

entrepreneurial risk

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Entrepreneurship has long been linked with the concept of risk. Scholars have viewed risk as fundamental to the entrepreneurial function, and the entrepreneur's ability to tolerate risk as central to the formation of new ventures. However, these views are not held by all, and there remains considerable debate about the relationship between risk and entrepreneurship. On a fundamental level, a precise definition of entrepreneurial risk has been elusive. This confusion may hamper discussions around the role of risk in entrepreneurship. In this essay, we set out to illuminate the discussion around entrepreneurial risk, beginning with some ideas about its definition.

A STARTING POINT FOR UNDERSTANDING ENTREPRENEURIAL RISK

Finance scholars conceptualize risk as unanticipated and unpredictable movements in a variable of importance, typically income or revenue. The more volatile and unpredictable sources of income are, the riskier income is generally considered to be. From a statistical point of view, economic risk is generally measured as the variance of the probability distribution, or more appropriately, by the variance as conditioned on prior trends in the data. This latter correction adjusts for the situation where variance is predictable based on prior trends. (This advancement is the basis for the 2003 Nobel Prize in Economics won by Robert Engle). In contrast to finance, economists conceptualize risk as an interplay of the probability distribution (not just variance) of possible outcomes and a decision-maker's idiosyncratic receptivity to the properties of the distribution, manifested in their utility function. This conceptualization is consistent with Bernoulli (1954: 26), who stated that "no valid measurement of the value of a risk can be obtained without consideration begin given to its utility," and the view that risk and risk perception are inseparable.

The concept of risk is central in early definitions of entrepreneurship. For example, Richard Cantillon (1680–1734) described the entrepreneur as someone who reduces risk for others by taking it on him or herself in the form of a fixed-price contract over time. The entrepreneur bears the risk caused by price fluctuations in consumer markets, while ensuring workers or suppliers by buying their products or labor services for resale before consumers have indicated how much they are willing to pay for them. If they guess right, they enjoy a surplus or profit; if not, they suffer a loss. H. K. Mangoldt (1824–68) brought the element of time into the equation of risk bearing, suggesting that the longer the productive process, the riskier would be the entrepreneurial function.

Frank Knight (1921) distinguished between risk and uncertainty as part of his analysis of profit and its origins. Knight adopted the reasoning that profit arises because people do not have perfect knowledge about the future. Whenever anything happens to make outcomes not match expectations, then the revenues from the goods will not equal costs, and profit may occur. The profits accrue to those parties willing to take on chance. In Knight's formulation, the economic implications of risk, which is measurable, and uncertainty, which is not, are decidedly different.

Since risk can be quantified, entrepreneurs can make arrangements to “insure” themselves against it, but doing so will eliminate any profit potential.

We submit that it is worth considering under what conditions the distinction between risk and uncertainty is meaningful. This distinction between risk and uncertainty is somewhat artificial, since uncertainty represents a problem of “knowledge” of the relevant probabilities, not of their “existence.” Moreover, one might argue that there are actually no probabilities to be “known” because probabilities of future events are really only “beliefs.” Moreover, Knight’s claim that risk should be inconsequential faces challenges on several fronts. Years after Knight’s original treatise, it was pointed out that unsystematic or idiosyncratic risk is the type of risk that can be diversified away (Markowitz, 1952), so systematic risk is what should be pertinent to owners of assets. However, relative to the owners of corporations, entrepreneurs may find it difficult to diversify away risk that is unique to their venture, perhaps because of information problems or limited access to financial markets. Thus, it seems that entrepreneurs should be concerned about both (unsystematic and, in most cases, systematic) risk and uncertainty, as defined by Knight.

WHAT DO ENTREPRENEURS RISK?

The implication of the previous discussion is that the entrepreneur risks something in the event profits turn out worse than expected. This claim is not universally held. For example, Joseph Schumpeter did not view the entrepreneur as a risk bearer. In Schumpeter’s view, the financial intermediary who lends the funds to the entrepreneur is the risk bearer, but this surely hinges, in part, on the a venture’s ownership form. Some definitions of entrepreneurship are careful to point out that an entrepreneur need not own the resources of the firm, and hence, is not at risk of losing them (e.g., Stevenson et al., 1999, define entrepreneurship as the pursuit of opportunity without regard to resources currently controlled). At one time, one might have argued that an entrepreneur’s reputation is “at risk,” but many now view failure as a “badge of courage.” Thus, one must be careful in identifying to what extent resources are “at risk.”

