

# **STRUCTURATION IN ENTREPRENEURIAL OPPORTUNITY**

## **PURSUIT: The case of a Small Technology Entrepreneur**

Sanjay Bhowmick

*The University of Auckland Business School, Auckland, New Zealand*

s.bhowmick@auckland.ac.nz

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### Abstract

This paper explores a new idea that *entrepreneurial opportunity pursuit* can be looked upon as a process of *structuration*. The paper first discusses the opportunity paradigm in entrepreneurship literature and describes the relevant creation-discovery debate in the entrepreneurial opportunity paradigm. It then discusses Giddens' *Structuration Theory* (Giddens, 1979, Giddens, 1984). Presenting empirical data from verbal protocol of a technology entrepreneur describing the pursuit of a new opportunity in the marketplace, the paper discusses how entrepreneurial opportunity pursuit can be seen as a process of *structuration* rather than either exclusively of creation or of discovery. It could also provide a platform to synthesise the opposing perspectives of the creation-discovery debate.

*Keywords: Entrepreneurial opportunity, structuration.*

There is a heightened interest in the idea of opportunity as a fundamental aspect of the phenomenon of entrepreneurship (Davidsson, 1991, Kirzner, 1997, Shane and Venkataraman, 2000, Venkataraman, 1997). This research interest has naturally led to discourses on attributes of opportunity and exploration of processes by which opportunity occurs (Gartner et al., 2003: 103). This has also given rise to a long debate on whether opportunities are discovered/ recognised or whether they are created (Boudreaux, 1994, Sarasvathy et al., 2003, Kirzner, 1999, Shane and Venkataraman, 2000).

### A NOTE ON OPPORTUNITY FROM ENTREPRENEURSHIP LITERATURE

Entrepreneurship theorists have debated nature of opportunity pursuit as being either a recognition process or a creation process, the first in the classic mould of Kirzner's entrepreneur as the protagonist of opportunity discovery/ recognition and, the second, as Schumpeter's entrepreneur as the creator of opportunity. The Kirznerian entrepreneur shows "alertness to opportunity" (Kirzner, 1969) while the Schumpeterian entrepreneur is the innovator and brings new ideas and products through "creative destruction" of existing paradigms or technologies (Schumpeter, 1942). Entrepreneurs in Kirzner's opportunity discovery mould really are arbitrageurs whose actions have equilibrating effects (in perfectly competitive markets) while in the Schumpeterian mould they create or orchestrate

opportunity through activities that have disequilibrating effects (McNulty, 1987) (in dynamically competitive markets). While some researchers have pointed to the differences between the Kirznerian and the Schumpeterian entrepreneur, others like Choi (1995) and Boudreaux (1994) have emphasised the differences as being really complementary. Choi even calls the two “complementary” perspectives identical, and similar to the debate of whether a glass is half-full or half-empty (Choi, 1995). It must be mentioned that, even though Kirzner says: “The notion of discovery, midway between that of deliberately produced information in standard search theory, and that of sheer windfall gain generated by pure chance, is central to the Austrian approach” (Kirzner, 1997: 72), he has later argued that while the entrepreneur is involved in pure arbitraging in the single period market, s/he is associated with creativity in the multi period markets since such markets have associated ‘radical’ uncertainty and associated Misesian ‘pure entrepreneurial activity’ (Kirzner, 1999). Despite Kirzner’s “obstinacy ... of continuing to insist that what is important for analytical purposes is *not these leadership qualities in themselves* (as implied in the Schumpeterian entrepreneur), but the pure ‘alertness’ which these qualities express and sustain” (Kirzner, 1999), he concludes with the following proposition in his “reconsideration” of the real world entrepreneur:

“To see the entrepreneurial role of a real world entrepreneur as essentially that of being (“merely”) alert to opportunity created (or being able to be created) by independently-initiated changes, is not *necessarily* inconsistent with a Schumpeterian perspective on the activity of that entrepreneur (which sees him as aggressively and actively initiating change)” (Kirzner, 1999: 16).

