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*Brunel Business School
Masters of Business Administration*

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How Small Firms deal with Risks and Black Swans.

Student Number:

1330874

Supervisor:

Dr. Virginia L M Spiegler

A Dissertation submitted in partial fulfilment of the requirement for the degree of
Masters of Business Administration

Brunel University
Brunel Business School
Uxbridge, Middlesex UB8 3PH
United Kingdom

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‘...no matter how many instances of white swans we may have observed, this does not justify the conclusion that *all* swans are white. ‘ K.Popper (1959)

DECLARATION

I declare that all materials in this project report that are not my own work have been acknowledged and I have kept all materials used in this research, including samples, research data, preliminary analysis, notes and drafts, and can produce them on request.

Abstract

Purpose – Much of the recent research on risk management has focused on quantitative ways of predicting the risks, their probability, depending on the impacts and how to overcome or prevent those risks. However, there are some limitations and criticism of this type of risk management from different points. Purpose is to explore these criticisms in small firm context.

Design/methodology/approach – This is a literature and qualitative Grounded Theory based activity that synthesizes and seeks to extend existing knowledge about the black swans risk management from an interpretive approach.

Findings –The approach suggested in this paper offers small and medium-sized firms are not implementing the risk management. However, competitiveness of SME's plays essential role for the overcome the negative impacts both from internal and external events.

Research limitations/implications – Research is bounded by the limited size of research sample to make generalizations. Further research would be beneficial to test and examine the issue from different perspectives.

Originality/value – Little research has been undertaken on the impact of uncertainties on black swans on small firms. They are mostly concerned about the effects of big/global events such as 9/11 September or financial crisis during 2007 on corporate companies.

Keywords Black Swans, Grey Swans, Uncertainty management, risk management, small firms, SME. Competitive Advantage

Paper type Conceptual paper

TABLE OF CONTENTS

Cover Sheet.....	1
Title Page.....	2
Acknowledgements.....	3
Declaration.....	4
Abstract.....	5
Table of Contents	6
List of Figures and Tables.....	10
Chapter 1 Introduction.....	12
1.1 Introduction.....	12
1.2 Background information.....	12
1.3 Motivation.....	13
1.4 Research Purpose and Objectives	14
1.4.1 Objectives	14.
1.4.2 Research Question.....	14
1.5 SIGNIFICANCE OF THE RESEARCH-ORIGINALITY & RESEARCH GAP.....	14
1.6 THE STRUCTURE OF DISSERTATION.....	15
2 Chapter 2 Literature Review	16
2.1 Introduction	16.
2.2 Key Concepts.....	16
2.3 Traditional Risk Management Process.....	17
2.3.1 Risk Identification.....	18
2.3.2 Risk Assessment.....	20
2.3.3 Risk Handling.....	22
2.3.4 Risk Monitoring.....	23.
2.4 Different Approaches to Risk Management.....	24
2.4.1 Addition of Uncertainty.....	24
2.4.2 Business Continuity.....	25.

2.5	<i>Black Swans</i>	26
2.5.1	<i>Sociological Interrelationship between Taleb's ideas & Other Perceptions</i>	28
2.6	<i>Small Firms, Resilience and Competitiveness</i>	30
2.6.1	<i>Small Firms</i>	30
2.6.2	<i>Type of Small Firms</i>	31
2.6.3	<i>Risk Perception of Small Firms</i>	31
2.6.4	<i>Resilience</i>	31
2.6.5	<i>Competitive Advantage</i>	32
2.7	<i>Summary</i>	32
3	Chapter 3 Research Methodology	34
3.1	<i>Introduction</i>	34
3.2	<i>Research Philosophy & Justification</i>	34
3.2.1	<i>Paradigm Definition</i>	34
3.2.2	<i>Quantitative vs Qualitative</i>	34
3.2.3	<i>In risk Management Context of Quantitative vs Qualitative</i>	34
3.3	<i>Research Design</i>	35
3.3.1	<i>Grounded Theory</i>	36
3.3.2	<i>Research Design</i>	36
3.4	<i>Method of Data Collection</i>	37
3.5	<i>Method of Analysis</i>	37
3.5.1	<i>Iterative Process</i>	37
3.5.2	<i>Coding</i>	38
3.6	<i>Research Validation & Ethical Issues</i>	39
3.6.1	<i>Research Validation</i>	39
3.6.2	<i>Ethical Issues</i>	39
3.7	<i>Participants</i>	40

3.8 Summary.....	40
4 Chapter 4 Findings & Discussion	42
4.1 Results	42
4.1.1 Growth	42
4.1.2 Pessimistic view of Turkey and its impacts.....	43
4.1.3 Business Risks	44
4.1.4 Competition.	45
4.1.5 Personal Views of the Owners.....	46
4.1.6 Unexpected Change.....	47
4.2 Discussion.....	48
4.2.1 Traditional Risk Management Application on Small Firms.....	48
4.2.2 Black Swans	48
4.2.3 What is actually going on small firms from the perspective of findings?...49	
4.2.4 Evaluations.....	49
4.3 Main Hypothesis.....	52
4.4 How small firms are using their competitive advantages?	52
4.4.1 Technical Capability	53
4.4.2 Path Dependence-History.....	53
4.5 Summary	53
5 Chapter 5 Conclusion	54
5.1 Introduction	54
5.2 Summary	54

5.3 Conclusion	55
5.4 Limitations	55
5.5 Future Research & Recommendations.....	56
5.6 Implications for Managers.....	56
References.....	58
Notes.....	62
Appendices	62
Initial interview Questions.....	63.
Selective & Theoretical Coding	63
Open Codes.....	63
Participant Consent Form	73
Participant Information Form	74

LIST OF FIGURES AND TABLES

Figure1: Risk Management	13
Figure2: Social Science.....	13
Figure 3: Risk Management Steps.....	18
Figure 4: Risk Classification.....	19
Table 1: Risk identifications and Commonly Used Frameworks in Business.....	20
Figure 5: Probability vs Severity of the Consequence.....	20
Figure 6: RPN vs Risk Score Source.....	21
Figure 7: Notional Risk Matrix	21
Figure 8: Management Approaches and Behaviors effecting Returns.....	22
Figure 9: Management Approaches and Behaviors.	23
Figure 10: Firm Risks vs Uncertainty and Unknowabilty.....	24
Figure 11: A complex information system.....	26
Figure 12: Presentation of Black Swan in the impact and likelihood matrix	27
Figure 13: Christmas Chicken.....	27
Figure 14: Social Amplification of Risk: A conceptual Framework	29
Figure 15: As illustration of Ball Behavior for the Grid-Group Typology	29
Table 2: Classification of the Firms	30
Table 3: Table of Main Literature: Subject Category of the Articles and their importance relation to dissertation.	33
Figure 16 :Positivism vs Interpretivism.....	35
Figure 17: General Research Design.....	36

Figure 18: Iterative Process of the Grounded Theory.....	38
Table 4: Sequence of Coding.....	39
Table 5: Participant information.....	40
Table 6: Industry Types of the Firms.....	40
Figure 19: Risk Conceptualization according to Findings.....	49
Table 7: Evaluation of the firms according to Findings.....	50
Table 8: Cultural Theory.....	50
Table 9: Growth of Firms	51
Table 10: Firms and their RBV perspectives.....	52
Table 11 :Summary of some Literature Review and Comparison in practice.....	54

CHAPTER 1-INTRODUCTION

1.1 INTRODUCTION

From the management point of view, risk is correlated with the negative outcomes. (Miller, 1992) That is to say, any downside effects on the business performance could be also identified as risk.

Businesses are in exposed positions to risks from a variety of different fields from externally driven situations such as hazards and political situation to internally driven situations as information system, cash and liquidity (Loosemore et al., 2006).

It is a crucial part of any business. Management of risks are essential to business management. Some firms were gaining competitive advantage by using risk management such as Microsoft Windows during its initial years. On the other hand, poor risk management could result in the bankruptcy of a firm (Clarke & Warma, 1999).

Risk Management is the systematic approach to identify, predict and cope with the possible problems in future before they happen (Conroy & Soltan, 1998; Raz & Michael, 2001).

However, most of the research tends to analyze risks for larger organizations. With limited budget and resources, SME's tend to follow less bureaucratic systems and frameworks in terms of risk management and they may need a different mindset (Sádaba et al., 2014).

More importantly, with his influential book 'Black Swan' from Taleb (2007) which is addressing the limitations for risk and uncertainty management of understanding pointed out significant challenges to our understanding of risk management. This paper is an attempt to investigate those limitations and the effects on small firms from a different approach of traditional review.

1.2 BACKGROUND INFORMATION

History and literature provides of a variety of evidences of surprises, project failures. Some examples (Taleb, 2007) of this could be the mortgage financial crisis in 2007, 9/11 terrorist attacks that resulted in significant impact as well as political changes which affected airline industry significantly. Project delays such as the Heathrow Terminal 5 (Telegraph , 2008) , Airbus A 380 (Shore, 2008).; huge budget overruns of the project channel (Flyvbjerg et al., 2003) are further examples. In addition to these project failures, companies like MaxWell Group, Baring Brothers, Worldcom, Enron, Parmalat created major scandals of corporate management. (Andersen & Schroder, 2010). Examples could be expanded

to the floods in Thailand, deepwater horizon oil spill in the gulf of Mexico. These events increased the interest in risk particularly towards to nature of system and how we manage the risk. (Scheytt et al., 2006).

Black Swan was defined by Taleb as an outlier that is not in the expectations and it could not be foreseen by using previous data. Taleb (2007) argued in his book Black Swan these surprises are more common than it is supposed to be and supports its argument with sudden surprises and its effects.

1.3 MOTIVATION

Uncertainty is a common phenomenon that has been addressed by analysts to understand throughout the history of risk management. Several Theories were made influenced by Newton Mechanics to probability theory and to fuzzy logic and also preciseness of the risk management against uncertainty and possibly to costs. (Booker & Rose, 2011). However, this quantitative approach might only the support the idea of structural- functionalism in terms of sociology paradigms. On the other hand, similarly to Structural-functionalism there are other paradigms such as Conflict theory and Symbolic-interactionism (Ritzer, 1975). According to Ritzer (1975), instead of arguing our political differences, we should aim to integrate and explain the some of the phenomena with different paradigms. In this point, the author’s motivation is to explain uncertainty and risk management from a more symbolic-interactionism side. This could refer to as triangulation the use of the theory will be used from different field of study (Easterby- Smith et al., 2002).

Figure1: Risk Management

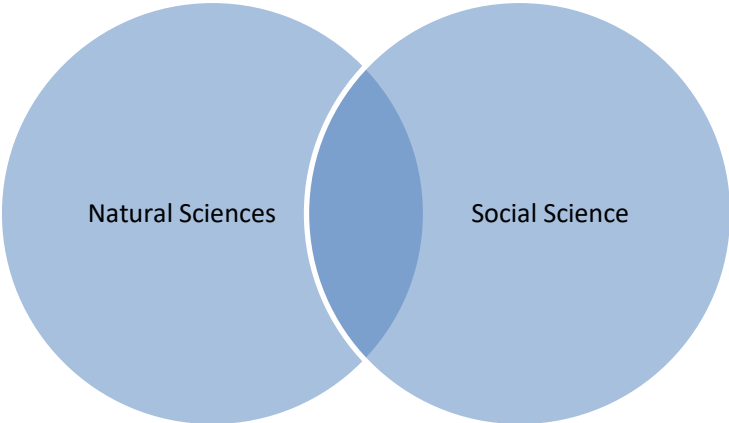
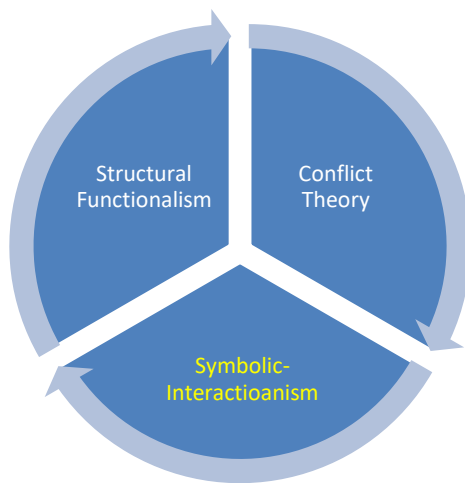


Figure2: Social Science



1.4 RESEARCH PURPOSE AND OBJECTIVES

The main purpose of the dissertation is to understand the nature of risk from the perspective of Small Firms especially for the sudden surprises. For the sake of the narrow the subject and because of small firms will be affected by same location attributes, sharing same cultural background, small firms that are located around Eskişehir/Turkey will be selected.

1.4.1 OBJECTIVES

The objectives of this dissertation could be listed as follows:

- Identify traditional ways of dealing with risk and Uncertainty Management
- Identify the criticisms, limitations of risk management and nature of risks from a different perspective
- Understand the how risk management is perceived and conducted by the small firms
- Understand the impacts of Black Swans on Small Firms
- Understand the how small firms cope with the Black Swans

1.4.2 RESEARCH QUESTION

What are the affects of Black Swans for Small Firms?

How small firms overcome this phenomenon?

1.5 SIGNIFICANCE OF THE RESEARCH-ORIGINALITY & RESEARCH GAP

Although, for the narrative reasons small firms in the Uxbridge area are selected, Small firms are good examination points for risk management in terms of Black Swans. Much of the research is based on large enterprises and hazards are being focused on globally big events such as 9/11. However, black swans are more common than its supposed to be according to Taleb (2007).

1.6 THE STRUCTURE OF DISSERTATION

In order to meet the objectives, this dissertation comprises of 5 chapters.

Chapter 1

Introduction: This chapter introduces the subject by providing general risk management definition and the by providing the background information of project failures and delays. Furthermore, this chapter explains the motivation and what is being expected as research aims and objectives following with the significance of the dissertation and its structure.

Chapter 2

Literature Review: This chapter revisits the definitions of key concepts of risk management such as risk and uncertainty. Illustrates the trends and examines the steps of risk management and gives a summary of risk management. Following this, this chapter introduces the idea of criticisms such as black swan and views of the risk from different paradigms and the related background.

Chapter 3

Research methodology: This chapter explains the research philosophy and method used. It also gives detailed information on the process of collecting data and analysis. This chapter also issues other important topics such as reliability, ethical concerns and the participants.

Chapter 4

Findings and discussion: This chapter summarizes the findings that are collected during the data collection according to research methodology. In the light of the literature review and further evidences to support, an argument is created and discussed in depth.

Chapter 5:Conclusion: This chapter gives a summary of the dissertation with reminding the aims and objectives. Furthermore, it gives information about the limitations and recommendations about possible future research on this subject.

Chapter 2-Literature Review

2.1 Introduction

This chapter introduces some of the definitions of fundamental concepts of risk management, uncertainty and resilience. Subsequently, an overview of the traditional risk management process will be investigated. Different approaches such as business continuity and uncertainty management will be explained. Furthermore, black swan concept and its affects will be indicated. How risk is studied in sociology will briefly explained and the similarities between black swan concept and the risk definition in sociology will be underlined.

In addition to this, literature review of small firms is introduced. How they perceive the risk and risk management on small firms will be examined further. Concepts of resilience and competitive advantage will be introduced.

2.2 Key Concepts

-Risk: Risk is defined as ‘probability of a loss or injury’ or ‘degree of probability of that loss’. (Kaplan & Garrick,1981). However, when we mean probability, we should make a distinction between probability and probability curve. According to Kaplan & Garrick (1981), Probability curve in the quantitative way of definition could be the expectation of the outcome as frequency. That is to say, since an experiment will be run for many times to have a certain trend. For instance, during flipping a coin, we can express as the probability of next toss will be head or tail. However, we can talk about head or toss percentage if we flip the coins for 10000 times. In other words, this would be our frequency. Including uncertainty into this probability, we can express the risk as a probability curve.

