

The Impact of Uncertainties and How to Mitigate Them

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Abstract. This paper would attempt to gather primary data from valid resources that would show the impact of uncertainties in companies. It would examine what are uncertainties and how they can impact businesses. Specifically, it would explore the impacts of uncertainties to decision making in companies and how these uncertainties can affect production and profit. Furthermore, it would present theoretical solutions on how companies can deal with uncertainties. It would explore the different factors that would contribute to the collapse of a business. The solutions can be used as reference for companies as they would establish a company that is resilient and sustainable. The result shows that uncertainties have a direct impact on the decision-making abilities of leaders which may lead to negative outcomes; uncertainties have a direct impact on the profitability and productivity of companies; mitigating uncertainties can be made possible by learning from successful companies, and adapting to workable frameworks that would make the company flexible to change.

Keywords: Uncertainties; decision making.

1. Introduction

Uncertainty is fundamental to businesses and companies. In the day-to-day economic life of businesses, companies face several uncertain events that could affect the making of decisions of the key players. It could also impact the profit and bottom line of organizations. These uncertainties differ in nature and extent over time, where some may happen in an instant, while others may occur gradually which can affect the cognitive thinking and decision-making skills of the management.

Every company strives to achieve to gain profit. However, there are uncertainties that happen that would shake the management's ability to decide what is best and right at a certain time. The recent COVID-19 pandemic is one of the most extreme uncertainties in history that companies struggled with. It has shaken the global economy as businesses all over the world are bound with higher risks. The global health crisis caused great suffering to several industries and losses in businesses. They are forced to deal with an uncertain future, creating ways to survive. Business owners who deal with difficult situations challenge their decision-making skills. While many of the companies had no choice but to close down their businesses, there are organizations that learned how to navigate through the crisis and showed resilience against tough times.

2. Main Body

2.1 Background of the Study:

Uncertainty in business comes in the form of any event that may hamper the predictability of the business direction. Uncertainty is the lack of knowledge of the probabilities that may affect the state of events in the future. These events may directly influence the leaders of companies and organizations, leading to adverse outcomes. Dealing with economic uncertainties is challenging as they are unanticipated movements that leaders may not be prepared for. There are many types of uncertainties that companies may experience, where some are even extreme. Most of them are hard to measure in terms of magnitude and length, and some would have multiple layers of underlying uncertainties. For extreme cases of uncertainties, it may result in to fall down of companies, where some are not able to return to their sustainable and business as usual standard [1].

Uncertainties are inherent in companies. Uncertainties differ from risks. Risks are uncertain conditions and events related to business that may have a negative effect on organizations while

uncertainty is associated with the lack of knowledge of the future state of events based on probabilities that may impact the firm [2]. Risks can be measured and anticipated in accordance with the degree of their occurrence. However, the occurrence of uncertainties can be subjective. There is a need to identify the source and the degree by which they occur, making them difficult to measure [3]. Moreover, the presence of uncertainties affects the choices and decisions of leaders and management that would impact the direction and path toward their internationalization, business expansion, and sustainability [4].

Uncertainties are unknown unknowns. They are unexpected and unanticipated, and there is no way to predict their occurrence. In economics and business, risks are known unknowns, while uncertainties remain to be unknown. Risks can be predicted by considering the probabilities at hand. However, random events and uncertain situations that may occur may hamper the overall business at any time [5]. In the market, the uncertainty can be in the form of an “unknown information set”, in which the known means of predicting prices would lead to market instability. The unknown set of information would likely hold new information and experiences that alter the previous and traditional principles related to socioeconomic directions. However, the validity of the knowledge in this unknown information set remains to be uncertain [6].

Uncertainties also occur as Black Swans. These events are rare occurrences where nobody has thought about it. Mostly, it can have a catastrophic toll. Businesses experience turning points where they need to find an inflection or repositioning point. Black Swan events are outliers, where they go beyond regular expectations. Mostly, they have an extreme impact. However, after they may have occurred, man would find ways to explain what happened and consider it as something predictable in the future [7]. Nassim Nicholas Taleb describes this event as something that may cause instant changes. For most, the probability of the occurrence of this event is almost zero, until it happens. It is considered an unpredictable event and most businesses have a hard time reacting appropriately to it [8].

Decision making is important in businesses. In the presence of uncertainties, decision-makers of companies might be swayed and influenced by the circumstances, which may impact the business. There is a link between the action of business owners and how they perceive uncertainty. Some, are influenced by their emotions as they tackle whether to continue in their venture or not. The emotional aspect influences their confidence under uncertain situations. In the presence of high uncertainties, most of them decide against investing for fear of detrimental outcomes and negative consequences. While emotions play a role in their decision-making, it is important for leaders to have cognitive skills that would help them in making decisions even in the presence of uncertainties [9]. As stated by Rammstedt et al. (2016), there is an established correlation between an individual’s cognitive abilities, openness, and emotional stability. In this aspect, the personality traits of a person play a vital role in the development of intellectual skills.

