



CORPORATE FINANCE

Facing the Unknown: Mastering Business Risk Management

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Introduction

As it is largely known, operating a business always involves some level of risk. But what is really intended with the word “risk”?

Looking into the world of finance, when we talk about risk, we mean the chance of losing assets or losing the earning potential. The key to having a successful company lies in the efficient approach of tackling all the risks that may be encountered in day-to-day business operations. However, a dose of uncertainty is inevitable: risks can be somehow identified, predicted and measured; uncertainty cannot be controlled. Summing up, risk can be identified as the combination of the probability of an event to occur and the related consequences.

The main aim of this article is to identify different types of risks and find alternative ways in order to manage and act against them; a more detailed analysis will be given to financial risks.

The understanding of more advanced and complex concepts can be enhanced by beginning with the definition of business risk.

What is Business Risk?

Internal and external factors may have an impact on business risk. Business risk is nothing else than the exposure of a company to lowering its profits or to its failure. Among internal elements, situations created in leadership, executive team or management can be determined (decisions that are taken could lead to results different from those expected); on the other hand, external risks are associated to the daily operations set off by an enterprise, macroeconomic forces and industry-specific threats.

There's no doubt that a high level of business risk has a direct impact on shareholders' trust. Crucial is, therefore, the ability to build a strong risk management system and enforce effective risk control measures: risk is an intrinsic and unavoidable component of any entrepreneurial activity.

In fact, the main characteristics of business risk can be grouped in 4 elements:

1. Inevitability and unpredictability: risk is involved in every project and is unpredictable
2. Variability: the level of risk can change over time and business risk isn't static
3. Multidimensionality: this type of risk involves different aspects of the business
4. Manageability: appropriate strategies can be used to mitigate it.

Something that could help quantifying the levels of risk is represented by an enterprise's life cycle.

Example: Debt usually increases in importance as a funding source, as the company progresses through its lifecycle (business risk is very high at the beginning).

Business risk can be effectively managed by breaking it down into specific subclasses.

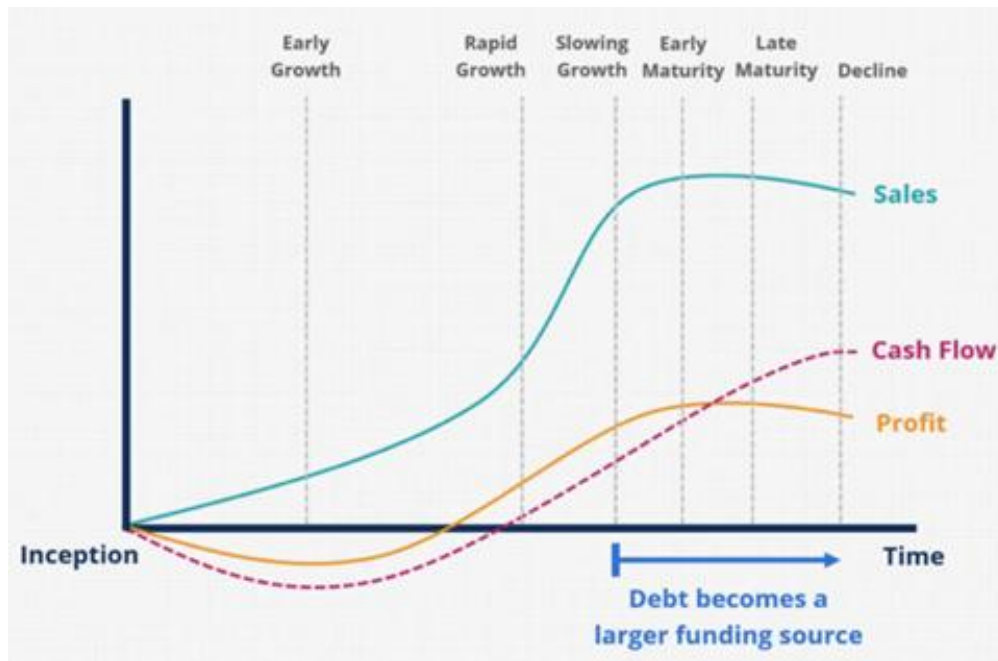


Figure 1: Risk Management (Corporate Finance Institute)

Main Types of Risks: financial, operational, strategic, compliance, reputational, technological

Splitting up risks into different types allows a more precise identification, assessment and management of potential issues.