-Uncertainty: According to Booker and Ross (2011), uncertainty is defined ‘as that which is not precisely known’. That is to say, during the analysis, it is easy to different elements have been unnoticed and not added into the analysis. Unlike the certainty; which if we known the initial position, we can clearly estimate the outcome; however, under the condition of uncertainty we can not estimate the outcome. For business, this brings the question of how much preciseness of knowledge is necessary because of as preciseness increases associated costs with it also increases.

-Unknowability : A lot of risks could be quantified, measured and could be managed easily. With the uncertainty, since we do not have enough knowledge creates an issue to quantify the risks. Following uncertainty, the term unknowability refers to foreseeing is too difficult and may impact on business

significantly such as the change in customer needs and leaps in technology use. (Andersen & Schroder, 2010)

-Vulnerability- Resilience: Although the definitions are derived from mostly the Supply Chain Risk Management literature, these definitions could help us to analyze it. Vulnerability could be described as the openness or exposure to the sources of the risks (Gualandris & Kalchschmidt, 2014). Resilience is the capability of firm response to after an actual risk emerged as a shock to firm. This includes the process to getting back to initial state (Spiegler et al., 2012).

2.3 Traditional Risk Management Process

Risk management “refers to planning, monitoring and controlling activities which are based on information produced by risk analysis activity”, while the management of risk is described as the “overall process by which risks are analyzed and managed” (Scarff et al., 1993, p. 2)

Committee of Sponsoring Organizations of the Treadway Commission (COSO) developed a framework for the risk management. COSO (2004) initially divides this process into 8 different steps. 1) Internal environment where the importance is put on the risk culture of organization and how serious of the firm as an organization to commit themselves in to risk management. 2) Objective Setting Clear objectives with respect to firm strategy should be created in tactical level 3) Event identification phase consists of identifying the possible events that may happen in the future as both risks and opportunities from environments and internally. 4) Risk Assessment evaluates the seriousness of the risk considering its risk likelihood and its impact. 5) Risk Response is basically the response that firm will have in the future and includes analyzing of the cost and benefits. 6) Control activities cover if the risk responses are properly implemented. 7) Information and communication should be ensured that there is a functioning communication channels. 8) Monitoring is also a crucial to measure the performance of each part.

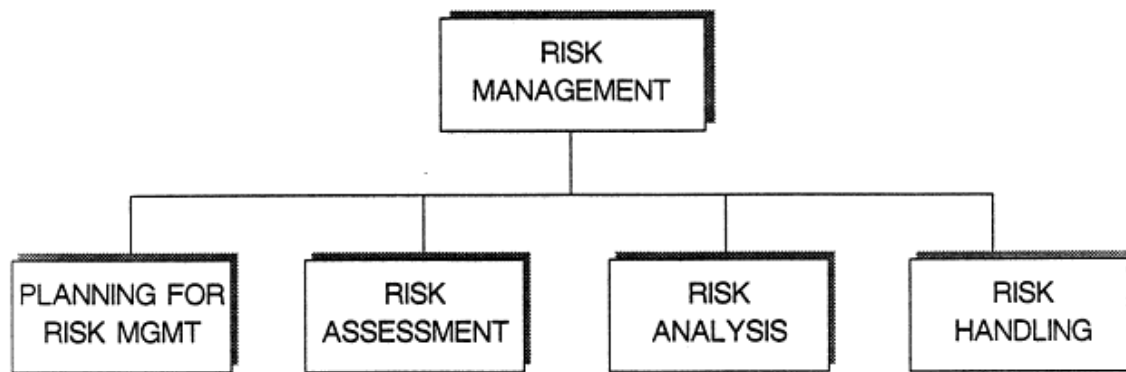


Figure 3: Risk Management Steps

Source: (Schott, 1997)

Apart from risk culture and risk planning a typical risk management process could be simplified to 4 different steps. These are risk identification, risk assessment, risk management actions and risk monitoring (Hallikas et al., 2004). Figure 3 also represents the similar steps. Planning for risk management also refers to cultural values of the firm for RM.

2.3.1 Risk Identification

While it is commonly assumed that risks are results of hazards such as fire, earthquake; risk sources are mainly wider than this perception and it could be endogenous and exogenous including the hazards. Thus, source could come from external environment or within the organization itself such as operation risk (Miller, 1992).

In his work Miller, defined uncertainty as source of risk and these sources were categorized in 3 different subsets as General Environment, Industry Environment and Firm-Specific Variables. (Miller, 1992) as illustrated in Figure 4.

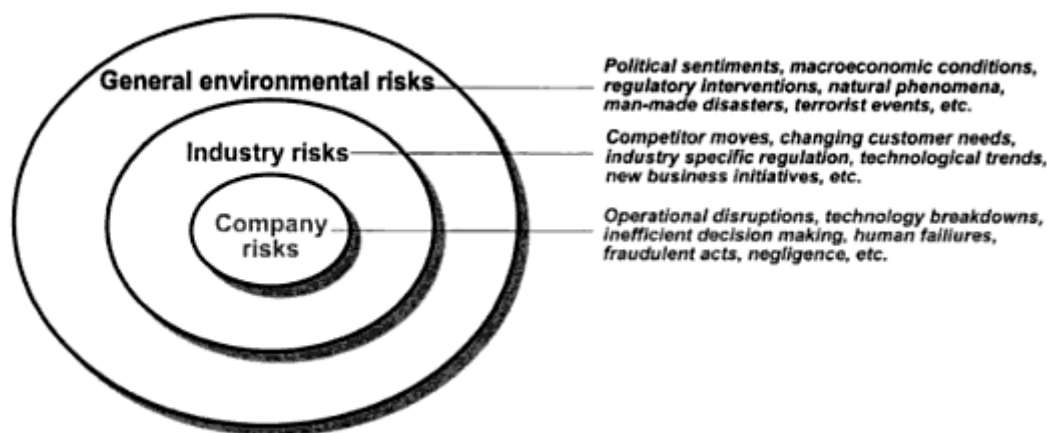


Figure 4: Risk Classification

Source: (Andersen & Schoreder, 2010)

General Environmental uncertainties as the issue drivers are affecting the firm in the business environment. These are mostly macro changes such as political sentiments, social trends and economic conditions (Miller & Waller, 2003). In so many strategy management textbooks, PEST framework is being introduced and widely used. However, there are limitations of PEST approached and need to be addressed (Burt et al, 2006). It is not easy to assess the risk of the macro environment because of the complexity and variables affecting from multiple fields (Koufopoulos & Pitt, 2012).

Industry risks summarized as the risk factors arising from existing and potential competitors, buyers and suppliers (Miller & Waller, 2003). Porter (1979) came up with the framework of Porter 5 forces which investigates the relationship the competition including rivalries, barriers for entry and exiting as a useful tool to understand the industry risks. Grundy (2006) states that Porter 5 forces model is one of the frameworks appreciated in both business schools and business itself and satisfies the gap between PEST analysis and SWOT analysis.

Firm-Specific Variables are consists of firm operations, research and development, financing and behaviors of the managers (Miller & Waller, 2003). These examples could be extended. In Business, VRIO framework, Supply-Chain Analysis, Mckinsey 7S is widely used to understand the risks and opportunities (Andersen & Schroder, 2010). Table 1 summarizes the common frameworks and its usage.

	Risk Classifications	Framework
Risk identification	General Environment	PESTEL
	Industry Environment	Porter 5 Forces,
	Operational	VRIO, McKinsey 5S, Supply Chain Analysis
	General	Value At Risk SWOT Analysis

Table 1: Risk identifications and Commonly Used Frameworks in Business

2.3.2 Risk Assessment

The Analysis of the risks is commonly made with the help of SWOT framework where the risks are being prioritized and categorized as external and internal environments (Andrews, 1971). SWOT analysis also considers the opportunities and strengths of the company as well as risks (Andrews, 1971).

As an extended version of definition of risk when we understand an item is risky, potential impact that stems from occurrence and nonoccurrence of the risk could be taken in to account. For instance: An event’s probability could be very low but at the same time, the impact of the event could be catastrophic. Figure below illustrates this where the severity of consequence is increasing, risk also increasing.

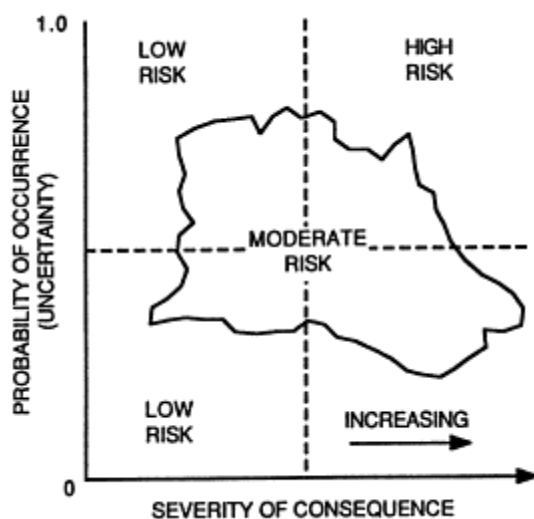


Figure 5: Probability vs Severity of the Consequence

Source: (Schott, 1997)

Another framework widely used is FMEA (Failure Mode and Effect Analysis). In its essence, in a system the things that could go wrong is being tried to identified with brainstorming (Clifton, 1990)

Once failure mode analysis is done, Risk Priority Number(RPN) is introduced. Similarly to calculating the impact of the risk, RPN defined as the multiplier of occurrence, severity and detection. (Carbone & Tippet, 2004)

$$RPN = \text{Occurrence} * \text{Severity} * \text{Detection}$$

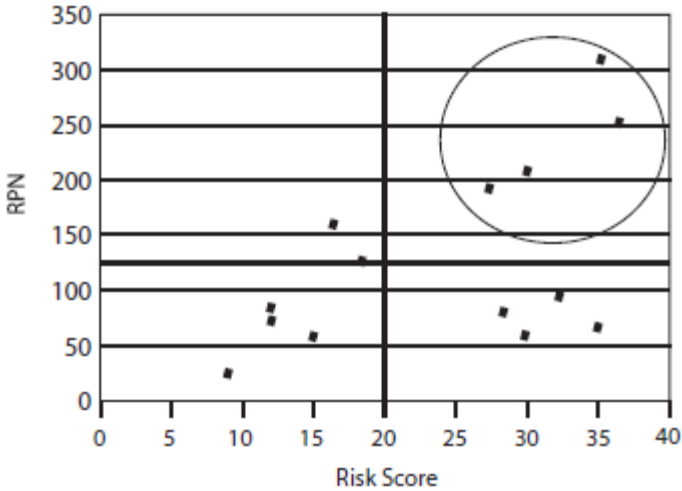


Figure 6: RPN vs Risk Score Source: (Carbone & Tippet, 2004)

It is common to across the map figure like probability and severity. For example even NASA uses similar approach to classify the risks which they name Notional Risk Matrix as can be seen in Figure 7.

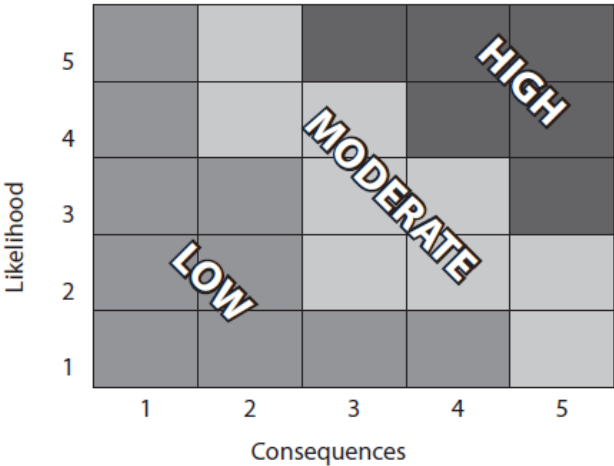


Figure 7: Notional Risk Matrix Source: (Reeves et all, 2013)

However, Cox (2008) identified that although risk matrixes are commonly used, there is a lack of empirical evidence to support this classification of risks.

2.3.3 Risk Handling

After the risks are identified and assessed firm has to deal with those risks and its tolerance towards to risk. For instance, companies like BP and Shell have zero tolerance towards to potentially huge impact risks that could affect their reputation and different investor groups have different kinds of risk appetite. (Clarke &Warma, 1999)Typically in a risk management process, firms have 4 ways of dealing with risks (Woods, 2011).

Risk Acceptance: firm is willing to take the risk. No specific action will be taking regarding this issue.

Risk Reduction: In this goal, it is aimed to decrease the occurrence of risk or the impact of the risk.

Risk Transfer: Example of insurance could be given in the subject of financing.

Risk Avoidance: Elimination of the activities which have potential risks would be the avoidance.

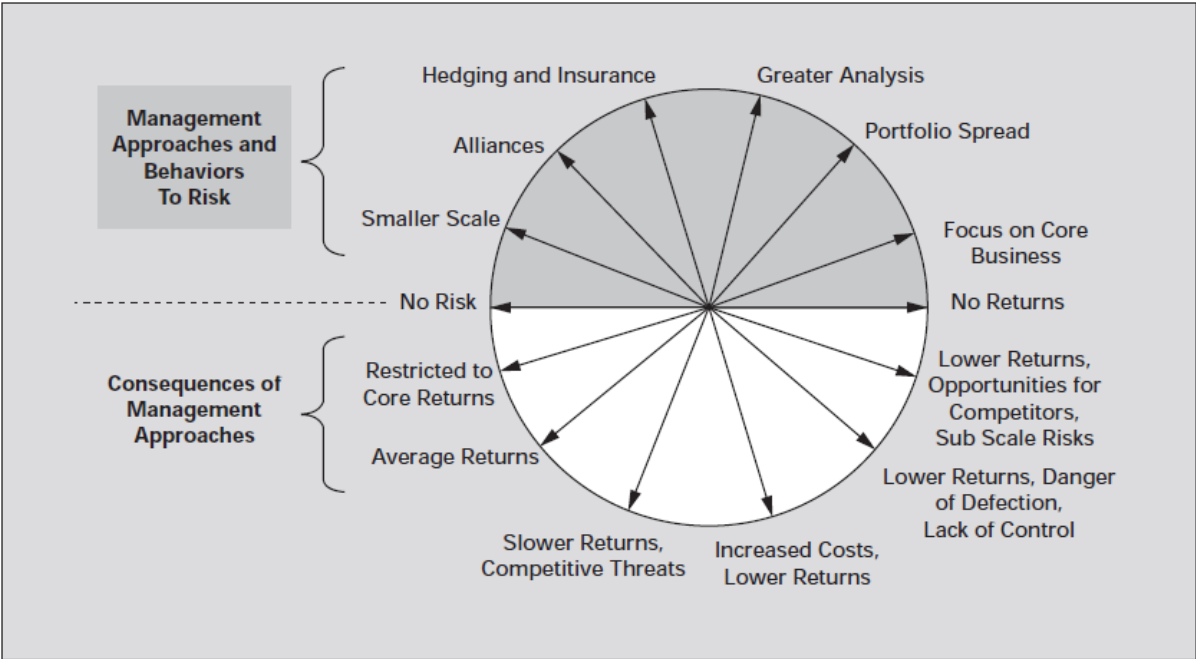


Figure 8: Management Approaches and Behaviors effecting Returns Source: (Clarke & Warma, 1999).

Organizational Responses to Uncertainties

Financial risk management
Forward or futures contracts
Insurance
Strategic management
Avoidance
Divestment
Delay new market entry
Low uncertainty niches
Control
Political activities
Gain market power
Exchange of threats
Vertical integration
Horizontal mergers and acquisitions
Cooperation
Long-term contractual agreements with suppliers or buyers
Voluntary restraint of competition
Alliances or joint ventures
Franchising agreements
Licensing and subcontracting arrangements
Participation in consortia
Interlocking directorates
Interfirm personnel flows
Imitation
Imitation of product and process technologies
Follow other firms in moving into new markets
Flexibility
Diversification
Product diversification
Geographic diversification
Operational flexibility
Flexible input sourcing
Flexible work force size
Flexible work force skills
Flexible plants and equipment
Multinational production

Figure 9: Management Approaches and Behaviors Source: (Miller, 1992)

As it can be seen from the Figure 8, these approaches for the risk handling can affect the returns of the firm. In Figure 9, Miller (1992) is looking from a broader perspective to what a firm can do to decrease the risk.

