When should entrepreneurs expedite or delay opportunity exploitation?

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Abstract

We theorize on the performance implications of the timing at which entrepreneurs stop exploring their business opportunities and start exploiting them. Using an optimal-stopping approach, we characterize the time when exploitation should begin based primarily on when an entrepreneur’s ignorance has been sufficiently reduced through knowledge accumulation. This “ignorance threshold” captures a tradeoff between the time needed to increase legitimacy and the necessity to act now to minimize competition. Changes in legitimacy and competition are based on how entrepreneurs manage their knowledge (tacit versus explicit) under differing degrees of novelty for the business opportunity. These changes, in turn, impact the performance and timing of opportunity exploitation.

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1. Executive summary

Entrepreneurs begin their venturing process by exploring a business opportunity. Once sufficient knowledge has been accumulated to assess the viability of that opportunity, there is a need to shift focus from exploring to exploiting it. As a practical example, we consider diamond mining. Exploration activities include acquiring detailed satellite imagery (for possible crater formation), physical surveying of areas (to see if the area is a diatreme), seismological testing and test drilling to determine if kimberlite or kimberlite indicator minerals are present as well as geophysical and geochemical anomalies. Exploration can continue to determine if enough kimberlite pipes are diamondiferous and if the density of diamonds is high enough to warrant exploitation of the site. Knowledge gained from these exploration activities helps an entrepreneur improve skills on which sites to continue to add resources into exploration, and which sites to quickly abandon, which reduces that entrepreneur’s level of ignorance on this business opportunity. Some entrepreneurs, because they possess significant relevant technical and operational knowledge, may spend a relatively small amount of time analyzing sites before they start mining (i.e. exploit) on a site that actually produces diamonds (but because of overburden cover, location and the number of pipes present it may not create an economically fruitful operation). Other entrepreneurs may spend a larger amount of time on these activities and delay the mining process, thus allowing for the exploration of even more sites.

This practical example is certainly not the only situation where entrepreneurs face the decision of when to expedite, or delay, the exploitation of their business opportunity, which requires a shift of attention that is likely to be substantial and to involve irreversible commitments. In this article, we investigate optimal-stopping rules for opportunity exploitation so as to maximize performance treated as a combination of measures of profitability, survival and exploration costs. We offer an analytical framework that is based on how an entrepreneur manages knowledge (tacit versus explicit), how much competitors can learn from that entrepreneur’s explicit knowledge, and on the degree of novelty of the business opportunity. This framework is used to prescribe the conditions under which an optimal timing of exploitation exists and suggests useful exploitation rules for entrepreneurs.

The results of this research advocate that entrepreneurs may benefit from acknowledging the nature of the business opportunity in term of its level of novelty. Indeed, the exploration process should be shorter – and exploitation be expedited – for those business opportunities that exhibit low degrees of novelty, as compared to those that exhibit high degrees of novelty. Also, this research recommends that entrepreneurs pursuing opportunities with high degrees of novelty pay attention to how they manage their knowledge during the exploration periods as the timing of exploitation is likely to depend on it. Specifically, making their knowledge explicit (e.g. in order to educate stakeholders) enables them to expedite exploitation. Instead, entrepreneurs pursuing opportunities with low degrees of novelty are best advised to estimate the ability of potential competitors to learn about their opportunities, as exploitation should be expedited when these competitors can more easily assimilate the explicit knowledge of those entrepreneurs.
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