Financial risk: this kind of risk is connected to debt used as a funding method, which may create liquidity problems, and represents the commitment to meet debt service obligations. Also, the company could be susceptible to rising interest rates. Summing up, financial risk is conditioned by the ability of the business to both achieve a balanced relationship between debt and equity, and to optimize the availability of liquidity. Subclasses are represented by: market risk (equity risk, interest rate risk, currency risk), credit risk (default risk, counterparty risk), liquidity risk (funding liquidity risk, market liquidity risk), inflation risk.

Operational risk: day-to-day operations could be the reason behind the appearance of operational risks (ex: inefficiencies in internal processes or human errors). They do impact the company as a whole and are associated with random events, whose occurrence determines unsatisfactory levels of efficiency and effectiveness in the management process.

Strategic risk: building an inaccurate strategic plan, as well as not following a specific one/ a precise business model can make this type of risk arise. The company's strategies may become ineffective, leading to the serious issue of not meeting its goals. In fact, these risks relate to the degree of pursuit of corporate strategies and are connected to unexpected events or conditions. 2 fundamental sources can be identified: competitive risk and the risk of loss of value of an asset.

Legal risk: it is linked to regulatory changes that can affect the possibility of carrying out operations and implementing established strategies. It could require adjustments of a procedural-operational nature. Tax risk could be included in this category (referred to continuous changes in tax legislation).

Reputational risk: brand loyalty may decline when a company's reputation is under threat. Problematic events can lead to damage its credibility and market image.

Technological risk: various factors can influence the rise of technological risks, such as inefficient integrity and security of the company's data. More in general, cyber risk is identified as potential losses of all kinds in the digital domain for a business. It has its origin in the digital world, but its consequences can be poured out in the physical one.

All these risks do have a substantial impact on the same ecosystem, so the theme of relevance of one over the others can be argued. However, financial risk has a more direct impact and may not allow to address other risks; in addition, investors and stakeholders are usually more concentrated on financial performance. Financial risk is often easier to be quantified (with precise tools, such as the CAPM, VaR or Monte Carlo simulations) and becomes a clear instrument for decision-making.

Focus on Financial Risk

Introduction to Capital Asset Pricing Model and Systematic Risk

In reference to financial risk, which is vast and heterogeneous, specific models need to be implemented in order to quantify it. The CAPM is a powerful tool in risk management, since it supports decision-making with regard to portfolio diversification, asset valuation and risk mitigation. In fact, it provides a framework for evaluating the relationship between risk and expected return.

The formula of the CAPM can be defines in this way:

$$ER_i = R_f + \beta_i (ER_m - R_f)$$

Where:

ER_i = expected return of investment

R_f = risk-free rate

β_i = beta of the investment

$(ER_m - R_f)$ = market risk premium

The result of this formula gives the investors, the expected return on an asset, given its risk relative to the market.

More in dept, the capital asset pricing model defines the link between systematic risk and expected return for assets. It is based on the relationship between an asset's beta, the risk-free rate and the equity risk premium. As previously said, its aim is to measure systematic risk, nothing else than the portion of risk that cannot be eliminated through diversification, as it arises from factors that affect all investments within a market.

In this model, systematic risk is measured using beta (β): in other words, it quantifies an asset's sensitivity to market movements.

- $\beta = 1$: the asset's returns move in line with the market

- $\beta > 1$: the asset is more volatile than the market

- $\beta < 1$: the asset is less volatile than the market

At this point, it becomes crucial to introduce the concept of the efficient frontier. It represents a set of optimal investment portfolios offering the highest expected return for a given level of risk (risky assets are considered).

An efficient frontier would exist, if the CAPM model was used in a perfect way to optimize a portfolio's return relative to risk. It seems obvious to say that greater expected return requires greater expected risk, as showed by the graph below.

If risk-free assets are added, the best risk-return tradeoff can be found on the Capital Market Line (the market portfolio is a sort of link between the efficient frontier and the CML):

Any portfolio that lies on the Capital Market Line (CML) is superior to any portfolio positioned to the right of the line, as those on the CML provide a more efficient balance of risk and return. Among these, a theoretical portfolio can be identified on the CML that offers the optimal return to the specific level of risk being assumed.