2.3.4) Risk Monitoring

Risk Monitoring makes sure that the effective management actions are taken and the counter measures functioning properly (Eloff et al., 1993). Environment that firms are in is not static. Thus, the risks are constantly changing. It is crucial to notice these changes and act accordingly (Hallikas,

2004). In literature review, especially in the IT and knowledge management pays special importance to monitoring the risks (Eloff et al., 1993).

2.4 Different Approaches of the Risk Management

2.4.1 Addition of uncertainty

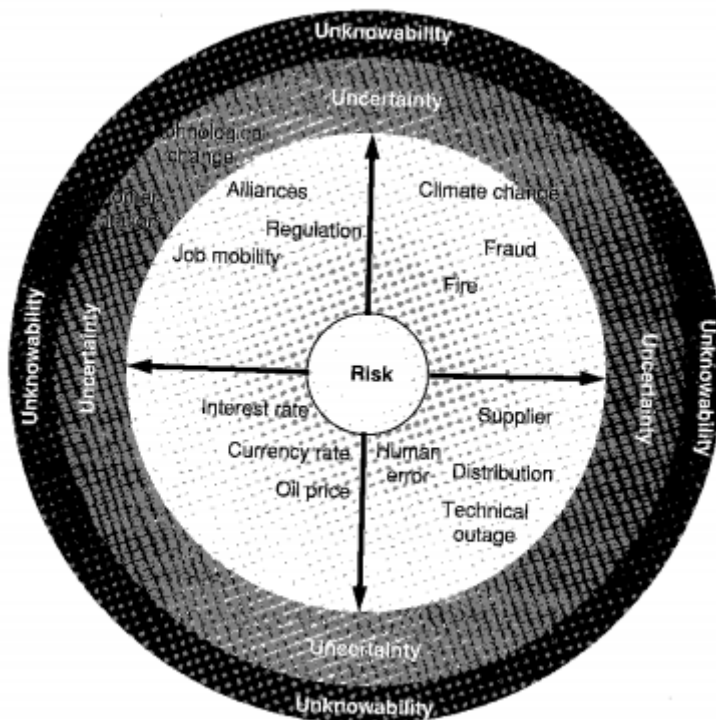


Figure 10: Firm Risks vs Uncertainty and Unknowability Source: (Andersen & Schroder, 2010)

As can be seen from the above figure, Andersen & Schroder (2010), they separated to risks sources as 3 categories: Risk, Uncertainty and Unknowability. This reflects the idea of a risk sphere where firm can easily identify the risks. Uncertainty sphere is meaning, firm may not be able to anticipate risks. Similar to Black Swan Concept, firm has no capability to identify the risk. Booker and Ross (2011) argued that firm has to choose a degree between risk and uncertainty sphere. Where firm is expanding its own sphere, it is becoming costly for the firms to identify.

Furthermore, Knight (1921) distinguished the quantifiable risks and epistemological uncertainty. That is to say, uncertainty covers a high degree of uniqueness and there is 'partial knowledge' which term could be a contrast to 'incomplete information'.

In addition, Miller (1992) defined uncertainty as the source of the risk. However, Booker and Ross (2011) defined it as the lack of information. In this sense, if we look at the history of the uncertainty

management, we will first see the traditional view of science where uncertainty should be prevented at all costs. This is changed after the scientist discovered that Newtonian mechanics were not able to explain the facts in subatomic world. New methods had been improved to use statistical measures to explain the facts. After this, uncertainty was tried to be explained by probability theory which owns a considerable history since 1500 (Booker & Ross, 2011). Following this idea, there were challengers of Black and his idea of Vagueness who opposes the idea of binary probability (Booker & Ross, 2011).

According to Booker and Ross (2011), there are three fundamental types of uncertainty from several types. These are natural variability, non-specificity stemming from the lack of information and inference which means the difference between the observation and what we desire or our biases towards the information.

2.4.2 Business Continuity

After financial crisis in 2007, Power (2007) argued that the integrated frameworks lack knowledge about the risk such as risk appetite which he sees as the reason of financial crises in 2007. He argued that as a system we should put more importance on the frameworks such as Business Continuity.

Although, business continuity could be traced back to crisis management, it is different from crisis management in the sense of anticipating the events impacts beforehand (Sharp, 2003). However, with its similarity between the crisis management, the crises have some phases and if the managers avoid the initial warnings, then crises incubate (Tuner, 1994). Herbane et al., (2004) supports the idea of business continuity and argues that it has a strategic perspective. It has a focus on impacts instead of trying first the causes of risks. They also put importance on the value preservation and the path dependence of the firm with the business continuity.

Another way of dealing uncertainty is a similar approach to PDCA (Plan-Do-Check-Act) cycle as in the quality management. According to Loach (2006), management should be open to idea of experiments through the trial and error, learning and selection under the unforeseen events and uncertainty. For example Microsoft had several choices of operating systems from Windows, OS/2 to DOS in 1980's and there was not a clear forecast which operation system could be popular. Herbane et al (2004) argues business continuity plan should be embedded to strategy.

Another scholar supported similar idea is the Linblom (1959). According to him, policies are being made endlessly and with limited time and resources there is a difference between practitioner and

academician. Formulating a complete policy is not reasonable. Rather, we should made incremental changes because of incalculable contingent complexities.

2.5 Black Swans

Unlike the traditional way of calculating risk as impact and likelihood (Hole, 2013), Black Swans are representing the unforeseeable (Masys, 2012). Taleb(2007) argues these Black Swans with the example of 9/11 which could emerge because of a variety of reasons from natural disasters to complex social-technical systems, terrorist attacks, market crashes (Masys, 2012).

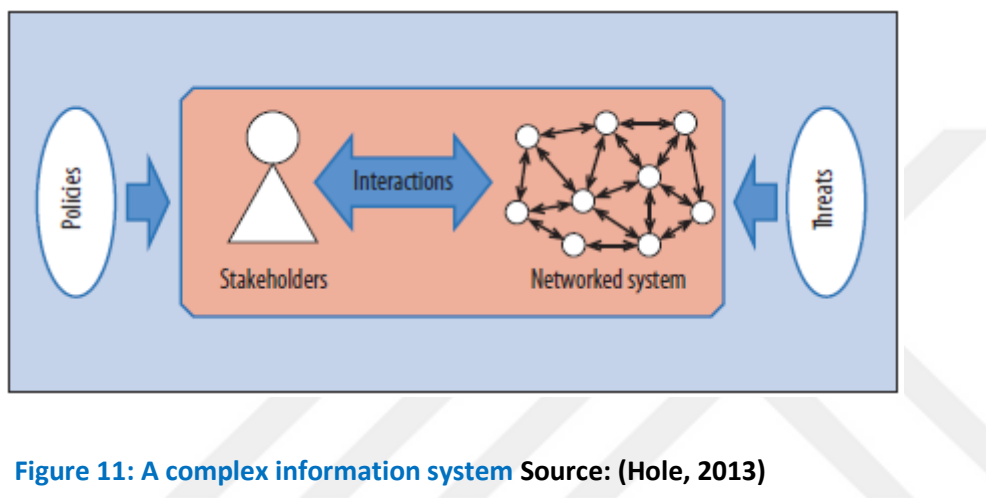


Figure 11: A complex information system Source: (Hole, 2013)

A global behavior stemmed from the complex interactions between stakeholders and networked systems. There are also sub-systems within the networked systems as illustrated in Figure above.

These surprising events create vulnerability and threaten firms (Woods, 2006). As it can be seen from the figure 5, in comparison to the figure 12, Swans are not in the expectations of the firm because of its extremely low likelihood. However, swan is an outlier. Hence, according to Taleb (2007) Black Swans must be considered by the firms not in the sense of not trying to predict the black swans but being resilient to events that may happen.

One important entity is also similar to Black Swan concept; there is also Grey Swans which is also rare events but within the predictable range (Taleb, 2007; Hole, 2013)

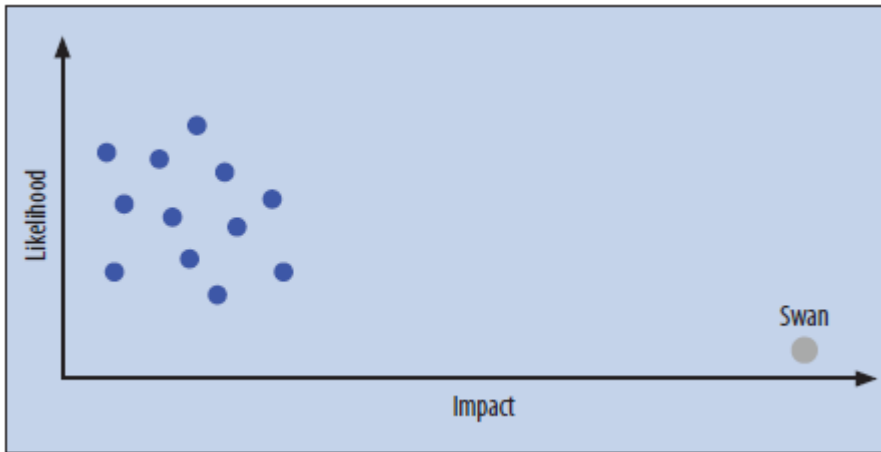


Figure 12: Presentation of Black Swan in the impact and likelihood matrix Source: (Hole, 2013)

Taleb(2007) supports his argument with the influential philosopher Karl Popper ideas. Popper (1959) argued that there is a probability issue rather than certainty when we talk about the risk. That is to say, since we are biased with our past experience, we can never guarantee the future will be same as it is today. Our assumptions and propositions have to be tested. However even the confirmation of the tests do not guarantee or completely confirm the information. Taleb (2007) further gives the example of since the sun rises every day, we can not have a guarantee or proof of sun will rise tomorrow.

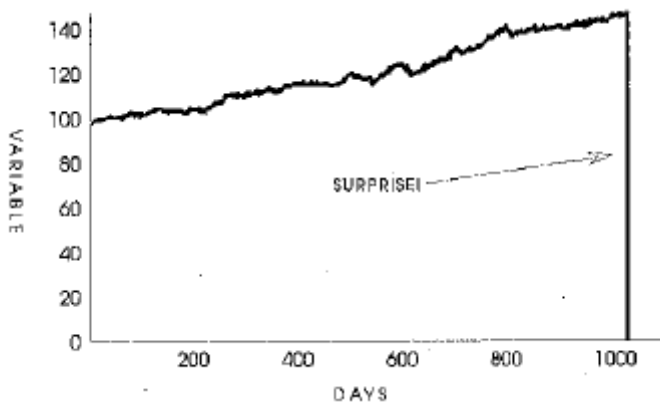


Figure 13: Christmas Chicken Source: (Taleb, 2007)

According to Taleb (2007) this argument is similar to Bertrand Russell (1912) or Hume induction problem. As it can be seen from figure 13, an example of the life of the chicken during the Christmas, past data does not give any information regarding the sudden death on the Christmas day by its owners.

Furthermore, Taleb (2007) supports the idea of the 'illusion of understanding' as why people think that the fact is understood. In reality information is more complicated and random.

2.5.1 Sociological Interrelationship between Taleb's ideas & Other Perceptions

The idea of this randomness and uncertainty is not solely based on Taleb's work. .

Study of risk in sociology is looking from another perspective. It is more focused on the political and social relationships, rather than looking the risk assessment and risk management (Hameiri&Kühn, 2011) .How risk management is done is also a question for the sociologists.

Taleb (2007) also argues that our beliefs, the way of our thinking and what he call the 'Narrative Fallacy' cause us to estimate the probabilities of risk not in a correct way. As an example Taleb gives the evidence by the experiment conducted by Kahneman and Tavesky (1972)

- a) A Massive flood somewhere in America in which more than a thousand people die
- b) An earthquake in California, causing massive flooding, in which more than a thousand people die

Attendees of this survey estimated the second event is more likely because of the earthquake is giving rationality for the people (Taleb, 2007). However, probability of first choice is higher.

Secondly, there is a concept called 'risk amplification' whereas some risk events catch public attention others are not (Kasperson, 2005). The main idea is that events that have psychological, social and institutional impact amplify the risk events and its consequences. Since, people learn the risk from the information systems such as mass media, 'social stations' are the agents that shapes the risk (Kasperson, 2005) . Taleb (2007) gives the example of the 'idea of people believing that being killed in Tornado is a high risk'. On the other side of the coin, in reality, being killed in a traffic accident or because of the cancer is more likely.

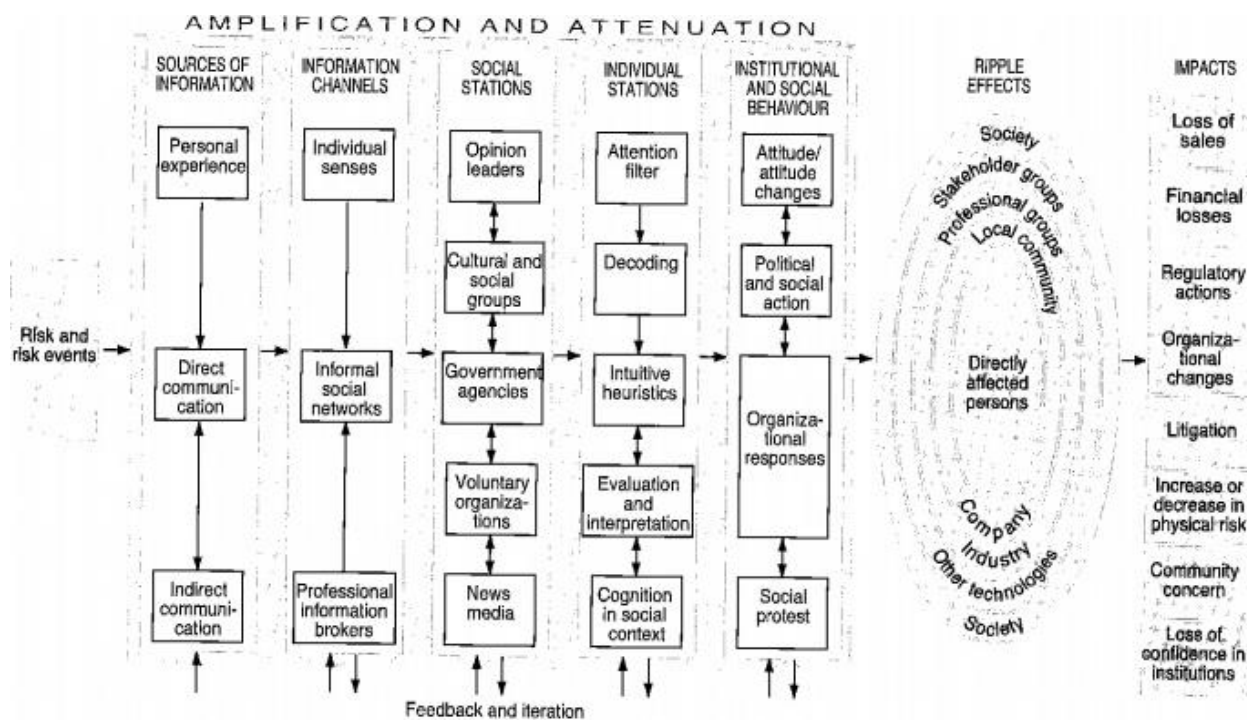


Figure 14: Social Amplification of Risk: A conceptual Framework Source: (Kasperson, 2005)

Apart from the risk amplification, cultural beliefs are affecting our behavior towards to the risk. Douglas(1992) argued that people could be divided into 4 different view of the world as a grid-group matrix: Individualistic, fatalists, hierarchic and structural collectivists. All groups have different mentality towards the risks and how to handle the risks. (Crook, 1999)

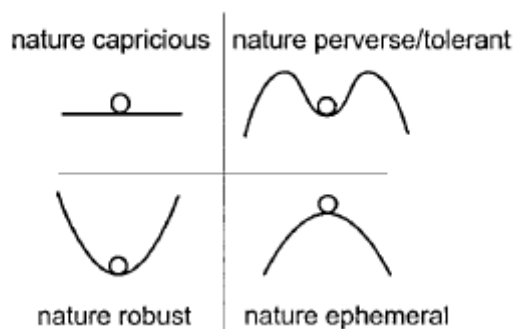


Figure 15: As illustration of Ball Behavior for the Grid-Group Typology

Source: (Schwarz and Thompson, 1990)

As it can be seen from the Figure 15, the nature of the groups could be depicted as ball. For Fatalists the nature is unknown and could not be experiment. For individualist, nature is robust and

experiments could be done but at the end, it will reach to equilibrium. This is similar to hierarchical point of view, the main difference is if the experimentation goes too far, it could be dangerous and following procedures will prevent this. Lastly, for egalitarians, nature is in very dangerous position and any tiny movement could trigger it to be dangerous. According to Douglas (1992), although the mixing of 4 groups is not realistic, different voices in an organization could increase the resilience.