Indeed, for a technology firm which is the focus here, entrepreneurial opportunity may be considered to be created in the mould of Schumpeterian innovation, to be orchestrated with the entrepreneurs’ “prior knowledge” (Shane, 2000) of technology or of markets, supporting “active search” (Chandler et al., 2002: 2). This may be considered particularly so in the small, resource disadvantaged, but knowledge invested, technology based entrepreneurial firm. Also, since technology markets in the network/ knowledge economy require higher levels of knowledge inputs, the scope for serendipity or “fortuitous” discovery of opportunity could be dependent on the preparedness of the entrepreneur/ firm in terms of prior knowledge (Shane, 2000) and active search routines already being pursued,

these preconditions providing the plasma or ‘culture’ for opportunities to germinate. Venkataraman and Sarasvathy (2001) consider entrepreneurial opportunity as recognition, discovery or creation according to whether the demand and supply both can be estimated, whether one of them can be estimated, or, neither is estimable, the last being in conditions of Knightian or ‘pure’ uncertainty (Knight, 1921). While for the above reasons it may be considered that the technology entrepreneur shapes, ie, creates opportunity rather than chances upon or discovers opportunity already out there, it may however be accepted that there might be a continuum from pure discovery of an arbitrage in terms of a single market opportunity, to a completely search oriented creation of a new business opportunity changing existing paradigms. Therefore, although the paper is richer for the understanding of the debate on entrepreneurial opportunity, it is not necessary to agree on whether the steps taken by our case entrepreneur in the pursuit of opportunity make for an example of creation or discovery of opportunity. For the purpose of this paper, the steps traced in the opportunity pursuit of our technology entrepreneur are sufficient to draw attention to its central theme that the entrepreneur’s opportunity pursuit can be described as a *structuration* process. We first briefly describe what the social theory of *structuration* means. We will then trace the steps of our entrepreneur in a specific opportunity pursuit.

## **THEORY OF STRUCTURATION**

### **Structuration and Duality**

The central concept in Anthony Giddens’ structuration theory is the “duality of structure”, by which Giddens means that structure is both enabling and constraining, that social structures are constituted through action and that action is constituted structurally (Giddens, 1976, Giddens, 1979, Giddens, 1984, Giddens and Pierson, 1998). Fundamentally this means people make society (structure) with what they do, and at the same time, are constrained by it. Human agency and structure are inextricably linked and embedded in each other. In Giddens’ words:

Social structures are both constituted by human agency, and yet at the same time  
are the very medium of this constitution.” (Giddens, 1976)

To draw from that, then, the environment in society presents a certain structure of the marketplace to an entrepreneur agent. The entrepreneur with his/ her ‘prior knowledge’ (Shane, 2000) and

expectation, works on this social environmental structure to mould it in the direction that might generate specific and idiosyncratic opportunities for the entrepreneur. Looking at the empirical work done by Shane on an MIT invention, each of the eight sets of entrepreneurs saw it as enabling in a certain way and the others did not. Each entrepreneur saw it enabling in a unique way. Clearly, each entrepreneur set saw it as enabling in ways that were supported by their prior knowledge and, as constraining to them in ways that their prior knowledge did not support. Conversely, from the entrepreneur's viewpoint, the structure that the entrepreneur identifies as enabling in a certain way would be constraining to others without the required knowledge. It is this avenue of niche or idiosyncratic enablement that a 'structure' offers which the entrepreneur works upon and, as an intentional agent, influences and further changes the structure to make it more enabling for himself/herself and more constraining for others in that niche of opportunity. Arguably, "prior knowledge" (Shane, 2000) is what, in a much wider context of human action, Giddens calls "knowledgeability". Every human agent is knowledgeable, and Giddens observes:

"You have to know an enormous amount to be an agent, and this is central to being an agent. Without such knowledgeability there wouldn't be structures ... that knowledge is key to social reproduction (Giddens and Pierson, 1998: 84).

