EFFECTUATION AND THE DIALECTIC OF CONTROL

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Abstract

"To the extent that we can control the future, we do not need to predict it" (Sarasvathy, 2001, 2008). Control is the central theme of the effectuation logic (Sarasvathy, 2001, 2005, 2008) explicating an endogenous entrepreneurial opportunity creation process that cannot be explained by the causal logic of prediction. Sarasvathy proposes the effectuation logic as an inverse of causation in that the set of means for an entrepreneur is given while the possible ends are fluid. The entrepreneur’s effectual actions gravitate towards one of the several possible ends, driven by how the augmenting set of means shape up, and form a specific entrepreneurial opportunity. How does a start-up entrepreneur, with characteristics paucity of means, exercise the control necessary for effectual action? The paper explores this apparent contradiction through in-depth qualitative data and suggests a relational view of control, in the nature of a dialectic and reminiscent of the control concept in the theory of Structuration (Giddens, 1979, 1982, 1984) to illuminate the effectual control argument.

Key words: Effectuation, control, dialectic

INTRODUCTION

Sarasvathy (2001; 2005; 2008) shows that expert entrepreneurs recognise that the future is unpredictable and hence do not put too much store by causally based prediction of the future; instead, more often than not, their actions follow the logic of effectuation that does not need predicting an unpredictable future. Through the concept of entrepreneurial effectuation she describes the way in which entrepreneurs shape opportunities under Knightian uncertainty with the now famous pithy tag "To the extent that we can control the future, we do not need to predict it" (Sarasvathy, 2001: 252).

The question arises how a start-up entrepreneur, with resource poverty, can have the power to exercise control in effectuation. The paper explores this apparent contradiction. It reports start-up actions of three entrepreneurs showing how effectuation rather than causation processes unfolded in the successful cases. It then analyses the entrepreneurs’ decisions and actions, tracing one of them in detail, to help understand the nature of effectual control at play, and inductively develops explanations from the data examining what it was that the entrepreneur was controlling in the different situations, given resource constraints. It concludes that effectual control is relational in nature and can be explained at the level of theory as a dialectical process, much like the “dialectic of control” concept in the social theory of structuration (Giddens, 1979, 1982, 1984).

CONTROL: THE CENTRAL PILLAR IN EFFECTUATION

Effectuation is the latest addition to the effort in understanding entrepreneurial opportunity formation. Saravathy (2001; 2005; 2008) posits that entrepreneurial opportunity under uncertainty is an endogenous creation process that is explained better by an effectuation logic rather than a prediction based causation logic because of the unpredictability of the uncertain future. She shows that expert entrepreneur use effectuation in start-up situations more often than novice entrepreneurs and that allows them to get around this unpredictability. Saravathy elaborates the processual logic of effectuation through an inversion of the logic of causation, explicating the entrepreneurial opportunity process as built on control rather than of prediction. In this explication the entrepreneur starts with a set
of means at hand, searches the environment for what effects she can create from those means, enhances those means with the means of others that are willing to join her search thus often changing the effects that can be created. This process continues iteratively, converging to a real opportunity, with the entrepreneur doing everything possible to control the process. The crux of the effectuation principle is the acknowledgement of the impossibility of prediction under uncertainty, and the alternative explanation of entrepreneurial action under uncertainty to be based on control that removes the need to predict. Control is the central theme in entrepreneurial effectuation that is embodied in the principles of:

- affordable loss, rather than expected returns estimated through prediction
- strategic alliance, rather than competitive analysis
- exploitation of contingencies, rather than pre-existing knowledge

leading to: control of an unpredictable future, rather than prediction of an uncertain one (Sarasvathy, 2001: 259, reworded).

Accepting the justified assertion of unpredictability, the paper explores how a start-up entrepreneur, coming from a relatively weak position with liability of newness as well as resource poverty that characterise start-up situations, exercises control over the start-up situation which necessarily means control over all other agents or stakeholders that are important to the starting up process.

THE STUDY

In this paper the results of an inductive study with three entrepreneurs are reported that have been chosen for their variety: one was a start-up entrepreneur’s account of initial forays in opportunity formation, a second of another start-up entrepreneur who fails to establish an opportunity and changes his approach leading to better success at starting up, and a third who failed in his attempt to start up and moved to consulting. Towards the end of the engagement through semi-structured interviews all entrepreneurs were asked how they would do it again, in order to check whether their learning from experience would push them towards using more effectual or causal logic in enacting their start-ups again. The evidence confirms use of effectual actions in varying degrees for the successful and unsuccessful start-up outcomes. No direct question on control was asked. One of the cases is taken up for detailed analysis of the qualitative data, to understand the nature of the control attempted in effectual action.

