty and risk are handled in a decision making process. Uncertainty and risk are understood as two concepts that are largely associated with decisional work.

**Working with Risk**
A natural consequence of the idea that risk is a defined part of a larger uncertainty is that a manager somehow needs to work with a defined part, a risk. This is in itself seen as an important part of the management of complex organizations (Miller et al., 2008). There are two parts included in the first step within the process of managing risk; first, how likely it is that the identified risk will take place; and secondly, what action to take if it occurs (Bernstein, 2000). In theory, working with risk both builds on probability theory and cognitive assessments. When different patterns have been identified, concerning for instance how often an incident or an outcome occurs, then different types of policies or procedures could be established in the organization (Holt, 2004). If the patterns are difficult to identify, the defined risk once again become uncertain. Once the risk phenomena in an organization have been defined, it will be a task for management to manage the risk.

An interesting starting point in the process of working with risk is to relate it to the strategic ambitions. The strategic control is indicative of risk management with the aim of achieving reliability and security in production, while the cost for the unexpected is checked and, ultimately, value can be created. Early scholars in the field, such as Frank Knight (Runde, 1998), emphasized in a clear way that risk management was not about transforming all possible uncertainties to risks and eliminate them. The aim was rather to define risks in relation to the organization’s long-term strategy and thus make it possible to work with
uncertainty without exposing the operations of unreflective uncertainty (Holt, 2004). One of the challenges is to define what a risk is, and therefore the work with managing risk takes different forms (Bhimani, 2009). However the strategic objectives are a natural benchmark for various risks, helping in understanding how they should be managed. Working with risks in itself is one of management’s most important tasks, and in some aspects it even defines what leadership of an organization is (Bhimani, 2009). If management wants to take another step, it is not enough to manage risks in a deliberate manner. A transparency that allows external stakeholders to assess management’s choices and decisions and ultimately its consequences are needed (Epstein & Birchard, 2000).

“Today organisations are expected to signal the adequacy of their internal management control mechanisms, rather than simply seek to operationalise them. They must promote the view that control is exercised in both the taking and the managing of risk. Action to put into effect risk management is insufficient. Transparency of risk management practices must co-exist with objectified pursuits of risk control.” (Bhimani, 2009, p. 4)

Good management should therefore work with diagnoses and define risks in the environment that exist in and around an organization. (Miller et al., 2008). This type of rationality can be seen as a form of moral, cognitive, construction of work ethics or idea, and work procedures with which future situations become manageable (Ewald, 1990, 1991, Knights & Vurdubakis, 1993). To work with risk means that managers no longer surrender to the whims of fate without taking responsibility for the environment in which it operates, and it is instead preparing for the possible consequences of a hazardous future situation (Miller et al., 2008). Working with risk means both to define what the organization and management perceives as a risk and also to develop methods and approaches for managing risk and its consequences.

Understanding Risk
One of the most common, theoretical starting points when risks should be described is that the risk is about quantifiable variables such as measured in probabilities. An alternative approach is to understand risk from a more holistic perspective (Mikes, 2009). Understanding risk thus is not only a discussion of such risks that can be measured quantitatively but also non-quantitative assessments and perceptions within the concept. The difficulty lies in defining risk in a way so that not everything becomes a risk (Power, 2007). This approach is tangent to the argument of free will (Holt, 2004). If all that happens is predetermined, i.e. it does not matter what I do, but on contrary if all is controlled by my free will and my actions are then controlled by the whims and fancy that my free will is offering. If that is the case my decisions and actions count. Somewhere in between these two strands, there is reflective judgment and evaluative perception as such, based on experience and judgment which put the decision maker and management in focus. An important dimension of risk is therefore to measure not only what can be quantified but also to add a dimension, an unconscious competence relating to the experienced risk.

Methods and techniques used to manage non-quantitative risks try to understand the consequence of a risk (Mikes, 2009). This is something that also characterizes the difference between programmed and non-programmed decisions. The outcome or effect of the programmed decisions can to a greater extent be predicted, for example, based on experience, while the non-programmed decisions are difficult or even impossible to know the consequences of (Emmanuel, Otley & Merchant, 1990). The core of our understanding of risk is a matter of assessing, having an experience, an intuition and to work with the strategic ambition as a yardstick (Mikes, 2009). Techniques and methodologies such as scenario
analysis and decision tree can be traced back to strategy and decision theories (Pickford, 2001), while the risk mapping, self-evaluation based on risk and risk audit come from theories of internal audit (Mikes, 2009). Harder risks to predict are those related to global contextual phenomena, such as environmental risks and medial risks. The way to work with non-quantifiable risks is slightly different from the quantified, both in terms of methods and techniques, and regarding the purpose of risk management.