3. Methodology

This research paper adopts a qualitative research design method. The identification of the impact of uncertainties in the decision-making and profit of companies will be done through the gathering of related literature reviews. Primary data would come from peer-reviewed papers, company papers, journals, and established sites. The paper also explores the different frameworks that have worked well with established companies. The frameworks would be gathered from journals and papers of known companies. The collected information would serve as reference for theoretical solutions to the uncertainties that companies may experience.

4. Discussion

The presence of uncertainties has a great impact on the decision-making in companies and organizations. Establishing a framework that would address uncertainties is hard due to the

inconsistency of the events and the dramatic variances that exist in existing research. The perception of decision-makers in companies towards uncertainties influence their management approach and decision-making. As discussed by Sniashko and Muralidharan (2019), there are three critical observations that can be observed in existing research with regard to the impact of uncertainties on decision-makers. They stated that there is an inconsistent measurement and conceptualization of uncertainties, downplaying of the roles of every decision-maker, and a lack of diversity in terms of uncertainty dimensions presented in studies.

Uncertainties are inherent in businesses. They have direct impact to the decision-making process of the management, which can lead to losses. Businesses try to overcome these uncertainties through preparation and planning. Theoretical solutions to certain uncertainties are presented in different papers and studies gathered in this study. The frameworks may be used as reference by any companies as they plan their system to be resilient and sustainable.

4.1 Impact of Uncertainty on Business

Uncertainty has its effects on the business profit and the overall economy. Companies' expansion that leads them to increase hiring may pose uncertainties that can affect the profits of the firm. While most studies may associate risk with correlating uncertainty and profit, risks may still have the chance to be insured given the right decisions done by the leaders. However, when there is an unknown risk, which is uncertainty, there is no known distribution method of expected probabilities [10].

Several companies experience losses in their profits due to uncertainties. Most companies assume that the differences in profitability are just due to the dynamics of competition in the market. However, there is a need to look further into this issue. As argued by Ballantine et al. (1993), there is a failure among companies to tie up the firm's behaviors in the market with the uncertainties that are inherent in every change in the economy. Company leaders face these uncertainties that are observed through the wide variations and large gaps in the loss rates and profit rates.

Uncertainties have a direct impact on company profits. As stated by Ben Bernanke, "When the option value is large, investors are willing to sacrifice current returns in order to receive more information. The bad news principle is hard to work here: High uncertainty and the possibility that new information will change project rankings depress current investment" [10]. The pervasiveness of uncertainties affects the economy. Economists and business owners would face the challenge of measuring these uncertainties. In their attempt to measure uncertainties, they would realize the different sources that may restrain the investment plans and hiring of companies. There are cases of complications that may occur, where some sectors might be more affected economically more than others [11].

4.2 Theoretical Solutions to Uncertainties

Managing uncertainties in companies requires the implementation of strategies that would help the organization to reduce or cope with uncertainties. The behavior of the leaders and the management are guided by their motivation in reducing these uncertainties. To reduce uncertainties, companies need to gather as much information as they could get to guide them in their proactive management and collaboration. But, in order for them to cope with the situation, they need to adopt certain strategies that would deal with the severity and duration of the uncertainties they are facing. It would require flexibility, diversification, and adaptation. In other instances, they can imitate some of the best practices of other companies that are ahead of them. They also need to cooperate and collaborate with other agencies [12].

Businesses and companies need to come up with detailed business models as they identify their risks and uncertainties. There are different frameworks for businesses that can be applied on a case-to-case basis. In the paper by Brillinger et al. (2020) presents a detailed and comprehensive set of uncertainty factors that may affect a company. The list includes the different aspects of a company and the approaches that may be applicable to these cases (Table 1).

Table 1. Framework of Business Model Risk and Uncertainty Factor Groups [13]