Thirdly, similar to Taleb’s ideas Beck (1992) and Giddens (1990) claimed that we are living in a late modernity as they called ‘risk society’ with the developments of the technology and increasing effect of globalization helped to emergence of new type of ‘debounced risks’ such as a nuclear disaster . These risks events could not be foreseen by classical measures of risk management which is mostly dependent on the statistical measures. This ‘risk society’ has the ‘artificial risks’ as a mean of control to individuals.

2.6 Small Firms, Resilience and Competitiveness

2.6.1 Small Firms

Definition of Small Firms

The definition of SME`s are various and tends to change from country to country. The number of employees, total net assets, annual sales turnover or investment level could be the norm of categorizing the SME`s (Rugman & Collinson, 2009).

European Union uses the below table to classify the firm as small and medium. For the sake of simplicity, in this dissertation term small& medium sized firms will be used from the number of employees.

Sub-Class	Number Of Employee`s (in million euros)	Annual turnover (in Million Euros)	Balance Sheet (in million euros)
Micro Firm	<10	<2	<2
Small Firm	<50	<10	<10
Medium-Sized Firm	<250	<50	<43

Table 2: Classification of the Firms Source: Commission of the European Communities (2003)

2.6.2 Type of Small Firms

a-) Family Businesses

Similarly to definition of small firms, there is no agreed definition for the family firm. However, researches are generally focused on the family vision, involvement of family in ownership matters and the succession for the family generations. Two important attributes are the degree of family ownership and control and its effects on the decision making. (Acquaah et al., 2011)

b-) Entrepreneurship

Small Business research was often failed to differentiate between small firm owners and entrepreneurs. Entrepreneurs have typically a different type of world view which could influence the risk taking behavior. Also, when small firm grows, there comes a point where the management delegation is necessary for able to firm to be successful (Jennings & Beaver, 1997).

2.6.3 Risk Perception of Small Firms

There is not so much focus in literature review from the small firm's perspective. One study conducted on the small firms in Germany revealed that small firms are not integrated into risk management systems and the risk management is not integrated to strategically (Henschel, 2008).

2.6.4 Resilience

Similarly to Business Continuity model, one other way of dealing risk could be the concept of resilience. According to Acquaah (2011), Resilience is commonly understood as while firm is confronting sudden changes in the environment, its ability to preserve its position. Same author stated that, Resilience could be argued that in case of disruptions such as catastrophic events it is firm's ability to adjust and even become better from the initial position of the firm

With increasing globalization, identifying risks are problematic. Particularly, in the supply chain risk management literature, researchers are looking ways to improve the resilience of the firm, instead of deep focus on what could be the source of risk. This could provide opportunities to create more manageable structures to deal with risks.

There are some scholars who examined this issue on small firm context (Acquaah, 2011). Organizations are better able to develop resilience capabilities when they have business models that fit the needs of the competitive environment (Gittell et al., 2006).

To achieve resilience and ease the recovery firms, there are variables such as having financial reserves (Gittel et al, 2006) , a viable business plan (Gittel et al., 2006), customer changes , adapting to the environment and ability of the firm owners.

2.6.5 Competitive Advantage

Supply chain resilience was investigated by Jones et al., (2013) from the Resource Based View of the firms. This was due to answer question how and when firms can create resilience. In this sense resilience of small firms also could be explained by the RBV.

The RBV states that firms could create competitive advantage through a basket of strategic resources and/ or capabilities (Barney, 1991). However, these resources or capabilities have to be valuable, rare, inimitable and not substitutable (Barney, 1991). Within the definition of resources, these could be capital, human resources, organizational resources, technological capital and reputation (Barney, 1991). Using these resources in an organized way could create capability development (Sirmon, Gove & Hitt, 2008) .RBV is also aligned with the industrial organization analysis (Caves, 1982; Porter, 1979).

The roots of the RBV could be traced back to Penrose (1959). Who is seen as the ancestor of the RBV. Some of his ideas related to this dissertation can be summed as: In the article, he argued that firm growth is limited to its resources. However, it is not only dependent on the resources, but effective management of these resources. He also argued that if firm is expanding into a high competitive market, firm believes to have competitive advantage in that market.

Last but not least, Hymer (1976) stated that firms should have some kind of oligopolistic advantage to overcome the market imperfections to become multinational companies which could be investigated through RBV perspective.

2.7 Summary

This chapter initiated with the fundamental definitions of risk, uncertainty and resilience. It was followed by the traditional risk management process: risk identification, risk assessment, risk handling and risk monitoring. Then, other type of risk management approaches such as business continuity and uncertainty management has been explained.

More importantly, black swans and the reasons behind were interpreted. Similar perception of the risk from another discipline was introduced. Finally, small firms, resilience and competitive advantage were interpreted to create a basis for the discussion part of the dissertation.

Last but not least, in Table 3, the main literature is listed that will also be argued in discussion section.

Important Publications			
Author & Date	What Subject Category	Why Importance	Publication
Kaplan & Garrick 1981	Quantitative definition of risk	Traditional Risk Management	Article
Miller 1992	Risk identification & Response	Risk Identification Fundamentals	Article
Porter 1979	Competition	Industry Competition	Article
COSO 2004	Risk Management	Traditional Risk Management Process	Report
Andersen & Schoreder 2010	Strategic Risk Management	Risk Management relation to strategy	Book
Knight 1921	Uncertainty	Uncertainty definition, non-quantifiable risk	Article
Booker & Ross 2011	Uncertainty Evolution	Uncertainty History, Uncertainty Attributes	Article
Power 2007	Business Continuity	Limitations of traditional Risk Management	Article
Herbane et al., 2004	Business Continuity	Benefits of Business Continuity	Article
Ritzer 1975	Paradigms	Sociological Paradigms	Article
Kirkwood 1994	Perceived Risk	Risk from sociological Perspective	Article
Douglas 1992	Cultural Theory	Risk from sociological Perspective	Article
Beck 1992 and Giddens 1990	Artificial Risks	Globilization, change in risk nature and soci	Article
Kasperson 2005	Risk Perception	Risk Amplification	Article
Taleb 2007	Black Swan	Black Swan idea on risk	Book
Masys 2012	Black Swans	Grey Swans importance	Article
Popper 1959	Black Swans	Fundamental logic of Black Swans	Article
Penrose 1959	Growth	Resource Based View	Article
Jones et al., 2013	Supply Chain Resilience	Resilience from RBV point	Article
Acquaah et al., 2011	Family Business	Different attributes of family business	Article
Hymer 1976	MNE	Reason for becoming MNE	Article

Table 3: Table of Main Literature: Subject Category of the Articles and their importance relation to dissertation.

Chapter 3: Research Methodology

3.1) Introduction

Following this definition while 'purpose' of the research is to explore the research question with the aim of increasing knowledge, 'nature' of research is the applying relevant methodology for analyzing and collecting the data (Collis & Hussey, 2009).

With the not useful methodology (nature) it is possible to fail. Thus, it is essential to define the research methods to reach the aim and objectives.

In this chapter, given this insight, the philosophy, justifications of research methodology will be introduced. As a research method, qualitative research is been selected.

3.2 Research Philosophy & Justification

3.2.1 Paradigm definition

Initial step for designing the research is to identify the research paradigm (Collis & Hussey, 2009). Paradigm is first defined by Kuhn (1962). However, according to Ritzer (1975) the definition of the paradigm is ambiguous and created confusion among scholars. According to Ritzer (1975, p. 157) a paradigm definition is:

Paradigm is a fundamental image of the subject matter within a science. It serves to define what should be studied, what questions should be asked, how they should be asked, and what rules should be followed in interpreting the answer obtained. The paradigm is the broadest unit of consensus within a science and serves to differentiate one scientific community (or sub-community) from another. It subsumes, defines and inter-relates the exemplars, theories, methods, and instruments that exist within it.

3.2.2 Quantitative vs Qualitative

In order to create a good quality of research, it is crucial to know different research paradigms. (Easterby-Smith et al., 2002). There are two main types of research paradigm: Positivism (Quantitative) and Interpretivism (Qualitative).

Smith (1983) argued that during the 19th century research was more interested in passive objects such as the field of physics, biology. Due to significant improvements in those fields, systematic

methods applied by these scientists could be also applied to the research. With the help of the theorists such as Comte, Mill and Durkheim positivism was developed (Collis & Hussey, 2009). After the criticisms of the positivism, interpretivism emerged as a different paradigm. In short, while the positivism focuses on the objects with the effect-cause relationship, interpretivism focuses on the actions and the behaviors of the people as in the social sciences.

Metatheoretical Assumptions About	Positivism	Interpretivism
Ontology	Person (researcher) and reality are separate.	Person (researcher) and reality are inseparable (life-world).
Epistemology	Objective reality exists beyond the human mind.	Knowledge of the world is intentionally constituted through a person's lived experience.
Research Object	Research object has inherent qualities that exist independently of the researcher.	Research object is interpreted in light of meaning structure of person's (researcher's) lived experience.
Method	Statistics, content analysis.	Hermeneutics, phenomenology, etc.
Theory of Truth	Correspondence theory of truth: one-to-one mapping between research statements and reality.	Truth as intentional fulfillment: interpretations of research object match lived experience of object.
Validity	Certainty: data truly measures reality.	Defensible knowledge claims.
Reliability	Replicability: research results can be reproduced.	Interpretive awareness: researchers recognize and address implications of their subjectivity.

Figure 16 :Positivism vs Interpretivism. Source: (Weber, 2004)

Figure 16 illustrates the differences between two approaches. While positivists tends to believe that researches do not influence the research and follow an inductive approach. Results are easily replicable and certain; interpretivists believe that researches can not be separated from his or her real life and follow a more deductive approach.

3.2.3 In Risk Management Context of Qualitative vs Quantative

Question of how does the concept of risk & Black Swan concept is related the two paradigms should be answered. According to Kirkwood (1994) from the positivist approach risk is seen as an object that is evaluated with the scientific methods and perceived risks are stemming from the non-

scientific assessments. Since, Black Swans could be categorized or the Becks artificial risks are categorized as beyond the calculative measures, it would make more sense to investigate the issue in sociological perspective particularly on the small firms.

3.3 Research Design

3.3.1 Grounded Theory

One of the qualitative methods is Grounded Theory (GT) which comprises of deriving a theory from the data (Glaser & Strauss, 1967). According to Strauss & Corbin (1990) it is a systematically way of discovering a theory, improving and verifying with an iterative process of data collection.

Suddaby (2006) argued that there are many wrong interpretations of the GT. He explained historically that GT emerged as a theory to oppose extreme positivism. That is to say, Glaser and Strauss (1967) were rejecting the idea of natural and social sciences deal with the same subject. They looked at pragmatism of Charles Saunders Peirce (1839-1914) and early symbolic interactionists. They claimed scientific truth is not reflected as external reality but the idea of truth is stemming from act of observation.

Glaser & Straus (1967) similarly did not accept the notion of hypothesis testing. Alternatively, they support the idea of how well and relevant of systematic iterative process of data collection and analysis could illustrate a phenomenon. GT is more interested in the sense of what is going on (Suddaby, 2006).

3.3.2 Research Design

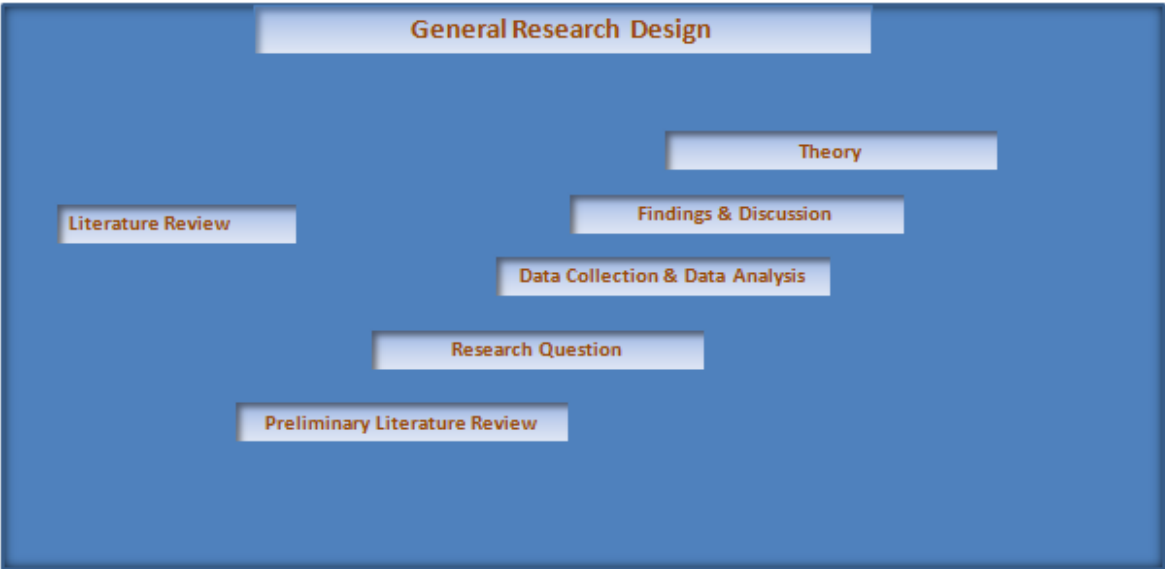


Figure 17: General Research Design

As depicted in the Figure 17, in this dissertation process initiates with the Preliminary Literature Review. From the literature review a research question emerges. However, unlike the positivist approach in the GT, there is no hypothesis testing. Data and its analysis are being done at the same time in an iterative, qualitative approach. From the results, with the help of discussion which is including both interpretive and deductive approach (Collis & Hussey, 2009), it will be tried to form a new very strong propositions.

On the other hand, this methodology is not excuse to not to have literature review (Suddaby, 2006). Normally researches should have expertise and experience to related topic to have an insight about the topic (Reilly et al., 2012). So that, for me literature review will play this role to have an insight about the topic and for the theoretical sensitiveness.

From the other side of the coin, literature review could be dangerous for the GT. Because of it may force researcher to test a hypothesis unconsciously. It is best to keep a balance between empiricism and theory-laden view (Subdaby, 2006).

3.4 Method of Data Collection

Interview is a method where the participants are chosen to ask questions to figure out what they do, think or feel (Collis & Hussey, 2009). Classification of the interviews is often made by the structure. That is to say, there is a continuum between structured or unstructured interview. In this dissertation, semi-structure type of interview is chosen. Although, there will be preliminary questions, those questions will be open ended and flexible. This may reveal some information in detail (Qu and Dumay, 2011) .