Method
This paper is based on a multiple case study (Yin, 2013) conducted over a two-year period where five organizations were followed and studied. The material was collected with a field study approach (Bruns & Kaplan, 1987) using semi-structured interviews, observations and written material. The interviews were recorded and transcribed. Since the interviews were done in Swedish, the citation used in this paper is translations from Swedish to English. The analysis was done by a grounded theory inspired method (Glaser & Strauss, 1967), looking for common themes and patterns. These were used to illustrate theoretical concepts and ideas presented earlier in the paper. In this way, the theories become a form of backdrop with the empirical findings in the forefront. There was no pre-established model, or clear-cut hypothesis formulated but a more general description of how theory and practice look at managing risk is thought of and done. The study is therefore descriptive in nature where the empirical material is compared to previous theories, and new insights are developed.

Three of the studied organizations are businesses developed to becoming billion SEK industries under less than one person’s lifetime. The person founding the business is in two of the three businesses still the CEO of the company. The first CEO, in this paper called CEO A, is managing a reseller in a very competitive market. The company has been successful in many areas but mostly in developing the ir service, reselling, into new forms. The second CEO, named CEO B, has founded and developed a service organization, both through natural growth and through acquisitions. The third CEO, named CEO C, founded a transportations company somewhat 40 years ago. One of their competitive advantages is their service levels and the ability to bid for contracts. The fourth organization is a county council, which among many things is running several hospitals. The CEO, named CEO D, has a well-structured organization with well-defined responsibilities. However, from time to time there are public opinions on how to run the operations. The final organization is a music festival, which has been dominating its industry from an early stage. The CEO is named E and the organization is somewhat different from the others but in many ways quite interesting. All together, they form a diverse spectrum of management experience. Even though the main study focused on the entire organizations, this paper will zoom in on the way the manager thinks about his own actions when it comes to managing risk.

Results
The CEOs in this study have a somewhat different approach when it comes to managing. CEO A is an analytical manager who likes to talk to his colleagues and co-workers in order to get the right signals about his plans for the next step. CEO B, on the other hand, is more of a fast-shooter and acts on instinct and gut feeling. He tells his staff what to do more often then he listens to their suggestions. CEO C is competitive in many ways and likes to work a great deal with his offers. He runs his organization with a tight control and follows several details in the operations. CEO D is in many ways a “modern” CEO with new ideas on how to lead the organization. Reporting is up to date, communication comprehensive and he likes to act well informed. CEO E has a more loose way of doing business. His operations are more or less based on a feeling, which he likes to share in many different ways with his staff. He trusts
them and supports them in their daily work, more than giving them clear instructions. All together the managers represent five different ways of doing business, where some of them have similarities but mostly they have developed their own personal way of managing.

**Uncertainty**
In the studied organizations, there is no division between a more general uncertainty and a clearly defined risk. However, there is an idea and an on-going discussion of areas that are perceived as uncertain and where the risk can be identified, without fully defining them as a risk in itself. CEO A talks about major events or external events that affect operating activities as examples of uncertainty and decisions related to them. Similarly, CEO B talks about how large projects involve great risk and that he is looking for and wants employees who not only manage risk but who can also create conditions for profitability. Even CEO C naturally describes uncertainty as part of their daily work, both in terms of operations and business in general.

“Running a business is a risk and you need to balance and try to create an operational stability that is so great that it allows for a certain innovation and creates risks without having to compromise the entire operation.”

The County Council is working with risk and uncertainty in many different dimensions. It can be about whether the operations have the right tools and the right training but also about whether various efforts have been assessed properly. Even though every decision is based on evidence and reports, CEO D believes that one always must expect some deviation and wrongdoing. CEO E finds that risk and uncertainty are there in everyday business, but it is not something that governs the operation and the decisions, something that could summaries the opinion of several of the CEOs. They have variously stated that they live and work in a context with many risks and are forced to act accordingly. However, it does not stop them from managing the business, they have found a way to work with risk and uncertainty.

**Working with Risk**
In discussions with the various organizations, it was natural to talk about how they worked with uncertainty and risk, there were plenty of examples of what the work entailed. In contrast, the interpretation of risk shifted considerably among the CEOs. One type of risk-taking was an unconscious risk-taking that was based on some type of experience or gut feeling, which CEO E described.

“Well, first we must of course see what kind of product we sell and we do not yet know. We know that in December, early January, what we have to sell. And then we end up in a completely different situation. And there’s, I really hate the term gut feeling, because I think it’s like, there are so many people who use it, especially in the music industry. And you know how things are going for them. However, I become confident in my decisions usually after I have communicated with someone in staff. It is the case. You cannot sit alone at the top - that’s not possible. Now I have one, fairly broad knowledge of music that I have worked with so far at different levels and that is a feeling I have.”