*Knowledgeability* is everything actors know of the circumstance of action, as drawn upon in production and reproduction of action, including tacit as well as discursively available knowledge (Giddens, 1984). It includes *prior knowledge* that Shane (2000) speaks of, it also includes *explicit* as well as experiential or *tacit knowledge* that Polanyi (Polanyi, 1967) speaks of; it enables agents, as "intentional beings", to discursively shape action "as a continuous flow of conduct" and incorporates choice in that the agent "could have acted otherwise" (Giddens, 1979: 49-59). Our entrepreneur acts with his knowledgeability and moulds the structure continually making the structure more enabling for himself and constraining for others, where his resources are more suited to the task of building the solution - and, creating a specific 'personal' opportunity. His actions enable himself and, at the same time, cordons off competitors, albeit gradually, from the environment that is shaping his opportunity.

As per Giddens, knowledgeability is the basis of “reflexive action” as well as of “unintended consequences”. But most importantly it is the agent’s knowledge discursively as well as experientially learnt from action, through the agent interacting with and producing and reproducing action and structure in the environment. This understanding of the duality of structure in Structuration theory overcomes the usual problem of the dualism between agency and structure, between the individual and society, between determinism and voluntarism (Giddens and Pierson, 1998: 75-76, 89-90), and between creation and discovery views of the entrepreneurial opportunity process. Structuration as the interplay of structure and agency where each affects the other, it is argued here, is reflected in the social construction of opportunity by the case entrepreneur in this paper.

### ***Structuration and Power***

Giddens sees power as the third element of structuration, and elaborates:

“The choice is not between what people say about why they act as they do, and, some kind of causal force that makes them act as they do. In between these there is the knowledgeable use of convention in practical consciousness – and there is power. I ... see power as an elemental part of the logic of the social sciences... So it is agency, structure and power ... It is the capability to do otherwise and that is the basis of power”.(Giddens and Pierson, 1998: 84)

Giddens argues that the concept of action is logically tied to that of power where he defines power, in social theory, as “transformative capacity” (Giddens, 1979: 88). While Giddens takes the conception of power as domination, he does not agree that it is necessarily bound with conflict. This has relevance in the resource-poor small technology entrepreneur negotiating the technology market and often with larger players. Power in Giddens’ structuration theory is seen both as transformative capacity and as domination, as a relational concept (Giddens, 1979: 92). The interplay of the two, ie, ‘domination’ as a structure and ‘transformative capacity’ as agency implies that power is understood as “interaction where transformative capacity is *harnessed to actors’ attempts to get others to comply with their wants*. Power, in this relational sense, concerns the capability of actors to secure outcomes where the realisation of these outcomes depends on the agency of others” (Giddens, 1979: 93, emphasis in

original). Power relations, according to Giddens, are always two-way, ie, relations of autonomy and of dependence. This therefore relates it to the hypothesis in the paper that a successful opportunity as the outcome of the entrepreneur's agency-structure interplay depends upon how the power relation of autonomy and dependence plays out between the technology entrepreneur-agent and the environment-structure leading to the potential opportunity.

## **AN EMPIRICAL EXAMPLE OF ENTREPRENEURIAL OPPORTUNITY PURSUIT**

Below is presented excerpts from the account of a technology entrepreneur at the early stages of a software firm in New Zealand. On how the business started up, the entrepreneur said:

“When we originally started off as data warehousing – or before we started as a data warehousing company - we worked for an organisation called S which was a hardware supplier. S had decided that they had to do solution selling so they had built the (software/ datawarehousing) competency and sold the software to push hardware sales.... We knew how to build data warehouses from our work at S – but we always thought there had to be a better smarter way. And the idea behind that.. the better smarter way was what we now embody in our software.”

The entrepreneur hoped to enter the product market by building and marketing his own packaged datawarehousing (DWH) software product. Describing what they did during product development stage and how a barebones product/ idea was bounced off various users, the entrepreneur said:

“.... commercialisation phase is incredibly, extremely expensive and time consuming ... so we needed to do a check whether or not it would be worthwhile .... So we started showing - I guess the proto type of what would become our product - to a range of people. So we showed it to some of our clients locally, our consultancy clients .... And we also started to show it to people offshore as well ...a guy we met who worked for XX (a global consulting firm) in HongKong.. er... we wanted to show it to a range of clients or companies - large and small – and a range of people at different skill levels inside our industry, you know, international people who had good reputation vs people who had never seen a

product like that before.. to get feedback on, er ... what they thought about our product, if they thought there was a market for it, what was the space they thought it was in – (since) it didn't naturally fit into any particular space or niche you see ... who they thought would buy it, what sort of money they thought we could get for it... that sort of thing.”

