BOUNDING NOVELTY: THE ROLE OF SELECTIVE LEARNING IN THE DEVELOPMENT OF ENTREPRENEURIAL KNOWLEDGE (INTERACTIVE PAPER)

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Principal Topic

How do entrepreneurs know how to evaluate something that is fundamentally new? Novelty plays an essential role in breakthrough innovations, entrepreneurship and economic change. Yet novelty is difficult to recognize, hard to assess and associated with high levels of failure. This “inaccessibility and indeterminacy of novelty” (Schumpeter, 2005) has made the assessment of novelty a challenge in both the economics of change and understanding the process of innovation.

Novelty is classically viewed as hard to assess because of problems of bounded rationality arising from individual, environmental, and ecological sources of novelty. Individual sources of novelty are assessed by means that are bounded by the capacity of the individual to process information, such as differences in cognition and prior knowledge. Environmental sources of novelty are assessed by means that are bounded by the costs of searching for information, such as differences in information channels. An emerging view is that novelty could be assessed using ‘ecological rationality’, where the limitations of the individual rationality are reduced by knowledge about the information environment (Todd and Gigerenzer, 2003).

Ecologically rational strategies are useful under conditions of incomplete information when search and stopping rules are well defined. However, simple defined rules do not seem to perform well under the ambiguous, dynamic and contextual conditions associated with entrepreneurial settings. I argue that entrepreneurs use strategies that simultaneously recognize individual and environmental sources of novelty by engaging in selective learning. In selective learning, entrepreneurs learn about failure criteria rather than assessing factors of success.

Method

This paper models three different selective learning strategies where opportunities are picked from pool of ideas. Each idea is a complex combination of generic factors with significant but uncertain independencies between factors. I compare the factor information requirements for ranking models and expert models to three selective learning strategies I call: (1) deal killers, (2) red flags and (3) discoveries.

Results and Implications

These models show that entrepreneurs can use selective learning strategies to assess potential opportunities under ambiguous, dynamic and complex conditions with relatively low trade-offs to opportunity quality. However, under certain conditions, these strategies can be intentionally or unintentionally gamed, so the models provide prescriptive benefits in identifying unfavorable learning processes.

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