BM Areas	Groups of business model risk and uncertainty factors	
	Groups of BM risk and Uncertainty Factors	Description
Customer	Customer demand risk and uncertainty factors	All aspects of misreading or failing to satisfy consumer demand, including not putting enough emphasis on the client and their demands, failing to draw in or keep clients or failing to adhere to community standards.
	Customer relationship risk and uncertainty factors	All elements that could jeopardize the relationship with clients, such as ceasing to interact with them, opportunistic or unfavorable behavior on their part, or rigid agreements.
	Customer solvency risk factors	Any risk factors that affect a client's financial stability, such as a poor credit rating, insolvency, or consumer default.
	Customer access risk factors	Every risk element that prevents the client from accessing the market, such as a strong intermediary, high entry barriers to the market, or a strong competition.
	Multiple BM risk factors	The cannibalization of the present customer base, losing devoted clients, or insulting standing customers by entering a competitive market are significant consequences associated with the establishment of numerous BMs inside a single firm.
Offer	Quality risk and uncertainty factors	Everything pertaining to the offer's quality, such as the discrepancy between expected and actual performance, resilience, and functionality.
	Availability and maintenance risk factors	All crucial elements are connected to the existence and upkeep of an offer as a significant element of the value proposition and the associated effects of the offering's subpar performance.
	Data risk and uncertainty factors	Data security, data ownership, data privacy, and data quality are all risk and uncertainty factors related to the use of data.
	(New) technology risk and uncertainty factors	All risk and uncertainty factor's a company is linked to are the consumption of technologies that are innovative, or at a premature stage, extremely intricate, or lack experience.
	Innovativeness risk factors	The linked risk factors of a company or BM are depended on the innovation of the value proposition.
Infrastructure	BM ecosystem risk and uncertainty factors	In a corporate ecosystem and value network, all risk and uncertainty factors have a multilateral relationship between many partners.
	Bilateral cooperation risk and uncertainty factors	All crucial sides of collaboration and bilateral relationships with partners or clients have an impact on the relationship's stability.
	Capabilities and resources risk and uncertainty factors	Critical competencies or resources needed to implement a specific BM, such as specialized tools, data, or technical and human resources.
	Operational risk and uncertainty factors	Operational aspects of business processes are linked to mistakes in either technical or human behavior.
	Intellectual property (IP) risk and uncertainty factors	BM management is worried about the loss of intellectual property (IP) or know-how. This IP and expertise often contain sensitive information about the company's clients and business partners.
	BM portfolio risk factors	The management of a diverse range of offerings, and the complexity and defocusing relating to a BM portfolio, are risk issues.
Financial Viability	Financial resources risk factors	All of these elements have an impact on the BM manager's capacity to secure financing for the BM.

	Investment risk and uncertainty factors	Factors include production facilities or inventory expenses that are tied to large investments and capital tie-up required to develop, supply, or capture a value proposition of the BM.
	Monetization risk and uncertainty factors	Include any elements that could jeopardize a given value proposition or offer's capacity to be commercialized.
	Revenue mechanism risk factors	The buying sensitivity for a particular value proposition and the selection of a revenue model is influenced by factors connected to a BM's revenue mechanism; and the corresponding taxes legislation, which may have an impact on a company's taxation and accounting obligations.
	Pricing risk and uncertainty factors	This category includes all risk and uncertainty elements connected to a BM value proposition's price setting and directly relates to the customer's price sensitivity and perception of the BM's value proposition.
	Life-cycle risk and uncertainty factors	This group outlines the lifecycle risk and uncertainty variables associated with a potential surprising shift in expenses and revenues during a BM's lifetime.
Environment	Political risk and uncertainty factors	Factors with aspects connected to politics, society, or the government.
	Environmental risk and uncertainty factors	factors encompassing all facets connected to nature's act.
	Economic risk and uncertainty factors	This group comprises all market, business environment risk, and uncertainty aspects. (e.g., customs, currency exchange rates, taxation, economic cycle)
	Legal and regulatory risk and uncertainty factors	Every element relates to the commitment to statutory and legal requirements.
	Competition risk and uncertainty factors	factors that address every important aspect of potential or current competition.
	Technological change risk and uncertainty factors	This group addresses every facet of technological change.

The table 1 presented by Brillinger et al. (2020) can serve as a first step in the process of a company's strategy to cope with uncertainties. It shows the aspects of the business that might be affected by uncertainties. It also describes the specific details of the uncertainties that companies should prepare for. The factors given are applicable in general businesses, which can be filtered and defined even further to specific companies. It can be used in different ways and may be useful as a preliminary checklist to identify the different risks and uncertain factors that may affect a company. In some ways, it can help a company in their decision-making as they go about in their investments and production.

In coping with uncertainties, a company also needs to identify the different levels of uncertainty (Figure 1). McKinsey and Company discussed the different levels of uncertainties that may affect a business.