3.5 Method of Analysis

3.5.1 Iterative Process

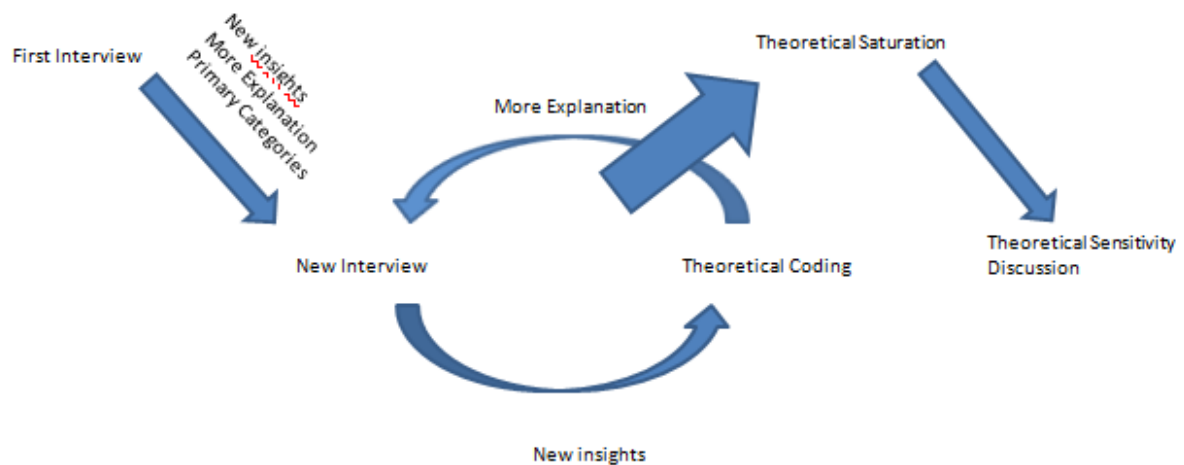


Figure 18: Iterative Process of the Grounded Theory

According to Charmaz (2005) there are 5 important tenets in the Grounded Theory: constant comparative method, theoretical coding, theoretical sampling, theoretical saturation and theoretical sensitivity. According to Reilly et al.,(2012) :Theoretical coding is systematically grouping and categorizing the relative examples from the data. By constant comparative method, it meant to be the data collection process and analysis will be done at the same time and new questions may arise for the interviews that enable the iterative process. Theoretical sampling assures the questions of ‘for what’, ‘why’ and ‘where next’ of sampling will occur. Theoretical sensitivity makes the issues identified in coding making senses in the literature review.

As it can be seen from the figure 18, the process is suitable with these tenets. When the first interview will be complete, categorizing and coding will start. Questions then will be changed in response to gain more information, insight about the topic from new interview. Coding is repeated and if there are some ambiguous parts, new data should be collected. Data collection will be finished when there is no new information gathered and the information is repetitive in terms of coding. This point is called theoretical saturation. Following theoretical saturation, findings should be organized and filtered as theoretical sensitivity.

3.5.2 Coding

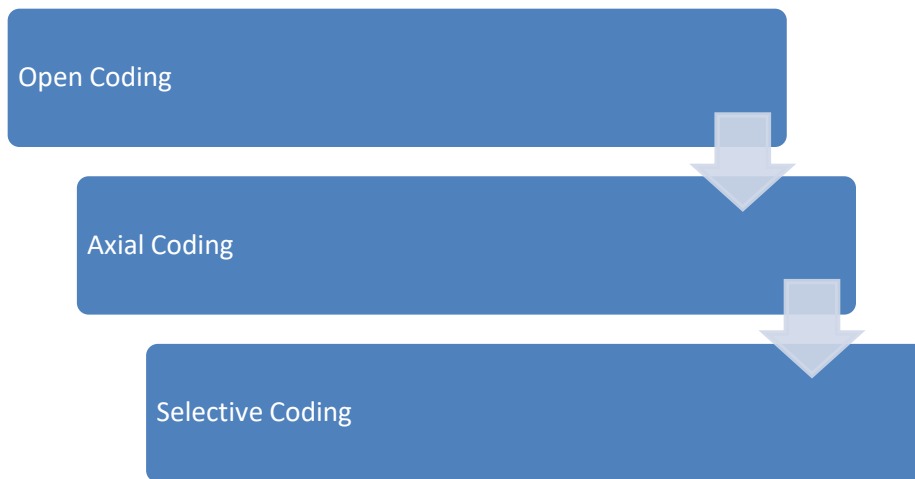


Table 4: Sequence of Coding

As it can be seen from the Table 4, there is a hierarchical order for coding. According to Collis and Hussey (2009), In the first step: open coding, the main aim is to organize data to more manageable level. Researcher divides the information into categories than labels the information. However, these labels should be explained. Following Open Coding, during the axial coding, data is categorized in more conceptual level. Main aim is to discover the relationships between categories and preliminary mini theories may arise. Lastly, during the selective coding core categories and further refinements should be identified and relationships should be validated. Codes can be seen in Appendix 1-2-3.

3.6 Research Validation & Ethical Issues

3.6.1 Research Validation

As it can be seen from the figure X, reliability is different from positive study. Repeatability of the research is not relevant. Instead of this, it's reliability depends on the subjectivity. Thus, for qualitative research Lincoln ad Guba (1985) argued the terms of dependability and transferability to evaluate the qualitative research reliability. While transferability refers to giving details about the subjectivity and based on this subjectivity and settings whether research could be moved to a different settings, by dependability research should have done in such a systematic way that it could be evaluated by an external source. Audits could be example of this approach.

3.6.2 Ethical Issues

During conducting a research it is easy to get in trouble with ethical issues. For this dissertation, Brunel University Ethical Consideration will be followed. These are the voluntary participation and

confidentiality concerns. Company and participant names will be referred as letters such as Company A and the data is not traceable back to participants or companies. All data gathered for the research will be kept confidential except for the assessment reasons for the dissertation. Regarding the Brunel University ethical considerations, participant information sheets could be seen in the Appendix 4 and 5.

3.7 Participants

Age	Ranging between 36 to 62
Education	University 88 percent High School 12 percent
Work Experience	Ranging between 42 to 14
Any Publication Read	Daily Newspapers, Economy Magazines, Magazines related to specific business fields

Table 5: Participant information

As it can be seen from the Table 5, participant age is varying from 36 to 62. Each participant is either owner of the company or has a share of company in top manager positions. Except one of the owners who is 62 years old, all owners are graduated from university from different majors such as business, electrical engineering. One interesting fact is all owners have working experience more than 14 years.

Company	Industry Type	Size(# of employees)
A	Industrial brushes	10
B	Construction	150
C	Automation, Hydraulics	10
D	Plastic Injection	175
E	Construction	180
F	Construction- Electrical Services	35
G	Manufacturing with wood chips	48
H	Machine production	14

Table 6: Industry Types of the Firms

As Table 6 indicates, firms are operating in different business fields. However, 3 firms are specially working for the construction sector. Size is also varying from 10 to 180 employees. Number of employees is aligned within the definition of SME according to European Union norms.

3.8 Chapter Summary

This chapter was initiated with the paradigm definition and selected paradigm for this dissertation. The question of why grounded theory was chosen in the black swan concept briefly discussed. It was followed by explanation of the grounded theory and its process. Research validation and ethical considerations are discussed and gave general brief information about the participant and firms.



Chapter 4: FINDINGS& DISCUSSION

4.1 Results

As it explained in the methodology section, there were 3 coding steps. At the end of the coding, it is revealed that there are 6 fundamental categories: Growth, Pessimistic view of Turkey, Business Risks, Competition, personal views and unexpected changes.

4.1.1 Growth

One of the key findings that affect risk perception together with risk taking is the growth, growth strategy and the entities that are affecting the growth. There is a dilemma associated with the growth of the firm. Participants defined the growth as a necessity to survive.

“You have to grow and make new investments. Otherwise, you will fall behind the competition and shrink” (Responded C).

On the other hand, growth can bring extra risks. It could put the company in a more vulnerable position. Using bank credits in order to make new investments could affect financial stability of the company. In case of a sudden change in market, this results also in the shrink of the company.

“There is a risk associated with the growth. So many companies which grow significantly tend to shrink back again and sometimes collapse. Slow growth also increases the trust of the network” (Responded A).

In addition to this dilemma, except the company A and H, all firms have ambitions to increase the size of the company. While company A sees, as family business, since his son or girl is not willing to continue to his business, he does not see a reason to taking new risks while he is 54 years old. Most of the investment done is required by the customers and the network. Similarly, although his girl is willing to continue of the business for person G, personal views are affecting the growth. His first aim is to pay his debt to government and sell the business.

However; for instance for company B being a family business is a pressure for growth. He concludes as firm growth has to be bigger than the growth of the family. Growth pressures can come from internal as external. For instance; Company C is mostly working to a huge company as a main supplier. While the main customer is constantly increasing its production, there is a force on the supplier as well.

“In front of you, there is a huge company. Established in 1993 while it was producing 50000 units, yearly, its capacity increased to 200000. As a result of this, you have to adjust your production to meet the demand of the customer”

While company’s behavior can be risk taking and risk adverse towards the growth, oppose to companies relatively established and family business, newly established companies risk taking tolerance is high. In a way, they are behaving as entrepreneurs. Their initial investment or new investments were very risky.

Final part of the growth is affected by the strategy. Different companies are following different strategies depending on their capability and risk taking behavior. For instance; company C made an investment in a food sector which is completely irrelevant with the core business. Others are chasing what they called as fulfilling the gaps of the market. This could also be referred as niche markets. Last but not least, some are growing in other areas as vertical integration. Only company G is referring to growth as a capacity increase.

4.1.2 Pessimistic view of Turkey and its impacts

Although, from some of them, it was not explicitly stated, almost all firms have a pessimistic view of the Turkish Economy, legal system and a way of working. Beginning from the 90’s, there were 5 big economic crises. Recently, according to some of the participants, there is a political crisis going on with government is against a special Islamic movement called Gulen and controversy about the Turkish government support. For instance, there is a rumor that this caused a huge meat company which is related to Gulen movement to collapse in Eskisehir region. Together with the threats of chaos in the Syria and Iraq which Turkey has a long border increases the uncertainty. No firm owner will get surprised if a sudden crisis emerges at the moment.

These frequent economic crises and political disputes had impacted the firms in a way that firms always have to be stay alerted to risks and it is a must to protect the financial stability at all costs. Participant D referred as Turkey:

“Turkey is like a ticking bomb. Nobody knows when it will explode”

Or other participants referred an analogy of the movement of a firm as mule. His words:

“A firm has to be like a mule. Mule is always looking to ground if there is any ice and moves slowly. However, a horse without looking the icy situation goes forward quickly. During this running, many horses can go down”

While financial stability means to firms to decrease the amount of credit used from banks as much as possible, only company E refers to financial stability as the credit sources openness and the rate of the credit. Not having significant debts and financial liabilities are important to overcome the crises. Participant A told me that during the crises in 2008, since he does not have much financial liabilities, in order just not to stay doing nothing, they did the maintenance.

In addition to financial stability and staying alert, resilience and flexibility are two important means to deal with the crises. While companies like G do not have strong financial stability, also have not the flexibility and resilience. When the crises happened, only entity that company did was to sell the assets of the company in order to pay the debts. However, other companies have a buffer zone to try to change of customers, doing projects that normally they would not and cut the costs significantly.

Last but not least, this pessimistic view about Turkey and uncertainty causes the changes in planning such as budgeting and new investments. Because of the high uncertainty, firms might prefer short time investments with not very high rate of returns. Companies frequently address the issue of unlike the Europe or developed countries; it is not possible to do long term planning. For company F, this is because of the way of working in customers. Furthermore, distrust in social and legal systems results in searching new opportunities in abroad such as in U.S.A where currently government is supporting manufacturing investments extremely.

4.1.3 Business Risks

In relation with pessimistic view, one common thing among the firms the distrust to customers and the difficulties receiving cash after the materials or service completed. All most all firms have distrust to customers. For instance: Company A is only working with the companies that are known to his network or the ones who knows somebody in his network as his reference. On the other side of the coin, this is not possible for other firms. They found this kind of attitudes were in the past. They do not trust the customer. Responded B says:

“Customers do not have to trust us. We have to trust them. They are buying the products and paying the money in time. Never trust a customer. They can go bankrupt etc. This is a basic principle. But, we have to build trust in the quality of the material. This is a different thing”

B responded also, during the economic crises, they decreased their income consciously. They rejected some of customers who they seem risky and may not be able to pay back. Cash proceeding risks are common. Even some of the enormous construction projects in Istanbul were collapsed financially according to participant E. Collateral letters are being used. Similarly, company H is

requesting half of the total cost instantly, in order to proceed with the order. They are implementing this to firms except the well known and corporate firms.

In addition to this, for some firms bargaining power of customers are respectfully high. One good example is the situation of H.

'In past, there were some main customers and negotiation. But, at the moment, there is no negotiation. Only requests for quotation... the cheapest quotation is selected regardless of the quality. Afterwards, they are requesting improvements. Some firms increased their paying time from 45 days to 90 days'

Similarly, participant G is underlining the issue. Thus, firm is trying to increase the number of main customers. He makes an analogy: 'if the main customer is sneezing, then the supplier will get sick' . In comparison, participant D has much more sustainable relationship with its customers. Where customer is also directing and in a way supporting the supplier firm D.

Apart from high bargaining power of customers, variations in raw material prices and foreign currency risks are also one of the main sources of risk for small firms. For instance, company F is working in electric sector which the copper prices are dependent on the London Market and there could be variations. After a project is accepted, depending on the financial capability and liquidity company could order the raw materials after a period. During this period, there could be significant changes in foreign currency such as devolution or the prices could change in the market as well. Foreign currency risks also could result in obstacles to pay back the debts or create new debts. Thus, companies are not willing to use foreign currency as a debt option and always paying attention towards foreign currency. Participant C is:

'I am not talking in Turkish Liras especially for the big projects. For us we do not want to make profit out of currency changes, we just do not want to lose money out of changes in currency'

4.1.4 Competition

First of all, competitiveness of the firm is strongly affected by the capabilities of the firm. With increasing capability, this gives companies to flexibility and resilience towards financial stability. For instance, only company, financially risky company is C because of its diversification strategy. Company is claiming to establish know-how. It could make even greater profits thanks to its competitive advantage towards technology and working with an array of business fields.

Secondly, as a small firm, owner's personal capability plays a serious role. One example is what participant F told. Before establishing the company, he declared bankruptcy for another firm. According to him, this was due to not knowing principals of trade and law. One firm had refused to pay him although he is done the work although his knowledge is deep in his field, inexperience in trade cause him to fail.

Thirdly, companies like B and G is constantly searching for niche markets. Whereas company H is in difficult position, experiencing a highly competitive market causes more vulnerable to risks. Participant H is Red Queen effect in competition on the costs in his words:

"There is also competition among the firms. Once a quotation has been preliminary accepted by the customer, another competitor is reducing the quotation. Let's say initial quotation is 100 Turkish liras, the other firm is giving a quotation of 90 Turkish Liras. In order not to let other company win the situation, you have to accept lower amount of price that other company is not willing to pay. May be you are not even making significant amount of profit on that project. However, by the customer for the next project this price is becoming a base price. This decreases the profitability of the project."