Results

Entrepreneur Ent-A started working with an ex-colleague on a business in the software data warehousing space while at a multinational firm and quit his job within an year to be full time with the start-up business in July 1996. Having a two to three month contract for consulting and installing software was “good enough to start” for Ent-A and his business partner who were the only two in the company with the partner doing the mandate execution and Ent-A doing the selling for consulting mandates. In a year’s time they found themselves considering developing their own software as a product (“we started planning our way through what we were going to do as far as the software goes”), and decided to move from consulting to software business. They had recruited their first two employee by then. They would show their rudimentary product to the consulting clients some of whom wanted to have it included in the mandated job. Then they started showing the rudimentary product to everyone they knew in the industry globally. An introduction to a mid-sized US bank came from their ex-colleague from the US who was still toying with the idea of joining the firm but wasn’t encouraged by the existing partners as he “couldn’t commit to serious work...to get this going”. The US bank was given a few Net demos and was ready to buy the rudimentary product. Ent-A and partner refused to sell, wanting to develop the product further along with complete manuals, etc. After a year the complete product that they sold to the potential client included a 500-page user guide and a 1500-page installation manual.
The verbal data show the effectual action from the two partners. Starting with 2-3 months consulting jobs, this entrepreneur felt that analysing market potential was “a waste of time and effort” and that “there would never be enough information” and that one had “just got to do it”. The knowledge that they could “always take a real job” gave them the control over their own future, which also presupposes control over losses they will take, i.e., an affordable loss limit. The fact that Ent-A had no product but only an idea meant that he could not have estimated the possible returns from the potential client, let alone from the market. Later, after they spent six months or so developing a product, they “decided to do a bit of a check to see whether or not it was viable software to sell”. They knew the product “wasn’t there, it didn’t work, it was a half product, half idea...”. The control over potential losses was gained by approaching a specific possible user for feedback during product development, well before finalising the product. Control over the potential for gain was attempted by building a strategic alliance through product development-feedback cycles with the possible client rather than by estimating demand by market analysis. Here the entrepreneur (and his partner) were gathering the future clients’ precommitment to add to their own to reduce (ie, control) potential loss as well as enhance potential gain. There was no crisis at the bank’s end that was reported but they did have a situation at the bank where they could anticipate problems with their large customer base if processes were not made more efficient. This was what Ent-A exploited to get feedback for over a year to develop the product. The entrepreneur seems to have taken a sizeable risk of losing the first major client almost before they started (“you ran a large chance of it not working because it wasn’t a proper product”) and may well have lost this prospect while they were developing the product (“They were interested yeah, but they were hardly waiting on tenterhooks waiting for our call. So we had to get back on their important list again. We hoped we wouldn’t lose them”). The entrepreneur’s effort all along was to network for market access, ie, getting to the next customer through client references (“the best way to do it, i.e., get a “lighthouse customer” is networking”). In terms of funding the start-up, Ent-A always bootstrapped to self fund the operations (“we funded ourselves in the beginning, in fact we still fund ourselves”); their on-site consulting work helped fund product development.

The start-up initiatives of Ent-A showed effectual action without much time or effort being spent on analysing the market or predicting it. Building the product, with on-going customer feedback, both limited loss potential and enhanced the potential for gaining major initial custom through this alliance, exploiting an anticipated/possible contingency at the client end, and getting clients’ precommitment to add to the entrepreneurs’ own precommitment. Limiting of loss potential was also achieved by bootstrapping all the way.

