

# 4. Entrepreneurial decision-making, risk-taking and business failure: A cognitive approach

<https://doi.org/10.18559/978-83-8211-297-9/4>

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## ABSTRACT

**Purpose:** The purpose of this chapter is to explore entrepreneurial decision-making and risk-taking from a cognitive perspective, particularly in the context of high rates of business failure in European economies. It aims to understand how selected biases and heuristics influence risk perception and decision-making processes among entrepreneurs.

**Design/methodology/approach:** The study is based on a literature review and an analysis of selected business demography indicators. It examines the cognitive differences between entrepreneurs and non-entrepreneurs, as well as their impact on risk-taking behaviour in entrepreneurial settings.

**Findings:** Through analysing the results of the previous investigations, this study found a suggested relationship between cognitive factors (selected heuristics and biases), risk perception, and decision-making in the entrepreneurial process as the potential explanation for the high rates of business failure. According to the limited and fragmented studies available, cognitive factors may have both positive and negative impact on entrepreneurial decisions made in uncertain and complex environments. On the one hand, heuristics and biases can support entrepreneurs in approximating the best possible decision when faced with limited information and time constraints. On the other, they may lead to less rational or overly optimistic choices that increase the likelihood of business failure. The study highlights how, despite great uncertainty, entrepreneurs often choose to start new ventures because they rely on subjective cognitive scripts and tend to perceive less risk in various business scenarios. Additionally, they may exhibit a lower aversion to losses associated with business failure, further reinforcing their willingness to engage in entrepreneurial activity under risky conditions.

**Originality and value:** This chapter adds value by emphasising the role of cognitive processes in entrepreneurial behaviour and their broader implications for SME dynamics, economic growth, and public policy. Personal and social attitudes toward the problem of business failure are of crucial importance. The study underlines the importance of integrating cognitive aspects into entrepreneurship education to improve entrepreneurial decision-making processes in the context of business failure.

**Keywords:** entrepreneurial decisions, risk-taking, venture creation and failure, a cognitive approach.

**Suggested citation:** Nowak-Mizgalska, H. (2026). Entrepreneurial decision-making, risk-taking and business failure: A cognitive approach. In S. Huderek-Glapska (Ed.), *Rationality, efficiency and decision-making: Essays in advanced microeconomics* (pp. 57–66). Poznań University of Economics and Business Press. <https://doi.org/10.18559/978-83-8211-297-9/4>



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## Introduction

Multidisciplinary research into entrepreneurs' roles, traits and behaviours has enriched our understanding of the entrepreneur as an important economic agent. In economics, from Cantillon's first description, various attributes of the entrepreneur have been highlighted (Palich & Bagby, 1995). However, this agent has practically "disappeared" from the main discourse of economic thoughts, being replaced in neoclassical theory by a function of production or a kind of black box (Boutillier & Uzunidis, 2013). Despite this, the entrepreneur's function was not ignored in the theories and investigations of many heterodox economists.

Currently, many important questions remain regarding an entrepreneur's behaviour and decision-making. One of them centres on the difference between entrepreneurs and managers, for example, whether entrepreneurs are less rational in their decisions. Another aspect is related to the discussion on risk-taking by entrepreneurs in the entrepreneurial process (Busenitz & Barney, 1997). Risk attitude should be taken into consideration as a crucial aspect of entrepreneurial decision-making. As a consequence of the entrepreneurial decisions taken in conditions of uncertainty, a new venture can succeed in terms of profits. However, it can also fail due to some internal or external factors. Among the internal factors, those related to cognition have begun to attract the attention of scholars and are being investigated in relation to entrepreneurial behaviour and decision-making (Sánchez et al., 2011). However, empirical evidence on the relationship between heuristics and biases, risk perception, and decision-making in the field of entrepreneurship is limited and suffers from typical methodological difficulties associated with the discipline (e.g., problems with random sampling and response rate, context-related and fragmented results).

Based on the literature review, this chapter aims to explore the relationship between the rules of entrepreneurial decision-making and entrepreneurs' attitudes toward risk-taking from a cognitive perspective. Moreover, the above relationship has been discussed in the context of business failure, based on selected data on business demography from the EU economies.

The first part of this chapter addresses the theoretical aspects of entrepreneurship and entrepreneurial decision-making from a cognitive perspective. The second section presents some findings from previous studies related to the concepts of risk propensity and risk perception in the entrepreneurial process. The third part, followed by the conclusions, attempts to connect the previous cognitive-based studies on entrepreneurial risk-taking to the problem of business failure and indicators of business closure.