For CEO D, it is important to find ways to follow up on decisions and investments made. In many cases, it is extensive and costly investments and it is important to try to understand what it is in an investment that generated a specific performance.
“Now we are just doing the computerization, the risk is that we do not get what we expect if we do not invest enough in training or got everyone to see how the tools can be used and / or the supplier does not live up to what we have agreed. Or that we have not taken a sufficient strategic leap or dared to invest enough so that it has any effect. But it must of course be monitored and you have to do risk analysis. ... You always make decisions with the data you have at the time of the decision.”

Even CEO C emphasizes how the daily operations are full of situations that pose risks both from internal and especially external issues. Draft legislation and regulations of various kinds make the map redrawn and then when the difference such as tax and insurance for the vehicles is unclear, further uncertainties occurs. The management of the studied organizations have a relatively easy task when it comes to exemplify how they work with risks. These can both be categorized as large, asymmetric risks but also risks that in a short time could give a positive consequence. Risks are managed both consciously, where the risk is well defined, but also unconsciously, something that management manage based on their experience. The work with risks is an important and vital part of the management task in the organizations studied.

**Understanding Risk**

In several of the organizations, there is a clear awareness and experience of what various risks may mean and what the consequences might be. CEO B emphasizes that the more money that is invested in a project, the greater the risk. It is a fairly simple relationship but also a natural starting point for the risk and how its impact can be described. The Music Festival has always been a festival for music lovers and young people who wants to go to a big music festival. While the festival has grown, ticket prices have also increased, which has excluded certain groups from coming. This is a risk and an undesirable consequence that CEO E is worried about, but he is also worried about how media portrays the festival.

Another way of looking at risk understanding is when different scenarios of how the business can be developed are sketched. This type of reasoning becomes clear when CEO C describes his view of risk and indirect risk understanding. He largely bases his reasoning on an experience and an understanding of why he chooses to act in a certain way and what the consequences are. An illustrative example is the reasoning regarding acquisitions, but also in terms of the obligations that the business itself has on the employees in general.

“We look at what the actual acquisition costs are and what synergies we can expect to achieve and then usually we tend not to emphasize the synergies the first year anyway and possibly also the other year. The reality is usually that. Then we look at what it can bring long term, what strategic importance it is to be involved in that market and if we increase our capacity or if it can make the pricing very tight and how it affects it. There are many factors that we take into consideration.”

For a number of managers, it is clear that there are significant risks in the task of making decisions. An undesirable consequence of the decision is risk. Meanwhile, there is a dimension of the decision, which is just chance-taking, daring to act in spite of the risk that the outcome will not be the desired one. CEO D describes this dilemma quite simple and clear.

“... you take decisions after the information you have when you make the decision. Then sometimes - yes, "shit happens" but some risks, we must dare to take otherwise we dare not to stick out a little.”
CEO D’s argument is based on a realistic and in many aspects analytical approach. This can be contrasted by how CEO A talks about the unconscious competence. When the experience of an area becomes deeper, it is used to make better decisions; skills reduce the risk, in an unconscious way.

“My theory on this is that this unconscious competence that has no other name than gut feeling, when you can use the skills, consciously or unconsciously, it reduce the risk.”

The understanding of risk and its consequences are a natural part of managers’ everyday lives. Theoretically, there is an emphasis on the quantified risk while in practice in many aspects it is an emphasis on the unconscious, non-quantified risk management. In most of the discussions, the managers also return to the consequence of risk, which in principle is as important as being able to identify and define risk in itself. Working with the risk concept is a natural part of managers’ decision-making.

Discussion
Changes around a business create uncertainty, which in turn needs to be addressed by management. The management and measurement of uncertainty is in itself an expression of risk and something that needs to be worked with. The difference between uncertainty and risk is something that is hard to grasp. A simple distinction can be that uncertainty arises in several areas, while the risk is defined in a more limited way. In the organizations studied, it was difficult to distinguish between uncertainty and risk, and respondents talked about both terms simultaneously. Risk management is in many aspects about decisions and has a major influence on how decisions are made. In the studied organizations, it may for example be about how to value and manage large and complex projects. One organization that uniquely works with uncertainty and risk is the County Council, which naturally comes with the type of activities they engaged in. Risk and uncertainty is in many ways a natural part of the daily activities of the organizations.