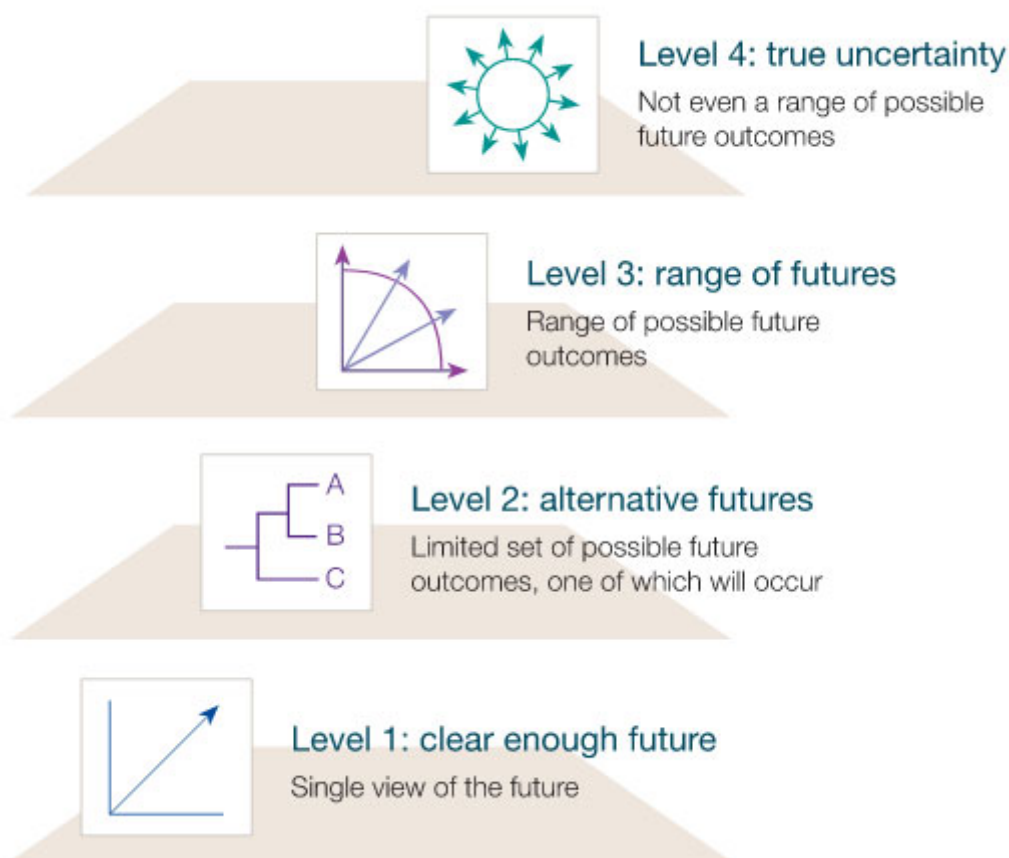


Figure 1. Levels of Uncertainty [14]

Courtney et al. (2000) discussed that strategies to overcome uncertainties has two categories [15]. The first strategy is to identify the clear trends that would be useful in defining the potential demand for the future product or services of a company. The next technique is to provide the right analyses that would look into the multiple factors that are currently unknown to the company. But with the occurrence of these uncertainties, the management would identify them and prepare corrective actions in cases of future events. The uncertainties that would remain after the analyses would be called residual uncertainties.

In the occurrence of extreme uncertainties, companies would just need establish a plan and ensure that the overall organization would follow it. It is important for managers to understand the things that are occurring and respond continuously to the dynamic and drastic changes that may occur. The recent pandemic is one of the extreme uncertainties that the world experienced. Organizations worldwide struggled with different forms of uncertainties. Finn et al. (2020) stated that overcoming extreme uncertainties is to activate the crisis response of the company [16]. It is important for managers to determine and recognize that they are in a crisis and that they should response quickly and appropriately. In this model, there should be an early warning system, where managers would understand the triggers that may lead to a crisis. There should also be an integrated nerve center, where the leaders must set-up an organizational structure as a response to the crisis. These structures can be derived from their read-made-crisis management plant that they have prepared and planned ahead of time. Furthermore, there should be a transparent operating principle where the managers would define clear actions that the organization would do during the crisis. In this case, they can set standard operating procedures and operating principles that would later help the company in measuring the impact of the uncertainties. The overall operation in this framework is to discover, design, and execute.

5. Conclusion

In conclusion, risk mitigation entails more than just compiling a list of potential hazards. A company must first determine which of its procedures are questionable. The organization must first determine the doubts' causes before determining their impacts. These are the dangers that will affect the organization and most likely already are. A company will be able to create a more effective and proactive risk mitigation program by concentrating on the uncertainties and their implications. Businesses and companies need to come up with detailed business models as they identify their risks and uncertainties. There are different frameworks for businesses that can be applied on a case-to-case basis. In the occurrence of extreme uncertainties, companies would just need to establish a plan and ensure that the overall organization would follow it.

Uncertainties are inherent in companies and businesses. There are several forms of uncertainties that may occur to companies that may have a direct impact on the business. Based on the research findings.

Uncertainties have a direct impact on the decision-making abilities of leaders which may lead to negative outcomes. Leaders should learn and practice the exercise of their cognitive skills and not be driven by emotions.

Uncertainties have a direct impact on the profitability and productivity of companies. Residual uncertainties should be identified by company leaders and included in the strategic planning to prevent further loss for the company.

Mitigating uncertainties can be made possible by learning from successful companies and adapting to workable frameworks that would make the company flexible to change.

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