## 4.1. Entrepreneur and entrepreneurial decision-making

An entrepreneur is a crucial economic agent who plays a vital role in generating ideas, identifying business opportunities, and combining various resources during the process of new venture creation and development (Baron, 2007). From a theoretical perspective, there is no single definition of an entrepreneur, and the most popular views refer to the theoretical approaches of Frank H. Knight (related to conditions of uncertainty in making judgments) and Joseph A. Schumpeter (connected to the role of innovators who introduce new products or processes), as well as those of Israel M. Kirzner (linked to the ability to recognise opportunity) (Palich & Bagby, 1995). These three concepts reflect the importance of entrepreneurs' activities and decisions taken in uncertain conditions throughout the entire process of entrepreneurship, from business idea generation or recognition to business venture creation, development, and growth, and in many cases, until the end of the business life cycle.

The questions 'who is an entrepreneur' and 'what are the differences between entrepreneurs and non-entrepreneurs' (managers or employees) continue to interest scholars in the fields of economics and managerial sciences (e.g., Busenitz & Barney, 1997; Melović et al., 2022; Palich & Bagby, 1995). However, as a response to the limitations of the popular trait approach, scholars look from different perspectives (such as the cognitive approach borrowed from cognitive psychology) to better understand the phenomenon of entrepreneurial behaviour and decision-making (Sánchez et al., 2011). The assumption of rationality and rules of optimisation in the process of entrepreneurial decision-making is contrasted with more intuitive, emotional, and risky behaviour (Baron, 2007; Busenitz & Barney, 1997). Thus, behavioural and cognitive factors began to be incorporated into studies on entrepreneurs and their decision-making processes. Although limited and with rather small generalisation possibilities, entrepreneurship studies based on a cognitive approach can help understand why entrepreneurs may not make rational decisions throughout the entrepreneurial process and why this sometimes leads to business failure.

In economic and managerial studies, rational decision-making is understood as a process of maximising expected utility, where payoffs related to the possible variants of choice are uncertain or risky (Miller, 2007). To explain deviations from rational decision-making, scholars have begun to analyse biases and heuristics (Tversky & Kahneman, 1974), which are understood as "decision rules, cognitive mechanisms, and subjective opinions" or "mental shortcuts used to make judgments" (Busenitz & Barney, 1997; Simon et al., 2000).

According to Sánchez et al. (2011), factors such as cognitive styles and mental processes are believed to explain entrepreneurial behaviour by examining how entrepreneurs process information throughout the entire entrepreneurial process. In this perspective, two lines of studies can be distinguished: the study of cognitive structures and the study of cognitive processes. The first focuses on the knowledge structures on which entrepreneurs base their decisions, judgments, and assessments when evaluating business opportunities, creating ventures, and stimulating their growth. The second approach refers to the way entrepreneurs acquire, process, and use information, which impacts their style of thinking, communication, and behaviour (Sánchez et al., 2011).

It seems crucial to explore the way entrepreneurs make important decisions regarding new venture creation and development, as their good and bad choices may explain the dynamics of failure rates in the economy, affecting such aspects as employment, investment, and wealth (Overall, 2016). Similar to the managerial decision-making process, the information-processing limitations of entrepreneurs and the differences in their values may affect the rationality of the decisions. Other, more objective, limitations embrace the high costs of rationality-seeking efforts and the unavailability of information to make more rational decisions during the brief “window of opportunity” (Busenitz & Barney, 1997).

## 4.2. Risk-taking in the entrepreneurial process

To understand the style of entrepreneurial decision-making, it is essential to note that entrepreneurs’ decisions are closely tied to risk-taking under conditions of uncertainty and complexity (Busenitz & Barney, 1997). Some scholars refer in their investigations to concepts such as risk attitude, risk perception, and risk propensity (or predisposition toward risk-taking), combining them with cognitive and behavioural factors (e.g., Koudstaal et al., 2016; Palich & Bagby, 1995; Simon et al., 2000). Risk-related characteristics can probably help explain the high rates of business failure.

The studies cited in this chapter suggest no statistically significant difference in risk propensity between entrepreneurs and non-entrepreneurs; however, these groups do differ significantly in risk perception, which affects cognitive processes such as decision-making. Some authors emphasise that entrepreneurs perceive business scenarios differently than non-entrepreneurs, noticing more positive aspects (strengths and opportunities versus weaknesses and threats) in business situations (Palich & Bagby, 1995). In the study by Koudstaal et al. (2016), no significant difference was found between entrepreneurs and two oth-

er groups—managers and employees—in terms of risk or ambiguity aversion; however, entrepreneurs were characterised by a lower degree of loss aversion. According to these authors, “willingness to risk losses” should be included in the risk definition as a part of the perceived risk attitude (Koudstaal et al., 2016).