The entrepreneur then described product development specifically elaborating the feedback and engagement with one such large data warehousing user, W: how that user contact was made, and how it developed to a first major customer:

“We'd shown it to an experienced data warehouse consultant (when he was in NZ from the US and had considered joining the start-up business) and - he said (now back in the US): ‘Well I know the guy in W in the US – if you like I will organise a web demo of the software to them’ ... his wife was doing a project for W ... so we did that, we did a Microsoft Net meeting from New Zealand across to San Francisco and we showed them that the early prototype of the product..that we could effectively build a data warehouse, but.. at that stage the product.. it wasn't there, it didn't work, it was a half product half idea... the documentation wasn't done ..the product wasn't even finished it was just an early prototype. It was a standard demo ...we showed them what it could do and asked them basically focus group questions... if you were doing a project again would you use this product? What do you think is really good about the product, what features are missing ...”

And so there was a back and forth process of questions and feedback and, finally, on the price-point the entrepreneur said:

“..ah... one of the questions we had was ... how much would you pay for it...and W answered all our questions up until the one about how much they'd pay for it.. and then we could hear them talking on the other end of the phone - talking among themselves and they came back and said “actually we are not going to tell you how much we would pay for it because we want to buy it”... so .. from our initial focus group we effectively got our first customer ... We weren't ready. Took us about a



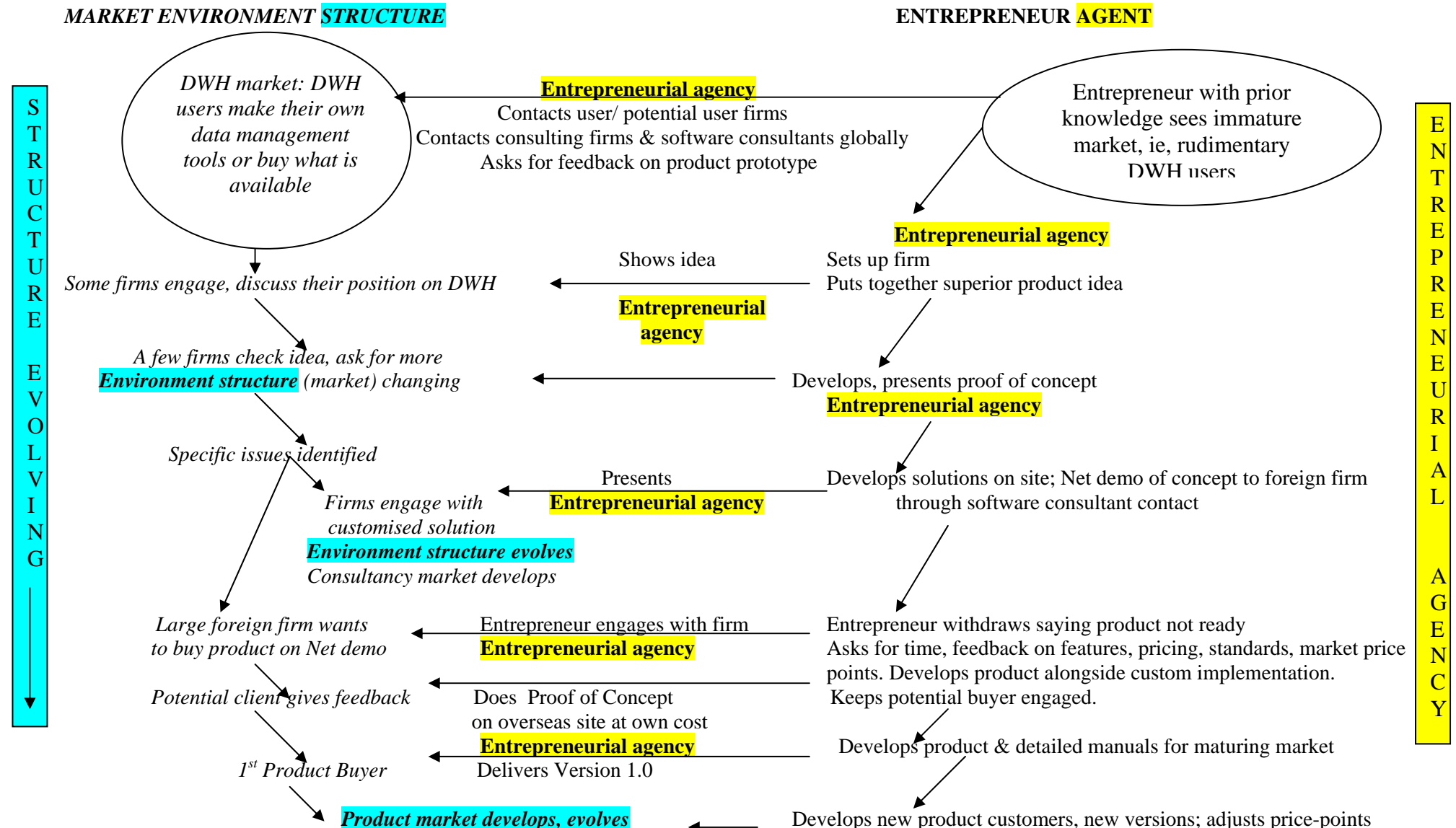
year to get ready for them because... We didn't want them to be our first customer based in San Francisco, before we had our own guys .. (there)... you know....but then, in that intervening year we started using it on sites (in NZ) and developed it. That took us another .. year when we were happy to sell it to W .. then we went out there and implemented it .. sold it, then we did little bit of training .. and they have been using it ever since.”

