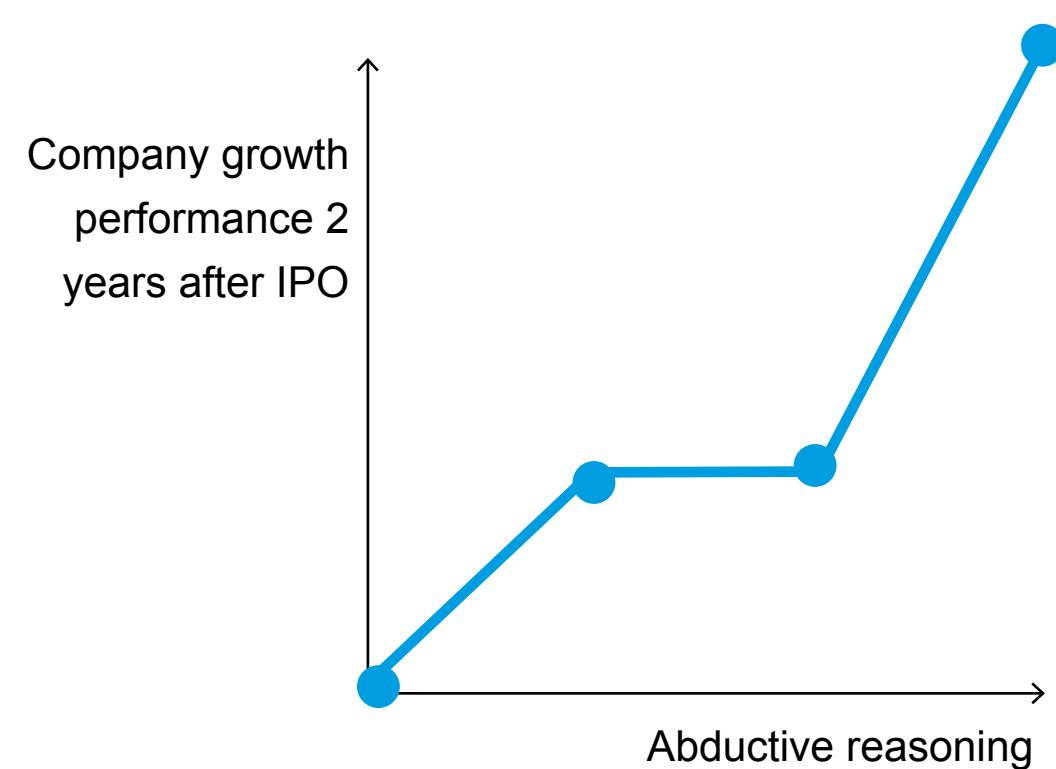


With abductive reasoning to 110% higher growth*

*compared to the average company growth



Under changing market conditions and uncertainty, executives too often fail to foresee strategic options that lead to superior company performance. One reason for this is that executives tend to rely on deductive/inductive logic in order to reduce the risk associated with decision making under uncertainty. Deductive/inductive logic relies on general rules or prior observations. This means, rules or observations must be known prior to the decision. However, during early-stage innovation and strategic planning, it is future conditions are usually unknown. Therefore, it is unlikely that one will have made all observations necessary for such an explanation. As a consequence, executives often become risk averse and make predictable decision errors.

In order to successfully foresee strategic options executives need to change their approach and particularly the reasoning they apply. In the area of design and concept selection, scholars promote the use of abductive reasoning. This type of logic forms plausible hypotheses about future outcomes and events instead of deducing/inducing what is known from the past. When using abductive reasoning, thinking becomes more future oriented, and the potential of not-yet-existent concepts and outcomes can be better recognized despite the present uncertainty.

Study

Under the umbrella of a larger research project funded by the Australian Research Council (ARC), I conducted a study investigating the link between abductive reasoning and company performance both qualitatively and quantitatively. The study is based on secondary data of 30 US companies in the Software and

Development Industry that went public on the US-stock market (Nasdaq) in the period between 2013 and 2014. For the assessment of abductive reasoning, a framework was developed which expands existing frameworks used for the assessment of (abductive) reasoning during concept selection.

Results

Results of the study show that abductive reasoning leads indeed to significantly greater growth performance. Abductive reasoning furthermore positively influences company profitability when used in conjunction with deductive/inductive logic, and was found to 1) introduce new business or revenue models 2) identify market segments 3) define a product or service offering, 4) invent technical solutions 5) revise and form beliefs/missions 6) explain observations such as (market) behavior.

Qualitative analysis suggests that specific observations made prior to or during early-stage venturing—referred to as observation sets—stimulate abductive reasoning. Three different categories of observation sets were identified; they represent an analogy, anomaly and paradox. Technological developments are suggested to *enable* innovation while demographical and organizational observations are often the source of new strategic options. Up to this point, the most commonly accepted view has been that strategic decisions are made rationally. Therefore scholars advise the use of tools which rely on deductive and inductive logic to assess and create strategic options. Results of the presented research, however, suggests that executive who rely on abductive reasoning can create substantially higher company performance.

Managerial recommendations

- Think forward: Executives should try to apprehend future potential of opportunities and become more forward thinking and rely less on quantifiable metrics or tools that encourage deductive/inductive logic to forecast future events.
- Do not dream: It is important that abductive reasoning complements other forms of logic. While companies that exhibit a higher ratio of abductive reasoning show higher growth, company profitability is only positively affected when abductive reasoning is complemented with deductive/inductive reasoning. Therefore, executives should formulate hypotheses *and* evaluate these for their plausibility.
- Observe abnormal behavior: Independent from cognitive capabilities, the obtained insights suggest that entrepreneurs and companies should pay attention to abnormal or paradoxical (market) behavior or developments as well as analogies from other fields. Abnormal, paradoxical or analogical observations may stimulate individuals to reason more abductively and thus enable them to develop growth creating strategies.
- Look outside your domain: While many problems are found within a specific domain, many solutions (e.g. analogical problem-solution pairs) can be found outside of the domain. Therefore, executives should not only be aware of developments within, but also outside of their market.
- Solve a problem: While technological developments often enable innovation, demographical and organizational changes are origin of value creation. Therefore it is recommended that executives focus on demographical and organizational changes and potential problems that these changes may produce.

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