Taking a cognitive perspective, some scholars relate the lower level of entrepreneurs’ risk perception to the impact of cognitive biases on their decision-making process. According to them, entrepreneurs perceive less risk when deciding on new venture creation due to cognitive biases such as overconfidence, the illusion of control, and the belief in the law of small numbers (Simon et al., 2000). Based on “nonrational decision-making models from behavioural decision theory”, Busenitz and Barney (1997) found that entrepreneurs and managers in large organisations differ in the extent to which they use biases and heuristics (overconfidence and representativeness) in the decision-making process. These authors suggest that biases and heuristics can help to “approximate the appropriate decision”, especially during the first years of the venture functioning. However, they can also be responsible for poor decisions in the later stages of the company’s life cycle, leading to business failure or demise (Busenitz & Barney, 1997).

The findings from studies employing a cognitive perspective reveal a relationship between cognitive biases and heuristics and entrepreneurs’ risk perception. Risk perception, in turn, affects entrepreneurial decision-making and risk-taking, potentially leading to less rational decisions (Simon et al., 2000).

### 4.3. Entrepreneurial risk-taking and business failure

If entrepreneurs have different risk perception than other groups in society, due to more frequent use of selected heuristics and related biases, and their decisions taken in an entrepreneurial process under uncertain conditions are frequently far from rational choices, it should probably be reflected in business dynamics indicators. Entrepreneurs’ decisions shape the population of business enterprises in a given country and impact business demography statistics (e.g., rates of newly created enterprises, business survival, and failure or demise). In the Polish economy, the consequences of entrepreneurial processes can be observed in data provided by Statistics Poland (GUS). According to these data, Poland ranks fifth in the EU, with 2.35 million active non-financial enterprises<sup>1</sup> of which 99.8% constitute the SMEs sector (with 2.3 million microenterprises); 86.1% of all entrepreneurs running SMEs are sole proprietors (Skowrońska & Tarnawa, 2024).

<sup>1</sup> Poland ranks 22nd when considering the number of active enterprises per 1000 citizens, with a result of 70, compared to 138 in the Netherlands and 40 in Germany (Skowrońska & Tarnawa, 2024).

Between 2014 and 2023, the number of newly created enterprises (those registered but not necessarily operational) exceeded the number of enterprises being closed or liquidated, as shown in Figure 4.1 (Zakrzewski et al., 2024).

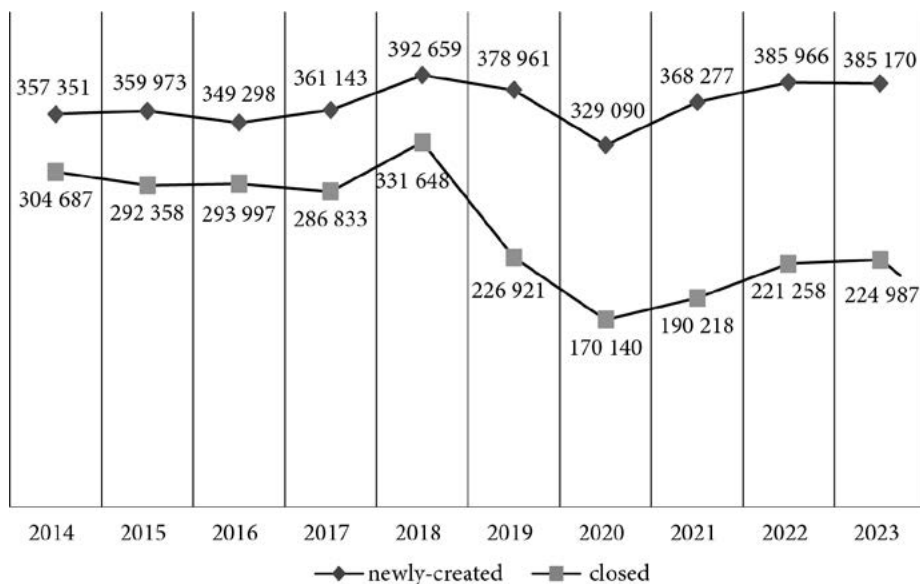


Figure 4.1. The number of newly created (registered) and closed/liquidated enterprises in Poland from 2014 to 2023

Source: Zakrzewski et al. (2024, p. 18: Polska Agencja Rozwoju Przedsiębiorczości (PARP) based on Statistics Poland (GUS) data).

Among the newly created and active enterprises registered in Poland in 2022, two out of three survived the first year of operation (the survival rate in 2023 was 67%) (Zakrzewski et al., 2024). Across European Union countries, the available data show that the average enterprise creation/birth rate (10.7%) in the EU in 2021 outpaced the average closure/death rate (8.5%). However, the differences in the creation and closure rates of enterprises vary noticeably across EU Member States (Eurostat, 2024). The average one-year survival rate in the EU in 2020 was 82%, while the five-year survival rate was 46% (Eurostat, 2023).