On how the entrepreneur engaged the prospective client for a year before product was ready for delivery:

“We just kept contact with them. We knew people in that company... but it did slack off a bit and now and then we would just keep contact. Particularly after six months – there was slim contact and I thought we must do something and deliver ... We’d got a large known brand interested in our product and we hadn’t actually consummated the deal. We hoped we wouldn’t lose them..... We were doing other domestic implementations – in fact we did four such before going back to W and more ready with the product. But that (domestic engagement) was not the reason (that delayed W implementation) - and I had them at the top of my things to do list ... but our product wasn’t ready. We kept in contact while developing ... had to get their interest back up ... and after a few months we had some further discussions. After several discussions we sent a person to do a proof of concept, a prototype on site at our cost, no charge. Soon then ... we had the product ready to implement along with all manuals etc... about 3 months later .... we are of course now doing a much more upgraded version, but that was the first full Version 1.0 product.”

That was how the product for this firm was born – gradually, going back and forth between potential user and entrepreneur firm, until it took satisfactory shape. Not that a datawarehousing product did not exist in the market. It was that the user did not have, at that time, access to a better way of solving its datawarehousing problems than was being demonstrated as possible by this entrepreneur/ firm.

**TABLE 1: Opportunity emergence through interplay of the environment structure and the agency of start-up entrepreneur in data warehousing (DWH) space**



## STRUCTURATION AND THE OPPORTUNITY PROCESS FOR OUR TECHNOLOGY ENTREPRENEUR

### *Structure-Agency Interplay*

It is argued here that the agency of the above entrepreneur affects the environment structure, altering it to being more 'enabling' for the entrepreneur who moulds the structure even further, gradually extracting an opportunity. The structure here is the environment that the entrepreneur is probing and, to begin with, entirely exogenous. Clearly, in the above account, the entrepreneur team shows they had the *prior knowledge* and knew where to do their *active search* to build the better product for that market. We see that the entrepreneur's prior knowledge tells him where to look with all small and large potential users of the generic product. He also approaches key influencers like consultants in the field that liaise with such software users. The users in the environment respond with their feedback. The entrepreneur narrows his attention to a few users in New Zealand and one large one in the US. While his product is barely an idea ("at that stage the product.. it wasn't there, it didn't work, it was a half product half idea..."), he keeps engaged with W. This was not just to keep them interested, it was a close engagement, albeit with some gaps because the product wasn't ready ("we weren't ready, took us about a year"). It was a generative interaction to actually build the required product over a year's time.