4.1.5 Personal Views of the owners

Since, most of the small firm's decisions are controlled directly by the owners, personal views are important in risk perception and how a firm should react accordingly. As it can be seen in the growth section, some decisions are based on the personal situation. First of all, although, participants stated that importance of good will flawed in time, there is a sense of 'keeping promises'. For instance company F stated that, in some of his works despite the fact that there is no written contract and in the increase of the raw material prices, he completed the job with the initial offer price. In some cases, for owners it is better to act ethically rather than rationally. Furthermore, owners have a sense of ethical codes. Participant C stated that:

'Principles are to play honestly. Nobody is fool. When there is a mistake, it must be informed to other party. We are the solution partners of the firms. So, it is not like solely selling products'

In addition, personal views are also influenced by the personal relationships. Risk identification and sources change with it. For instance where firm A is dependent on the network to find new customers, firm H is looking the production of industrial tank productions. Owner of industrial tank productions firm is a friend of participant H.

Among the start-up companies, there is a similarity of owners worked in the same business field before establishing the firm.

4.1.6 Unexpected Change

In addition to all of these parameters, one of the findings is also the unexpected change. These are both sudden variations in the market and socio-political alterations. For sudden variations, there are two good examples. Participant G told that he was doing projects to a company which was producing cans before 1990. Company was constantly growing. Instead of giving cash money, they offered sharing of the company. However, company situation got worse because of the separation of SSCB. Separation caused a significant drop in the raw material prices. However, company bought a considerable amount of raw materials and made stocked with using bank credits. This caused firm to declare bankruptcy.

Second sudden variation is also related to raw material prices. Participant A is referring to there is a constant variations in the market of copper and gold. However, during 2011, because of the flood in Pakistan, prices of cotton increased extremely. This was not anticipated by the firm.

Furthermore, however, these sudden, unexpected changes could be beneficial for the firms. Participant E gave an example of it. Before the crisis in 2001, there was a fixed exchange rate for the foreign currencies. In this case, company decided to make new investment with a partner. However, they realized that fixed exchange rate is not working properly. They canceled the project. On the other hand, partner was insisting on this new investment, otherwise partner would declare the bankruptcy. Thus; they made a new contract with the partner. As a result of this, surprisingly at the end of the crisis, they gain a competitive advantage because of competitors halted the new investments.

Besides, company C used the crises as an opportunity such as pushing factor for organizing and restructuring of the firm or company D used the crises to grab market share from financially weak competitors.

Last but not least, all firms are addressing the change in technology and way of working. In past, good will has importance but nowadays it is not respected according to participant H.

4.2 Discussion

4.2.1 Traditional Risk Management Application on Small Firms

To begin with, small firms in this research are not properly implementing the risk management. Firstly, during the risk identification phase, instead of looking risks as from general environment, industry specific and firm specific environments (Miller, 1992), the small firms are mostly concerned with the business risks. This also affects other stages like risk assessment, risk handling and the risk monitoring. The small firms tend to follow business risks, political and economical risks, but ignoring others. This could also stem from the general perception of risk from small firms, when the participants asked that question for them risk definition refers to surviving point of the firm.

Furthermore, risk assessment is done by evaluations from the managers from the experience. However, it is hard to assess the risks from general environmentally (Koufopoulos, 2012). The Small Firms are depending on their network and the daily newspapers. Hence, the risk assessment is actually dependent on the perceived risks (Kirkwood, 1994) and thus social amplification (Kasperson, 2005). As Booker and Ross, (2011) suggested, decreasing the uncertainty is costly. One reason could be the cost associated with to become certain, where firms may not have

Besides, risk handling is problematic for the small firms. Although; they are aware of financial risks such as change in raw material prices or foreign currency risks; all firms except company E, are not using any financial instruments such as future contracts and insurances (Clarke & Warma, 1999). There is deep sense of distrust in the banking sector. Furthermore, small firm's capability of creating capital is limited (Gao et al., 2012). Despite the fact that, financial stability is an important measure, where participant F stated, during the 2002 crisis, all capital of the company which was melted in 2 months time was a result of continuing business for 10 years. Hence, it may be assumed that vulnerability of the small firms is high for unexpected events and particularly for black swans.

4.2.2 Black Swans

In the context of this dissertation, from the findings and collected data, a black swan could not be identified. Economic crises and unexpected changes risks are within the predictable range by subjective evaluation from the author. These could be identified as grey swans (Taleb, 2007; Hole, 2013). However, the characteristics of the unexpected changes stemming from the separation of SSCB and a flood in Pakistan is causing obstacles for the firms in Eskisehir/Turkey region. This is indicating the increased globalization and possible 'debounded risks' as Beck(1992) and Giddens

(1990) suggest. It is also an indication of thanks to globalization; businesses are becoming more complex to enable a Black Swan impact to be enormous.

4.2.3 What is actually going on small firms from the perspective of findings?

Additional information from this dissertation might be the lack of RM and RM capability in small firms which is also supported by (Gao et al., 2012; Henschel, 2008) Hence, question of ‘why do some small firms fail when others are not?’ arises. This is also controversial in academic literature (ref needed). In order to try to answer this question let us look at the general situation from the collected data as what small firms are doing.

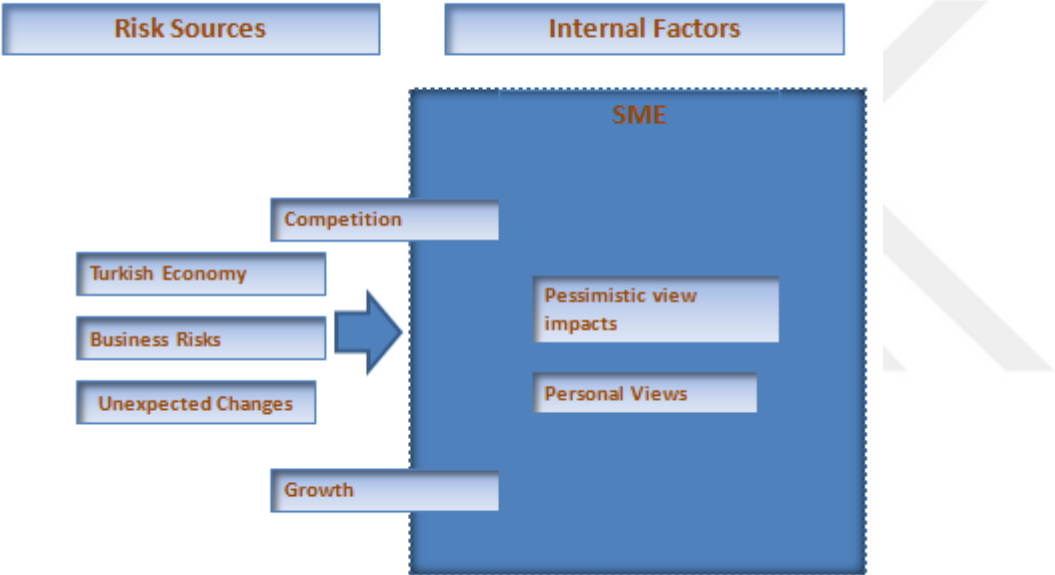


Figure 19: Risk Conceptualization according to Findings ¹

As figure 19 illustrates, common risks associated as an external threat to the businesses are Turkish Economy, Business Risks and Unexpected Changes. SME’s owners are strongly affected by the owners world view including decisions made from networking to new investments. Growth and Competition depends on both external dynamics such as competitors and internal dynamics such as being a family business.

4.2.4 Evaluations

Depending on the categories identified, below table summarizes the view of the companies and evolution by the writer. Returning back to Miller (1992) arguments, apart from the financial responses to risk, there can be also strategic responses such as diversifying. (See Figure 9)

Company	Growth	View of Turkish System	Business Risks	Competition	Unexpected Change	Personal Views
A	Growing	Pessimistic	Successful	Not Competitive	Vulnerable	Risk Adverse
B	Successful Growing	Pessimistic	Highly Successful	Highly Competitive	Flexible	Entrepreneur
C	Not Growing	Neutral	Successful	Highly Competitive	Flexible	Entrepreneur
D	Growing	Pessimistic	Highly Successful	Competitive	Flexible	Entrepreneur
E	Successful Growing	Neutral	Highly Successful	Highly Competitive	Flexible	Entrepreneur
F	Growing	Pessimistic	Pessimistic	Competitive	Vulnerable	Entrepreneur
G	Successful Growing	Pessimistic	Successful	Competitive	Flexible	Entrepreneur
H	Shrinking	Pessimistic	Pessimistic	Not Competitive	Vulnerable	Risk Adverse

Color Codes: Green: Good Red: Poor White: No Evaluation

Table 7: Evaluation of the firms according to Findings

As illustrated in Table 7, apart from the firms C and H, all firms are growing. Limitation of company C is the failed investment in the different sector which creates financial liabilities. For company H, this was mainly due to lost of its initial customers and the change in technology.

It is not right to evaluate whether the personal views are right or not. However, it is easy to categorize the behaviors of the participant views according to cultural theory (Douglas, 1992). While Firm A and H mainly is risk adverse and behaving in the fatalistic region, other participants are more risk taking which is the sign of a more individualistic behavior. In addition to this, all participants show a mix of 4 different approaches as illustrated in below table.

Behaviors of the Participants	
Criteria	Explanation
Individualistic	Firms are hiding their own know-how. There are some fierce competition on cost.
Fatalistic	Some individuals thinking they are not capable of trading since they have technical background and are afraid of growth.
Hierarchic	There is a some degree of division of labor and responsibility sharing in the organizations. Also, there are principles such as keeping promise is a necessity.
Structural Collectivist	Many participants are complaining about Turkish Economy where the situation does not seem stabile. Family Businesses have a sense of 'we'.

Table 8: Cultural Theory Adapted from Douglas (1992) Source: Collected Data.

Last but not least, Question of ‘despite the uncertainty as well as lack of RM and various internal dynamics of the small firms such as the generation conflicts in family businesses, why some small firms are able to grow?’ emerges. However, this question could be explained by the work of Penrose (1959) in his influential article.

Company	Growth Pressures	Strategy	Growth Perception
A	Network	Diversification	No growth
B	Family Business	Diversification, Niche Markets	Aggressive
C	Entrepreneur, Competition	Diversification, Capability	Aggressive
D	Customers	Capacity, Capability	Necessity
E	-	Vertical Integration	Necessity
F	Family Business	Capacity, Capability Capability, Niche Markets	Necessity
G	Entrepreneur, Competition	Vertical integration	Aggressive
H	Debts	Capacity	Shrinking

Table 9: Growth of Firms Table 9 summarizes the perception, strategy and the possible growth pressures.

In his book, firm growth is limited by the resources firms possess and how the firm is using these resources. Apart from the similarities of the firms such as financial stability; when we look at the firm's resources we could easily see the different attributes of the resources firm's possess. We can say that one resource that firm A has the network. When the company is established and further invested in a diverse manufacturing field customers requested owner to establish the business. Firm B has the managers who know foreign languages, could travel easily in the world. They have technical capacity learn new techniques, technologies about creating certain kind of products. Firm C has the human resources who have technical knowledge, experience and who are willing to learn much more. Only company H does not have distinct capabilities, resources and company situation is shrinking.

These examples suggest that growth of the small firms is bounded to resources and dynamic capabilities they have as Penrose (1959) suggests. Consequently, since also their Risk Management is problematic, the strategic risk responses may also be bounded to their capability and competitive advantages.

Company	Competitive Advantage	E	Dynamic Capability	E
A	Network	G	N/A	P
B	Niche Markets	G	Adopting know how	G
C	Technical Superiority	G	N/A	P
D	1)Customer Relations 2) Technology	G	N/A	P
E	Niche Markets	G	Adopting know how	G
F	1)Technical Knowledge 2)Brand	G	1)Successful diversifications 2)Learning	N
G	1)Niche Market 2)Network	G	Learning	P
H	1)Network 2)Technical Knowledge	P	Learning	P




E: Evaluation Color Codes:  Green: Good  Red: Poor  Yellow: Neutral

Table 10: Firms and their RBV perspectives

In relation to Penrose argument and RBV perspective, firms are trying to differentiate and diversify themselves in order to sustain their competitive advantage. Table 10 summarizes the firm's competitive advantages and the dynamic capabilities they possess at the moment.

4.3 Main Hypothesis

Hymer (1976) claimed that firms go abroad have some kind of oligopolistic ownership advantages. With the help of these advantages, firms have ability to overcome market imperfections.

Similarly to this idea, small firms are lacking RM capability, vulnerable and have limited resources. Successful small firms should have distinctive competitive advantages to overcome the negative effects of this vulnerability and thus become more resilient.

However, the main difference between the Hymer's idea and RBV perspective in this dissertation is, while Multinationals go abroad in order to exploit their oligopolistic advantages, the small firms are trying to survive in a high uncertainty environment.

4.4 How small firms are using their competitive advantages?

In addition to financial stability of the firms, competitive advantages give capability for the firms to be more resilient, flexible and adopt to changing conditions of the business. As an examples, technical capability and the history of the firms will be discussed.

4.4.1 Technical Capability

First of all, in this dissertation all small firms have technical capability. A research conducted in Turkey on small firms has revealed that owners of the small business mostly have technical background. Furthermore this technical capability could help firms to overcome the negative effects of risks and black swans such as the financial crisis in 2007. For instance, firm C has continued to work during the crises because of its specialization in hydraulics and automation. Hydraulics was mainly used in press where firms do not cut budget in case of malfunctioning because of the high danger of human life.

4.4.2 Path Dependence-History

As firms are growing, from the point of RBV, path dependence also plays crucial roles for the competitive advantage. Two examples could be given. Firm F was established in 1993. During that time, there was not competition in a small town called Bozuyuk which is close to Eskisehir. City was industrializing with the investment of several manufacturing companies. Company used this opportunity and created a brand image that is trustworthy and capable of doing electrical works that needs specialty. This creates an advantage to Firm F, where a crisis might hit the company but company could form a bunch of resources including financial and social capital.




Another example could be the customer relations. Particularly Firm D has strong advantage against its competitors. Firm is a big supplier of a multinational company in the Eskisehir region which was established in 1995. Even during the huge impact crisis such as 2002 economical crisis or 2007 financial crisis, main customer was producing huge number of products. That is to say, thanks to view of the main customer to its suppliers, firm was embedded to main customer strategy. This gave resilience towards to risks and crises which the other firms do not have.

Last but not least, small firms life age is only 4 or 5 years in Turkey for 80 percent which could be an indication of high uncertainty. This number is 8 or 10 years in Europe (Firat, 2007).

4.5 Summary

This chapter is started with the explanations of the theoretical codes that are gained from the collected data. These were: Growth, Pessimistic view of Turkish Economy and its impacts, Business Risks, Competition, Personal view of the owners and the unexpected change. In the discussion part, in light of these findings capability of risk management of small firms are discussed and as an alternative resource based view is discussed from the resilience point of view.

Table of Subjective Evaluation by the author of the Small Firms		
Criteria	Explanation	E
Risk Management Process (Coso, 2004)	There is no defined, organized Risk Management Process	P
Bridge between RM and Strategy (Andersen & Schoreder, 2010)	There is no concrete bridge between RM and Strategy. However, it is related.	N
Risk identification (Miller, 1992)	Business Risks are being identified well, however other risks sources are not clear.	N
Risk Responses (Miller, 1992)	There are some risk responses including new investments.	N
Uncertainty & Risk (Booker & Ross, 2011)	Uncertainty sphere is big for small firms. Apparently, it is costly.	P
Artificial Risks (Beck, 1992; Giddens,1990)	Firms are not prepared of risks that are stemming from Globalization.	P
Cultural Theory(Douglas, 1992)	There are each type personality. However, mainly fatalistic and individualistic.	N/A
Social Amplification(Kasperson, 2005)	Firms probably be vulnerable to risk amplification process.	P
Growth (Penrose, 1959)	Firms are growing. However, not all firms are depending on their capability.	N
RBV (Jones et al., 2013)	Except one firm all firms have a competitive advantage.	G
Resilience (Acquaah et al., 2011)	Firms are financially stable and have flexibility to adopt to shocks such as crises.	N
Black Swan (Taleb, 2007)	Unprepared for a too quick, sudden change in the customers.	P

E: Evaluation Color Codes:  Green: Good  Red: Poor  Yellow: Neutral

N/A: Not Applicable

Table 11 :Summary of some Literature Review and Comparison in practice

Chapter 5: Conclusion & Recommendations

5.1 Introduction

This chapter is beginning with a short summary of the entire study. It initiates with the conclusion section, reviewing main objectives, aims and the research questions that author of study is tried to answer. To answer the question, final hypothesis is added in the conclusion chapter. This is followed by limitations of the research and recommendations on possible future research. Also, post conclusion is added in order to address the managerial implications.