The verbal data on the start-up activities in consulting and product businesses of Ent-A discussed above were coded for effectuation evidence on the following themes:

- Affordable loss (including bootstrapping), rather than expected return
- Strategic alliance (including networking), rather than competitive analysis
- Exploitation of contingencies (including extending influence over potential customer), rather than pre-existing knowledge
- Pre-commitment (from self and seeking/getting others’ precommitment)

Two other entrepreneurs were similarly interviewed and transcripts from the verbal protocol were coded for evidence of the above effectuation themes as against evidence of causation based action similar to the excerpts of Ent-A illustrated above. Frequency of effectuation evidence identified in the verbal protocol of all three entrepreneurs are summarised below:
Evidence of Control

If the premise of unpredictability and unknowability of the future under Knightian uncertainty is accepted, it would be necessary to acknowledge the impossibility of controlling the future. What then is the meaning of entrepreneurial effectual control? Let us invert a typical successful start-up situation like that of Ent-A where, the entrepreneur deals with environmental uncertainty and “makes it happen”, ie, sets up a business and has a rising surplus generation in the second or third year. We look back from the time the entrepreneur has made a series of successful sale transactions. Till that time, the resources worth X dollars are estimated to have been expended in terms of actual moneys spent in acquiring assets and expenses, imputed expenses of the entrepreneur’s time valued at the last salary drawn in a job, etc. It does not however include the sweat and the emotions that the entrepreneur has gone through, like Fatjo, described in Sarasvathy (2008: 83-84). Costs till then have been met by outlays from the entrepreneur and from stakeholders. The entrepreneur’s outlay is really his own dollar contribution, his time and effort, plus the emotional fallout of the process. This net contribution is what the entrepreneur needs to commit to. However this commitment is to be made ahead of surplus generation and, in causation based logic has to be predicted, thus appearing as risk to the onlooker. That is the risk kernel the entrepreneur needs to accept, in advance. That is why Ent-A is in a hurry to “fail fast or make it work”. Even if the entrepreneur goes far wrong in anticipating the emotional cost which is difficult to set affordable loss limits for (and which, like Fatjo, seems every entrepreneur’s experience particularly with the first venture), Ent-A says he could always go and “get a real job”. This entrepreneur “backs himself up”, as he did again by keeping the consulting work going while risking losing the first large client for the software product under development. With his precommitment of dollars, time and emotion to the venture Ent-A has covered himself for the risk kernel. He believes that

<table>
<thead>
<tr>
<th>Effectuation themes for protocol coding</th>
<th>Ent-A</th>
<th>Ent-B</th>
<th>Ent-C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable loss, rather than expected return</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Strategic alliance, rather than competitive analysis</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Exploitation of contingencies, rather than pre-existing knowledge</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Precommitment (from self and stakeholders)</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Effectuation instances</strong></td>
<td>8</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
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*Adjusting for verbosity/loquaciousness of respondent where the number of occurrence counts of a theme can only be a maximum of 2 (raw totals above were 28, 23 and 3).
he can get others to precommit to add to his own precommitment as the venture needs it. With each iterative cycle the precommitment from Ent-A and others increase, Ent-A always adjusting the means-ends equation and keeping ready to pull back. The other stakeholders’ risk taking ability is not relevant as Ent-A can get, albeit with some difficulty, yet others to replace them. Once a set of means and precommitments are in place for the stage of the venture, the entrepreneur continually works to reduce the downside and raise upside potential in every way possible as found by Sarasvathy (1998: 83) in her study comparing entrepreneurs and bankers. At every stage the entrepreneur adds the precommitment for the next stage, gathers other stakeholder precommitments and thrusts the venture forward some more. The entrepreneur thus “controls” the expanding means at hand and the shape of the effect that is emerging in a dialectic with the environment of the venture: the stakeholders, the resources, and potential clients.

Approaching a major potential user without a deliverable product, with a “half product, half idea”, Ent-A bootstrapped from the start. They went out to get feedback from the market rather than to find a client, the attempt had been to get validation of their idea and product (“we wanted external validation”). Actions of keeping the prospective client interested in a relationship while bootstrapping to reduce potential loss within affordable limit, were effectual actions. His desire to control his losses is seen in the remark:

We were prepared that if it didn't look like it was going to work, we weren't going to spend the money on it. If it had no chance we wouldn't bother spending the money on it. We were going to spend a million bucks and then decide whether it was going to work... few weeks.... It was a binary decision........We will either fail fast or make it work.

Therefore, Ent-A was controlling costs by bootstrapping from the start; he was controlling potential losses by seeking market feedback early when the product was a “half-idea”. He was also controlling the potential upside appropriation by funding the start-up with own funds and consultancy client payments, and without getting external/equity funding. However, the crucial aspect of Ent-A’s control action was in augmenting means through collaborating to build the product with a potential client over a year. This he did even at some risk of losing the client as his success depended not only on his own agency and initiative but also on the agency of the potential client, a much larger company. Ent-A had an autonomy and yet was dependent on the response structure of the potential client company he was interacting with. The client company too was independent and yet had a level of dependence on the development of Ent-A’s product. This was a dialectic of control played out primarily through the agency of Ent-A (Giddens, 1982, 1984). The power of Ent-A to drive the process was his transformative capacity stimulating the large potential client company “to comply with his wants”(Giddens, 1979: 93; 1984).