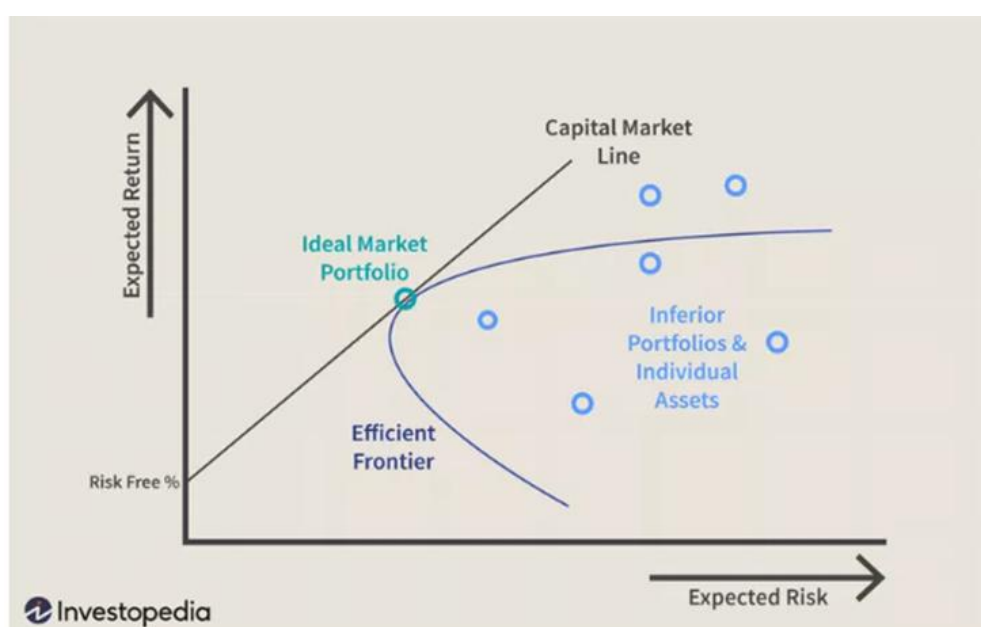


Figure 2: CPM (Investopedia)

The CML and the efficient frontier can be challenging to define precisely, but they highlight a key concept for investors: achieving higher return comes with taking on more risk. Since constructing a portfolio that perfectly aligns with the CML is not feasible, investors often end up taking on excessive risk in pursuit of higher returns. Obvious is the fact that the position of a portfolio on the efficient frontier cannot be found, because future returns cannot be predicted.

Risk Assessment

Starting from the description of the procedure involved in risk management, risk assessment is nothing but the process of identifying, analyzing and evaluating potential risks that could negatively impact a company. It helps organizations address uncertainties, ensuring better resource allocation and preparedness.

Analysis: identification, description, estimation

Risk identification aims to uncover the uncertainties that a business might face. This involves having a deep understanding of the company itself, the market and the general context. Additionally, it requires a clear comprehension of strategic and operational goals (critical facts, challenges and opportunities included).

Any volatility related to all significant activities within the enterprise must be identified and categorized. While external consultants can assist in risk identification, an in-house approach is often more effective. For an organization to successfully manage risk, it is crucial that it takes ownership of the risk management process internally.

The purpose of risk description is to present the identified risks in an organized manner, such as a risk matrix. A well-made table can aid in describing and assessing risks comprehensively: the subclasses mentioned in previous paragraphs can be very useful. The most critical risks can be then prioritized for further analysis. Incorporating risk analysis during the initial planning phase of projects, as well as throughout their lifecycle, is essential to mitigate potential risks effectively.

Finally, risk estimation can be conducted using quantitative, semi-quantitative or qualitative methods to evaluate the likelihood of occurrence and the potential impact of risks. The consequences of risks (threats or opportunities) can be categorized as high, medium or low. Similarly, probabilities can also be classified as high, medium or low. The specific approach to measuring consequences and probabilities will depend on the needs of the company; a more granular evaluation is the right decision if greater precision is required.

Evaluation

Once the risk analysis process is completed, it is essential to compare the estimated risks against the risk criteria set by the company (such as costs, legal obligations, socio-economic and environmental considerations, stakeholder concerns). Risk evaluation helps determine the importance of each risk and guides decisions on whether each specific risk should be accepted or addressed through mitigation measures.

Treatment and reporting

Risk treatment refers to the process of selecting and implementing measures to manage and modify risks. While it primarily focuses on risk control or mitigation, it also includes approaches such as risk avoidance, risk transfer and risk financing. Risk management practices will be explored in more detail in the next paragraph.