5.2 Summary

The main purpose of the dissertation was to understand the risk and risk management from the point of small firms particularly for sudden surprises. For this reason, literature review from the traditional approach and other approaches were examined. With the help of the grounded theory, collected data analyzed and discussed. The objectives were to identify the ways of dealing with risks, finding the limitations from another perspective and most importantly try to figure out how small firms deal with black swan impacts.

5.3 Conclusions

With increasing globalizations, risks are becoming harder to predict. Additionally, Turkey's Business environment is not stable and includes high uncertainty. Unlike the corporate firms, small firms are more vulnerable to external events. In these circumstances, however, some firms are successful to overcome unpredicted events that are categorized as Black Swans through flexibility and competitive advantage against their competitors. That is to say, when Black Swan or an unexpected event happens, firms may deal with the impacts by its competitive advantage as well as the considerations like financial stability.

- 1) Successful small firms have relative competitive advantage towards their competitors. These competitive advantages can be:
 - a. Technical capability (Use of technology, Technical Capability, etc)
 - b. History (Brand Awareness, Customer relationships, Learning, etc)
 - c. Social Capital(Network and Market as a source of opportunities and risks)
- 2) Successful small firms are trying to sustain this competitive advantage through diversification, going after niche markets and try to develop innovative and know-how capabilities.

If they are successful at building dynamic capabilities, they are becoming resilient and growing. If not, they are successful as long as they protect their competitive advantages. However, eventually a black swan event or market competition will hit the firms.

5.4 Limitations

First of all, although, grounded theory is an attempt to form a hypothesis or even a theory from the study, with a small sample size, it is not a healthy assumption to make generalized assumptions. Regarding the issues about the data collection and samples, one issue is the dependency on the geographic area. Businesses are mostly oriented in manufacturing and more in business to business

sector. Whereas firms in service sector or firms that have direct relation to end customers and consumers business model could be different.

Secondly, in the grounded theory, normally it is essential to look from different perspectives. In contrast, in this study, some participants were not willing to do interviews. These participants were particularly who went bankruptcy. This created a lack of perception from the other side to examine what went wrong and what was the difference between the failed firm and successful firm.

Thirdly, although the main intention was to investigate the black swans and risk management concept, with the findings research turned its focus on small business structure and resource based view. Small firm's structure dominated the discussion which might be a limitation from the risk management point of view.

5.5 Future Research & Recommendations

Future research firstly could focus on the verification of the hypothesis in more depth via further quantitative or qualitative studies. This may form further support for the hypothesis.

Focusing on the limitations of this research, future research could be done in a different location particularly a developed country where the uncertainty is relatively lower than the Turkey.

What aspects of the company are creating resilience and it's relation to competitive advantage could also be investigated by a new research. Instead of focusing on the small firms, how black swans deal with and risk management is done in the corporate companies could be beneficial for comparison.

5.6 Implications for Managers

Particularly for small firm owners, identifying risks is hard to achieve because of the increased globalization and complexity of the business. In the case of black swans, it is unpredictable. Hence, small firms could focus on the terms like resilience, gaining competitive advantage and adapting to the new challenges that businesses face. This could be an alternative way of dealing with risks as becoming more resilient.

In order to this, managers can investigate their strengths and resources as a starting point. Adopting the advances in technology, social changes in customers are also important to sustain these strengths. When firms are trying to grow in means of diversification and vertical integration, strategic considerations and risk sources should be taken into account.

References:

- Acquaah, M. Gyampah, K.A., Jayaram J. (2011) 'Resilience in family and nonfamily firms: an examination of the relationships between manufacturing strategy, competitive strategy and firm performance', *International Journal of Production Research*, 49:18.
- Andersen, T. J. & Schoreder, P.W. (2010) *Strategic Risk Management Practice: how to deal effectively with major corporate exposures*. Cambridge: Cambridge University Press.
- Andrews, K. (1971) *The Concept of Corporate Strategy*. Chicago, Illinois:Homewood.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17 (1),99–120.
- Beck, U. (1992) *Risk Society: Towards a New Modernity*. Translated by M.Ritter. London:SAGE.
- Booker, J. C., Ross, T. J.(2011) ' An Evolution of uncertainty assessment and quantification'. *Scientia Iranica*, 18(3):669-676.
- Burt, G, Wright, G, Bradfield, R, Cairns, G, & Van der Heijden, K 2006, 'The Role of Scenario Planning in Exploring the Environment in View of the Limitations of PEST and Its Derivatives', *International Studies Of Management & Organization*, 36, 3, pp. 50-76, Business Source Premier, EBSCOhost, viewed 8 July 2014.
- Carbone, T.A. and Tippett, D.D., 2004. Project Risk Management Using the Project Risk FMEA. *Engineering Management Journal*, 16(4), pp. 28-35.
- Caves, R.E.(1982) *Multinational Enterprise and Economic Analysis*. Cambridge: Harvard University Press.
- Charmaz, K. (2005). Grounded theory in the 21st century. Applications for advancing social justice studies. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (3rd ed., pp. 507-535). Thousand Oaks, CA: Sage.
- Clarke, C. J., Varma, S. (1999) 'Strategic risk management: the new competitive edge'. *Long Range Planning*, 32(4): 414-424.
- Clifton, J.J. (1990) 'Hazard prediction' . In: Keller, A.Z. and Wilson, H.C. (Eds), *Disaster Prevention, Planning and Limitation*, Disaster Prevention and Limitation Unit. Bradford: University of Bradford and The British Library.

- Collis, J., Hussey, R. (2009) *Business Research A Practical Guide for undergraduate & postgraduate students*. Hampshire: Palgrave Macmillan.
- Conroy, G., Solton, H. (1998) 'ConSERV, a project specific risk management concept' *International Journal of Project Management* , 16(6): 353-366.
- Cox, Jr., Anthony, L. (2008) 'What's Wrong with Risk Matrices?'. *Risk Analysis*, 28(2) : pp. 497-512.
- Crook, S. (1999) *Ordering Risks in: Lupton, D. [ed] Risk and Sociocultural Theory*. Cambridge: CUP.
- Douglas, M. (1992) *Risk and Blame: Essays in Cultural Theory*. New York: Routledge.
- Easterby-Smith, M., Thorpe, R. & Lowe, A., (2002). *Management Research: An introduction*. London: Sage Publications Limited.
- Eloff, J.H.P., Labuschagne, L., Badenhorst, K.P. (1993), "A comparative framework for risk analysis methods", *Computers & Security*, Vol. 12 No. 6, pp. 597-603
- Flyvbjerg, B., Bruzelius, N., & Rothengatter, W. (2003). *Magaprojects and Risk - An anatomy of ambition*. Cambridge: Cambridge University Press.
- Firat, E. (2007) *Sirketlerin omru daha da kisalacak mi*. Available at: <http://www.capital.com.tr/sirketlerin-omru-daha-da-kisalacak-mi-haberler/19358.aspx> (Accessed 30 September 2014)
- Gao, S. S., Sung, M. C., Zhang, J. (2012) 'Risk Management capability building in SME's: A Social Capital perspective', *International Small Business Journal*, 31:677.
- Giddens, A. (1990) *The Consequences of Modernity*. Cambridge: Polity Press.
- Gittel, J.H., et al., (2006) 'Relationships, layoffs, and organizational resilience: airline industry responses to September 11', *Journal of Applied Behavioral Science*, 42 (3): 300–329.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory*. Hawthorne, NY: Aldine De Gruyter.
- Grundy, T. (2006) 'Rethinking and Reinventing Micheal Porter's five forces model'. *Strategic Change*, 15:213-229.

Gualandris, J. & Kalchschmidt, M. (2014) 'A model to evaluate upstream vulnerability' *International Journal of Logistics Research and Applications: A Leading Journal of Supply Chain Management*, 17:3, 249-268

Hallikas, J., Karvonen, I., Pulkkinen, U., Virolainen, V., Tuominen, M. (2004) Risk management processes in supplier networks, *International Journal of Production Economics*, 90 (1): 47-58.

Hameiri, S., Kühn, F.P. (2011) 'Introduction: Risk, Risk Management and International Relations'. *International Relations*, 25(3): 275-279.

Henschel, T. 2008, "Typology of SME's: Risk Management", *International Council for Small business (ICSB)*, Washington, pp. 1.

Herbane, B., Elliott, D., Swartz, E.M. (2004) 'Business Continuity Management: time for a strategic role?'. *Long Range Planning*, 37(5): 435-457.

Hole, K.J. (2013) 'Management of Hidden Risks'. *Computer*, 46 (1): 65-70.

Hymer, S. H. (1976). *The international operations of national firms: A study of foreign direct investment*. Cambridge, MA: MIT Press.

Jennings, P., Beaver, G. (1997) 'The Performance and Competitive Advantage of Small Firms: A Management Perspective', *International Small Business Journal*, 15: 63.

Jones, E. B., Squire, B., Autry, C. W., Petersen K. J. (2014) 'A Contingent Resource Based Perspective of Supply Chain Resilience and Robustness', *Journal of Supply Chain Management*, 50(3):55-73.

Kahneman, D., Tversky, A. (1972) "Subjective Probability: A Judgment of Representativeness." *Cognitive Psychology*, 3:430-454.

Kaplan, S. & Garrick B. J. (1981) 'On the Quantitative Definition of Risk', *Risk Analysis*, 1(1):11-27.

Kasperson, J. X. & Kasperson, R.E. (2005) *The Social Contours of Risk Volume 1: Publics, Risk Communication and the social amplification of Risk*. Trowbridge: Cromwell Press.

Kirkwood, A.S.(1994) 'Why do we worry when scientists say there is no risk?'. *Disaster Prevention and Management*, 3(2).

Knight, F.H. (1921) *Risk Uncertainty, and Profit*. New York: Houghton Mifflin.

Koufopoulos, D., Pitt, M. R. (2012). *Essentials of Strategic Management*. London: Sage.

- Kuhn, T. S.(1962) *The Structure of Scientific Revolutions*, Chicago,IL: University of Chicago Press.
- Loach, C. H., Demeyer, A., Pitch, M. T. (2006) *Managing the unknown: A new approach to Managing High Uncertainty and Risk in Projects*. New York: John Wiley & Sons.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE.
- Lindblom, C.E. (1959) 'The Science of 'Muddling Through''. *Public Administration Review*, 19 (2):79-88.
- Loosemore, M., Raftery J., Reilly, C., Higgon, D. (2006) 'Risk Management in Projects' Cornwall: TJ International.
- Masys, A. J. (2012) 'Black Swans to grey Swans: revealing the uncertainty'. 'Disaster Prevention and Management: An international Journal', 21 (3):320-335.
- Miller, D. K. (1992) 'A Framework for Integrated Risk Management in International Business'. *Journal of International Business Studies*, 23(2): 311-331.
- Miller, D. K., Waller, H.G. (2003) 'Real Options and Integrated Risk Management'. *Long Range Planning*, 36 (1):93-107.
- Penrose, E. (1959) *The Theory of the Growth of the Firm*, Ed. (1), Oxford: Basil Blackwell.
- Popper ,K. (1959) *The Logic of Scientific Discovery*, Hutchinson, London.
- Porter, ME 1979, 'How competitive forces shape strategy', *Harvard Business Review*, 57, 2, pp. 137-145, Business Source Premier, EBSCOhost, viewed 12 July 2014.
- Power, M. (2007) 'The Risk Management of Nothing'. 'Accounting, Organizations and Society', 34: 849-855.
- Qu, Q. S. (2011) 'The Qualitative research interview'. *Qualitative Research in Accounting & Management*, 8 (3).
- Raz, T., Micheal,E. (2001) 'Use and benefits of tools for project risk management'. *International Journal of Project Management* (19): 9-17.
- Reilly, K.O., Paper, D., Marx, S. (2012) *Demystifying Grounded Theory for Business Research*. *Organizational Research Methods*,15.

Reeves, J.D., Eveleigh, T., Holzer, T.H. and Sarkani, S., 2013. Risk Identification Biases and Their Impact to Space System Development Project Performance. *Engineering Management Journal*, 25(2), pp. 3-12.

Ritzer, G. (1975) 'Sociology: A multiple paradigm science'. *The American sociologist*, 10: 156-167.

Rugman, A. & Collinson, S (2009). *International Business*. Ed.[5]. Prentice Hall. London

Russell, B. (1912) *The problems of philosophy*. New York: Oxford University Press.

Sádaba, S.M., Ezcurdia, A. P., Lazcona, A. M. E., Villanueva, P., (2014) 'Project risk management methodology risk management methodology for small firms'. *International Journal of Project Management*, 32(2): 327-340.

Scarff, F., Carty, A., Charette, R. (1993) *Introduction to management of risk*. London: CCTA

Scheytt, T., Soin, K., Sahlin-Andersson, K., Power, M. (2006) 'Introduction: organizations, risk and regulation'. *Journal of Management Studies*, 43(6): 1331-1337

Schott, H. (1997) *Risk Management: Concepts and Guidance*. PA, USA: DIANE Publishing.

Schwarz, M., Thompson, M., (1990) *Divided We Stand: Redefining Politics, Technology and Social Choice*. Harvester wheatsheaf: Hemel Hempstead.

Sharp, J. 2003, "In my opinion", *Management Today*, , pp. 14.

Shore, B. (2008). *Project Culture and Systematic Biases in Project Failures*. *Project Management Journal*, 39(4), 5-16.

Sirmon, D. G., Gove, S., & Hitt, M. A. (2008). *Resource management in dyadic competitive rivalry: The effects of resource bundling and deployment*. *Academy of Management Journal*, 51 (5), 919–935.

Spiegler, V. L. M., Naim, M. M., Wikner, J. (2012) 'A control engineering approach to the assessment of supply chain resilience'. *International Journal of Production*, 1-26.

Smith, J.K. (1983) 'Quantitative v qualitative research: An attempt to classify the issue', *Educational Research*, March, 6-13.

Suddaby, R. (2006) 'What Grounded Theory is not'. *The Academy of Management Journal*, 49 (4):633-642.

Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Thousand Oaks, CA: Sage.

Taleb, N. (2007) *The Black Swan: The impact of highly improbable*. New York: Random House.

Telegraph (2008) Heathrow Terminal 5 joins host of British big-project disasters. Available at: <http://www.telegraph.co.uk/news/uknews/1583106/Heathrow-Terminal-5-joins-host-of-British-big-project-disasters.html> (Accessed 6 June 2014).

The Commission of the European Communities (2003) Commission recommendation concerning the definition of micro, small and medium-sized enterprises, *Official Journal of the European Union*, L 124: 36-41.

The Committee of Sponsoring Organizations of the Treadway Commission (COSO), 2004. *Enterprise Risk Management-Integrated Framework Executive Summary*. Available at: http://www.coso.org/Publications/ERM/COSO_ERM_ExecutiveSummary.pdf (Accessed 8 June 2014)

Turner, B.A. (1994) 'Causes of Disasters: Sloppy Management'. *British Journal of Management*,5:215-219.

Weber, R. (2004) 'The Rhetoric of Positivism Versus Interpretivism: A Personal View'. *MIS Quarterly*, 28(1).

Woods, D. D. (2006) *Essential characteristics of resilience. Resilience engineering: concepts and precepts*. Aldershot: Ashgate.

Woods, M. (2011) *Risk Management in Organizations: an integrated case study approach*. Abingdon: Routledge.