The chart given in Table 1 shows how the interaction between the entrepreneur and the environment plays out as between structure and agent and how the structure evolves as a result of entrepreneurial agency. The entrepreneur, with some prior knowledge of technology and market, perceives the scope for improving the DWH methods/ products user firms engage. He approaches firms that are users / potential users to study what they might need and, to bounce his idea of a better DWH product with them. He also approaches consulting firms and software consultants he had access to within the country and internationally. The environment/ market structure evolves through the actions of our entrepreneur agent. Firms engage with him and, mostly, a customised DWH product development requirement emerges, giving rise to a consulting business opportunity. As shown in the chart, the

customised solutions to DWH were built on customer sites through constant interaction with them. It is through these interactions the entrepreneur aligned his (firm) skills and customer requirement. As he mentions: “We got better at it... Earlier we’d go – ‘we’ve got this great software and we’d like you to use for your problems’. Now we say – we know how to solve this problem; if you have this problem we’ll solve it for you, if you don’t then go away”. The structure was both enabling as well as constraining, as Giddens posits in Structuration theory, and it guided the construction of the entrepreneur’s own DWH market structure as seen here.

One foreign firm, on a Net demo of the DWH solution idea (designed by the entrepreneur “to get their feedback”), expressed their interest to buy a product on that basis. The entrepreneur only had a prototype (“half idea – half product”) and withdrew from selling prematurely. He kept engaged with the potential client, developing the product with their feedback on features, market fit and pricing, and was also developing detailed manuals for the product. That is how Version 1.0 of the product was built.

The generative interplay between entrepreneur agent and environment structure is proposed in this paper to progress on the lines of Giddens’ concept of structuration (Giddens, 1979, Giddens, 1984, Giddens and Pierson, 1998). As mentioned before, Giddens explains the knowledgeability of actors as everything which actors know and believe about the circumstances of their action and that of others; structure, according to structuration theory, is at the same time enabling and constraining. We see that our entrepreneur’s consulting market opportunity and, more visibly, the product market opportunity developed from the environment / market structure evolved through entrepreneurial agency.

### ***The Aspect of Power***

The above entrepreneurial opportunity as a *structuration* process also throws up the important aspect of the outcome of the opportunity pursuit. It can be seen as an underlying theme flowing beneath the abovementioned entrepreneur’s story of how the entrepreneur-customer engagement evolves and shapes the outcome as a successful opportunity. It is suggested here that the brief but clear concept of

*power* in structuration theory introduced earlier could throw light on this aspect. A successful opportunity as the outcome of the entrepreneur's agency-structure interplay evolves from manner in which the power relation of autonomy and dependence plays out between the technology entrepreneur-agent and the environment-structure leading to the potential opportunity. In our empirical example, the process is seen more clearly in how the more difficult DWH product market evolves for the entrepreneur. While the entrepreneur and the potential client both had autonomy, our entrepreneur – the weaker of the two – had maintained a measure of power as transformative capacity for the 2-way autonomy-dependence relationship to evolve. This showed up most clearly in the entrepreneur's ability to withdraw after the Net demo in order to develop the product sufficiently over the next 8 to 12 months through client interaction before selling Version 1.0 to the client. A successful product market opportunity evolved through the interplay of agency, structure and power as transformative capacity.

## CONCLUSION

Through tracing the steps that a technology entrepreneur took in pursuit of a new opportunity, it is therefore argued in this exploratory paper, that *entrepreneurial opportunity pursuit* can be looked upon as a process of *structuration*. Whilst the discovery-creation debate about the nature of the entrepreneurial opportunity process has had theoretical merit, empirical evidence of the opportunity process as shown at least in a technology entrepreneur's case here resembles a process of structuration as described by Giddens' *Structuration Theory*. It is expected that more empirical research based on the idea of this exploratory paper would render sharper focus to the argument. It could also lead to the synthesis of opposing perspectives in the creation-discovery debate.

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