Caution is advised, however, in concluding that Ent-A’s agency was the only determinant of successful effectuation leading to starting up success and, in general, acknowledging the primacy of entrepreneurial effectual agency in successful start-up action. Since their first sale to the banking client, Ent-A’s software product has not only improved but, as it turned out, has also sold at a higher and higher price in a price-point discovery journey for over 2 years. However, Ent-A and his team gradually acknowledged that they were having to work hard to find the specialised buyers for the product the main reason for which was the Oracle platform it was built on. It meant that a buyer organisation needed to have high level knowledge working with Oracle. This made the product specialised by its construction while the market was getting structured differently leaving many potential users out of the market for this product. The high penetration of the potential market became more and more implausible. Over the next two years Ent-A migrated the product to the MS SQL server - now it supports both platforms for data warehouse building – to better match the market structure that Ent-A’s agency could not transform. The control of the start-up effectuation process over the 4-5 years can be seen as a dialectical interaction between the venture environment of resource, market client structure, and the effectual agency of the entrepreneur.

Ent-B, building a foreign currency trading software that did more than flag buy/sell opportunities (ie, also did the trading within pre-set limits), had similarly shown his half developed product to foreign exchange trading seminar participants and collaborated with a US broker-trainer firm to sell in the US market. Right from the start this entrepreneur worked towards strategic alliances and precommitments
both from himself and from others. He allied with a software developer friend and ensured precommitment to develop the software. He also attempted to secure precommitment of the US broker-trainer by developing his interest and working toward a partnership. This did not work out as the US potential partner had anxieties about control and IP issues. Ent-B then went over to the US to set up office there for better control of US market penetration, initiated alliance with a new partner which has now started off successfully. He also acquired the statutory qualification for trading in the US which he did not have. That gave him control over the means required for his forex trading business initiative there and added to higher effectual control of his second initiative after his crucial first alliance did not work.

Ent-C started up making high speed data communication sets for marine applications. He took the product to international yachting customers who were in his port town during an international sailing regatta as participant “challengers”. Before an international regatta it is usual to see a competitive race for allowable technology installations in the yachts so as not to be left behind in the technology aspects of the race. Ent-C exploited the challengers’ contingencies and supplied nine of the thirteen challengers with the equipment during the regatta. However, after the regatta and soon after Ent-C started up, the international yacht customers sailed away and dispersed globally. They still wanted the product but were too thinly scattered to be serviced by Ent-C. In the other start-up initiative Ent-C responded to Singapore Port’s tender for a communication network, but did not get the contract as his engineers gave too much technical information away that was reportedly copied by a local firm on the unpatented product. Ent-C could not maintain alliance with the yachting clients and also lost control of the Singapore initiative, where he was unable to effectuate sufficiently in controlling / influencing the client environment in the one-sided interaction of a tendering process.

In the three cases presented, Ent-A was clearly able to exercise influence over the potential client environment and over a sufficiently enhancing set of means. However, over the next years Ent-A adjusted to market structure to change the product and regain control on market penetration. Ent-B turned around an initially insufficient influence over his means and over the first major potential client collaborator, augmenting his set of means and simultaneously starting successful alliance the second time. Ent-C fails to effectuate, losing control over his means (on IP) and of his client environment on both occasions, ie, of the dispersing yachting clients and then in a closed tender situation.

CONCLUSION

The process of entrepreneurial effectuation is influenced by the strength of entrepreneurial agency that derives from the entrepreneur’s power as transformative capacity and that deals with a market / potential client that is often larger or stronger, constraining even as it offers enabling avenues. The entrepreneurs’ power is their transformative capacity despite traditional resource poverty as the data have shown. Entrepreneurs’ ability to have a relational dynamic in a dialectic of control with their more influential – usually large business – buyers is the essence of entrepreneurial agency driving effectual action. Even in an apparently unequal relationship dealing with a larger buyer firm, as in the start-up initiatives examined, the entrepreneurs use this power as transformative capacity to enhance resources through forming alliances and exploiting contingencies, and by capping costs, in an attempt to get others to comply with their wants in a dialectic of control.

References


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