Although business demography statistics should be analysed with caution, due to problems with the availability or comparability of data and indicators defining, it is generally believed, and supported by research, that engaging resources in the process of new venture creation is associated with a high risk of failure within a few years after launching a business (approximately a half of new enterprises disappeared within five years) (Overall, 2016).

The literature to date has examined various internal and external factors contributing to business failure (Everett & Watson, 1998; Martinez et al., 2019; Yeh et al., 2025). However, there is still a need for new studies to explain the high rates of business closure (failure). In this regard, the cognitive perspective provides an interesting lens for studying this problem, as it links cognitive factors to risk perception and entrepreneurial decision-making.

Some aspects of business failure or closure may be associated with and explained by the internal factors related to the cognitive structures and processes of entrepreneurs involved in the entrepreneurial decision-making. Previous studies cited in the chapter suggest that some biases and heuristics (such as overconfidence) more often impact entrepreneurs' decision-making compared to that of other groups of people (e.g., managers). Entrepreneurs often exhibit a higher degree of optimism about business opportunities and venture success; this mindset may lead them to embrace risk and make decisions to create a new venture. Due to the high uncertainty of business operations and limited time to take advantage of the opportunity, some biases and heuristics can help individuals react quickly and capitalise on a given chance. On the other hand, characteristics such as overconfidence can be responsible, in some situations, for making poor decisions, which negatively impact the company's condition.

According to the findings from the literature review, entrepreneurs are likely not significantly more predisposed to high-risk acceptance; however, cognitive factors may lead them to perceive a lower risk level in actions undertaken throughout the entire entrepreneurial process. Moreover, they may be better mentally prepared to accept the losses associated with business operations and failure. As a consequence, entrepreneurs decide to create new ventures in uncertain conditions, which are expected to fail in the next few years due to different internal and external factors.

The important question is whether this attitude of entrepreneurs toward risk-taking is beneficial or unfavourable for the economy. Business failure can be analysed in terms of wasting scarce resources; however, depending on cultural values, the process of learning from business failure is also highlighted in the literature (Shepherd et al., 2016). In different cultures, the role of entrepreneurs in the economy is not equally appreciated, and entrepreneurial failure is sometimes perceived as a sign of weakness (Wójcik & Ciszewska-Mlinarič, 2020).

The problem of business failure can be discussed on two levels of cognitive factors analysis: from personal and social perspectives. Future decisions regarding business venture creation, in the event of an earlier business failure experience, will likely depend on the entrepreneur's and public perception of the mixed, positive, and negative aspects of such a situation. On a personal level, an entrepreneur will evaluate the decisions made during the unsuccessful

entrepreneurship process in terms of losses (e.g., time, money, social relations) and profits (new experiences, opportunities for learning, chances to improve the business concept, etc.). The subjective comparison of both sides, using the cognitive structures and styles of information processing, will decide on future reactions and new entrepreneurial initiatives.

The perception of entrepreneurial failure from a social perspective is also crucial for the future decisions of entrepreneurs with such experience. Suppose the role of entrepreneurs in the economy is properly appreciated by members of a given community and perceived as a “healthy” process of reallocating scarce resources. In that case, along with public policy, it can create supportive conditions for undertaking further, more effective entrepreneurial initiatives.

For both perspectives, including business failure cognitive aspects into the curricula at different levels of education should probably be a good response to the problem of high rates of business failure.

## Conclusions

According to the still-limited investigations based on the cognitive approach, entrepreneurs may think and process information quite differently from other professional groups. As in the case of non-entrepreneurs, their risk attitude and risk-taking depend on risk perception affected by psychological factors. However, entrepreneurs’ mental processes, which shape their behaviour and decision-making in the complex entrepreneurial process, are likely more susceptible to the impact of cognitive factors such as biases and heuristics. Consequently, they may perceive less risk and decide to start a new venture, even in an uncertain environment. Entrepreneurs can probably make more subjective and intuitive decisions, not because they ignore rationality in decision-making, but because they may have a more optimistic attitude towards potentially beneficial business opportunities and situations, and are forced to react quickly without all the necessary information in a given context of time and place.

There is probably no better way to verify whether a business idea can be transformed into a successful, profitable enterprise than an entrepreneur’s decision to start a new venture. Entrepreneurial initiative is one of the scarcest and most important resources, impacting not only on the development and survival of the enterprise but also economic growth, innovativeness, and social prosperity. Even though some initiatives fail (also due to a variety of independent external factors), it would be difficult to replace the creativity of entrepreneurs as important economic agents.

The relationships described in the chapter require further and more extensive research. An interesting direction for future research could be to explore the cognitive factors such as biases and heuristics that may have prevented current, active, successful, and more experienced entrepreneurs from starting and running their businesses. Doing so would provide us with a better understanding of what is crucial in entrepreneurial decision-making and successful business continuity, and whether those factors can be influenced by education and training courses.

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