Notes:

- 1) Category of pessimistic view of Turkey divided as Turkish Economy and Pessimistic View impacts for the simplicity.

Appendices

1 Initial Interview Questions

- Is there any risk management practices in the firm?
 - o Risk Planning
 - o Risk Assessment
 - o Risk Handling –Avoidance or risk taking?
- Is it integrated with your strategic approaches?
- Is there any employee or organization that is responsible about risk management?
- How did you survive as a company?
- Were there any unexpected events that threat the existence of your firm?
- Were there any unforeseen opportunities that you did not see? How did you exploit those opportunities?
- What did your company do during the financial crisis in 2007 or the economic crises in Turkey 2002?
- How did you deal with those kinds of events?
- What is the company background? What type of jobs are you working?
- Who are you? What is your personal background? Education, age, family life
- Could you describe the essence of your work?
- Did you do some kind of project? How did you assess the related risks?

2 Selective and Theoretical Codes

THEORETICAL CODING	SELECTIVE CODING
Growth	Type of growth, Relatively Established, Family Business, Entrepreneur, Risk Taking, Risk Adverse
Pessimistic view of Turkish Economy	Pessimistic view of Turkish Economy, Financial Stability, Resilience, Flexibility, Distrust in banking sector, Time-rate of return
Business Risks	Business Risks, Bargaining Power of Customers, Foreign Currency Risks, Variations in raw material prices changes
Competition	Competition, Limited Capability (Person), Capability, Niche Markets
Personal Views	Principles-Reputation, Personal Views, Networks, Market as a source for risk, Press, Risk Responsibility, Consultancy, Worked in Same sector, Change in Technology
Unexpected Change	Change in Technology, unexpected change, economic crises

3 Open Codes

Firm A

Incidents	Dimension
Cash Proceed Risks --> How to Overcome this? There are some people who are recognizing it.	1) Business Risks of money. 2) Network
Recession of Turkey Economy	1) Bad situation of Turkish Economy
Significant increase in raw material costs (in cotton) Unlike the price variations in the copper and gold, price is stable for cotton. However, flood affected the raw material prices. How to overcome this? Since we don't have financial debts we simply waited to change.	1) Increase in raw material prices 2) Unexpected change 3) Financial stability (less financial risks)
During the crisis in 2007, since there is no work, maintenance other works have been done.	No reaction towards to crises.
Company is 25 years old if we dont take in account of change in the brand. There is one main customer. However, we increased the number of main customers.	1) Relatively established-long history 2) Limited number of customers- as a supplier (customers bargaining power is high)
Age:54 worked in the same business field before. Before working in the specific to this sector, technical knowledge is low. Reputation in the field is effective.	1) Working in the same sector 2) Network
There is risk in the firms that are growing. It is growing and tends to shrink back again. Small growth brings trust.	1) No capital 2) Variation in raw materials cause the fall. 3) Type of growth

I am talking with other people as well. But, the risk information is not reliability. Press is the main source.

1) Press as a risk source.

New investment is done because of the request of my friends.

1) New investment
2) Network

Helping customers to help the work that is not related to his business field or without his capability

1) Network

No growth ambitions- Political Risks
Not much trading experience
My son or girl will not work in here.

1) Limited Capability of the person
2) Bad Situation of Turkish Economy
3) Family Business not continuing 2nd generation

Firm B

Incidents

Dimension

Debt situation in the market + receiving risks + new investments + competitors -Receiving Risks

1) Business Risks

New investments are being made in niche markets.
Refunding for the investment time should be low

1) Niche Markets
2) Time -Rate of Return

There is only one company that produces the material.
I personally stayed in USA and Canada to learn about the new investment insight.

1) Niche Markets
2) Long and expensive feasibility works on new projects *
3) Capability

Risk is being managed but decisions are made in discussion with the 4 owners. Consultancy is being used.

- 1) Risk responsibility
- 2) Consultancy

During the crises, we reject some of the customers. We deliberately decreased our income and made stocks of products.

- 1) Reaction to Crisis- Flexibility

Foreign Currency Debts after the crisis in the 90's some decisions are made.

- 1) Importance of financial stability
- 2) Foreign Currency risks
- 3) Niche markets

New investments in the USA. Government support.
No trust in the Turkey in legal systems

- 1) Pessimistic view of Turkish Economy and politics

OSB, chipboard production profit rates were very high. By the time, we involved in the sector, rates for the profits fell down.

- 1) Unexpected Change Opportunity
- 2) Limited capability
- 3) Learning
- 4) Competition

Crises in 2002 and 2008 resulted in the decrease of the profits.

But no serious damages. Trade is a kind of mule movement, horse can run but mule is always alerted and try if the ice will be broken or not.

- 1) Financial Stability - stay alerted
- 2) Type of growth- small steps

Raw materials
- Competitors
- Construction business field
- Oil prices

- 1) Risk sources
- 2) Competition
- 3) Oil Prices - General situation of the market

Customer can also push. We had many difficulties with one specific customer during the crisis. However, we did not reject the customer. Instead of try to solve all of the problems. Now, they are one of big customers.

- 1) Principle- Reputation
- 2) Reaction to Crisis- Flexibility- Resilience

Customers have to trust us. Since, they are paying the money within a time. Never trust to the customers is a basic principle.

- 1) Less bargain power of the customer

2 nd generation. Firm growth rate has to much bigger than the family rate.

- 1) Family Business
- 2) Internal pressure to growth

Firm C

Incidents

We are a project based company. Each project, there is a risk management. This includes the risk of project risk + customer risks + other risks- Evulation and if necessary rejection of the project

Dimension

- 1) Capability
- 2) Business Risks

Project responsibility is under the responsible person

- 1) Sense of Risk Responsibility

We are a capable company that could build know-how. We can manage the crises in a good way.

- 1) Type of growth- Diversification--> Risk minimizing however -> increased financial risks
- 2) Capability
- 3) Flexibility

Crises in 2008 and 2009 were foreseen before. We did not worked in an organized way the years before the crises which I used as a way of pushing employers to be organized. During the 2008, we get projects that we should not get normally.

- 1) Predictability
- 2) Resilience
- 3) Learning
- 4) Crisis as an opportunity

Principle is to play honestly. No party is fool. When there is a mistake, it must be informed to the other party. We are the solution partners for the firms. So, it is not solely like a selling.

- 1) Principles

Working with diverse sectors.

- 1) Resilience

Each project is a lesson for us. I do not even talk in Turkish Liras especially for the big projects. For us, we don't want to make profit out of it. We would be happy if we don't lose money during the foreign currency.

- 1) Learning
- 2) Capability
- 3) Foreign Currency Risk

Working with diverse business fields, you know them. If there is decrease in the projects of one field, you feel it. Following the Press as a risk source.

Press
Network

Dealer is being requested to me. However, I was thinking to establish my own business,

Entrepreneur

Implementing the strategy of the main owner company.

Learning
Strategy

Firm D

Incidents

Dimension

Risk is comprises of strategic and operational.

There is a situation as if we don't take account of risks. But , too much courage is not a good thing.

Risk taking is high.

there were 5 crises since 95. these crises were not foreseen before. Precautions were classical. Costs are decreased. Unnecessary spending is cut. But in each crisis, we made profit more than usual. Financially strong company. We gained the market share from the competitors.

- 1) Resilience
- 2) Crises as an opportunity
- 3) Financial stability
- 4) Competition

We are flexible as Turkish people. We can make decisions by 3 people and implement it easily.

- 1) Resilience- Flexibility

- 1) When new investment is done a part of comprises of capital and financial credit
- 2) We are ahead over our competitors in terms of technology

- 1) Financial stability
- 2) Infrastructure, machining tools,

We are not making our own products. Main customer is directing us towards

- 1) Strategy

A condition for competition is very fierce. Good will is lost.
 Important entity is the costs.
 Main customer is a constantly growing company. In order to meet demand from them, we need to grow also.

- 1) Change in competition
- 2) Type of growth

Following the press. During the 20 years, we have a network.
 Sometimes, we hear things and take necessary precautions

- 1) Press
- 2) Network as a source of risk

Turkey is a kind of time bomb. It could explode but nobody knows when this might happen.

- 1) Pessimistic view of Turkish Economy

Firm E

Incidents

Dimension

There is no professional service taken. We continue with our own forecasts. Risk perception, photograph

- 1) Consultancy

Crises affected us, Devaluation of the Turkish liras in 2009, iron and dollar debts- This resulted in shrinking of the firm and cancellation of the projects

- 1) Foreign currency risks
- 2) Resilience- affect of the crises

Without using bank credits, firms can not continue its operations in my idea. It is not important to have a credit debt, but the important thing is to reaching the credit sources with a low rate.

- 1) Financial stability

During the 2001, there was a fixed exchange rate, however, before it was released we understood that it is not working. So we tried to cancel our project. However, our partner told us if they cancel the project, he will bankrupt. Thus, we make a new plan of paying money. Soon, we gained a competitive advantage to others during the crises. Since, they stopped the

- 1) Crises as an opportunity
- 2) Unexpected change

investments.

There were bankrupted companies in Istanbul. So don't trust the company. Purchase order.

- 1) Business Risks
- 2) Resilience* going afterwards of the guaranteed customers such as government.

Economy magazines, internet, and talking with banking managers with himself.

- 1) Risk sources

Crises can not be foreseen but, it can be felt before. The exact date is not known.

- 1) Unexpected change

Firm F

Incidents

Manufacturing and Service sector- We are in the service sector. Project based. We make a new entities out of already manufactured.

Dimension

- 1) Project based company- way of working

Cost= Labor cost + time+ invisible other costs

- 1) Time

Foreign currency change - Copper market is in London - Distrust in the other side.

- 1) Foreign currency exchange

Before 2002 we were 70 people, it is under 35. We lost some of employees that are experienced, and grow in our company These employees are not growing in schools now.

- 1) limited capability

1) my children are the owners of the company - turning into a corporate company
2) crises damaged us -
3) creating capital - working w banks is a bad thing.
4) Forgiveness of tax - paying money for being soldier.

- 1) family businesses
- 2) Financial stability
- 3) Type of growth
- 4) Pessimistic view of Turkish economy

Always keeping promises
Coming to meetings half an hour ago.

- 1) Trust
- 2) Principles

During the 1996, I have receiving's from a company which manufactures metal cans. Firm has grown significantly. They gave me sharing's as my receiving's and called me for the directors of board. Personally, I rejected it but then accepted it. Firm has used extensive amount of credit. Separation of SSCB caused to decrease in the raw material prices.

- 1) Raw material prices variation
- 2) Unexpected change

In Sogut, which is a very small town in 1975 Mayor decided to establish a center. I was involved in the project with a construction company. I worked in different cities. At the final project, company was not giving my money.
Tracing the political issues, Following stock exchange market, foreign currency and gold prices in a daily basis. I'm not trusting the banks. Now we are a brand

- 1) Limited capability (person)
- 2) Business Risks
- 1) Competitive advantage
- 2) Limited capability (person)
- 3) Business Risks

Diversification as opening a new beauty saloon.
Family member s if they are working with the company, they can get heritage.

- 1-) Type of growth
- 2-) Family Business

Firm G

Incidents	Dimension
Woodchip manufacturing- Company has gone to bankruptcy due to not aligned with just one customer and wrong choice of investment.	1) Bargaining power of customers 2) Type of growth
Worked in same sector. But there was no request from the environment. It was his own choice. I had to take some risks	1) Worked in same sector 2) Entrepreneur 3) Risk taking
Not much planning in the sector. This is because of us and the companies that are working with us.	Pessimistic view of Turkey
Company is 7 years old. Structuring, investments are finished. Risk management can be done in corporate companies.	1-) Relatively established.
Customer variety has to expand. If the main customer sneezes, then the main supplier will get sick. From value adding activities to making an end product and making his own brand.	1-) Bargaining power of customers 2-) Making end products
Research is being made to fulfill the market demands in areas where there is no market competition . Niche markets.	1-) Niche Markets
crisis emerged in 2007 and we begin with difficulties. It was also good for us. However, it decreased our rate of growth.	1-) Learning 2-) Financial Stability
One of the main aim is to become a corporate company.	1-) Corporate company

I am working very hard on the job.

Since this business field, both customers and suppliers are closely related. There is a sense of you need to know what others are doing and the market itself. Cliché points such as the election terms are being followed from the press. The rumors of the bankruptcy of a company in the meat sector although it is not related to our own sector affected us.

- 1-) Network
- 2-) Press

Firm H

Incidents

Dimension

Established during the 70's. However, become a company during the 1996. I am in this sector for 30 years. Project based company. This special manufacturing could be various and capable of meeting other demands.

- 1-) Relatively Established.
- 2-) Project based

When we see risk or a crisis might emerge as a reality, as if we are turtles, we are holding back and defending ourselves in the cover. You are not working with cash money . Recently there were 3 firms who go bankrupt. Nobody is ready neither i am.

- 1-) Resilience

Aim: when we shrink paying the taxes and governmental debts and go out of the business sector.

- 1-) type of growth

You should not work with debt or credit. When the job is being done is bigger, your risks are also getting bigger. For the business risk, you want the material costs from the company,

- 1-) Financial Stability
- 2-) Business Risks

at the end, only risk you will confront should be the labor risks and costs

In past, there were some main customers and negotiation. However, at the moment, there is no negotiation. Only quotation and the cheapest one is selected although the quality of the work could be questioned. Also, some of the main customers increased their paying time from 45 days to 90 days.

- 1-) Power of customers
- 2-) Change in the work ethics
- 3-) Competition

When the customer is unknown, half of the order costs is being asked constantly. In past, people could trust each other more easily.

- 1) Change in social environment

During the 2008, in the eskisehir region, 20 firms were in deep trouble. Because of the even government was not paying money in time. Receiving. I have also lost so much money. In order to compensate this, I sold my house, building and the car.

- 1-)Business Risks
- 2-) Crisis as an opportunity
- 3-) Principles-Reputation

When the job is increased, without feeling it there is a danger of uncontrolled growth. This also can increased the risk.

- 1-) Type of growth

Technology early adopting is costly. I remember paying 2400 Turkish liras for my first mobile phone. The crises in the Russia, Ukraine and the crises in Syria made it available cheap labor and even professionals like engineers. However, we need people in intermediate jobs.

- 1-) Change in technology
- 2-) Personal views- politics

1-) Factories of trucks

2-) Construction sector now however not the sign, because of the trend was so high.

3-) Industrial tank productions

1) Sources of risks.

New investment is done by Vehbi Koç not because of he wants to become wealthier but in order to create jobs for people. His reputation is also high.

1) Personal views

4 Participant Consent Form



Brunel Business School

Research Ethics

Participant Consent Form

Many thanks for agreeing to participate in my research project that is related to Risk Management.

The project has to be completed in part fulfilment of my degree programme of Master of Business Administration and so your assistance is much appreciated.

Consent:

I have read the Participation Information Sheet and hereby indicate my agreement to participate in the study and for the data to be used as specified.

Name of participant or informed third party: [INSERT NAME OF PARTICIPANT]

Signature: [INSERT YOUR SIGNATURE]

Date: [INSERT DATE]

5 Participant Information Sheet



Brunel Business School

Research Ethics

Participant Information Sheet

1. Title of Research: BLACK SWANS ON SMALL FIRMS

2. **Researcher:** Mustafa Aytav on Master of Business Administration, Brunel Business School, Brunel University

3. **Contact Email:** 1330874@my.brunel.ac.uk

4. **Purpose of the research:** The main Purpose of the dissertation is to understand the nature of risk from the perspective of Small Firms especially for the sudden surprises.

5. **What is involved:** Involvement consists of answering the questions and giving comments on the issues during face to face interview.

6. **Voluntary nature of participation and confidentiality.** Participation is completely voluntary and you may stop and leave at any time. Data collected will be kept securely. The data will only be used in an aggregated form in the project report with the identity of you will be hidden and no reference will be given as individual.