In every case the entrepreneur risks the opportunity costs associated with starting the venture. These costs may be represented by the income the entrepreneur could have generated had he or she started another venture or chosen a wage earning position. These opportunity costs are represented by the individual’s own discount rate and are the basis for the risk–return relationship in finance theory. The higher the discount rate (which is a function of systematic risk) underlying the venture opportunity, the higher are the expected returns the individual should demand. Since it is widely agreed that entrepreneurship is generally more risky than wage earning positions, one explanation for why individuals start ventures, and accept higher opportunity costs on average, is that they have higher expected returns than other income alternatives. Others have looked at the higher proportion of “failure” among smaller firms as evidence that these firms face more risk. However, we caution against this interpretation because failure seems to be a choice determined in part by each entrepreneur’s unique threshold, or tolerance, for poor performance (Gimeno et al., 1997).

More recently, a stream of literature called real options theory has elaborated upon a different type of opportunity cost that is pertinent to the decision to start a venture. If starting a venture involves making sunk costs, then there are opportunity costs of committing to the venture. The entrepreneur cannot fully recoup the investment if things turn out poorly. In this theory, total risk defines opportunity costs, not merely systematic risk. The greater total risk, the greater the opportunity costs associated with starting a venture, which should lower the propensity for

entrepreneurs to rush to start new ventures. Consistent with these expectations, O'Brien, Folta, and Johnson (2003) found that total risk lowered the likelihood of entrepreneurial entry. This perspective suggests that factors that raise the irreversibility of new venture creation should raise the riskiness of committing immediately to entrepreneurship.

OTHER EXPLANATIONS FOR HOW RISK IS LINKED WITH ENTREPRENEURSHIP

The high rates of entrepreneurial failure have led many researchers to question why we see such high rates of entry. Some have suggested that entrepreneurs are not only risk bearers, but also risk seekers (Begley and Boyd, 1987; McGrath, MacMillan, and Scheinberg, 1992). This stands in contrast to managers of large organizations, who have been described as risk averse. Risk aversion is central to the positive relationship expected between risk and returns. In fact, few studies have shown statistically significant differences between entrepreneurs and managers in large organizations in their risk-taking propensity (Brockhaus, 1980; Low and MacMillan, 1988). Prospect theorists claim that risk-taking propensity may differ depending upon whether an individual is above or below some reference point (Kahneman and Tversky, 1984). Risky alternatives may be more acceptable when the decision-maker's economic situation is below the reference point. When this theory is applied to an entrepreneurial context it suggests that prospective entrepreneurs performing below a reference point may be more willing to initiate a venture than those above the reference point (Simon, Houghton, and Savelli, 2003, have found results consistent with the view that prospect theory explains entrepreneurial decision-making). This seems a promising area of research.

Rather than focusing on risk propensity, several scholars suggest that risk perception might explain why individuals start new ventures (Sitkin and Pablo, 1992; Palich and Bagby, 1995; Busenitz and Barney, 1997). It may be that entrepreneurs are more susceptible to biases and heuristics and are likely to perceive less risk in a given decision situation than are managers in large organizations. By being more willing to generalize from limited experience and by feeling overconfident that they will be able to master the major obstacles, entrepreneurs may conclude that a situation is simply less risky than would managers in large organizations. Cooper, Dunkelberg, and Woo (1998) found that 95 percent of entrepreneurs believe their venture will most probably succeed even though over half of all new ventures fail. Simon, Houghton, and Aquino (1999) found evidence that individuals start ventures because they do not perceive the risks involved and not because they knowingly accept high levels of risk.

CONCLUSION

We have considered that entrepreneurial risk is represented by an entrepreneur's inability to eliminate the stochastic nature of the environment. The existence of risk presents the opportunity for abnormal returns, but also the potential for losses. Let us be clear that increased risk propensity or decreased risk perceptions are neither necessary nor sufficient conditions for entrepreneurs to start ventures, but will certainly impact new venture formation.

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