The management of risk can be naturally linked to responsibility or to the person who has the authority to make a particular decision, which can be expressed in a particular manager’s own sense of risk. A starting point for a long-term risk work is to derive risk to the strategic ambitions by the organization. Common for the management of risk is that it needs to be defined in any way and it needs to be diagnosed and this work is a very important part of management’s on-going efforts to take responsibility and deal with uncertainty. The various respondents behaved in a natural way towards risk and it was mainly two impressions that became clear. They perceived risks different in different organizations, and the risk was managed almost reflexively, much based on experience and any kind of gut feeling. Using simple procedures and policies could also help in managing the risk.

In the quantitative work to manage risk, models were used that are built in different ways to capture how the risk, for example, can be expressed in dollars and cents. This work can be described as the handling of any kind of calculated risk. To some extent, it relies on an economic logic. The experience of calculated risk differs between organizations and in several cases it has been difficult to relate to risks in terms of quantitative models. Where this occurs, it is about different results and outcome estimates. However, this is something that happens unconsciously or based on experience. In contrast to the numerical models, risk can be described as something where the understanding of risk to a greater extent is built on assessments and perceptions. This approach supports the idea that someone defines the risk and then it can be handled. In organizations, this approach is nearer at hand. In theory, the
quantified risks are emphasized while respondents almost exclusively talked about and emphasized the unconscious and the experiential risk management. Risk and uncertainty are part of everyday life, but different respondents perceive it differently. Since working with risk is clearly an important part of everyday management, it also becomes something that is intertwined with a more general management control process. Both in theory and in practice, risk seems to be closely related to basic management control functions such as planning and control. A more conscious understanding of risk is also connected to a particular decision or context, where the decision is made. Even though a more general environmental uncertainty is hard to drill down to a more focused risk in this study, there is, a deeply rooted understanding on what uncertainty and risk is within a particular operation. It seems like making a decision and acting upon it is peer-se taking a risk. Valuating an environmental uncertainty, making decisions and acting is thus a way for the managers to handle risk and by doing so, in the long run, manage risk.

Conclusion
One of the most obvious conclusions that could be drawn from this study is that environmental uncertainty and risk are always present in managers’ decisions and actions. In theory, it is said to be something almost tangible but in practice it is more of a feeling or unconscious understanding of a context. In a way the general process of management control also comprehends a dimension of risk management. Within this process, the vague environmental uncertainty is dealt with and the outcome from it is an understanding of risk. Decisions concerning planning and control becomes a tool by which risk is managed. It is almost like a risk-awareness is the product of the management control process, or at least a way of dealing with uncertainty and by doing so making the risk smaller or manageable. In theory it is also obvious that risk is defined in a slightly different way than in practice. It is more about establishing some boundaries for the risk, defining it and measuring it, setting numbers to it, making it probable and calculating a cost for it. In practice it is more of an unconscious management task, confronting the uncertain with the tools of planning and control, making it less unpredictable. It means that in practice the understanding of environmental uncertainty and risk is something that is dealt with by working with an omnipresent problem, with predictions. Uncertainty makes something hard to predict, i.e. hard to plan for and to control. At the same time taking a risk is something that is as natural as making any other management decision. The risk is there; even though not talked about as risk or uncertainty, it is dealt with on a daily basis mostly in an unconscious fashion. An important part of a managers’ work is the ability to make decisions and take actions. If possible, the decisions and actions are informed actions, which could be understood as purposeful actions (Bredmar, 2002). One problem for many managers is that the roadmap for a coming period of time sometimes is a bit blurry, and the longer into the future a manager tries to predict, the more uncertain the situation or environment become. An operational day-to-day decision and action becomes easier to handle than a more strategic decision way ahead into the future. In a way managerial decisions and actions are more or less dependent on how a manager perceives and understands the environmental uncertainty and risk, and by doing so contextual conditions for the business are determined. The uncertainty and risk becomes time-related where a task near in time is somewhat easier to deal with while a task in the future becomes harder to predict. One conclusion is that the uncertainty sets the scene for making decisions and taking action; in other words working with risk. Different functions and techniques that a management control process is defined by are commonly contributing to organizational sense-making (Bredmar, 2011). The transformation of a vague environmental uncertainty into a risk that could be decided upon is also an act of
sense-making. A situation that was uncertain from the beginning becomes a risk connected to a decision through the process of translating and interpreting the uncertainty – risk – decision into action. Within an organization, there are several different ways of doing this, through reports and information, through discussions with colleagues, through observations and previous experiences. Altogether, an ability to deal with risk becomes an expression of management control. By doing so, managing risk has been incorporated in a process of organizational sense making, and it also becomes an expression of management control.

References


---

**To cite this article:**