A well-designed risk treatment process ensures the company operates efficiently and effectively, maintains robust internal controls and complies with relevant laws and regulations. On the other hand, risk reporting seems to be essential at the same level as the previous phase. It is the process of documenting, analyzing and communicating information about risks. Also, it provides stakeholders with insights into the potential threats and opportunities that could impact the company's aims.

Reporting can be done on an external (informing stakeholders) or an internal (informing the board of directors' business units and individuals) level, transforming raw risk data into actionable insights, helping the business make informed decisions, ensure compliance and build a culture of risk awareness.

Formal reporting should cover the following aspects:

- The methods of control, with a focus on management's responsibilities in overseeing risk management
- The processes used to identify risks and the ways in which the risk management systems address them

- The key control systems implemented to manage significant risks effectively
- The systems established for monitoring and reviewing risks.

RISK MANAGEMENT

Risk management plays a vital role in a company's strategic management. It involves systematically addressing the risks associated with the overall portfolio of operations. In addition, if it is effective, maximum sustainable value across all activities can be created. It should be an ongoing, evolving process that is integrated into the business strategy and its implementation. It must systematically address risks related to past, current and especially future activities. By fostering accountability and enabling performance measurement, risk management promotes operational efficiency throughout the enterprise.

Avoid, mitigate, transfer, accept the risk: risk management practices

Managing risk doesn't always mean avoiding it entirely, modern challenges require more nuanced solutions.

4 primary strategies are widely used across industries:

- **Avoiding risk:** when a risk carries a high likelihood of occurrence and could result in significant financial damage, avoiding the activity may be the safest course.
- **Mitigating risk:** this involves addressing activities with a high likelihood of occurrence but manageable financial consequences. Actions in this area reduce risk and protect critical financial assets.
- **Transferring risk:** when facing risks with potentially catastrophic consequences but low probability, transferring risk is often the best option. Insurance is a common tool for sharing these risks.
- **Accepting risk:** in some cases, the other practices are not feasible; when managing the risk is more cost-effective than other options, accepting it becomes the best strategy.

Choosing the appropriate strategy depends on the specific risks and industry involved.

Also, risk management isn't just about avoiding negative outcomes, it's also about leveraging risk as an opportunity for growth.

Reasons why risk management is so important

Countless could be the reasons behind the importance of an effective and efficient risk management process; let's try to group them in 4 categories.

Minimizing losses: a primary objective of risk management is to prevent significant financial losses. Even with dedicated risk management teams, various risks can still impact the company's bottom line. Implementing robust internal controls can help mitigate such risks.

Protecting a company's reputation: effective risk management plays a critical role in safeguarding the reputation of an enterprise by anticipating and addressing incidents that could undermine trust and credibility.

Improving decision-making: risk management provides a framework for making informed decisions, especially when dealing with complex risks. By leveraging data from control systems to model scenarios, a company can evaluate the potential impact of various strategies before implementing them.

Driving growth and innovation: risk management is not just about minimizing threats, it can also foster innovation and growth. Addressing risks allows businesses to push boundaries, remain competitive and seize new opportunities. Boundary systems are vital for balancing risk management with creative freedom.

By minimizing losses, protecting reputations, improving decision-making and fostering innovation, effective risk management empowers an enterprise to navigate uncertainties and achieve long-term success.

CONCLUSION

In conclusion, risk is an inherent part of operating a company, encompassing various dimensions, from financial to operational, strategic, compliance, reputational and technological. While uncertainty cannot be entirely eliminated, risk can be identified, analyzed and managed through structured approaches.

Businesses that embrace comprehensive risk management systems not only safeguard their assets and reputation, but also position themselves to leverage risks as opportunities for growth and innovation.

Focusing on financial risks, tools like the CAPM demonstrate how systematic risk can be quantified and integrated into strategic decision-making. Moreover, breaking down risks into manageable categories enables companies to adopt targeted strategies, whether avoiding, mitigating, transferring or accepting risks, based on their unique circumstances and industry-specific challenges.

Ultimately, effective risk management is more than a protective measure, it is a driver of sustainable success. By fostering accountability, enabling informed decisions and maintaining operational efficiency, organizations can navigate uncertainties, build stakeholder confidence and unlock opportunities for long-term growth.